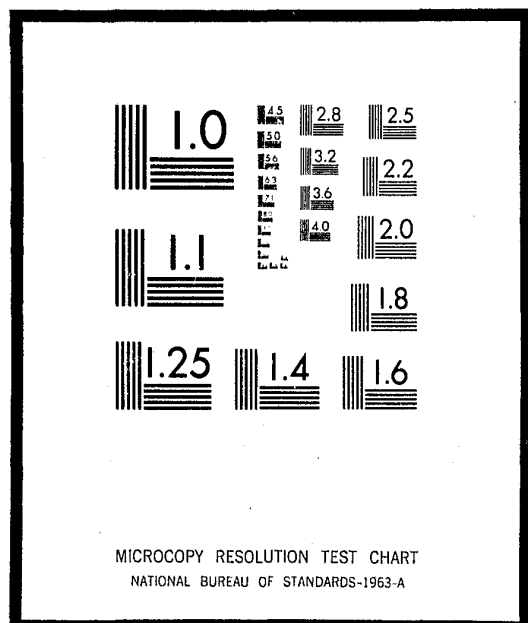


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U.S. DEPARTMENT OF JUSTICE  
LAW ENFORCEMENT ASSISTANCE ADMINISTRATION  
NATIONAL CRIMINAL JUSTICE REFERENCE SERVICE  
WASHINGTON, D.C. 20531

3/21/77

Date filmed

U. S. DEPARTMENT OF JUSTICE LAW ENFORCEMENT ASSISTANCE ADMINISTRATION		DISCRETIONARY GRANT PROGRESS REPORT	
GRANTEE State Department of Toxicology and Criminal Investigation	LEAA GRANT NO. 75-DF-04-0011	DATE OF REPORT 2/2/76	REPORT NO. 6
IMPLEMENTING SUBGRANTEE State Department of Toxicology and Criminal Investigation	TYPE OF REPORT <input type="checkbox"/> REGULAR QUARTERLY <input type="checkbox"/> SPECIAL REQUEST <input checked="" type="checkbox"/> FINAL REPORT		
SHORT TITLE OF PROJECT Improving Physical Evidence Utilization in Criminal Justice	GRANT AMOUNT \$63,490.00		
REPORT IS SUBMITTED FOR THE PERIOD 1/1/76	THROUGH 1/31/76		
SIGNATURE OF PROJECT DIRECTOR <i>C. L. Rabren</i>	TYPED NAME & TITLE OF PROJECT DIRECTOR C. L. Rabren Assistant Director		

The overall objective of this project was to improve physical evidence utilization in the Alabama Criminal Justice System by providing training and developing expertise at the scene of the crime and within the crime laboratory. Specific objectives included the following:

- 1) To provide law enforcement agencies in Alabama with training in proper methods and procedures for handling physical evidence at the scene of the crime.
- 2) To improve crime laboratory capability of providing pertinent information in a timely manner on physical evidence submitted to the laboratory by the investigating officer.
- 3) To develop serological competency in each divisional crime laboratory so that law enforcement at the local level will have adequate services for analysis of blood and bloodstains.

Table 1 presents a summary of crime scene officer and criminalistics training conducted during the course of the project. As can be seen from the data a total of 96 schools were conducted during the project accomodating 1,608 students. Crime laboratory personnel spent a total of 2,509 hours instructing law enforcement officers and divisional laboratory personnel in the proper utilization of physical evidence in the Alabama Criminal Justice System. A total of 48,701 student instructional hours were generated by the project. In addition to the training summarized in the table, the project also provided for special on-the-job training in crime scene procedures, criminalistics and serology techniques, implementing crime laboratory quality control programs, applied research in criminalistics and serology, standardization of divisional laboratory methods and procedures, and numerous informal lectures and seminars for law enforcement personnel on physical evidence utilization.

32336  
READING ROOM

RECEIVED BY GRANTEE STATE PLANNING AGENCY (OIL CMA) <i>Barbara Shassack</i>	DATE 2-18-76
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Table 1  
Training Summary

Type of Training	No. of Schools Conducted	No. of Students	Hrs. Of Instruction	Student Instructional Hrs.
Crime Scene Officer	22	389	880	15,560
Crime Scene Management	10	78	30	234
Advanced Homicide Investigation	5	128	200	5,120
Evidence Technician	4	110	480	13,200
Basic Police Photography	7	109	280	4,360
Police Darkroom Techniques	7	109	280	4,360
Burglary Investigation	1	39	40	1,560
Arson Investigation	1	12	40	480
Physical Evidence (Protection, Preservation & Collection)	9	165	40	733
Crime Scene Procedures	1	19	8	152
Rules of Evidence	2	55	8	220
Security Devices	6	91	12	182
Physical Evidence in Drug Cases	2	54	6	162
Home & Business Security	1	11	2	22
Crime Scene Protection	1	33	2	66
Crime Scene Sketching	4	66	19	314
The Crime Laboratory System	1	12	2	24
Crime Scene Photography	1	8	4	32
Inter-Departmental Criminalistics	11	120	176	1,920
	96	1,608	2,509	48,701

Preliminary evaluation regarding the amount of physical evidence identified, secured, and submitted to the crime laboratory before crime scene officer training as opposed to after crime scene officer training revealed the data included in Table 2. These data were gathered from a municipal police department which had participated actively in crime scene officer training. Six types of crimes were considered (homicides, suicides, robberies, possession of drugs, arsons, and burglaries). It can be seen from the data that the percentages of cases in which trace evidence was identified increased significantly after crime scene officer training. The rate of increase was even more significant when burglaries alone were considered. Not only does the data indicate that the crime scene officer identified more trace evidence after training the rate of submission to the crime laboratory also showed a rate of increase after training.

Similar studies of physical evidence reveal opposite trends in that the crime scene officer identified physical evidence in fewer cases after training. This is attributable to the fact that training has made the crime scene officer more knowledgeable in regard to the pertinency of physical evidence. Although the data show that physical evidence is being identified in fewer cases after training, the submission rate of physical evidence identified increased after training. Overall, the percentage of all six types of cases in which all types of evidence were submitted increased from 44.0% before training to 63.3% after training.

Table 2  
Comparison of Physical & Trace Evidence  
Utilization Before and After Crime Scene Training

	Oct. 1, 1970-Sept. 13, 1972	Oct. 6, 1973-Nov. 31, 1974
Percentage of all type cases in which trace evidence was identified*	5.2%	28.9%
Percentage of burglaries in which trace evidence was identified	7.2%	41.7%
Percentage of all cases in which physical evidence ** was identified	38.3%	34.2%
Percentage of burglaries in which physical evidence was identified	41.2%	37.5%
Percentage of burglaries in which identified trace evidence was submitted to a crime laboratory	71.4%	80.0%
Percentage of burglaries in which identified physical evidence was submitted to a crime laboratory	32.5%	44.4%
Percentage of burglaries in which all types of identified evidence was submitted	25.5%	44.4%
Percentage of all cases in which all types of identified evidence was submitted	44.0%	63.3%

\*-Identified means that the clue material was noted in the agencies report of investigation.

\*\*-Physical evidence includes only large items and does not include trace evidence.

Table 3 presents an analysis of case-turn-around-time for the Department of Toxicology and Criminal Investigation. The data in the table reveal significant improvements in the amount of time required by personnel in our divisional laboratories to return evidence related information to the investigating officer. On a statewide basis turn-around-time was improved an average of 9 days over the two year span covering parts of the grant period.

Table 3  
Department of Toxicology and Criminal Investigation  
Case Turn Around Time\*

Laboratory	Case Turn Around Time (Working Days)		
	10/1/73-12/31/73	10/1/74-12/31/74	6/1/75-8/31/75
Auburn	21 days	19 days	14 days
Birmingham	27	18	14
Enterprise	17	13	10
Florence	26	13	10
Jacksonville	17	19	14
Huntsville	46	13	6
Mobile	6	4	4
Montgomery	28	24	17
Selma	16	12	14
Tuscaloosa			13
Statewide	21 days	15 days	12 days

\*Based on random samples of 30 criminalistics cases from each laboratory during the three periods of time.

Over the past two fiscal years significant caseload increases have been noted in case classifications involving physical evidence. Table 4 presents an analysis of these increases in caseloads. As can be seen from the data law enforcement training in physical evidence procedures had a tremendous impact on the amount of evidence submitted to the crime laboratory. The expertise received by law enforcement officers as a result of crime scene training together with additional training received as a result of the Minimum Standards Act of 1973 have contributed toward the increasing caseload of the Department of Toxicology and Criminal Investigation.

Table 4  
Caseload Increases  
Department of Toxicology and Criminal Investigation

Type Case	Caseload % Increase 1972-73 to 1973-74	Caseload % Increase 1973-74 to 1974-75
Grand Larceny	252.9%	-8.3%
Rape	57.1	6.6
Robbery	48.7	77.6
Burglary	34.9	33.4
Analyses	55.0	-9.1
Other Crimes Against Person	-11.5	24.8
Other Crimes Against Property	14.2	31.5
Death Investigation	8.0	13.2
All Cases	19.4%	9.4%

Another instrument which may be used to measure crime laboratory utilization is cases generated per law enforcement officer. Figures 5, 6, and 7 present a comparison of the cases per office ratio over the past three years for counties in which discretionary grant law enforcement officer training has been concentrated. As can be seen from the figures the cases per officer ratio increased each year in seven of the eleven counties studies. Overall two year increases were noted in all but one of the eleven counties.

Data presented in the preceding tables and figures support progress which has been made in achieving the first two objectives of the project. Significant improvements have been made in methods and procedures used by law enforcement in handling physical evidence at the scene of the crime. These improvements have had an impact on the utilization of the crime laboratory. At the same time significant progress has been made in improving crime laboratory services in regard to physical evidence cases.

In reference to the third objective, developing serological competency in divisional crime laboratories, the following accomplishments can be noted:

- 1) Each divisional laboratory within the Alabama crime laboratory system now has resources and expertise to characterize dried bloodstains through the ABC grouping.
- 2) Techniques of enzyme electrophoresis used in characterizing dried bloodstains and other body secretions have been developed and are currently being utilized at the headquarters laboratory in Auburn.
- 3) A functional and productive program of applied research in the area of forensic serology has been implemented at the headquarters laboratory in Auburn. Through this research program serological expertise is available to personnel in all of the divisional laboratories in characterizing dried bloodstains and other body secretions through many of the subgroups.

Figure 5  
Cases Per Officer  
1972-73

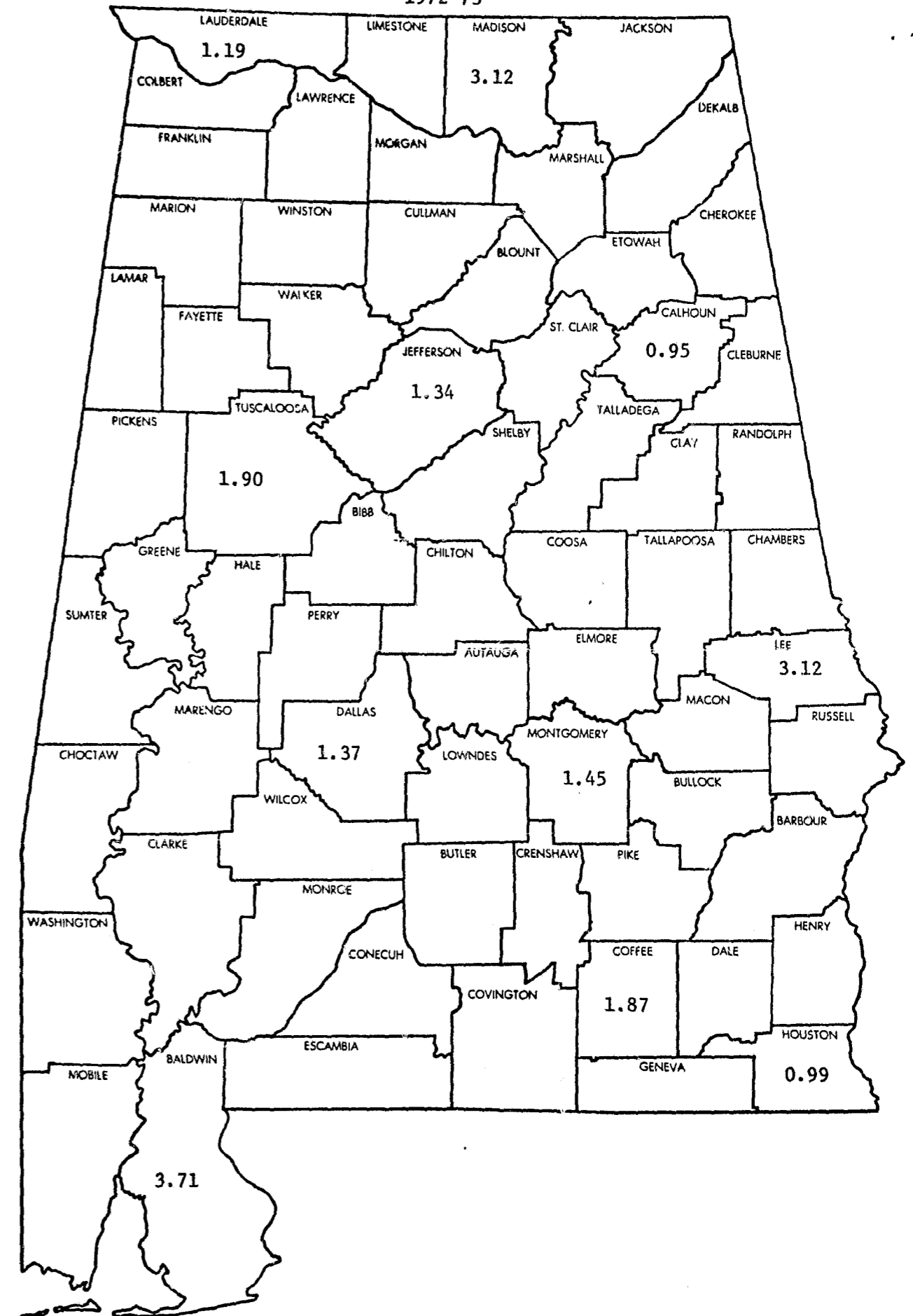


Figure 6  
Cases Per Officer  
1973-74

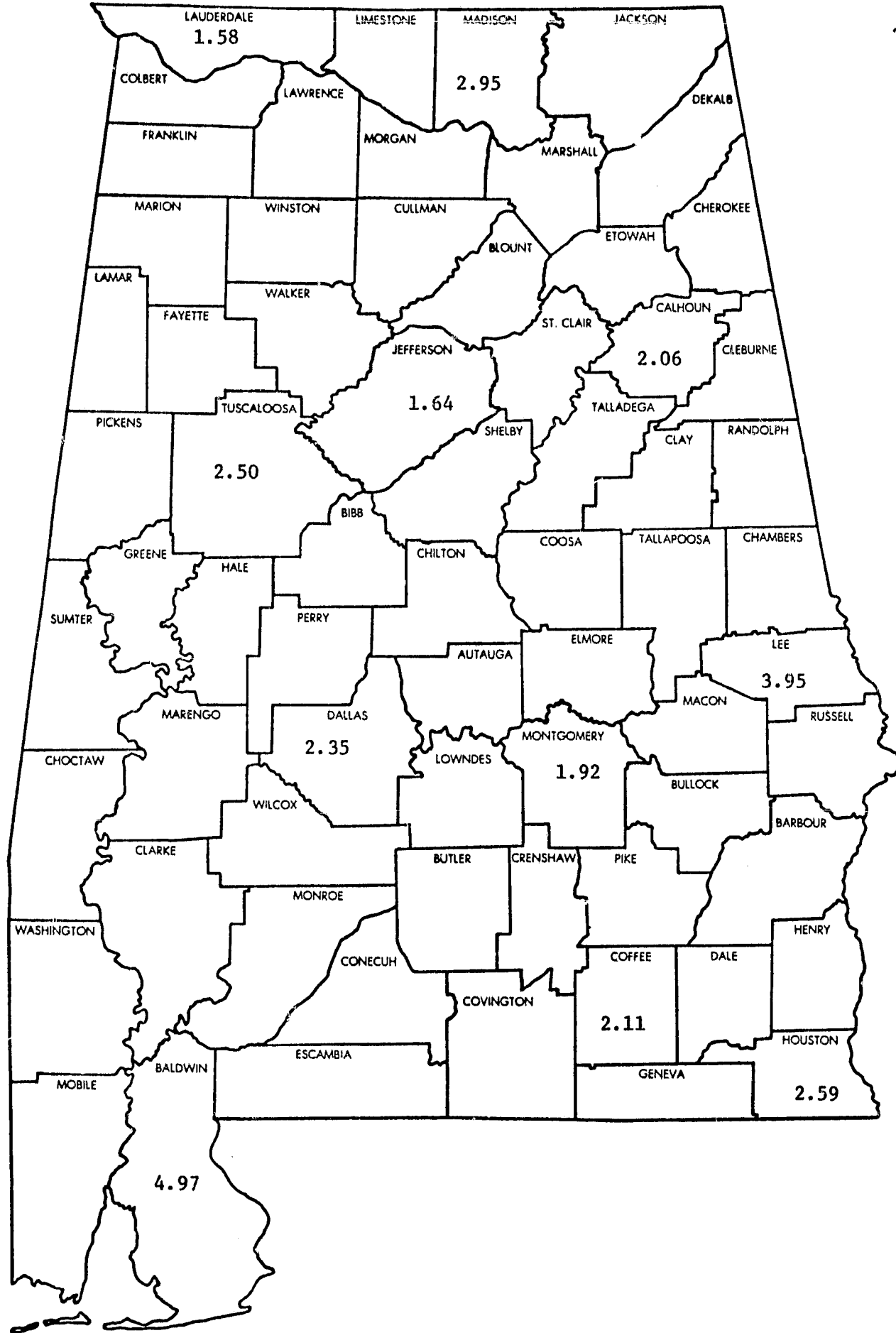
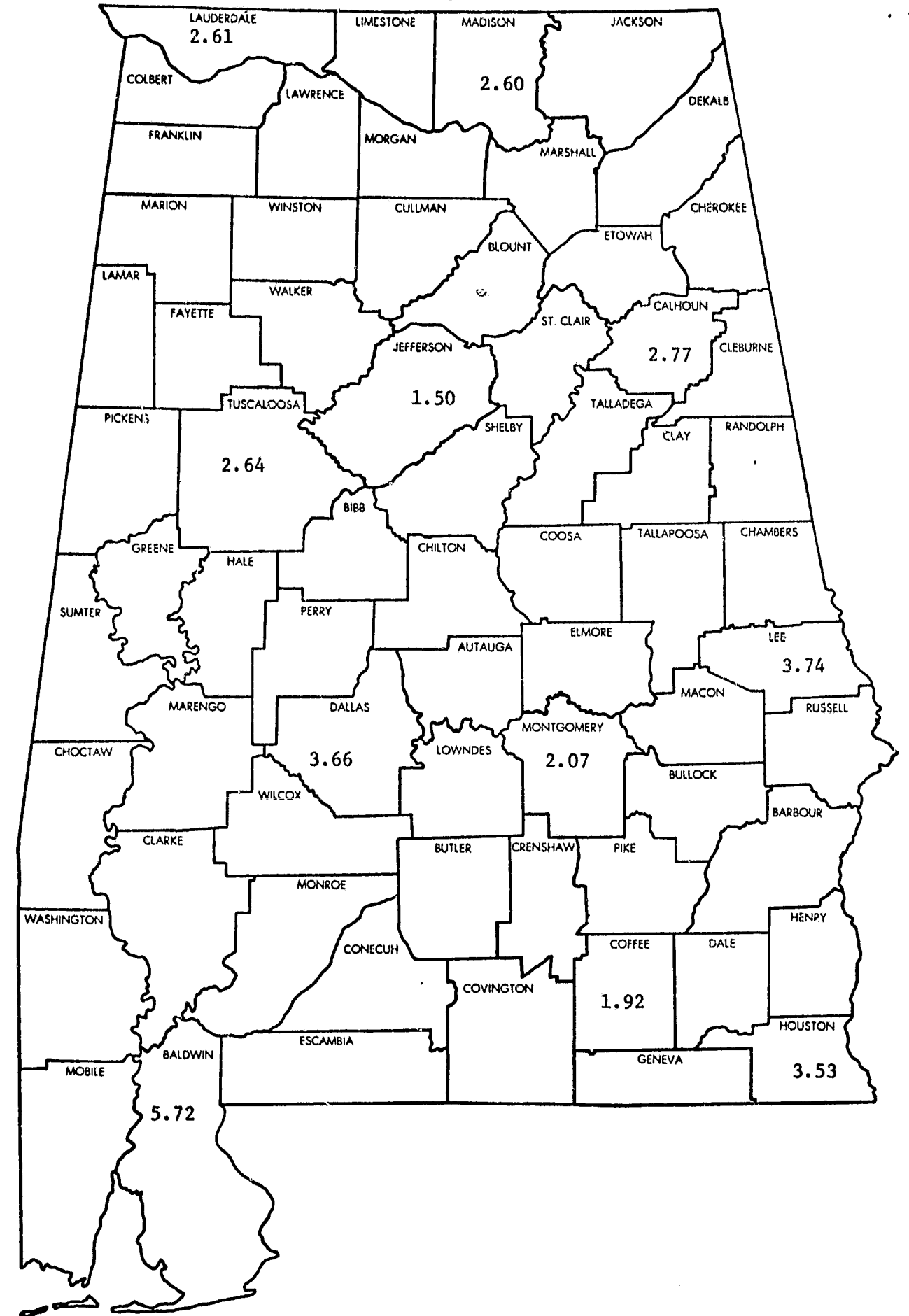


Figure 7  
Cases Per Officer  
1974-75



Evaluation of the project reveals significant improvements in crime laboratory service expediency, an increase in the generation and receipt of worthwhile physical evidence, improvements in the quality of crime laboratory services on cases involving physical evidence, and improvements in the overall utilization of the crime laboratory. Overall improvements have been made in the utilization of physical evidence in the Alabama Criminal Justice System.

A refund in the amount of \$2,286.32 is enclosed representing funds awarded but not expended on the project.

Grantee Hard Match

Completed December 2, 1975

Salaries Paid with LEAA Funds

Completed December 2, 1975

**END**

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