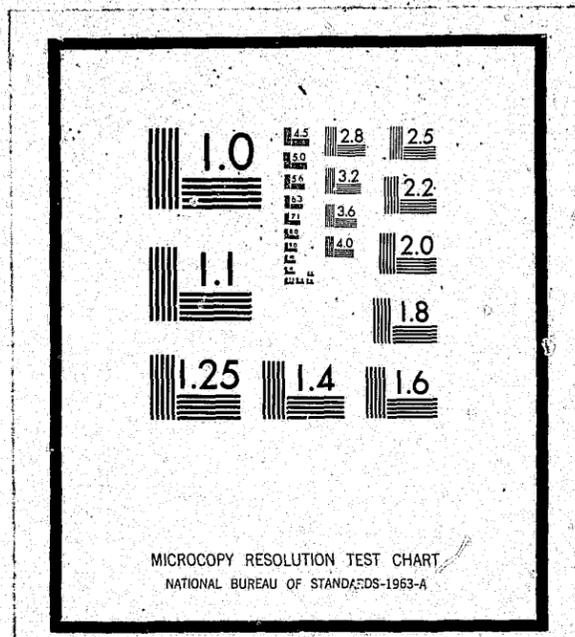


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REGION 5



FIELD REVIEW REPORT

Project: Expand Evidence Technician Unit - Phase II Grant Award: \$47,469

Project #: S-MP41-72-d1 (C) Subgrant Period: 3/1/73 - 1/31/74

Subgrantee: St. Louis Metropolitan Police Dept. Project Director: Lt. Wm. R. Armstrong

Date of Report: December 17, 1973 Authorized Official: Col. Theodore McNeal

Prepared by: Bill Taylor, Program Analyst
Reese Joiner, Fiscal Officer
Dennis McCarthy, Evaluation Analyst

SCOPE OF REVIEW

This review consisted of surveys of fiscal and programmatic records, limited tests of project records, and interviews with key personnel. The overall objectives of the field review are:

- 1) to review program and fiscal operations for compliance with LEAA, MLEAC, Region 5 requirements and compliance with the provisions of the approved subgrant.
- 2) to determine that the project is conducted in an economical and efficient manner and that project objectives are met.
- 3) to determine if administrative and financial controls are adequate to provide accurate and reliable operating and financial reports required for project management and evaluation.

The field work for the review commenced on 12/11/73. Project personnel contacted included Lt. William Armstrong, Patrolman George Raterman, and Edith McQuitty.

1562/

BACKGROUND INFORMATION:

The specific objectives of the Evidence Technician Unit (Phase II) project are:

- 1) Train officers as evidence collection specialists in a 40-hour program of instruction which will emphasize crime scene photography.
- 2) Increase Evidence Technician Unit services by fielding an additional 27 manwatches per week.
- 3) Increase the percentage of Index offense crime scenes to which the ETU responds from 27 to 30.
- 4) Develop and apply a reasonable standard for the percentage of Index Crime scenes that should be searched by the Evidence Unit of the St. Louis Metropolitan Police Department.

The project began on 3/1/73. However, due to a number of difficulties in obtaining final approval for the grant, it was operated on a pre-agreement basis until 7/17/73. The aforementioned pre-agreement arrangement allowed for project spending at Phase I levels until final approval could be negotiated. This made it possible for the Evidence Technician Unit (ETU) to maintain its original manning level of 18 men rather than the 27 men projected in the grant application. The hiring of a part-time research assistant was deferred until final approval of the project. On 7/17/73 full operation under Phase II guidelines was initiated.

FINDINGS:

A. Significant Activities implemented.

1) Under Phase II the ETU has increased the number of manwatches per week by 50% (from 18-27) as was proposed in the grant application. (See attached manning tables showing manwatches before and after Phase II funding)

These additional manwatches are provided by regular ETU personnel working on their days off and vacations and by officers from the Identification Section, also working on an overtime basis.

2) One major goal of the Phase II grant of the Evidence Technician Unit

project was to put more evidence technicians on the street so that a greater percentage of crime scenes could be searched in 1973 than was searched in 1972.

The actual figures for radio assignments to ETU personnel for the period of March through November, 1973 (Phase II) and the same period in 1972 are as follows:

	<u>1972</u>	<u>1973</u>
March	835	1277
April	1044	1248
May	1074	1314
June	913	1257
July	940	1338
August	877	1346
September	904	1300
October	1146	1296
November	<u>1125</u>	<u>1247</u>
Total	8858	11623

These figures are taken from the Metropolitan Police Department statistical reports (attached) and indicate a 31 percent increase in the number of crime scenes searched by ETU personnel during the Phase II subgrant period.

This percentage becomes more significant when realizing that the overall figures for reported crime in the City of St. Louis have decreased during 1973.

Specific functions performed at crime scenes during these same periods in 1972 and 1973 are tabulated below with the percentage of increase or decrease for each.

	<u>March Through November, 1972</u>	<u>March Through November, 1973</u>	<u>Percent Increase/Decrease</u>
Fingerprint Searches	6,422	8,237	+28
Photography	2,950	3,678	+25
Physical Evidence	3,835	3,164	-21
Fingerprint Identifications	<u>4,233</u>	298	+28

3) Two men from the ID Section were originally scheduled to receive 40 hours (each) of photographic training. One man decided against taking the training and the other had completed only 20 hours when the Police Department photographer decided the trainee was fully competent.

At this time the ETU has no plans to train another man in photography and Lt. William Armstrong, Project Director, feels his unit has a full complement of photographic personnel without the additional man.

4) On April 12, 1973, Lt. Armstrong testified before the House Select Committee on Crime regarding the activities of the SLMPD Evidence Technician Unit. The Committee was very much impressed with the progress made by the ETU. This testimony is recorded in the Congressional Record; Union Calendar #165 entitled, House Report 93-358, Street Crime: Reduction Through Positive Criminal Justice Responses, pp. 68, 82.

5) The ETU project has been recommended for exemplary project status by the St. Louis Metropolitan Police Department and approved by the Region 5 staff.

6) Project personnel predicted that response time would be cut with the increased personnel provided for under the Phase II grant. This would free patrol officers to return to duty as soon as ETU officers arrive at the crime scene.

The figures below illustrate the response time for one and two man units for the periods of September through December of 1972 and January through February of 1973 (these two periods comprise the time span of Phase I) compared with March through November of 1973 (Phase II).

	ETU RESPONSE TIME* (in minutes)	
	Person Crimes and Burglary (Impact Offenses)	ETU Incidents
<u>1-Man Units</u>		
Phase I	32.5 (2638**)	30.9 (3902)
Phase II	28.2 (6475)	28.1 (9758)
<u>2-MAN UNITS</u>		
Phase I	39.4 (1397)	39.2 (2302)

*From time call was made to ETU van time of van's arrival at crime scene.
 **Number of offenses from which the average response time was calculated.

As shown in the above table, the response time has been reduced by the following percentages:

	Person Crimes and Burglary	All ETU Processed Incidents
<u>1-MAN UNITS</u>	13.2%	9.1%
<u>2-MAN UNITS</u>	20.8%	17.9%

Apparently the increased manning has eliminated a portion of any backlog which may have resulted from having more radio calls than ETU vans able to respond.

B. Deficiencies in Programmatic Operation Requiring Clarification of Corrective Action.

Some of the personnel used on this project are drawn from sections not under Lt. Armstrong's authority. Because of this it is sometimes difficult to fill overtime watches with outside personnel who are not under the formal supervision of the project director. This may not be possible to correct but should be looked into as a possible area of concern. Aside from this lack of coordination, the Evidence Technician Unit is operating within its guidelines as set forth in the grant application.

CONCLUSION

This project is being executed in an efficient professional manner. Project personnel interviewed were found to be well informed about their duties and responsibilities as well as the overall goals of the project itself.

The only difficulty, as alluded to above, is a gap in the chain of authority from the project director to line personnel who are recruited from outside the ETU (namely from the ID Section).

The ID Section is a Headquarters unit directly under the Chief of Police and is considered by many police officers as an "elite unit". Some personnel in the Evidence Technician Unit feel that personnel utilized on this project from the ID section are uncooperative in carrying out project objectives and

have a poor attitude concerning their overtime work on the ETU grant.

It has been reported by full-time ETU personnel that ID officers are hesitant to respond to radio calls while on "overlay" assignment thereby forcing ETU officers to do an inordinate amount of the work of searching crime scenes.

It is therefore recommended that some measures be taken to determine how effectively non-ETU personnel carry out their duties compared to full-time ETU officers. Some police officers who may be offering substandard performance should be removed from overtime duty with the Evidence Technician Unit if this lack of cooperation is documented in fact.

The Region 5 staff feels that this project is far too valuable and effective to allow its proficiency to be threatened by inept performance on the part of a few outsiders who are only interested in receiving overtime pay.

A technical evaluation of this project has been made by MLEAC - Region 5's High Impact Evaluation Unit. The results, which appear quite favorable, are summarized on the following page and discussed in more detail in the Appendix.

SUMMARY

1. Over one-fourth of the incidents processed by the ETU are handled by the "overlay" units provided by the Impact grant.
2. The average number of incidents processed per month by the ETU has increased from 936 prior to Impact to 1204 during Phase II.
3. In both Phase I and Phase II the ETU processed about one-fourth of all reported Index offenses and one-third of all reported Impact offenses.
4. When ETU-processed incidents are compared to those not so processed, it is found that those handled by the ETU are:
 - * more frequently cleaned up,
 - * cleaned up faster,
 - * have a higher proportion of arrests,
 - * go from offense to trial in less time,
 - * have a higher proportion of guilty pleas, and,
 - * have a higher conviction rate.
5. A questionnaire survey of defense and prosecuting attorneys regarding the value of physical evidence in processing cases through the courts indicates:
 - * the attorneys believe that the numbers of convictions and guilty pleas would be higher, and the numbers of trials and acquittals would be lower, if more physical evidence could be made available for trials,
 - * the attorneys estimate that evidence played a part in at least two-thirds of their cases this past year, and,
 - * in more than one-sixth of the cases handled by the respondents they judged that an arrest and identification had taken place solely because of evidence found at the scene, even when no witness was present to describe the incident or suggest the name of the perpetrator.

MANNING TABLE

EVIDENCE TECHNICIAN UNIT

WATCH	MON.	TUE.	WED.	THUR.	FRI.	SAT.	SUN.
1 st. 7am. to 3pm.	5	4	4	4	4	4	3
2 nd. 3pm. to 11pm.	5	5	5	5	5	5	4
3 rd. 11pm. to 7am.	4	4	4	4	5	5	4

MANNING TABLE

EVIDENCE TECHNICIAN UNIT EXPANSION GRANT

OVERLAY WATCH	MON.	TUE.	WED.	THUR.	FRI.	SAT.	SUN.
1st. 10am. to 6pm.	2	2	2	2	2	2	1
2nd. 6pm. to 2am.	2	2	2	2	2	2	2

MANNING TABLE

EVIDENCE TECHNICIAN UNIT WITH OVERLAY, ADDED

TIME	MON.	TUE.	WED.	THUR.	FRI.	SAT.	SUN.
7am. to 10am.	5	4	4	4	4	4	3
10am. to 3 pm.	7	6	6	6	6	6	4
3pm. to 6 pm.	7	7	7	7	7	7	5
6pm. to 11pm.	7	7	7	7	7	7	6
11pm. to 2 am.	6	6	6	6	7	7	6
2am. to 7am.	4	4	4	4	5	5	4

INTRA-DEPARTMENT REPORT AND CORRESPONDENCE SHEET

Date: December 1, 1973
 To: Lt. William Armstrong
 From:
 Subject: Ptn. Robert Dunsford
 E.T.U. Activities
 Copies Sent To:

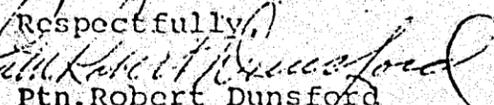
Sir:
 The following statistics represent the activities of the Evidence Technician Unit of the Laboratory Division in the period listed:

Radio assignments:

From 01/01/73 to date	COMPARITIVE			
	Period 1972	November 1973	Last month	November 1972
13821	10381	1247	1296	1125

SPECIFIC FUNCTIONS COMPLETED ON RADIO ASSIGNMENTS:

From 01/01/73 to date	Period 1972	November 1973	Last Month	November 1972
<u>Finger print searches</u>				
9842	7476	868	977	851
<u>Photography</u>				
4190	3470	382	424	321
<u>Physical Evidence</u>				
3762	4594	438	446	187
<u>FingerPrint Identifications</u>				
353	273	12	41	28

Respectfully,

 Ptn. Robert Dunsford
 Supervisor, E.T.U.

RD/TF

APPENDIX

EVALUATION: EVIDENCE TECHNICIAN UNIT

The following analysis, with the exception of figure 2, is restricted to the portion of Phase I from October 1, 1972 to March 1, 1973 and to the portion of Phase II from March 1, 1973 to December 1, 1973. Computer processing of ETU reports began on September 21, 1972, making October the first month for which automated reports were available. A ten percent sample of handwritten reports available from the period before September 21, 1972 was selected and processed to provide some information on that period.

Figure 1 shows the total number of incidents processed by the ETU for the two periods, the number of those in Phase II which were processed by the two vans provided under the Impact Program (called "overlay vans" by the project staff), the total number of Impact incidents processed by ETU, and the number of Impact incidents which were processed by the overlay vans. (Impact incidents are estimated by summing person crimes and burglaries.)

	<u>Phase I</u> <u>Oct., 1972 - Feb., 1973</u>	<u>Phase II</u> <u>**March, 1973 - Nov., 1973</u>
Total number of incidents processed by all ETU units	5340	10832
Total number of incidents processed by Impact units (percent of total)	**	2988 (27.6)
Number of Impact incidents* processed by all ETU units (percent of total)	3705 (69.4)	7195 (66.4)
Number of Impact incidents* processed by Impact units (percent of total)	**	2009 (27.9)

* Person crimes and burglary

** Impact vans began operating in February, 1973.

Figure 1

Figure 2 indicates the average number of incidents processed monthly by the ETU for the two periods of Figure 1 and, based on a 10 percent sample of written reports, for the period from May 1, 1972 to September 20, 1972 (excluding data for June which was not available). The estimated average of 936 incidents for the first period was obtained by multiplying the number of incidents sampled (343) by 10, (to scale the sample results up to 100 percent), and then dividing by 3-2/3 months.

The second column of figure 2 shows the percent increase in average monthly activity for each of the last periods compared to the preceding period.

The number of incidents processed each month for the months October, 1972 through November, 1973 is indicated in figure 3. The average number of incidents processed per month over that period is 1155.

MONTHLY ETU ACTIVITY RATES

	Average number of Incidents processed Monthly	Percent Increase over preceding Period
May 1, 1972 to Sep. 20, 1972 (excluding June)	936*	-
Oct. 1, 1972 to March 1, 1973	1052	11.0
March 1, 1973 to Dec. 1, 1973	1204	12.6

*Estimate based on a 10 percent sample of processed incidents

Figure 2

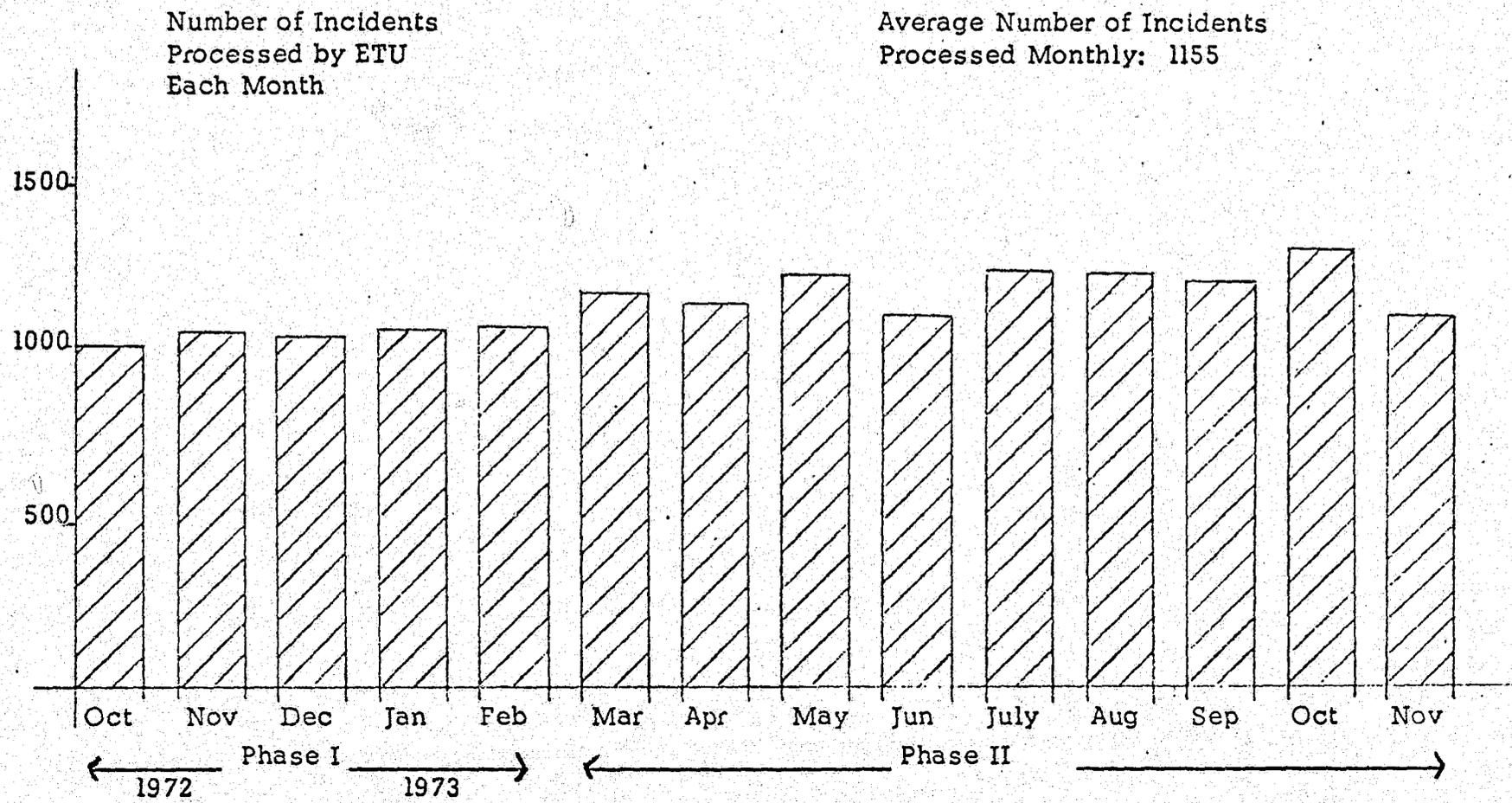


Figure 3

Figure 4 shows the district-wide distribution of Index and Impact incidents reported to the police for the two periods October, 1972 through February, 1973 and March, 1973 through November, 1973. Person crimes plus burglary are used as a surrogate for Impact crimes (also, larceny under \$50 was subtracted from total reported Index crimes in September, October, and November of 1973 to be consistent with previous Index totals which did not include larceny under \$50).

The number of Index and Impact incidents processed by the ETU in each police district is given in Figure 5 for the same time periods as Figure 4.

The data of Figure 4 and Figure 5 are combined in Figure 6, indicating the district-wide percent of incidents processed by ETU.

Number of Indicated Incidents Reported to Police

Phase I
Oct., 1972 - Feb., 1973

Phase II
March, 1973 - Nov., 1973

<u>District</u>	<u>Index</u>	<u>Impact*</u>	<u>Index</u>	<u>Impact*</u>
1	778	515	1637	1042
2	870	462	2011	979
3	2928	1900	5369	3555
4	1435	717	3243	1693
5	2054	1494	3950	2850
6	2013	1268	4186	2684
7	3103	2315	5730	4016
8	1580	1121	3139	2231
9	2471	1450	5055	3303
Total (city-wide)	17,232	11,242	34,320	22,353

*Person crimes plus Burglary

Figure 4

Number of Indicated Incidents Processed by ETU

<u>District</u>	<u>Phase I</u>		<u>Phase II</u>	
	<u>Oct., 1972 - Feb., 1973</u>		<u>March, 1973 - Nov., 1973</u>	
	<u>Index</u>	<u>Impact*</u>	<u>Index</u>	<u>Impact*</u>
1	249	222	499	417
2	308	252	549	407
3	948	780	1427	1196
4	248	178	620	444
5	469	419	1086	925
6	412	358	970	843
7	975	888	1779	1488
8	399	343	976	819
9	333	262	828	653
Unknown	5	3	4	3
Total (city-wide)	4346	3705	8738	7195

*person crimes plus Burglary

Figure 5

Percent of Indicated Incidents Processed by ETU

<u>District</u>	<u>Phase I</u>		<u>Phase II</u>	
	<u>Index</u>	<u>Impact*</u>	<u>Index</u>	<u>Impact*</u>
	<u>Oct., 1972 - Feb., 1973</u>		<u>March, 1973 - Nov. 1973</u>	
1	32.0	43.1	30.5	40.0
2	35.4	54.5	27.3	41.6
3	32.4	41.1	26.6	33.6
4	17.3	24.8	19.1	26.2
5	22.8	28.0	27.5	32.5
6	20.5	28.2	23.2	31.4
7	31.4	38.4	31.0	37.1
8	25.3	30.6	31.1	36.7
9	13.5	18.1	16.4	19.8
Total (city-wide)	25.2	33.0	25.5	32.2

*Person crimes plus Burglary

Figure 6

Figure 7 is based on cleanup data for the same time periods as in the preceding figures. Incidents processed by the ETU are compared to incidents not processed by ETU with respect to cleanup rates.

The rate of ETU processed incidents cleaned up is approximately five percent higher than the rate for non-processed incidents and the average amount of time to cleanup is almost eight days less for ETU processed incidents.

ETU processed incidents which are cleaned up show a higher fraction of arrests than for cleanups of non-processed incidents, by almost nine percent in Phase I and by 12 percent in Phase II.

Cleanups for Impact Offenses*

	Phase I	
	<u>Oct., 1972 through Feb., 1973</u>	<u>Mar., 1973 through Nov. '7</u>
Percent of ETU processed incidents cleaned up (number cleaned up)	13.19 (496)	13.10 (958)
Percent of non-processed incidents cleaned up (number cleaned up)	8.01 (599)	8.13 (1181)
Percent of cleaned up incidents processed by ETU (number processed)	45.28 (496)	44.77 (958)
Average number of days to cleanup for incidents processed by ETU	22.73	16.69
Average number of days to cleanup for incidents not processed by ETU	30.39	24.27
Percent of cleanups (ETU processed) which were arrests (number of arrests)	75.43 (374)	86.02 (824)
Percent of cleanups (non-processed) which were arrests (number of arrests)	66.76 (400)	73.72 (871)

*Person crimes plus Burglary

Average Number of Months from Offense to
Trial for Cases With vs. Cases Without ETU Evidence - 1972

Offense	Number of Cases Studied *		Months from Offense to Trial - 1972 Cases*	
	With ETU Evidence	Without ETU Evidence	Cases With ETU Evidence	Cases With no Evidence or Non-ETU evidence
Homicide	2	0	3.0	-
Rape	1	2	10.0	6.0
Aggravated Assault	10	20	4.9	6.5
Robbery	6	9	4.3	6.0
Burglary	20	6	3.6	3.2
Auto Theft	17	3	3.8	3.3
Larceny (over \$50)	6	15	4.5	3.3
Other	4	63	4.5	3.7
Total	66	118	4.1	3.9
Impact Offenses	39	37	4.3	5.8

*Based on a 5 percent sample from Circuit Attorney's cases for 1972.

Figure 8

Use of Physical Evidence in the
St. Louis Courts

Figures 8 through 12 were prepared from data drawn from a five percent sample of cases from the Circuit Attorney's files from 1972.

Figure 8 shows the average amount of time from offense to trial (in months) for cases with ETU evidence compared to cases with no evidence or with evidence from police sources other than the ETU. The result is little difference for the 184 cases in general, but for the 76 Impact offenses of the 184 total, the cases with ETU evidence took 1.5 months less time.

Dispositions of Impact Court Cases
With vs. Without ETU Evidence - 1972*

	Cases With ETU Evidence	Cases Without ETU Evidence**
Number of Impact Cases (percent of total)	39 (51.3)	37 (48.7)
GUILTY PLEAS	67%	43%
TRIALS	5%	14%
JURY TRIALS	5%	14%
Months from Offense to Trial	4.3	5.8
CONVICTIONS	72%	51%
ACQUITTALS	0%	5%
NOLLE PROSEQUI	26%	41%
Other	3%	3%

*Based on a 5 percent sample of cases from 1972

**Includes cases with no evidence and cases with non-ETU evidence

Figure 9

The 76 Impact cases are examined in Figure 9. Sixty-seven percent of these cases which had ETU evidence resulted in guilty pleas, compared to only 43 percent for Impact cases without ETU evidence, and the conviction rates are 72 percent for cases with ETU evidence compared to 51 percent for cases without.

Figure 10 also indicates higher conviction and guilty plea rates in almost every type of offense for cases with ETU evidence compared to cases without. In general, considering all 184 cases studied, the conviction rate is 17 percent higher for the ETU cases.

The 76 Impact cases presented as a whole in Figure 9 are examined by type of offense in Figure 11. Aggravated assault is the only category where the conviction rate is lower for cases with ETU evidence. The majority of those assault cases not resulting in convictions resulted in nolle prosequi.

Percent Guilty Pleas and Convictions For
Cases With and Without ETU Evidence - 1972*

	NUMBER OF CASES STUDIED		PERCENT GUILTY PLEAS		PERCENT CONVICTIONS	
	With ETU Evidence	Without ETU Evidence**	Cases With ETU Evidence	Cases With no ETU Evidence**	Cases With ETU Evidence	Cases With no ETU Evidence**
Homicide	2	0	50%	-	50%	-
Rape	1	2	100%	0%	100%	0%
Aggravated Assault	10	20	40%	40%	40%	50%
Robbery	6	9	83%	44%	100%	56%
Burglary	20	6	75%	67%	80%	67%
Auto Theft	17	3	88%	33%	88%	33%
Larceny (over \$50)	6	15	33%	33%	33%	47%
Other	4	63	50%	48%	50%	56%
Total	66	118	65%	44%	70%	53%
Impact Offenses	39	37	67%	43%	72%	51%

*Based on a 5 percent sample of cases from 1972

**Includes cases with no evidence and cases with non-ETU physical evidence

Figure 10

Dispositions of Cases With Vs.
Without ETU Evidence by Type of Offense - 1972*

	Homicide		Rape		Aggravated Assault		Robbery		Burglary	
	Cases with ETU evidence	Cases Without ETU evidence**	Cases with ETU evidence	Cases Without ETU evidence**	Cases with ETU evidence	Cases Without ETU evidence**	Cases with ETU evidence	Cases Without ETU evidence**	Cases with ETU evidence	Cases Without ETU evidence
Number of Cases (percent of total)	2 (100)	0 (0)	1 (33.3)	2 (66.7)	10 (33.3)	20 (66.7)	6 (40.0)	9 (60.0)	20 (76.9)	6 (23.1)
Guilty Pleas	50%	-	100%	0%	40%	40%	83%	44%	75%	67%
Trials	0%	-	0%	50%	0%	15%	17%	11%	5%	0%
Jury Trials	0%	-	0%	50%	0%	15%	17%	11%	5%	0%
Mean Months from Offense to Trial	3.0	-	10.0	6.0	4.9	6.5	4.3	6.0	3.6	3.0
Convictions	50%	-	100%	0%	40%	50%	100%	56%	80%	67%
Acquittals	0%	-	0%	50%	0%	5%	0%	0%	0%	0%
Nolle Prosequi	50%	-	0%	50%	60%	40%	0%	44%	15%	33%
Other	0%	-	0%	0%	0%	5%	0%	0%	5%	0%

*Based on a 5 percent sample of cases from 1972

**Includes cases with no evidence and cases with non-ETU evidence

Figure 11

Dispositions of Cases With vs. Without
ETU Evidence for all Offense Types - 1972 *

	Cases With ETU Evidence	Cases Without ETU Evidence**
Number of Cases (percent of total)	66 (35.9)	118 (64.1)
GUILTY PLEAS	65%	44%
TRIALS	5%	15%
JURY TRIALS	5%	10%
MEAN MONTHS FROM OFFENSE TO TRIAL	4.1	3.9
CONVICTIONS	70%	53%
ACQUITTALS	2%	8%
NOLLE PROSEQUI	24%	36%
OTHER DISPOSITION	3%	2%

*Based on a 5 percent sample of cases from 1972

**Includes cases with no evidence and cases with non-ETU evidence

Figure 12

Figure 12 shows that in 36 percent of the cases studied, physical evidence had been collected by the Evidence Technician Units, while 64 percent of the cases studied had either no physical evidence, or had evidence which had been collected by non-ETU policemen. Cases with ETU evidence were found to have higher conviction rate (70 percent versus 53 percent for cases without ETU evidence), a higher rate of guilty pleas (65 percent versus 44 percent for cases without ETU evidence), and a smaller percentage of nolle prosequi dispositions (24 percent versus 36 percent for cases without ETU evidence). Small differences were found in the times from arrest to trial when cases with ETU evidence were compared to cases without ETU evidence.

Figure 13 indicates the percent of incidents processed by the ETU for the period September through December of 1972 and the percent of court cases from the 5 percent sample of cases studied which had ETU evidence present and the percent which had evidence from police sources other than the ETU.

Overall, 47 percent of all Part 1 incidents from September through December, 1972 were processed by the ETU. Of the 5 percent sample of Circuit Attorney's cases, 36 percent had ETU evidence and 29 percent had police supplied evidence other than from the ETU.

	Percent crime scenes from which ETU evidence was collected Sept-Dec. 1972	Percent court cases with ETU evidence 1972*	Percent court cases with physical evidence from non-ETU police*
Homicide	100%	100%	0%
Rape	75%	33%	66%
Aggravated Assault	91%	33%	33%
Robbery	51%	40%	13%
Burglary	33%	77%	12%
Auto Theft	42.5%	85%	0%
Larceny (over \$50)	38.6%	29%	0%
Other	72.9%	6%	54%
Total	47%	36%	29%

*Based on a 5 percent sample of Circuit Attorney's cases for 1972

Figure 13

Survey on Value of Evidence in Processing Cases

As a second part of the study, a questionnaire concerning the collection and use of physical evidence in the St. Louis Criminal Justice System was distributed to assistant circuit attorneys, assistant public defenders, and trial lawyers. A total of 35 questionnaires were distributed; 26 of them (74 percent) were completed and returned. The results are summarized below. Seventeen of the questionnaires were distributed to assistant circuit attorneys, their responses reflect their positions as prosecuting attorneys. Thirteen of these questionnaires were returned. Ten of the questionnaires were distributed to assistant public defenders, and eight more were distributed to criminal lawyers in private practice; the responses of these groups reflect their positions as defense attorneys. A total of 13 of these questionnaires were returned.

The following summary describes attitudes of prosecution and defense lawyers separately, as well as general attitudes of all responding attorneys.

Summary of the Questionnaire Results

Defense attorneys' answers reflect the fact that they have fewer experiences with physical evidence than do prosecuting attorneys; in fact, physical evidence is more often used by prosecuting attorneys because it is used to prosecute and convict. By its very nature it is less likely to be used to prove a defendant not guilty than to prove him guilty. For example, the fact that a defendant's fingerprints were found at a crime scene may help to prove him guilty, but the fact that his prints were not found will do very little to show that he is innocent. Overall it was felt that the Evidence Technicians do a good job of collecting evidence; at the same time, most attorneys believe that if additional physical evidence was collected, it might result in a more fair and accurate dispensation of justice, particularly in aggravated assault or rape cases. An overwhelming majority of the attorneys believe the numbers of convictions and guilty pleas would be higher and the numbers of trials and acquittals would be lower if more physical evidence was collected by the ETU's.

Although the prosecuting and defense attorneys agree that the defense is usually made aware of physical evidence against the defendant, they disagree strongly about how often the defense is made aware of physical evidence in the defendant's favor. Forty-six percent of the prosecuting attorneys felt that the defense is always made aware of physical evidence in the defendant's favor, while 54 percent of the defense attorneys felt that the defense rarely is made aware of such evidence. At the same time, 92 percent of the defense attorneys felt that physical evidence should be made available to them more often, while 77 percent of the prosecuting attorneys felt that there is no need to make physical evidence available to the defense more often.

Tools, weapons and fingerprints were picked as the most useful evidence types in the prosecution of a case by all of the responding attorneys. The prosecuting attorneys felt that photographs were more useful than did the defense attorneys, for all types of Index crimes.

Physical evidence often plays a role in the pre-trial bargaining process, according to the attorneys questioned. It is felt that a defendant is more likely to plead guilty before trial when there is strong fingerprint or other physical evidence against him, particularly in robbery, burglary, auto theft, and larceny (over \$50) cases. It is felt that photographs play a significantly smaller role in pre-trial bargaining than other types of physical evidence. Physical evidence also plays an important role in both jury and non-jury trials. The majority of attorneys responding to the questionnaire felt that fingerprints are always very persuasive evidence during a trial. Tools, weapons, physiological tests and blood sample tests are usually persuasive during a trial. Photographs are judged sometimes persuasive, but they can be very important for reconstruction of the crime during trial.

In comparing the value of physical evidence to the value of witness testimony in the prosecution of a case, the attorneys had mixed opinions. All agreed that identifying fingerprints are of more value than any type of witness testimony. Prosecuting attorneys felt that photographs are of more value than any type of witness testimony, but the defense disagreed and felt that all types of witness testimony are of more value than photographs. Other kinds of physical evidence are thought to be comparable in value to witness testimony by most of the attorneys.

Prosecuting attorneys estimate that in 80 percent of their cases this past year, they made use of some physical evidence. Defense attorneys estimate that the prosecuting attorneys made use of physical evidence in only 65 percent of all cases this past year. On the other hand, the defense attorneys estimate that in 19 percent

of their cases this past year, they made use of some physical evidence. Prosecuting attorneys estimate that the defense attorneys made use of physical evidence in only 9 percent of all cases this year. All agree that the percent of convictions is higher for cases with physical evidence than for cases with no physical evidence.

All of the above findings indicate a seemingly favorable relationship between the provision of evidence in criminal cases and outcomes such as the fraction of cases cleaned up, the numbers of convictions obtained, and the delay from offense to trial. While there is certainly no question that the evidence services provided by the ETU contribute significantly to the achievement of these results, the procedures by which crime scenes are selected for ETU investigation tend to screen out incidents for which favorable results (i.e., arrests, convictions, etc.) are less likely. Therefore, comparisons between ETU-processed incidents and incidents not so processed may be biased to some extent in favor of successful outcomes for the ETU-processed cases. Put in oversimplified terms, do arrests cause ETU processing, or does ETU processing cause arrests? The answer to this question is probably that both phenomena are valid to some extent for most cases, with the relative levels differing from case to case. To shed some light on this issue, respondents to the questionnaire survey were asked about the percent of cases they had handled in which the identification and arrest of a defendant resulted solely from evidence found at the crime scene. Their responses are presented in Figure 14. In better than one-sixth of the cases it was felt that such identification and arrest had taken place solely because of evidence found at the scene even when no witness was present to describe the incident or suggest the name of the perpetrator.

Percent of cases handled in which identification and arrest of defendant resulted solely from evidence found at the crime scene, and:	Defense Attorneys	Prosecuting Attorneys	Total
No witness at scene, no named suspect	12	24	18
Witness at scene, but no named suspect or complete identification	14	32	23
Witness identification of suspect, but no positive confirmation of identification without evidence found at scene	18	33	25

Figure 14

Postscript

Data for this analysis were compiled from records kept by the Evidence Technician Unit project staff, from the monthly crime tapes prepared by the Police Department computer center, and from the files of the Circuit Attorney for the City of St. Louis. Questionnaires were completed by attorneys from the Circuit Attorney's staff, and from some attorneys in private practice who have defense experience. Computer programs used to analyze crime data, clearance rates, and the activity data supplied by the project staff were written by the High Impact Evaluation Unit and run on the REJIS computer system.

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Questionnaires for the survey of the value of physical evidence in the courts were also completed by attorneys of the Office of the Public Defender.

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