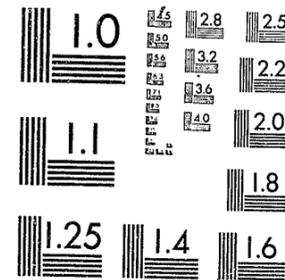


National Criminal Justice Reference Service

ncjrs

This microfiche was produced from documents received for inclusion in the NCJRS data base. Since NCJRS cannot exercise control over the physical condition of the documents submitted, the individual frame quality will vary. The resolution chart on this frame may be used to evaluate the document quality.



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

Microfilming procedures used to create this fiche comply with the standards set forth in 41CFR 101-11.504.

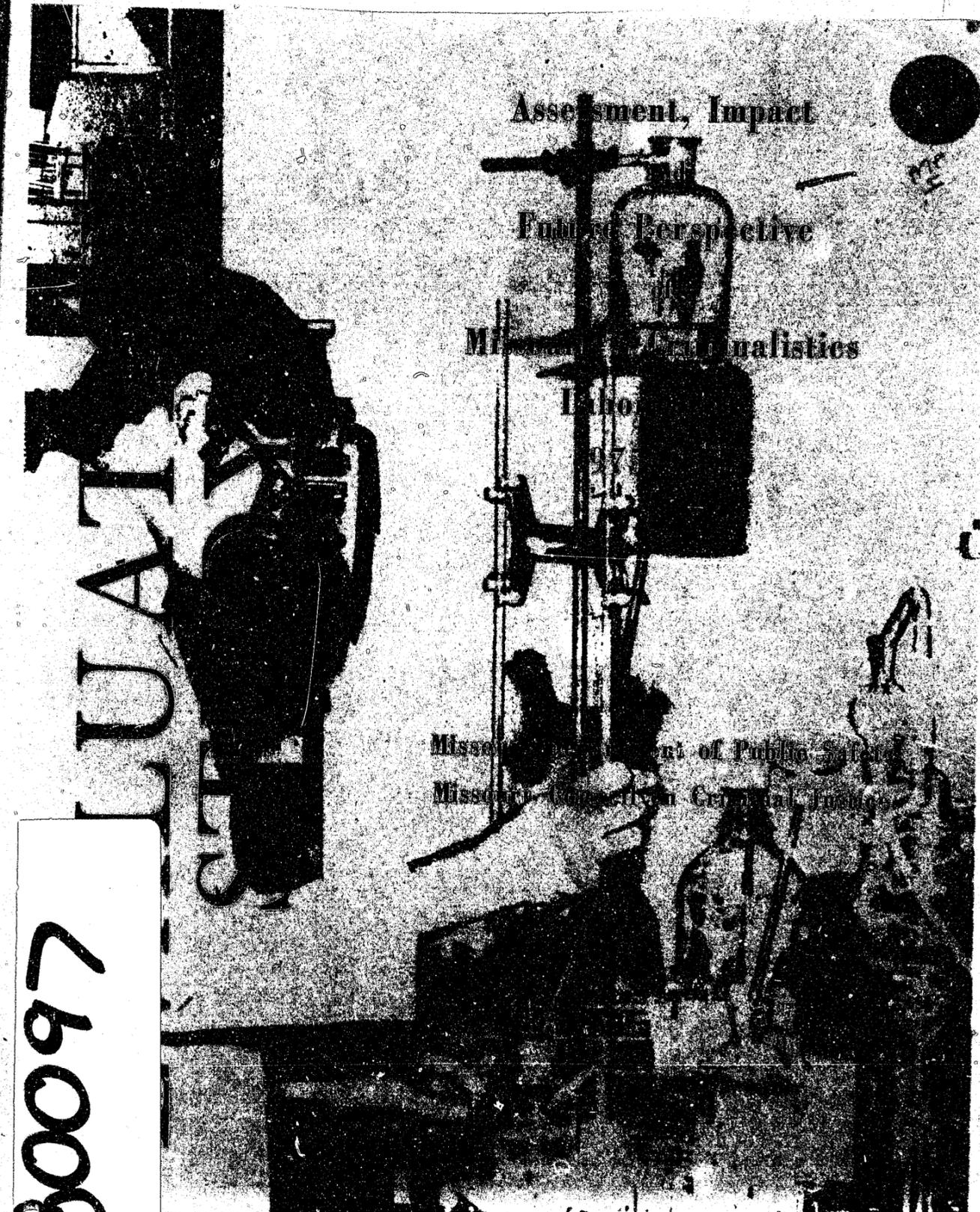
Points of view or opinions stated in this document are those of the author(s) and do not represent the official position or policies of the U. S. Department of Justice.

National Institute of Justice
United States Department of Justice
Washington, D. C. 20531

DATE FILMED

2-16-82

30097



U.S. Department of Justice
National Institute of Justice

This document has been reproduced exactly as received from the person or organization originating it. Points of view or opinions stated in this document are those of the authors and do not necessarily represent the official position or policies of the National Institute of Justice.

Permission to reproduce this copyrighted material has been granted by

Missouri Department of Public Safety

to the National Criminal Justice Reference Service (NCJRS).

Further reproduction outside of the NCJRS system requires permission of the copyright owner.

ASSESSMENT, IMPACT, AND FUTURE PERSPECTIVE
OF
MISSOURI'S CRIMINALISTICS LABORATORIES
1975-1978

GARY P. MADDOX
EVALUATOR

JOSEPH D. RYAN
MCCJ EVALUATION,
AUDIT, MONITORING CHIEF

Published By:

MISSOURI COUNCIL ON CRIMINAL JUSTICE
621 East Capitol, P.O. Box 1041
Jefferson City, Missouri 65102

Joseph D. Ryan
Sharon Koechling-Andrae
Edward S. Gray
Gary P. Maddox
Nola Beckham

MCCJ Evaluation Unit

Jay Sondhi
MCCJ Executive Director

NCJRS

JUL 1 1981

ACQUISITIONS

ACKNOWLEDGEMENTS

An impact evaluation study is not completed by just one or two individuals. It requires the cooperation and effort of many. I would like to thank Mr. F. M. Wilson, Director of the Missouri Department of Public Safety, and Mr. Edward L. Downs and Mr. Jay Sondhi, Chairman and Executive Director of the Missouri Council on Criminal Justice, for their support of the MCCJ Evaluation Unit.

The study could not have been completed without the Directors and staffs of Missouri's Criminalistics Laboratories and we extend a special thanks to them. We also wish to thank the sheriffs, police chiefs, and prosecuting attorneys who took time from their busy schedules to complete our survey.

Finally, I wish to acknowledge the MCCJ staff, who each in their own way contributed to the development and completion of this project: John Kelly Morehead, Nola Beckham, Vicki Frame, David Rost, Michael Kerns, and Gary P. Maddox.

Joseph D. Ryan
Joseph D. Ryan
MCCJ Chief of Evaluation, Audit,
Monitoring



Association of Crime Laboratory Directors

- Technical Lab, MSHP
Jefferson City, MO
.....
- Satellite Lab, MSHP
Macon, MO
.....
- Satellite Lab, MSHP
Willow Springs, MO
.....
- Satellite Lab, MSHP
St. Joseph, MO
.....
- Kansas City Regional Crime Lab
Independence, MO
.....
- St. Louis Metro Police Lab
St. Louis, MO
.....
- Springfield Regional Crime Lab
Springfield, MO
.....
- St. Louis County Crime Lab
Clayton, MO
.....
- MSSC Regional Crime Lab
Joplin, MO
.....
- NMSU Regional Crime Lab
Kirksville, MO
.....
- SEMO Regional Crime Lab
Cape Girardeau, MO

September 14, 1979

Gary Maddox
MCCJ
621 East Capitol
Jefferson City, Missouri 65101

Dear Gary:

Enclosed find the response to the survey from the Missouri Association of Crime Lab Directors. We feel that this is representative of the position taken by the association from the very beginning and, as you know, has been instrumental in the success across the state.

We would like, if possible, this response to be included early in the report so as to set the stage as to the initial position of the association and all the laboratory directors involvement.

Sincerely,

R. C. Briner
R. C. Briner
President

kjr

Enclosure

RECEIVED

SEP 17 1979

RESPONSE PREPARED BY
MISSOURI ASSOCIATION OF CRIME LABORATORY DIRECTORS
TO THE CRIME LAB EVALUATION

The Missouri Association of Crime Lab Directors (MACLD) has been in formal existence for 3 years. The group has been meeting for a total of 8 years with the primary objective of coordinating and improving the crime laboratory delivery system within the state of Missouri. It is our opinion and the opinion expressed by many others that we have progressed toward providing law enforcement agencies within the state of Missouri with better service. It also is the position of this organization that the only function of the crime laboratory is to provide service and all activities (both technical and administrative) should be directed toward that end. With this in mind, the organization was instrumental in initiating and appreciates the evaluation of the program in an attempt to improve the system.

All of the labs involved here, as a matter of fact, operated under somewhat limited funds. The maximization of these funds has been accomplished in all locations by many and varied methods. Much of the efforts of this organization were fulfilled by the passage of Senate Bill 202 which authorizes state funding for the crime laboratories. It is now our hope to continue to pursue standardization in reporting, operations, procedures, and record keeping to better evaluate the impact of the crime laboratory on the criminal justice system within the state of Missouri. These objectives are presently in the bylaws of MACLD, a state chartered organization and were first presented more than 8 years ago. Much of this standardization could be accomplished by funding of the proposed crime laboratory computer grant presently before MCCJ which is to be funded from 1980 money. This is only a beginning, however, toward standardization and record keeping and makes the implementation of the program more than 2 years away.

However, this is a beginning and represents the only possible approach for a small (2 to 4 man) laboratory; as much record keeping by hand would require additional staff personnel and the computer approach would appear to be more cost effective.

The organization has also adopted the approach that the crime laboratories within a given region be responsive to and reflective of the crime profile index of that area. That is to say, provide service only as the need arises. The primary function of the organization has been to provide a useful approach to a very diversified set of problems within the state. Much success has been accomplished; however, much more can be accomplished. The organization feels that the evaluation of the crime laboratories using the recommendations as goals is one step toward this. We feel that the cooperation reflected in this organization is not found in many states across the country and is perhaps our strongest point. We intend to use the cooperating effort of all the labs to pursue and accomplish the overall objectives of the crime laboratories which is to provide service to law enforcement agencies. And all efforts both collective and individual should be directed toward that end.

The organization has been and is committed to the upgrading of the laboratory personnel, both by cross training and interaction between all laboratories within the state. Members of MACLD and personnel have been and are involved with national organizations to continue to improve the "Missouri system."

The only standardization which the state of Missouri possesses is the Missouri Action Plan for Public Safety (MAPS). The standards of this document concerning crime laboratories were written on their entirety by this association.

RECEIVED

APR 1 1968

TABLE OF CONTENTS

	<u>Page</u>
Acknowledgements	ii
Response of Missouri Association of Crime Laboratory Directors	iii
Table of Contents	vi
List of Tables	viii
List of Attachments	ix
<u>VOLUME I: EXECUTIVE SUMMARY</u>	
Introduction	1
Statement of the Problem	3
Purpose of the Study	3
Historical Overview of Missouri's Criminalistics Laboratories and Significance of the Study	4
Study Overview	6
Missouri Criminalistics Laboratory Management Model	7
External Considerations and Recommendations	7
Administrative Internal Considerations and Recommendations	13
General Conclusion to Management Model Considerations	14
<u>VOLUME II: ACADEMIC APPROACH AND RECOGNIZED STANDARDS APPLIED IN THE STUDY</u>	
Introduction	46
Chapter I	47
Hypotheses	
Definition of Terms	
Limitations of the Study	
Basic Assumptions	
Procedures for Collecting Data	
Procedures for Treating Data	
Chapter II	51
Laboratory Standards for Organization, Management and Operations	
General Conclusion to Volume II	60
<u>VOLUME III: INDIVIDUAL STUDIES OF THE CRIMINALISTICS LABORATORIES IN MISSOURI</u>	
Introduction	83
Region I, Kansas City Regional Criminalistics Laboratory	85
Region II, Springfield Criminalistics Laboratory	97

	<u>Page</u>
Region III, University of Missouri Criminalistics Laboratory . . .	108
Region IV, Northeast Missouri State University Criminalistics Laboratory	118
Region V, St. Louis County Criminalistics Laboratory	133
Regions VI, VII, and VIII, Southeast Missouri State University Criminalistics Laboratory	144
Region IX, Missouri Southern State College Criminalistics Laboratory	156
Missouri State Highway Patrol Central Laboratory	169
Missouri State Highway Patrol Troop B Satellite Criminalistics Laboratory	182
Missouri State Highway Patrol Troop G Satellite Criminalistics Laboratory	192
Missouri State Highway Patrol Troop H Satellite Criminalistics Laboratory	206
St. Louis Metropolitan Police Department Criminalistics Laboratory	218
Volume III Summary Conclusion	230

LIST OF TABLES

<u>Table</u>	<u>Page</u>
I-1 Breakdown of Major Types of Evidence Received in all Laboratories	15
I-2 Breakdown of Overall Activities and Funding Averages	16
I-3 Relationship of Analysts Activities Volume and Cost Per Case	17
I-4 Comparison of Caseloads to Turnaround Time	18
I-5 Average Annual Expenditures Per Laboratory v. Average Cases Received Annually	19
I-6 Relationship of Average Annual Expenditures and Total FTE to Average Cases Received Annually	20
I-7 Comparison of Individual Laboratory Expenditures, Equipment Worth, and FTE	21
II-1 Non-Compliance with Standards for Management and Operation	61
II-2 Non-Compliance with Activities Documentation	62

LIST OF ATTACHMENTS

<u>Attachment</u>	<u>Page</u>
I-A Senate Bill No. 202	22
I-B Missouri Criminalistics Laboratory Locations	24
I-C Crime Laboratory Users Index	25
I-D MCCJ Form D-1	44
I-E MCCJ Form PCL-1	45
II-A General Crime Laboratory Survey Form	63
II-B Laboratory Professional Staff Questionnaire Form	70
II-C Criminalistics Laboratory Users Survey Form	73
II-D Missouri Criminalistics Laboratories Evaluation Design	76

VOLUME I

MISSOURI CRIMINALISTICS LABORATORIES
EVALUATION STUDY

EXECUTIVE SUMMARY

Introduction

In recent years criminalistics laboratories have become an increasingly more integral part of the criminal justice system throughout the United States. In the State of Missouri, the Missouri Council on Criminal Justice (MCCJ) has been a prime supporter of criminalistics laboratories. MCCJ's state and regional councils have aided in the creation and development of most of Missouri's crime laboratories.

During their years of MCCJ support, the crime laboratories have gained the increased backing of state and local elected officials and law enforcement professionals. In the 80th General Assembly, Senate Bill 202 was introduced and passed. On August 2, 1979, the bill was signed by Governor Joseph P. Teasdale.

Senate Bill 202 provides for the creation of a "Missouri Crime Laboratory Assistance Program" to be administered by the Department of Public Safety. The bill further provides for partial or complete funding of all operational costs incurred by Missouri's crime laboratories. (Attachment I-A)

This report is intended to be a comprehensive reference document within which is contained historical and statistical data, analytical recommendations and conclusions, and finally, a proposed model management system for all Missouri crime laboratories.

All of the criminalistics laboratories of concern to this study are operational and are providing requested services. Most of the laboratories are still, however, in the developmental stage and, as might be expected, some problems do appear in their general management. A crime laboratory network does not exist. What does exist are twelve individual laboratories, each of which functions under a different parental organization, conducts daily business in an individualized style, and answers primarily to only the parental organization.

Since there are recognized laboratory standards and good management principles that can be used as an aid to develop a degree of consistency among Missouri's laboratories, and since the passing and signing of Senate Bill 202 requires the State of Missouri to assume some or all of the operating expenses of these agencies, it seems that the time is at hand to provide the guidelines which will lead to an improved overall administration of our crime laboratories.

It is the evaluator's opinion that better compliance with standards might have been expected. In all fairness to the laboratory staffs, however, they had other responsibilities such as providing crime evidence analysis. Nonetheless, the State of Missouri needs to insure uniform adherence to laboratory standards, records maintenance, overall procedural and activities documentation and accountability. The management model proposed is but one alternative; however, it does provide for an initial approach by which a response can be made to some problem areas found during the course of this study.

STATEMENT OF THE PROBLEM

The problem area of this study was to compose a comprehensive, in-depth overview of Missouri's criminalistics laboratories from a trilogy of perspectives including a historical observation, a review of Missouri's current laboratory status, and finally a postulation regarding the future course and the resultant directional and/or managerial considerations to be made for all crime laboratories in Missouri.

PURPOSE OF THE STUDY

The purpose of this study was basically twofold. Primary research interest was devoted to the existing need for, the extent to which, and the options available to the State of Missouri for the development and implementation of a model management system for Missouri's criminalistics laboratories. Of additional interest was the ultimate creation of a descriptive reference treatise indicating the degree to which crime laboratories have evolved in Missouri and the consequential capabilities that exist within the state for analysis and identification of criminal evidence materials.

HISTORICAL OVERVIEW OF MISSOURI'S CRIMINALISTICS LABORATORIES
AND SIGNIFICANCE OF THE STUDY

The forensic sciences have long been, and are becoming ever more so, a needed component of our criminal justice process. Since 1927, law enforcement agencies in Missouri have recognized the value and the impact that laboratory analysis and testimony on evidence can have upon case outcome. With the rise in crime rates, improved methods for committing crimes, and continually expanding court dockets, the critical need for high quality and technologically sound capabilities for evidence analysis and identification are acknowledged by all within the system.

Until 1970, due possibly to the fact that laboratories have historically been an expensive and specialized type of service operation, only four laboratories served the entire state:

- St. Louis Police Department since 1927
- The General Headquarters of the Missouri State Highway Patrol since 1933, originally in Rolla, but now in Jefferson City
- Kansas City Police Department since 1938
- St. Louis County Police Department since 1966

In 1970, with the assistance of the state and regional councils of the Missouri Council on Criminal Justice, the geographical development of crime laboratories began to expand.

The location, first year of operation, MCCJ region, and parent organization of each of the additional eight laboratories is as follows:

- Cape Girardeau - 1970 - MCCJ Regions VI, VII, VIII - Southeast Missouri State University
- Independence - 1972 - MCCJ Region I - Kansas City Police Department (replaced the 1938 Police Laboratory)
- Joplin - 1972 - MCCJ Region IX - Missouri Southern State College
- Springfield - 1972 - MCCJ Region II - Springfield Police Department
- Columbia - 1973 - MCCJ Region III - University of Missouri-Columbia
- Kirksville - 1975 - MCCJ Region IV - Northeast Missouri State College
- Willow Springs - 1975 - Highway Patrol Satellite at Troop G
- Macon - 1977 - Highway Patrol Satellite at Troop B
- St. Joseph - 1977 - Highway Patrol Satellite at Troop H

The support received from the Missouri Council on Criminal Justice has been a major contributing factor toward the achievement of the fact that Missouri has several criminalistics laboratories providing services to the state's user agencies. Each of the laboratories discussed in this study has received funds from MCCJ. The federal intent of the financial assistance received is that of providing start-up or seed money with the understanding that upon becoming an integral part of the system, local funding sources would assume operating expenses.

This federal intent is being met in Missouri with the passage and signing of Senate Bill 202.

The State of Missouri will thus assume all or part of the laboratories' operating expenses and the Department of Public Safety (DPS) will play a coordinating role in the disbursement of state funds. In so doing, the state and DPS will discover the laboratories to be independent agencies currently answerable only to their own parental organizations. Different procedures, policies, definitions of operational terms, staffing patterns, and equipment needs do exist in each independent laboratory setting.

STUDY OVERVIEW

In Volumes II and III of this study the reader will find all of the information which has led to the construction of the model presented in this volume.

Volume II, Chapter I, provides the reader with the study hypotheses, necessary definitions of terms, limitations of the study, basic study assumptions, and data collection procedures.

In Volume II, Chapter II, are located the previously referenced recognized laboratory standards. The chapter discusses the standards according to the level of each standard's significance to laboratory management and administration, operating procedures, and activities. Recommendations and conclusions for effecting compliance with each standard are also provided. The evaluator has further added two general response statements, one following the discussions of laboratory organization management and operations and the other following the laboratory activities information. The chapter also discusses information provided by a sample taken from Missouri's laboratory user agencies with regard to agency requirements for laboratory analysis services and laboratory capability needs as determined by the user agencies. Chapter II closes with an overall concluding statement.

Volume III of this study provides the reports completed for each of the twelve laboratories considered in this study and response comments of all individual laboratory directors who offered statements regarding the report compiled for their individual laboratories.

MISSOURI CRIMINALISTICS LABORATORY MANAGEMENT MODEL

EXTERNAL CONSIDERATIONS AND RECOMMENDATIONS

In this section are presented various considerations that should be addressed in a Criminalistics Laboratory Management Model.

Laboratory Locations

The State of Missouri is presently serviced by twelve criminalistics laboratory facilities. The location of these facilities is geographically appropriate to meet the needs of user agencies. There does not appear to be a need for any additional laboratory facilities. (See Attachment I-B)

User Agency Assignment

During the course of this study the evaluator became aware that many user agencies make use of up to five of the state's twelve criminalistics laboratories. This does not appear to be a cost efficient method. It is therefore suggested that the state be partitioned into service areas and that all user agencies be assigned to a particular primary laboratory in their respective area. (See Attachment I-C)

Full Service/Limited Service

Most of Missouri's laboratories are not equipped to offer full service capabilities and such capabilities are not needed on a statewide basis. The data indicates that overall, 48 percent of all analysis conducted is in the discipline of narcotics and drugs. As indicated by Table I-1, Breakdown of Major Types of Evidence Received, 88 percent of all evidence processed by Missouri's crime laboratories involves 14 case types or evidence descriptions, most of which is chemical analysis in nature or within the scope of a limited service laboratory's capabilities. In an effort to clearly specify individual laboratory roles, it is recommended that the Missouri Criminalistics Laboratory Network consist, for the present time, of four full service laboratories, while all other laboratories remain limited service in purpose. The four laboratories of full service capability should be the following: Independence, to provide full and support service to the northwestern, western, and southwestern side of the state;

Missouri State Highway Patrol Central, Jefferson City, to provide full and support services to north central, central, and south central Missouri; and St. Louis County and St. Louis City laboratories, to provide full and support services to the St. Louis metropolitan area, northeast, eastern, and southeast Missouri. All other laboratories, being limited service in purpose, would then route all evidence requiring analysis beyond their scope to their respective assigned full service support laboratories. To arrange the system in such a manner naturally calls for a definition of full service and limited service; therefore, the following definitions are recommended:

Full Service Laboratory - A laboratory capable of, and responsible for, the analysis of all types of physical evidence including material comparisons, identification of unknowns, firearms identification and projectile comparisons, fingerprint processing utilizing both powder and chemical means, photographic processing of both black and white and color prints, identification of toolmarks and other striations. The full service analysis capabilities are to include not only complete wet laboratory services, but also complete dry laboratory services (document examination, etc.).

Limited Service Laboratory - A laboratory capable of, and responsible for, the processing of physical evidence to include material comparisons, identification of unknowns, firearms identification and projectile comparisons, fingerprint processing utilizing both powder and chemical means, photographic processing of both black and white and color prints. The limited service laboratory should be restricted to wet laboratory or chemical analysis capabilities primarily.

This arrangement should provide for a more cost efficient use of Missouri's laboratories by strengthening the highly technical areas of forensics in just a few locations rather than in all twelve laboratories, while at the same time allowing each laboratory to place more concentration on the major bulk of evidence types received and analyzed within their respective facilities. The implementation of these proposals and other corresponding details should be the responsibility of the Director of the Department of Public Safety or his assigned staff.

Caseload and Personnel

The mean annual average caseload for Missouri's laboratories, excluding the St. Louis City Laboratory which defines and records cases differently than the others, is 1,784 cases. Eight of the twelve laboratories handle less than 1,000 cases per year as indicated by Table I-2, Breakdown of Overall Activities and Funding Averages. This reflects that overall, the average annual caseload per laboratory analyst is 292 as shown in Table I-3, Relationship of Analysts to Activities Volume and Cost Per Case. A recommended simple formula for determining proper laboratory professional staff size then is: Total Average Annual Cases ÷ 292 = Recommended Professional Staff Size. In applying this formula to the eleven laboratories concerned, it is found that four laboratories are potentially understaffed, five laboratories are potentially overstaffed, and two laboratories are within close range of the recommended formula. Additionally, in order to provide a common data gathering base, it is recommended that all laboratories adhere universally to the following definition of case:

Case - All evidence received pertaining to one crime or occurrence.

Case Turnaround Time

The average overall turnaround time for laboratory cases was found to be 20.4 days. Obviously, different types of evidence will take more or less time to analyze; however, the data indicated that the reception of difficult types of evidence is not necessarily a good defense for higher than average turnaround time figures. (Table I-4, Comparison of Caseloads to Turnaround Time) A good example of this is the Independence Laboratory. With an average caseload of 8,905 cases, 74.2 percent of which is evidence other than narcotics and drugs, the laboratory turns out cases in the least amount of time, 6.6 days. In contrast, the Kirksville Laboratory, with an average annual caseload of 81 cases, has the highest turnaround time of 39.6 days. It is recommended that, under the direction of the laboratory system, laboratories maintain documentation of turnaround time and that adjustments be made, where necessary, in manpower and/or instrumentation so as to enable laboratories to maintain a ceiling on the average turnaround time of no more than 21 days. Furthermore, due to the inherent problem of diverse laboratory terminology definitions, it is recommended that all laboratories adhere to the following definition of turnaround time:

Turnaround Time - The number of calendar dates that elapse between the date that evidence is submitted and the date that the completed analysis/identification report is typed or otherwise prepared for return to the submitting agency. If, instead of days, the actual turnaround time is a question of minutes or hours, it should be recorded as such.

Laboratory Nonexpendable Equipment Worth

The average worth of nonexpendable equipment per laboratory is \$143,233.00. Six of the laboratories were found to have at least \$150,000.00 worth of equipment. The data in Table I-2, Breakdown of Overall Activities and Funding Averages, indicates that there is no direct correlation between caseload size and total equipment worth. The evidence here suggests that some laboratories may be over-equipped while others may be under-equipped. The recommendation here is that equipment allocations be made according to caseload size and evidence type. This would reduce the dormant time for many specialized types of equipment on hand in laboratories that have minimal opportunities to use such equipment, thus decreasing total costs and increasing efficiency in other laboratories.

Standardized Evidence Categories and Terminologies

A major point of confusion encountered in the analysis of data regarding laboratory activities in this study involved the wide variance of evidence description labels and examination definitions. Each laboratory, excluding the four MSHP laboratories, maintains activities total according to their own evidence category definitions. This was found to be extremely confusing and nonuniform. Perhaps the most impressive labeling categories, in terms of comprehensive evidence breakdowns, were found within the Independence and the St. Louis City Laboratories. It is recommended that the network of laboratories adhere to one uniform list of evidence types or labels and that all activities be documented in accordance with such labels. The suggested list, which was compiled primarily from the Independence and the St. Louis City Laboratories, is as follows:

1. Accident (auto)
2. Arson (liquids and solids)
3. Assault (aggravated)
4. Assault (common)
5. Auto Theft
6. Blood

- | | |
|--|------------------------------|
| 7. Blood Alcohol | 30. Misdemeanors |
| 8. Bombs & Incendiaries | 31. Missing Persons |
| 9. Bomb Threats | 32. Molestation |
| 10. Bullets & Shells | 33. Narcotics & Drugs |
| 11. Burglary | 34. Other Sex |
| 12. Carrying a Concealed
Weapon | 35. Polygraph |
| 13. Destruction of Property
& Vandalism | 36. Powder & Gunshot Residue |
| 14. Death Investigation | 37. Prostitution |
| 15. Documents | 38. Rape |
| 16. Driving While Intoxicated | 39. Recovered Property |
| 17. Exhibitionism | 40. Robbery |
| 18. Firearms | 41. Shooting |
| 19. Forgery | 42. Sodomy |
| 20. Fraud | 43. Suicide |
| 21. Gambling | 44. Theft From Auto |
| 22. Hit & Run Accident | 45. Trace Evidence |
| 23. Homicide | a. Fibers |
| 24. Incest | b. Glass |
| 25. Kidnap | c. Hair |
| 26. Larceny | d. Metal |
| 27. Latent Fingerprints | e. Paint |
| 28. Liquor & Beer | f. Soil |
| 29. Marijuana | g. Other |

This should eliminate any confusion regarding comparative laboratory statistics. In addition, to provide a universal reference for terminologies, it is recommended that all network laboratories adhere to the following definitions for evidence and examination:

Evidence - Any property of a physical nature that is submitted to the laboratory for analysis or identification.

Examination - The arrival at one positive statement about the evidence from having conducted one or a series of tests.

Laboratory Costs

Of critical importance to the question of the administration and management of a Missouri Crime Laboratory System is that of costs. Between 1975 and 1978, Missouri's crime laboratories expended an approximate total of \$6,085,190.00. Presently, the approximate average annual dollar total for operating all laboratories is \$1,521,298.00. It is important to note that these figures represent non-inflationary dollars and that such costs as rental space, utilities, janitorial, maintenance, etc., are included only within the annual budget of the Independence Laboratory. The contention of this evaluator is that if the State of

Missouri is to assume the responsibility for administering and managing the crime laboratory network, then more representative figures for annual laboratory budgets should be provided. Therefore, for the eleven laboratories where rent, utilities, and other expenses were not provided, the following formula was applied to determine the projected annual budgets indicated in Table I-2, Breakdown of Overall Activities and Funding Averages:

$$\$6.00(x) + \$0.90(x) + \$0.60(x)$$

x = Total laboratory square footage

\$6.00 = Average rental costs per square foot per year in Missouri State Buildings

\$0.90 = Average utilities cost per square foot per year in Missouri State Buildings

\$0.60 = Average janitorial costs per square foot per year in Missouri State Buildings

The results, indicated in Table I-2, reveal that the projected non-inflationary total annual laboratory system costs would be approximately \$1,657,728.00. This figure is inclusive of staff salaries, equipment purchases, limited maintenance, travel, supplies, rental space, and utilities. Further information regarding the comparative analysis of Missouri's crime laboratories may be found by referring to the following tables:

Table I-5 - Average Annual Expenditures Per Laboratory v. Average Cases Received Annually

This table indicates an understandably positive correlation between average costs per laboratory and caseload size.

Table I-6 - Relationship of Average Annual Expenditures and Total FTE to Average Cases Received Annually

This table indicates the degree of correlation between total budgets, staff size, and work output. For the most part, it is clear that all three are directly proportionate; however, there is some concern regarding dollar investment and work output in the Cape Girardeau and the MSHP Troop B Laboratories. High dollar investment in return for comparatively low work output is, as previously mentioned, adverse to cost efficiency and should be regarded as a substantial argument favoring outside control of the laboratory system.

Table I-7 - Comparison of Individual Laboratory Expenditures, Equipment Worth, and FTE

This table offers a simple means by which one laboratory's overall resources might be compared equally to the resources found in other laboratories.

MISSOURI DEPARTMENT OF PUBLIC SAFETY
ADMINISTRATIVE INTERNAL CONSIDERATIONS AND RECOMMENDATIONS

- I. General administrative responsibility has been placed under the Director of Public Safety. The Director should be afforded the discretion to assemble the necessary DPS agency, council, or committee whose immediate responsibility will be that of developing, monitoring, and maintaining the fundamental control of a laboratory network.

Recommendation 1: A staff member of the Department of Public Safety, or one of its agencies, be given the prime staff responsibility of implementing and coordinating the necessary activities to insure compliance with recognized standards. Further, that the staff develop, implement, and coordinate the means by which state funds are requested and disbursed and that services are reported. The procedures and forms used by the Missouri Council on Criminal Justice, Forms MCCJ D-1 and MCCJ PCL-1 are examples of forms that could be used (Attachments I-D and I-E). Both forms should be submitted at the time of draw-down requests.

Recommendation 2: An advisory committee be established to insure proper compliance and coordination. The committee should be composed of a cross-section of laboratory users and laboratory directors. The committee chairman and the aforementioned DPS staff should work closely together and both report to the Director of Public Safety.

- II. General guidelines covering the operation of Missouri's crime laboratories and their relationship to the Department of Public Safety should be established prior to the disbursement of any General Revenue funds.

Recommendation: Assigned DPS coordinator should develop all necessary operational procedures to be implemented upon approval of advisory committee and DPS Director.

III. There will be an on-going need to monitor the fiscal, operational, and administrative functioning of the laboratories to insure proper use of State General Revenue funds.

Recommendation: The assigned DPS coordinator should monitor each laboratory's fiscal, operational, and administrative activities on, at a minimum, a semi-annual basis. All reports should be maintained in the DPS office.

GENERAL CONCLUSION TO
MANAGEMENT MODEL CONSIDERATIONS

The information contained within this volume addresses the very specific components of Missouri's crime laboratories that must be considered when attempting to effect a network of uniform crime laboratories. The recommendations, or ultimate variations thereof, which were provided with respect to each of these areas are critically important to the reasonable implementation of a sound, well-planned, and efficiently productive management model.

TABLE I-1

BREAKDOWN OF MAJOR TYPES
EVIDENCE RECEIVED IN
ALL LABORATORIES
1975-1978

Narcotic and Drug Law Violations	47.92%
Firearms, Toolmarks, Gunshot Residue, and Carrying a Concealed Weapon	9.84%
Burglary and Fingerprints	5.10%
Traffic Accident and Hit & Run	4.30%
Liquor Law Violations	3.66%
Arson	3.44%
Driving While Intoxicated	2.90%
Trace Evidence (Paint, Hair, Fiber, Glass, Metal, Putty, Dust, etc.)	2.58%
Blood, Urine, and Toxicology	2.31%
Homicide and Rape	1.60%
Assault (Aggravated and Common)	1.29%
Death Investigation	1.14%
Larceny	1.05%
Robbery	<u>0.56%</u>
	87.69%

TABLE I-2

BREAKDOWN OF OVERALL ACTIVITIES AND FUNDING AVERAGES

	Average Cases Annually 1975-1978	Average Examinations Annually 1975-1978	Average Annual Mileage 1975-1978	Average Annual Court Appearances 1975-1978	Average Turnaround Time In Days	Total Full Time Employees	Approximate Nonexpendable Equipment Worth	Approximate Expenditures 1975-1978	Approximate Average Annual Expenditures 1975-1978	Projected Complete Annual Operating Expenses	MCCJ Funds Provided 1975-1978
Independence	8,864	24,728	Not Available	232 (Avg Annual Hours)	6.6 1-1-77/ 12-31-78	19	\$155,000	\$1,719,913	\$ 429,978	\$ 429,978	\$ 466,869.00
Springfield	750	Not Available	Not Available	Not Available	17.4 (1977-78)	3	200,000	211,413	52,855	60,203	163,505.00
University of Mo Columbia	225	3,273	Not Available	20	27.8 4-1-78/ 12-31-78	1	200,000	151,181	37,395	51,295	134,380.00
NEMSU Kirksville	81	484	Not Available	Not Available	39.6	0	31,000	Not Calculable	Not Calculable	11,250 (rent, utilities, sanitorial only)	7,500.00
St. Louis County	5,497	33,300	207 (1977-78)	225	30.2 (1977-78)	10	83,000	624,000	156,000	177,547	84,758.00
SEMO Cape Girardeau	752 *	2,181 *	Not Available	33	12.3 (1977-78)	3	250,000	497,081	124,270	136,520	259,734.00
MSSC Joplin	743	2,469	Not Available	57	11.1 (1977-78)	0	94,500	176,570	44,142	55,392	148,569.00
MSHP Central Jefferson City	1,984	55,098	67,200 (1977-78)	195	18.7 (1977-78)	15	341,000	1,075,584	268,896	283,896	199,166.00
MSHP Troop B Macon	78 (10-77/12-78)	657 (10-77/12-78)	2,910 (10-77/12-78)	7 (10-77/12-78)	19.0 (10-77/6-78)	2	50,000	169,264	42,316	46,816	120,016.00
MSHP Troop G Willow Springs	285	4,418	9,318	59	24.5 (1977-78)	2	84,500	60,635	15,159	19,044	4,557.00
MSHP Troop H St. Joseph	329 (1977-78)	3,284 (1977-78)	4,759 (1977-78)	38 (1977-78)	13.3 (1977-78)	3	50,600	183,373	45,843	51,093	98,672.00
St. Louis City	15,957	Not Available	Not Available	455	Not Calculable	22	179,200	1,216,176	304,044	334,644	56,905.00
TOTALS	35,545	129,890	84,394	1,321	20.04	80	\$1,718,800	\$6,085,190	\$1,521,298	\$1,657,728	\$1,744,631.00

* July - December, 1978 figures
not included

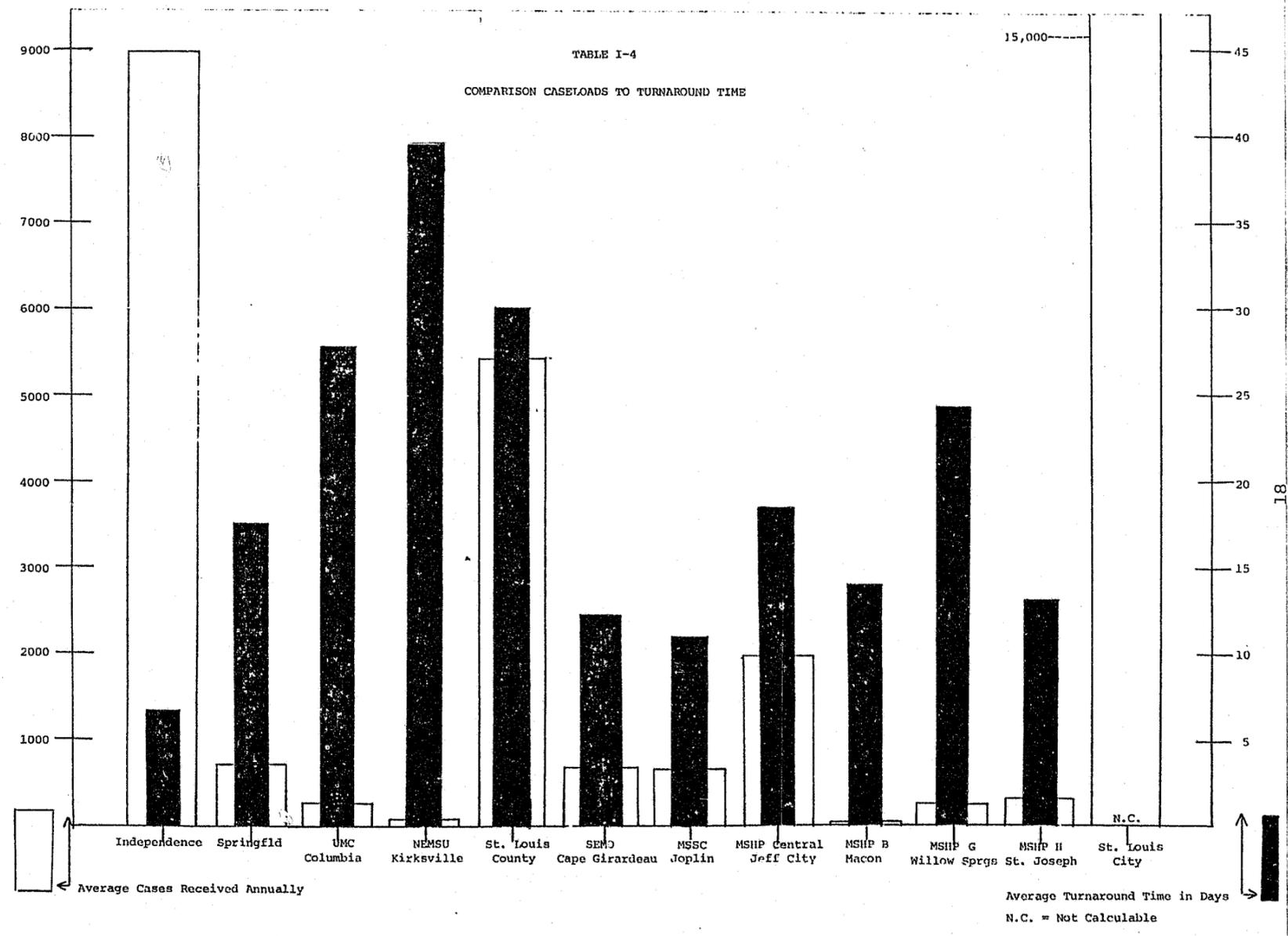
TABLE I-3

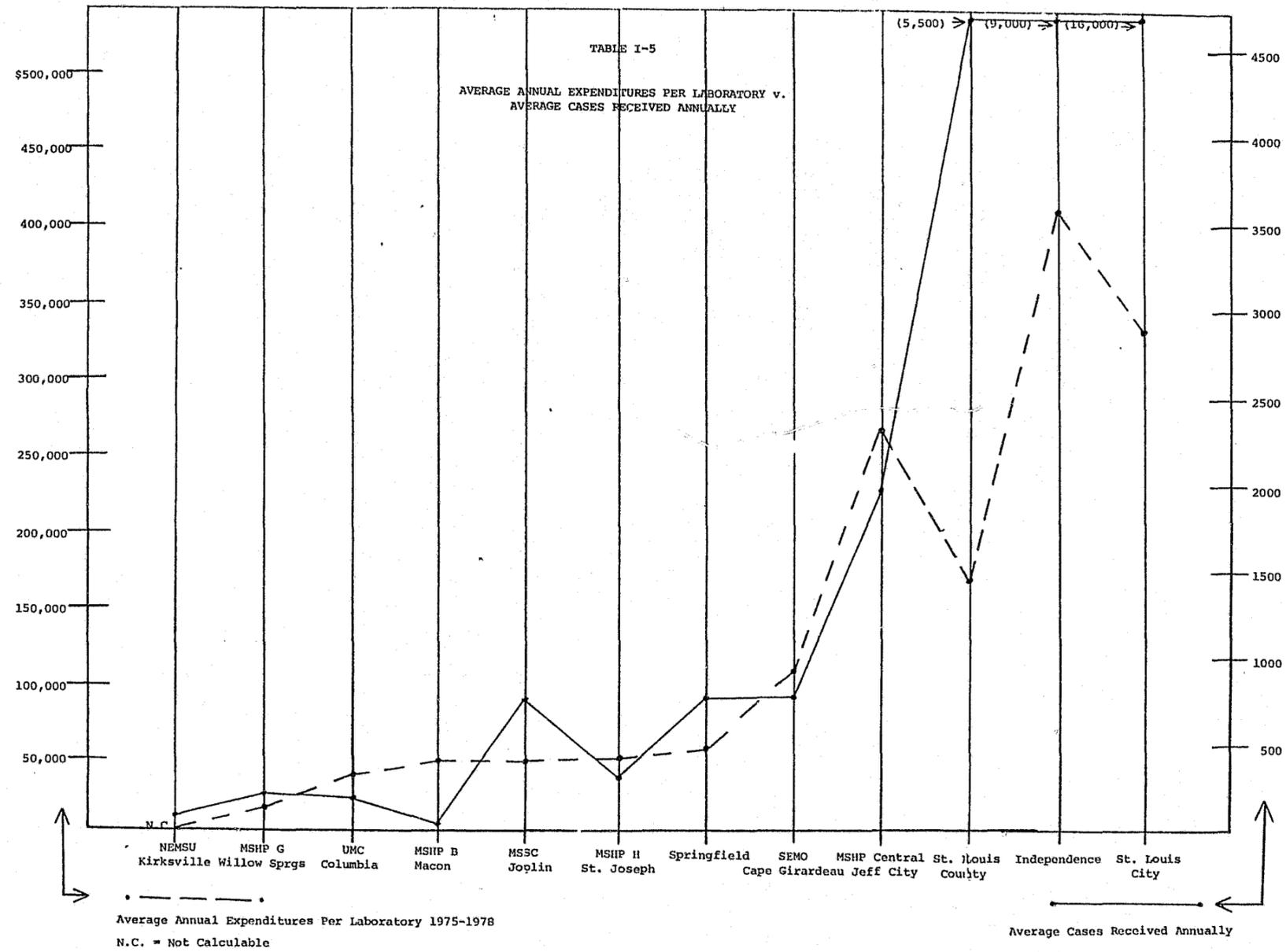
RELATIONSHIP OF ANALYSTS TO
ACTIVITIES VOLUME AND
COST PER CASE

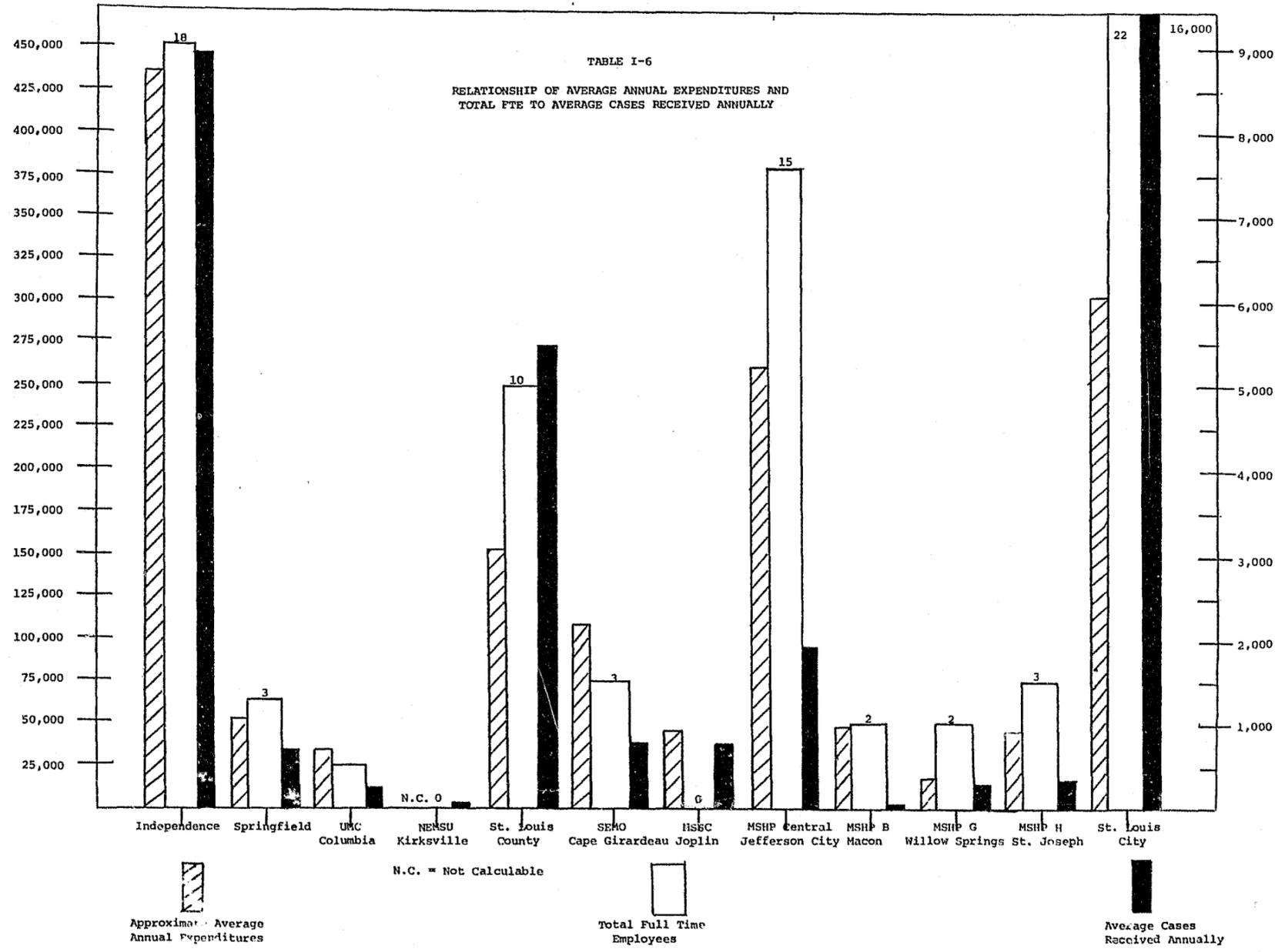
	Total Professional Positions of Analyst	Avg. Annual Cases Per Professional Analyst	Average Cost Per Case Received
Independence	12 FTE	742.08	\$ 52.32
Springfield	2 FTE	375.00	70.47
Univ of Mo-Columbia	1 FTE 1 PTE	112.50	152.25
Kirksville	2 PTE	40.50	N.C.*
St. Louis County	9 FTE	610.77	32.90
SEMO, Cape Girardeau	2 FTE	376.00	145.94
MSSC, Joplin	1 FTE 2 PTE	247.66	60.30
MSHP Central	11 FTE	180.36	135.53
MSHP Troop B	1 FTE	78.00	337.91
MSHP Troop G	1 FTE	285.00	53.18
MSHP Troop H	2 FTE	164.50	127.08
St. Louis City	13 FTE 1 PTE	1,139.00	18.66
AVERAGE TOTALS	5	362.61	\$107.86
		292.00 Excluding St. Louis City	\$ 86.08 Less MSHP Troop B

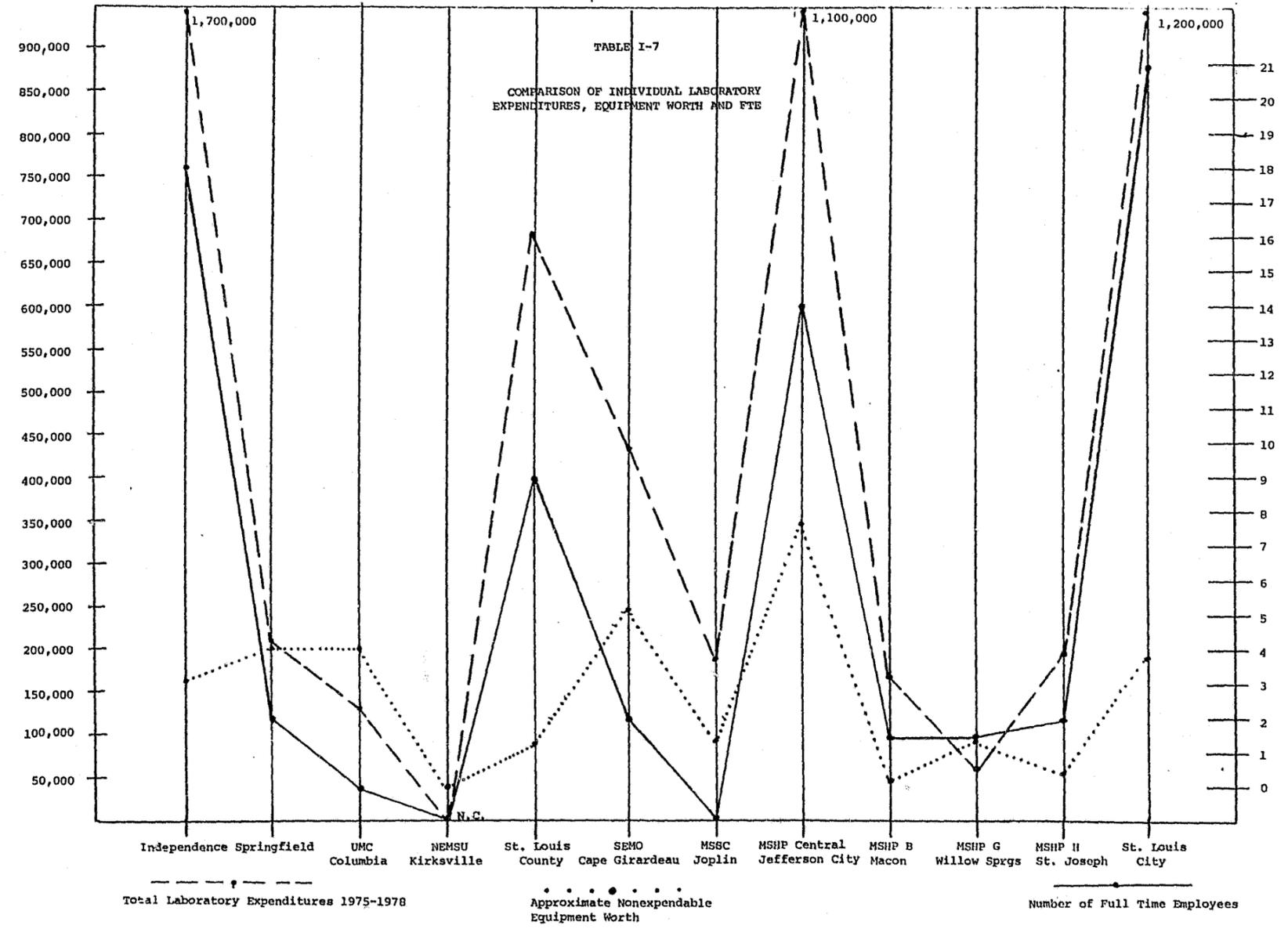
FTE = Full Time Equivalent
PTE = Part Time Equivalent

*N.C. = Not Calculable









N.C. = Not Calculable

FIRST REGULAR SESSION
SENATE BILL NO. 202
80TH GENERAL ASSEMBLY

INTRODUCED BY SENATORS BRADSHAW, DENNIS, AND MERRELL.
Pre-filed December 1, 1978, and 1,000 copies ordered printed.
VINITA E. RAMSEY, Secretary.

AN ACT
Relating to Missouri crime laboratories.

Be it enacted by the General Assembly of the State of Missouri, as follows:

Section 1. The following words shall have the following meanings unless a different meaning clearly appears from the context:

(1) "Crime Laboratories" means those crime laboratories established to serve given regions of the state as determined by the Department of Public Safety.

(2) "Department" means the Missouri Department of Public Safety;

(3) "Local funds" means any funds not provided by the federal government.

Section 2. There is hereby created the "Missouri Crime Laboratory Assistance Program" within the Department of Public Safety. The purpose of this program is to provide state finan-

ATTACHMENT I-A

S. B. 202

2

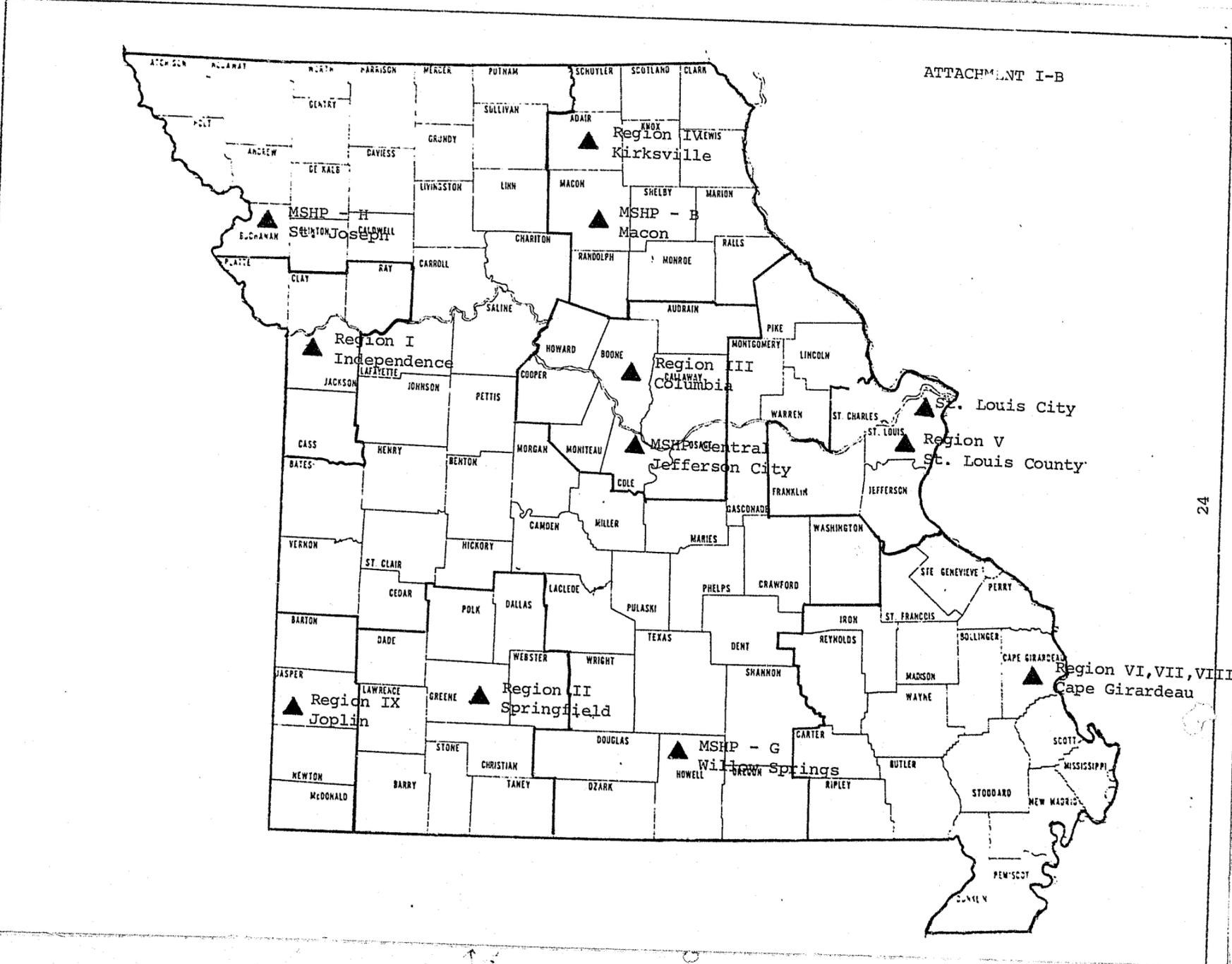
4 cial assistance to defray all or part of the operational costs in-
5 curred by crime laboratories.

Section 3. Funds for this program shall be appropriated
2 to the Department.

Section 4. Distribution of these state funds shall be by con-
2 tractual arrangement between the Department and each respec-
3 tive laboratory providing the service. Terms of the contract
4 shall be negotiable each year. The state auditor shall audit from
5 time to time all crime laboratories receiving state funds.

Section 5. Nothing in this act shall prohibit any crime
2 laboratory from receiving federal or local funds should such
3 funds become available.

✓



ATTACHMENT I-C

CRIME LABORATORY USERS INDEX

Collected from laboratory records, this list indicates the agencies that each laboratory has served.

AGENCY	Independence	UMC Columbia	St. Louis County	SEMO Cape Girardeau	Springfield	MSSC Joplin	St. Louis City	NEMSU Kirksville	MSHP Central Jefferson City	MSHP Troop B Macon	MSHP Troop G Willow Springs	MSHP Troop H St. Joseph
Adair Co Coroner							F			X		
Adair Co Sheriff							H	X				
Advance P.D.				X			G					
Air Force Intelligence			X				D					
Albany P.D.							R					X
Alcohol Safety Action	X						E					
Altamont, KS, P.D.						X	S					
Amazonia City P.D.							N					X
Anderson P.D.						X	O					
Andrew Co Sheriff	X						H					
Annapolis P.D.				X			P					
Arnold P.D.		X					R					
Ash Grove P.D.					X		O					
Ashland P.D.		X					V					
Atchison Co Sheriff							H					X
Audrain Co Coroner		X					D					
Aurora P.D.					X	X	E					
Auxvasse P.D.							D			X		
Ava P.D.									X		X	
Avondale P.D.	X											
Barry Co Bd of P & P					X							
Barry Co Sheriff					X							
Barton Co Sheriff						X						
Bates Co Sheriff						X						
Baxter Sprgs, KS, P.D.						X						
Belton P.D.	X											
Berkley P.D.		X										

ATTACHMENT I-C

CRIME LABORATORY USERS INDEX

Collected from laboratory records, this list indicates the agencies that each laboratory has served.

AGENCY	Independence	UMC Columbia	St. Louis County	SEMO Cape Girardeau	Springfield	MSSC Joplin	St. Louis City	NEMSU Kirksville	MSHP Central Jefferson City	MSHP Troop B Macon	MSHP Troop G Willow Springs	MSHP Troop H St. Joseph
Bernie P.D.				X			F					
Bethany P.D.							H		X			
Bismarck P.D.				X			G					
Blue Springs P.D.	X						U					
Bolivar P.D.					X		R					
Bollinger Co Coroner				X			E					
Bollinger Co Sheriff				X			S					
Boone Co Pros Atty		X					N					
Ponne Terre P.C.				X			O					
Boonville P.D.		X					H					
Bourbon Co, KS, Sheriff						X	P					
Bourbon P.D.							R		X		X	
Breckenridge Hills P.D.		X					O					
Bridgeton P.D.		X					V					
Brookfield P.D.							H		X	X		
Buchanan Co Sheriff	X						D					X
Buckner P.D.	X						E					
Buffalo P.D.					X							
Butler Co Coroner				X								
Butler Co Sheriff		X		X								
Butler P.D.	X					X			X			
Cabool P.D.											X	
Caldwell Co Sheriff	X											X
California P.D.									X			
Callaway Co Sheriff		X										
Camden Co Sheriff		X										
Camdenton P.D.									X			

ATTACHMENT I-C

CRIME LABORATORY USERS INDEX

Collected from laboratory records, this list indicates the agencies that each laboratory has served.

AGENCY	Independence	UMC Columbia	St. Louis County	SEMO Cape Girardeau	Springfield	MSSC Joplin	St. Louis City	NEMSU Kirksville	MSHP Central Jefferson City	MSHP Troop B Macon	MSHP Troop G Willow Springs	MSHP Troop H St. Joseph
Cameron P.D.							F					x
Campbell P.D.				x			H					
Cape Girardeau Co Coroner				x			G					
Cape Girardeau Co Sheriff				x			D					
Cape Girardeau Juv Off				x			R					
Cape Girardeau P.D.		x		x			E					
Carl Junction P.D.						x	S					
Carroll Co Sheriff	x						N					
Carter Co Coroner							O				x	
Carter Co Sheriff							H				x	
Cartersville P.D.						x	P		x		x	
Carthage P.D.						x	R					
Caruthersville P.D.				x			O					
Cass Co Sheriff	x						V					
Cassville P.D.					x	x	H					
Cedar Co Coroner							D				x	
Cedar Co Sheriff					x	x	E					
Center P.D.			x				D					
Centralia P.D.		x										
Chaffee P.D.				x								
Chariton Co Coroner										x		
Chariton Co Sheriff										x		
Charleston P.D.				x								
Cherokee Co, KS, Coroner						x						
Cherokee Co, KS, Sheriff						x						
Chetopa, KS, P.D.						x						
Chillicothe P.D.						x			x			x

ATTACHMENT I-C

CRIME LABORATORY USERS INDEX

Collected from laboratory records, this list indicates the agencies that each laboratory has served.

AGENCY	Independence	UMC Columbia	St. Louis County	SEMO Cape Girardeau	Springfield	MSSC Joplin	St. Louis City	NEMSU Kirksville	MSHP Central Jefferson City	MSHP Troop B Macon	MSHP Troop G Willow Springs	MSHP Troop H St. Joseph
Christian Co Sheriff					x	x	F					
Clarence P.D.							H			x		
Clark Co Coroner							G				x	
Clay Co Invest Squad	x						U					
Clay Co Juv Ct	x						R					
Clay Co Med Examiner	x						E					
Claycomo P.D.	x						S					
Clay Co Pros Atty	x						N					
Clay Co Sheriff	x						O					
Clayton Fire Marshal			x				H					
Clever P.D.					x		P					
Clinton Co Sheriff	x						R					
Cole Co Sheriff		x					O					x
Columbia P.D.		x				x	V		x			
Columbus, KS, P.D.							H					
Commerce, OK, P.D.							I					
Concordia P.D.	x						D					
Cooper Co Pros Atty		x								x		
Crawford Co Cir Ct											x	
Crawford Co, KS, Sheriff												
Dade Co Sheriff					x	x						
Dallas Co Sheriff					x	x						
Daviess Co Sheriff	x											x
DEA No Central Lab		x										
DEA SW Reg Lab		x										
DeKalb Co Sheriff	x											x
Dent Co Sheriff									x			

ATTACHMENT I-C

CRIME LABORATORY USERS INDEX

Collected from laboratory records, this list indicates the agencies that each laboratory has served.

AGENCY	Independence	UMC Columbia	St. Louis County	SEMO Cape Girardeau	Springfield	MSSC Joplin	St. Louis City	NEMSU Kirksville	MSPH Central Jefferson City	MSPH Troop B Macon	MSPH Troop G Willow Springs	MSPH Troop H St. Joseph
De Soto P.D.							F		X			
Dexter P.D.		X					H					
Diamond P.D.						X	G					
Springfield Medical Lab					X		D					
Dr. Quinn-Butler					X		K					
Douglas Co Coroner							E					
Douglas Co Sheriff							S				X	
D exel P.D.	X						N		X		X	
Drug Enf Admin	X		X				O				X	
Drug Enf Admin-Task Force	X						H				X	
Drenweg P.D.						X	P					
Dunklin Co Coroner				X			R					
Dunklin Co Sheriff				X			O					
East Prairie P.D.				X			V					
Eldon P.D.							I		X			
Eldorado Springs P.D.					X	X	D					
Ellington P.D.							E		X		X	
Elsberry P.D.							D		X			
Elvins P.D.				X			E					
Eric, KS, P.D.						X	D					
Excelsior Springs P.D.	X											
Farmington P.D.				X								
Fayette P.D.									X			
F.B.I.	X											
Federal Prison System	X											
Fenton P.D.									X			
Fire Departments									X			

ATTACHMENT I-C

CRIME LABORATORY USERS INDEX

Collected from laboratory records, this list indicates the agencies that each laboratory has served.

AGENCY	Independence	UMC Columbia	St. Louis County	SEMO Cape Girardeau	Springfield	MSSC Joplin	St. Louis City	NEMSU Kirksville	MSPH Central Jefferson City	MSPH Troop B Macon	MSPH Troop G Willow Springs	MSPH Troop H St. Joseph
Flat River P.D.				X			F		X			
Florissant P.D.		X					H					
Florissant Valley Coll			X				G					
Fordland Honor Camp					X		U					
Ft. Leavenworth, KS	X						H					
Ft. Scott, KS, Fire Dept						X	E					
Ft. Scott, KS, P.D.						X	S					
Franklin Co Sheriff		X	X				N					
Franklin P.D.			X				O					
Fredricktown P.D.				X			H					
Freedonia, KS, P.D.						X	P					
Fulton P.D.		X					R					
Galena, KS, P.D.						X	O					
Gallatin P.D.							V					X
Garden City P.D.	X						H					
Gentry Co Sheriff							D		X			X
Gerald P.D.							E			X		
Girard, KS, P.D.						X	D					
Gladstone P.D.	X						E					
Golden City P.D.						X	D					
Goodman P.D.						X						
Grandview P.D.	X											
Green City P.D.									X			
Greene Co Coroner											X	
Greene Co Sheriff	X	X			X	X					X	
Greenfield P.D.					X							
Greenwood P.D.	X											

ATTACHMENT I-C

CRIME LABORATORY USERS INDEX

Collected from laboratory records, this list indicates the agencies that each laboratory has served.

AGENCY	Independence	UMC Columbia	St. Louis County	SEMO Cape Girardeau	Springfield	MSSC Joplin	St. Louis City	NEMSU Kirkville	MSHP Central Jefferson City	MSHP Troop B Macon	Willow Springs MSHP Troop G	MSHP Troop H St. Joseph
Grundy Co Sheriff	x						F					x
Hannibal Juv Office							H			x		
Hannibal P.D.							G	x	x	x		
Harrison Co Sheriff							U					x
Harrisonville P.D.	x						R					
Hartville P.D.							E					
Hayti P.D.				x			S					
Hermann P.D.							N		x			
Hickory Co Sheriff					x		O				x	
Hillsboro P.D.							F		x			
Holden P.D.							R		x			
Holt Co Sheriff	x						O					x
Houston P.D.							V		x		x	
Howard Co Sheriff		x					H					
Howell Co Coroner							E				x	
Howell Co Juv Office							D				x	
Howell Co Prob/Parole							E				x	
Howell Co Sheriff							D		x		x	
Huntsville P.D.								x	x			
Illmo P.D.				x								
Independence P.D.	x	x										
Internal Revenue Serv	x											
Iron Co Coroner				x								
Iron Co Sheriff		x		x								
Ironton P.D.				x								
Jackson Co Jail	x											
Jackson Co Juv Court	x											

ATTACHMENT I-C

CRIME LABORATORY USERS INDEX

Collected from laboratory records, this list indicates the agencies that each laboratory has served.

AGENCY	Independence	UMC Columbia	St. Louis County	SEMO Cape Girardeau	Springfield	MSSC Joplin	St. Louis City	NEMSU Kirkville	MSHP Central Jefferson City	MSHP Troop B Macon	Willow Springs MSHP Troop G	MSHP Troop H St. Joseph
Jackson Co Med Exam	x						F					
Jackson Co Prosecutor	x						H					
Jackson Co Public Def	x						G					
Jackson Co Sheriff	x	x					U					
Jackson P.D.				x			R					
Jasper Co Coroner						x	E					
Jasper Co Juv Office						x	S					
Jasper Co Prosecutor						x	N					
Jasper Co Sheriff						x	O					
Jasper P.D.						x	F					
Jefferson City P.D.		x					R					
Jefferson Co Sheriff			x				O		x			
Johnson Co City/Co Inves	x						V					
Johnson Co, KS, Sheriff	x						H					
Johnson Co Sheriff	x						I					
Joplin Health Dept						x	D					
Joplin Juv Ct						x	E					
Joplin P.D.						x	D					
Joplin Water Works						x						
Junction, KS, P.D.						x						
Juvenile Offices									x			x
K.C. Correc Inst	x											
K.C. Fire Dept	x											
K.C., KS, P.D.	x											
K.C. Liquor Control	x											
K.C., MO, P.D.	x											
Kansas Highway Patrol	x					x						

ATTACHMENT I-C

CRIME LABORATORY USERS INDEX

Collected from laboratory records, this list indicates the agencies that each laboratory has served.

AGENCY	Independence	UMC Columbia	St. Louis County	SEMO Cape Girardeau	Springfield	MSSC Joplin	St. Louis City	NEMSU Kirksville	MSHP Central Jefferson City	MSHP Troop B Macon	MSHP Troop G Willow Springs	MSHP Troop H St. Joseph
Kearney P.D.	x						E H					
Kennett P.D.			x				H G		x			
Keytesville P.D.							D R	x				
Kickapoo Juv Office					x		E S					
Kirksville P.D.							S	x	x	x		
Knox Co Sheriff							N	x		x		
LaBette Co, KS, Sheriff						x	O H					
Laclede Co Sheriff		x			x		H					
Ladue P.D.							P R		x			
Lafayette Co Sheriff	x						O V					
Lake Lotawana P.D.	x						H D		x			
Lake Ozark P.D.							D E					
Lake Lapawingo P.D.	x						D					
Lake Waukomis P.D.	x											
Lake Winnebago P.D.	x											
Lamar P.D.						x			x			
LaPlata P.D.										x		
Lathrop P.D.												x
Lawrence Co Prosecutor						x						
Lawrence Co Sheriff					x	x						
Lawrence, KS, P.D.	x											
Leadwood P.D.				x								
Lebanon P.D.									x			
Lee's Summit P.D.	x	x										
Lenexa, KS, P.D.	x											
Liberal P.D.						x						
Liberty P.D.	x											

ATTACHMENT I-C

CRIME LABORATORY USERS INDEX

Collected from laboratory records, this list indicates the agencies that each laboratory has served.

AGENCY	Independence	UMC Columbia	St. Louis County	SEMO Cape Girardeau	Springfield	MSSC Joplin	St. Louis City	NEMSU Kirksville	MSHP Central Jefferson City	MSHP Troop B Macon	MSHP Troop G Willow Springs	MSHP Troop H St. Joseph
Licking P.D.							E H		x		x	
Lincoln Univ, Jeff City							H G		x			
Linn Co Coroner							D R			x		
Linn P.D.							E S		x			
Livingston Co Sheriff							S					x
Louisiana P.D.							N		x			
Lowry City P.D.						x	O H					
Macon Co Coroner										x		
Macon Co Juv Office							P R			x		
Macon P.D.							O V	x	x	x		
Madison Co Sheriff				x			H D					
Malden P.D.				x			D E					
Mansfield P.D.									x		x	
Maries Co Coroner												x
Maries Co Juv Office												x
Marion Co Sheriff								x		x		
Marshall P.D.	x	x							x			
Marshfield P.D.					x							
Maryville P.D.									x			x
McDonald Co Coroner						x						
McDonald Co Sheriff						x						
Mercer Co Sheriff												x
Metro Drug Squad	x											
Metro Squad	x											
Mexico Dept of Pub Safety		x							x	x		
Miami Co, KS, Sheriff	x											
Miller Co Sheriff		x										

ATTACHMENT I-C

CRIME LABORATORY USERS INDEX

Collected from laboratory records, this list indicates the agencies that each laboratory has served.

AGENCY	Independence	UMC Columbia	St. Louis County	SEMO Cape Girardeau	Springfield	MSSC Joplin	St. Louis City	NEMSU Kirksville	MSHP Central Jefferson City	MSHP Troop B Macon	MSHP Troop G Willow Springs	MSHP Troop H St. Joseph
Miner P.D.				x			F H					
Mississippi Co Coroner				x			H G					
Mississippi Co Sheriff		x		x			D R					
Missouri Atty General							E S		x			
Mo Boat Patrol					x		S					
Mo Bureau of Narcotics & Dangerous Drugs							N		x			
Mo Conservation Dept	x			x			O P		x			x
Mo Dept of Revenue							P		x			
Mo Div of Corrections					x		R O		x			
Mo Div of Family Serv							V H		x			
Mo Div of Health							I D		x			
Mo Div of Insurance							E D		x			
Mo Div of Liquor Control	x			x	x	x					x	x
MSSC Security						x						
Mo State Fire Marshal	x		x	x		x			x	x	x	x
MSHP-GHQ		x							x			
MSHP Troop A	x								x			
MSHP Troop B		x						x	x			
MSHP Troop C		x	x						x			
MSHP Troop D		x			x	x			x		x	
MSHP Troop E		x	x						x		x	
MSHP Troop F		x							x			
MSHP Troop G		x							x		x	
MSHP Troop H									x			
MSHP Troop I		x							x		x	
Mo State Prob/Parole	x			x	x	x			x	x		
Mo State Water Patrol			x						x		x	

ATTACHMENT I-C

CRIME LABORATORY USERS INDEX

Collected from laboratory records, this list indicates the agencies that each laboratory has served.

AGENCY	Independence	UMC Columbia	St. Louis County	SEMO Cape Girardeau	Springfield	MSSC Joplin	St. Louis City	NEMSU Kirksville	MSHP Central Jefferson City	MSHP Troop B Macon	MSHP Troop G Willow Springs	MSHP Troop H St. Joseph
Mo Western College Security							F H					x
Moberly P.D.							H G	x	x	x		
Monett P.D.		x				x	D R					
Monroe City P.D.							E S		x	x		
Monroe Co Sheriff							S			x		
Montgomery City P.D.							N		x			
Montgomery Co Sheriff		x					O P					
Mountain Grove P.D.							P		x		x	
Mountain View P.D.							R O		x		x	
Mt. Vernon P.D.						x	V H					
National Park Service				x			I D					
Naval Intelligence			x				E D					
NEMSU Safety & Security								x				
Neosho P.D.						x			x			
Nevada P.D.						x						
Newburg P.D.									x		x	
New Madrid Co Coroner				x								
New Madrid Co Sheriff				x								
New Madrid P.D.				x								
Newton Co Coroner						x						
Newton Co Juv Officer						x						
Newton Co Sheriff						x						
Nixa P.D.					x							
Nodaway Co Sheriff	x											x
Noel P.D.						x						
North K.C. P.D.	x											
Northmoor P.D.	x											

ATTACHMENT I-C

CRIME LABORATORY USERS INDEX

Collected from laboratory records, this list indicates the agencies that each laboratory has served.

AGENCY	Independence	UMC Columbia	St. Louis County	SEMO Cape Girardeau	Springfield	MSSC Joplin	St. Louis City	NEMSU Kirksville	MSPH Central Jefferson City	Macon	MSPH Troop B	MSPH Troop G Willow Springs	St. Joseph	MSPH Troop H
Odessa P.D.	x						F							
Oran P.D.				x			H							
Oregon Co Coroner							G					x		
Oregon Co Sheriff							D		x			x		
Oronogo P.D.						x	K							
Osage Beach P.D.							E							
Osage Bend P.D.		x					S							
Osteopathic Hosp (Ind)	x						N		x					
Owego, KS, P.D.						x	O							
Overland Park, KS, P.D.	x						H							
Overland P.D.		x					P							
Ozark Co Coroner							R					x		
Ozark Co Pros Atty							O					x		
Ozark Co Sheriff							V		x		x			
Ozark Nat'l Scenic Waterways							H					x		
Ozark P.D.					x		D							
Pacific P.D.							E		x					
Palmyra P.D.							D	x	x	x				
Parkville P.D.	x						E							
Parma P.D.				x			D							
Parsons, KS, P.D.						x								
Pemiscot Co Sheriff				x										
Perry Co Sheriff				x										
Perry P.D.										x				
Perryville P.D.				x										
Pettis Co Sheriff	x				x									
Phelps Co Juv Off												x		

ATTACHMENT I-C

CRIME LABORATORY USERS INDEX

Collected from laboratory records, this list indicates the agencies that each laboratory has served.

AGENCY	Independence	UMC Columbia	St. Louis County	SEMO Cape Girardeau	Springfield	MSSC Joplin	St. Louis City	NEMSU Kirksville	MSPH Central Jefferson City	Macon	MSPH Troop B	MSPH Troop G Willow Springs	St. Joseph	MSPH Troop H
Phelps Co Memorial Hosp		x					F							
Phelps Co Pub Defender							H		x					
Phelps Co Sheriff							D		x			x		
Piedmont P.D.				x			R							
Pittsburg, KS, P.D.						x	E							
Platte City P.D.	x						S							
Platte Co Juv Ct	x						N							
Platte Co Sheriff	x						O							
Platte Woods P.D.	x						H							
Pleasant Hill P.D.	x						P							
Pleasant Valley P.D.	x						R							
Polk Co Sheriff					x		O							
Poplar Bluff P.D.		x		x			V							
Portageville P.D.				x			H							
Potosi P.D.							D							
Prairie Village, KS, P.D.							E							
Princeton P.D.									x					
Private Atty-Hannibal								x						
Private Atty-Keytesville								x						
Private Police Agency	x													
Public Defender	x													
Pulaski Co Sheriff		x												
Putnam Co Sheriff											x			
Quincy P.D.				x										
Randolph Co Coroner											x			
Randolph Co P.D.								x						
Ray Co Sheriff	x													

ATTACHMENT I-C

CRIME LABORATORY USERS INDEX

Collected from laboratory records, this list indicates the agencies that each laboratory has served.

AGENCY	Independence	UMC Columbia	St. Louis County	SEMO Cape Girardeau	Springfield	MSSC Joplin	St. Louis City	NEMSU Kirksville	MSHP Central Jefferson City	MSHP Troop B Macon	MSHP Troop G Willow Springs	MSHP Troop H St. Joseph
Raymore P.D.	x						F					
Raytown P.D.	x						H					
Region I Crime Lab		x					G					
Region II Lab					x	x	D				x	
Region III Narcotics					x		R					
Reg Cntr Criminal Just	x						E					
Republic P.D.					x		S					
Reynolds Co Sheriff				x			N				x	
Richland P.D.							O		x			
Richmond P.D.	x						H					
Ripley Co Coroner				x			P					
Ripley Co Sheriff				x			R					
Riverside P.D.	x	x					O					
Rock Hill P.D.		x					V					
Rolla P.D.							H		x	x		
St. Charles Co Sheriff		x					D					
St. Charles P.D.						x	E					
St. Charles Co Sheriff			x				D					
St. Clair P.D.			x									
Ste Genevieve Co Sheriff				x								
Ste Genevieve P.D.				x								
St. Francois Co Coroner				x								
St. Francois Co Sheriff				x								
St. James P.D.									x			
St. John's Hosp Security					x							
St. Joseph Fire Dept												x
St. Joseph P.D.	x	x							x			x

ATTACHMENT I-C

CRIME LABORATORY USERS INDEX

Collected from laboratory records, this list indicates the agencies that each laboratory has served.

AGENCY	Independence	UMC Columbia	St. Louis County	SEMO Cape Girardeau	Springfield	MSSC Joplin	St. Louis City	NEMSU Kirksville	MSHP Central Jefferson City	MSHP Troop B Macon	MSHP Troop G Willow Springs	MSHP Troop H St. Joseph
St. Louis City P.D.		x					F					
St. Louis Co Fire Marshal			x				H					
St. Louis Co P.D.		x	x		x		G					
St. Peters P.D.							U					
St. Robert P.D.		x			x		R		x			
Salem P.D.							S		x		x	
Saline Co Sheriff	x						N		x		x	
Sarcoxie P.D.						x	O					
Schuyler Co Sheriff							H					
Scott City P.D.				x			P	x				
Scott Co Coroner				x			R					
Scott Co Sheriff				x			O					
Secret Service	x						V					
Sedalia P.D.	x				x		H					
Sedgewick Co, KS, Sheriff						x	D					
Seneca P.D.						x			x			
Seymour P.D.					x							
Shannon Co Pros Atty												x
Shannon Co Sheriff									x		x	
Shawnee, KS, P.D.	x											
Shelby Co Coroner										x		
Shelby Co Sheriff								x				
Sikeston P.D.				x					x			
Smithville P.D.	x											
SEMO Lab		x										
SEMO Univ Sec				x								
SMSU Security					x							

ATTACHMENT I-C

CRIME LABORATORY USERS INDEX

Collected from laboratory records, this list indicates the agencies that each laboratory has served.

AGENCY	Independence	UMC Columbia	St. Louis County	SEMO Cape Girardeau	Springfield	MSSC Joplin	St. Louis City	NEMSU Kirksville	MSHP Central Jefferson City	MSHP Troop B Macon	MSHP Troop G Willow Springs	MSHP Troop H St. Joseph
Sparta P.D.					x		F					
Springfield City Law Dept					x		H					
Springfield Fire Dept					x		G					
Springfield P.D.					x		D		x			
Springfield Pub Schools					x		U					
Stanberry P.D.							R		x			x
Steele P.D.				x			S					
Stewartsville P.D.							N					x
Stockton P.D.					x		O					
Stoddard Co Coroner				x			H					
Stoddard Co Sheriff				x			P					
Stone Co Sheriff					x		R					
Sugar Creek P.D.	x						O					
Sullivan Co Sheriff							V	x				
Sullivan P.D.		x					H					
Taney Co Sheriff					x	x	I					
TASC	x						D					
Texas Co Coroner							E				x	
Texas Co Sheriff					x		D		x	x		
Thayer P.D.							B				x	
Trenton P.D.									x	x		x
Tri-Co Health Facility					x							
Troy P.D.			x						x			
Union P.D.		x							x			
U.S. Air Force	x											
USAF-Richard Gebaur	x											
US Bureau of Alcohol, Tobacco & Firearms	x											

ATTACHMENT I-C

CRIME LABORATORY USERS INDEX

Collected from laboratory records, this list indicates the agencies that each laboratory has served.

AGENCY	Independence	UMC Columbia	St. Louis County	SEMO Cape Girardeau	Springfield	MSSC Joplin	St. Louis City	NEMSU Kirksville	MSHP Central Jefferson City	MSHP Troop B Macon	MSHP Troop G Willow Springs	MSHP Troop H St. Joseph
U.S. Civil Service	x						F					
U.S. Coast Guard	x						H					
U.S. Court	x						G					
U.S. Federal Med Cntr					x		D					
U.S. Marines	x						R					
U.S. Navy	x						S					
U.S. Penitentiary Leavenworth, KS	x						N					
U.S. Postal Inspectors				x	x		O		x			
U S. Treasury	x						F					
University City P.D.		x					P					
Univ of Mo-Columbia		x					R					
UMSI-Security				x			O					
Vernon Co Sheriff						x	V					
Versailles P.D.							H		x			
Viburnum P.D.				x			I					
Warrensburg P.D.							D			x		
Washington P.D.				x			E			x		
Washington Univ Security				x			D					
Wayne Co Coroner				x								
Wayne Co Sheriff				x								
Waynesville P.D.									x		x	
Weatherby Lake P.D.	x											
Webb City P.D.										x		
Webster Co Sheriff					x							
Webster Groves P.D.		x										
Wellsville P.D.									x			
Western Mo Mental Health	x											

MCCJ D-1

**MISSOURI COUNCIL ON CRIMINAL JUSTICE
FISCAL REPORT AND REQUEST FOR FUNDS**

Instructions on reverse side of form

SECTION I

(1) Project No.: _____ (2) Grant Award: \$ _____ (3) Funding Ratio: Fed _____ % Local _____ %
 (4) Project Title: _____ (5) Subgrantee: _____
 (6) Grant Period: From _____ To _____ (7) Report Quarter Ending: _____ (8) Final Report _____

SECTION II

Budget Category	(9) Approved Budget		(10) Period Expenditures		(11) Cumulative Expenditures		(12) Obligations	
	Federal	Non-Federal	Federal	Non-Federal	Federal	Non-Federal	Federal	Non-Federal
a. Personnel								
b. Travel								
c. Equipment								
d. Supplies								
e. Contractual								
f. Construction								
g. Other Costs								
h. TOTALS								

* Fringe Benefits Only

SECTION III

(13) Status of Federal Funds (cumulative):
 a. Federal Funds Received _____
 b. Less: Fed. Funds Expended _____
 c. Cash on Hand _____

SECTION IV

(14) Request for Funds:
 a. Month: _____
 b. Amount: _____
 Total Requested _____
 Justify any extraordinary request _____

(15) SECTION V

 Date (Signature of Authorized Official) (Signature of Regional Director) (Date)

Original MCCJ (Fiscal Office—Subgrantee Report) Green MCCJ (Fiscal Office—Requisition) Pink Regional Office Copy
 Blue MCCJ (Fiscal Office—Drawdown) Yellow MCCJ (Grants Office—File) Goldenrod Subgrantee File Copy

44

ATTACHMENT I-D

Date of Report --

Criminalistics Laboratory Statistical Card

Instructions on back of this sheet

A. Crime Laboratory Name:

B. Calendar Year: -- to --

C. Number of agencies served during calendar year:

1. Prosecuting Attorneys	<input type="text"/>	4. Mo. State Highway Patrol	<input type="text"/>
2. Police Departments	<input type="text"/>	5. Coroners	<input type="text"/>
3. Sheriffs Departments	<input type="text"/>	6. Other	<input type="text"/>

D. Number of cases not yet processed and pending from previous calendar year

E. Number of cases in process from previous calendar year

F. Number of new cases received during calendar year

G. Total number of cases processed during calendar year

H. Total number of cases not yet processed and carried forward to the next calendar year

I. Total number of cases in process and carried forward to the next calendar year

J. Total number of court appearances during calendar year

K. Total number of miles driven during calendar year

L. Total number of full-time professional positions in laboratory

M. Total number of part-time professional positions in laboratory

N. Total number of full-time support positions in laboratory

O. Total laboratory operating budget

P. Total number of cases processed by category during calendar year:

I. Part I Offenses:

1. Criminal Homicide	<input type="text"/>	8. Weapons, carrying, possession	<input type="text"/>
2. Forcible Rape	<input type="text"/>	9. Prostitution and commercialized vice	<input type="text"/>
3. Robbery	<input type="text"/>	10. Sex Offenses	<input type="text"/>
4. Aggravated Assault	<input type="text"/>	11. Narcotics Drug Laws	<input type="text"/>
5. Burglary-breaking or entering	<input type="text"/>	12. Gambling	<input type="text"/>
6. Larceny-Theft	<input type="text"/>	13. Offenses Against Family and Children	<input type="text"/>
7. Motor Vehicle Theft	<input type="text"/>	14. Driving Under the Influence	<input type="text"/>

II. Part II Offenses:

1. Other Assaults (simple)	<input type="text"/>	15. Liquor Laws	<input type="text"/>
2. Arson	<input type="text"/>	16. Drunkenness	<input type="text"/>
3. Forgery and Counterfeiting	<input type="text"/>	17. Disorderly Conduct	<input type="text"/>
4. Fraud	<input type="text"/>	18. Vagrancy	<input type="text"/>
5. Embezzlement	<input type="text"/>	19. All other offenses	<input type="text"/>
6. Stolen property, buying, receiving	<input type="text"/>	20. Suspicion	<input type="text"/>
7. Vandalism	<input type="text"/>	21. Curfew, Loitering, Runaway	<input type="text"/>

III. All Other Cases

TOTAL CASES

VOLUME II

ACADEMIC APPROACH AND RECOGNIZED STANDARDS APPLIED IN THE STUDY

Introduction

Contained within Chapter One of this volume are the basic academic considerations of study hypotheses, study limitations, basic assumptions, data collection procedures, and procedures for treating the data.

Chapter Two contains a discussion of the recognized laboratory standards considered in this study and accompanying recommendations and conclusions.

CHAPTER I

Hypotheses

The basic hypotheses of this study are as follows:

1. Missouri's crime laboratories are functionally void of both in-house and overall uniform procedures for laboratory organization, management, administration, and operation.
2. Missouri's crime laboratories are presently not capable of reacting uniformly to new and/or increasing demands upon manpower, instrumentation, and facilities by user agencies or the ever-developing technical methodologies of forensics analysis.
3. The needs for, and the comprehensiveness of services requested or required by user agencies in certain geographic areas of the state do not necessarily correlate with the capabilities and evidence analysis services offered by the crime laboratories in those same respective geographic areas.
4. In the near future the realization of diminished laboratory budget allocations as a result of either fiscal reductions or inflationary increases, combined with increased demands for services, will dictate that a means be employed whereby Missouri's crime laboratories will be enabled to consistently continue to offer the highest quality of service at the most reasonable cost with the funds available.

Definition of Terms

Crime laboratory will be used synonymously throughout this study with criministics laboratory and laboratory to mean a technical laboratory in which the processing of evidence collected in relation to a criminal offense is conducted. The degree and the depth to which evidence analysis services are conducted within each individual laboratory is subject to further, more precise definition in Volume I of this report.

Other terminologies such as case, evidence, examination, and turnaround time were each defined by the individual laboratory directors (Volume III) and are also further addressed in Volume I of this report.

Limitations of the Study

The findings and conclusions reached, and the subsequent recommendations made, throughout this report are limited insofar as:

1. The areas covered and the parameters within which the standardized sets of guidelines for crime laboratories used within this report can be applied to the managerial, administrative, and operative functions of Missouri's crime laboratories.
2. The reliability, comprehensiveness, and accuracy of the data collected from each laboratory was dependable.

Insofar as the research base for this study is concerned, only the twelve laboratories which have, or are currently receiving MCCJ funding are discussed. This is not to suggest, however, that the ultimate conclusions and recommendations of this report do not, or should not apply to other existing or future crime laboratories in Missouri, or other states for that matter.

Basic Assumptions

It was assumed in this study that:

1. Crime laboratories do operate in accordance with some sort of procedural guidelines or regulations.
2. Demands for both laboratory services and improvement of analysis techniques are increasing.
3. The various user agencies in different geographical areas of the state do require more or less types of certain evidence analysis capabilities.
4. The availability of funds for crime laboratories in Missouri is, and will continue to decline.

Procedures for Collecting Data

The information compiled for this report was collected via three major methods -- questionnaire surveys, interviews, and statistical records.

Questionnaire Surveys

Laboratory Data. - Was gathered from questionnaires individually completed by all laboratory directors and employees serving in a criminalist capacity. (Refer to Attachments II-A and II-B for Director and Criminalist Questionnaires.)

Laboratory Users Data. - Was gathered from questionnaires distributed to and returned from police agencies, sheriffs agencies, and prosecuting attorneys throughout the State of Missouri. (Refer to Attachment II-C for Laboratory Users Questionnaire.)

Interviews

Each crime laboratory was visited by the evaluator whereupon directors and criminalists were interviewed to clarify any real or potential confusion regarding the questionnaires, to observe the administrative and operational components of the laboratory, and to explain the impetus behind this study.

Statistical Records

Activities records for such things as cases received annually, examinations conducted annually, agencies served annually, court appearances annually, miles traveled annually, and case turnaround time were gathered, where possible, from each laboratory.

Procedures for Treating Data

The data obtained from each laboratory was compared, averaged, and evaluated equally. Information gathered by the laboratory questionnaires, interviews, and statistical records was all analyzed and compared to each individual laboratory's degree of compliance or noncompliance with three sets of recognized standards for the organization, administration, and management of crime laboratories. Included in these sets of standards are The National Advisory Commission on Criminal Justice Standards and Goals (NAC): Crime Laboratories; The American Society for Crime Laboratory Directors (ASCLAD): Standards for Crime Laboratories; and The Missouri Action Plan for Public Safety (MAPPS): Standards for Crime Laboratories. The laboratory users questionnaires were distributed to 150 Missouri police departments, 114 Missouri sheriffs' departments, and 114 Missouri prosecuting attorney offices. Of the total of 378 surveys mailed out, 196 surveys were returned for a 51.85 percent response. The activities records were collected, where documentable, from each laboratory for the period of operation covering 1975 through 1978 inclusive. These activities were then averaged at an annual rate or figure for each laboratory. Turnaround time figures were obtained via samples of from 0.5 percent to 100 percent, depending upon annual caseload size and the accessibility of evidence receipt and analysis completion dates, taken from each laboratory and averaged by the number of years sampled.

The evaluation design around which this study was planned, organized, and carried out can be referred to in Attachment II-D.

CHAPTER II

LABORATORY STANDARDS FOR ORGANIZATION, MANAGEMENT AND OPERATIONS

FINDINGS AND RECOMMENDATIONS

The standards, along with the subsequent recommendations and conclusions discussed in this chapter, are directly related to the findings disclosed on Table II-1, Non-Compliance with Standards for Management and Operations, and Table II-2, Non-Compliance with Activities Documentation. This information offers what are believed to be the best solutions or alternatives to each of the individual problem areas. It should be noted that each letter/number distinction indicated on Table II-1 also corresponds with the same letter/number distinction for each standard discussed. Furthermore, with respect to the individual standards, the evaluator has taken the liberty of assigning major, medium, and minor levels of importance to the respective standards. These labels signify which standards should receive the most emphasis regarding compliance and which standards should be implemented into each laboratory's operations on a time-graduated basis of standard importance.

LABORATORY ORGANIZATION AND MANAGEMENT

Major Standards

A-4 MAPPS Standard. - All crime laboratories should be standardized to improve the evidence analysis process, decrease case backlogs, and compile technical data which could be exchanged between laboratories to reduce the time required for evidence analysis.

Recommendation. - One of the major observations made throughout this study was the fact that Missouri's crime laboratories do not uniformly record data, define terminologies, or administer their laboratory operations. This standard implies that through the total compliance with the three components of the standard, laboratory administrative, operational, and analytical methods can be improved upon. Standardization of Missouri's crime laboratories is essential to the effective and efficient disbursement of state financial assistance funds.

By standardizing all laboratory administrative and operational functions, the state should realize an upgrading of laboratory methodologies, a reduction of analysis costs, a savings in turnaround time for evidence submitted, better inter-laboratory communication, and more readily served user agencies.

Conclusion. - To enable compliance with this standard, an organizing or regulatory body must be given the responsibility to see that the proper steps and actions are taken and maintained. This would suggest that an independent, overseeing figure or assemblage be appointed to carry out that function.

Medium Standards

A-2 ASCLAD Standard. - All laboratories should have a stated list of objectives which is communicated to and understood by all employees.

Recommendation. - Seven laboratories produced clearly written, long-term, and apparently well understood objectives for their individual operations. The five non-compliance laboratories should determine the same types of objectives for their own long-range operations.

Conclusion. - A concern of specific note here is that even though seven laboratories did possess sets of objectives, the objectives differed in composition and quantifiability, yet the desired outcomes of those objectives were primarily similar. This situation, coupled with a lack of objectives in other laboratories, suggests the need for a more uniform laboratory system whereby all laboratories will have objectives, and wherein those objectives will be universally applicable and quantifiable to specific and overall laboratory operations.

A-3 ASCLAD Standard. - All laboratories should have access to and use a formalized training program and a formalized employee development program.

Recommendation. - Six laboratories have extensive, thorough formal training programs. This type of training must be made available, if not mandatory, for all laboratory analysts. Only two laboratories offer a formal development program for employees. Additionally, just as basic training is vital to quality laboratory analysis, so is the ongoing training of those same individuals of extreme importance to quality work output. Therefore, employee development programs should also be made available to laboratory staff members.

Conclusion. - The interesting situation existing here is that the formal training and development programs are available only within those laboratories of appreciable budgets. Basic and ongoing training programs are expensive, time consuming, and cannot be adequately afforded or feasibly maintained by the smaller laboratories. What is needed in Missouri is a stipulation that activities such as training and employee development be required in each laboratory as an in-service function of each laboratory.

Minor Standards

A-1 ASCLAD Standard. - Laboratories should possess an organizational chart depicting not only the span of management within the laboratory, but also the placement of the laboratory within the structure of the parental organization.

Recommendation. - Nine laboratories met this standard by having ready access to clear, distinct, and definite charts of organization indicating precisely the span of management within the laboratory and the complete structural hierarchy above and/or below the laboratory. The three non-compliance laboratories should develop, or restructure as the case may be, organizational charts of like detail for their own purposes.

Conclusion. - The fact that nine laboratories have well-plotted organizational charts while three laboratories do not is an indication of a potential need for a more uniform laboratory system, especially if this lack of adequate organizational charts is due to the particular laboratory's or parental organization's inability to produce such an organizational tool.

LABORATORY OPERATIONS

Major Standards

B-1 ASCLAD Standard. - Every laboratory should possess written technical procedures for each of its disciplines.

Recommendation. - The nine non-compliance laboratories should develop or obtain such procedures for the disciplines carried out in their particular organizations.

Conclusion. - The implication of this standard is that documentation of procedures will lead to better accountability of analysis procedures, more clearly defined analysis methods, and some distinct, clear cut steps for evidence analysis.

Many laboratory directors contend that techniques must be adapted to the individual analyst; however, from a purely cost efficient, laboratory systems point of view, written technical procedures for laboratory disciplines, at least to the extent that is possible for such disciplines, offer a viable and favorable solution. The implementation and regulation of such a set of written disciplines would, once again, need to be the responsibility of an overseeing body.

B-2 ASCLAD Standard. - Every laboratory should have a well understood and preferably written procedure on:

- a. Handling of evidence
- b. Preparation, storage, and destruction of case records or reports
- c. Control of materials and supplies
- d. Maintenance of equipment
- e. Normal duty hours
- f. Extra duty hours
- g. Leave time
- h. Job requirements or descriptions
- i. Personnel evaluations and goal setting
- j. Employee grievances

Recommendation. - Each component of the standard is representative of a moderate to critical concern of any laboratory. All laboratories should have well understood and written procedures for each of these components.

Conclusion. - Procedures dictating personnel matters were found to be dealt with primarily at the parent organization level. The voids in procedural documentation and/or understanding were found to exist mostly at the laboratory decision-making level, thus leading this evaluator to conclude that some important procedural concerns are being avoided or ignored by the laboratories of non-compliance. The implementation of an independent control mechanism to introduce and maintain such policies could greatly improve the universal compliance to, and understanding of, all of the components of the standards by staff members.

Minor Standards

B-3 NAC Standard. - Every laboratory director should design and implement a reporting system that provides data relevant to its involvement in:

- a. Reported crimes
- b. Investigated crimes
- c. Suspects identified or located
- d. Suspects cleared
- e. Suspects charged
- f. Prosecutions
- g. Acquittals
- h. Convictions

Recommendation. - Some laboratories were found to be in compliance with components a, b, and c; however, all other components of this standard were not addressed. The evaluator contends that such items of information as those listed in components d through h may not be available to the laboratories and are apparently of no real worth to individual laboratory operations. It is possible that such data could be maintained by an outside body with more time and interest in the total picture of Missouri's crime laboratory effects upon the criminal justice system than that found in the individual laboratories. It is for this reason, therefore, not recommended that the individual laboratories comply with the compilation of data for components d through h.

Conclusion. - The most sure means of effecting universal compliance with the standard is through the implementation of a regulating or overseeing body. In order for all of the components of this standard to provide accurate comparative data in relation to that of other laboratories, they must be similar or identical in design and be implemented into laboratory operations in the same manner throughout all laboratories.

Overall Response to Laboratory Standards Regarding Organization, Management, and Operations

The standards discussed here represent some very serious approaches by which Missouri's crime laboratory situation can be rendered less problematic. Many of these standards for which problems in compliance were found were developed in part or in total by some of Missouri's own crime laboratory staff members; however, in all fairness, such concerns should not necessarily be the fault of the laboratory staffs as they have been primarily involved strictly with the efforts of evidence analysis and not with concentrated practices of management, operation, and standardization outlined by the standards. The contention of the evaluator is that the standards are not being met primarily because:

- A. No system exists whereby the standards can be applied equally to all laboratories.
- B. A crime laboratory network by which such standards could be administered, monitored, and adjusted according to the needs of the system is not available.
- C. No vehicle exists for the management of such an important regulatory and administrative function.

In light of this situation, the evidence seems to indicate a critically important demand for the development of a stratagem or model by which these needs are addressed in such a way as to create or determine the necessary system, network, and/or managerial vehicle for universal and consistent standards compliance assurance.

LABORATORY ACTIVITIES

The purpose of the information provided by Table II-2, Non-Compliance with Activities Documentation, is to present specific areas of the laboratory activity record keeping function which are presently, or which have in the recent past (1975-1978) been neglected, inadequately maintained, or not documented at all. It should be noted that while not directly referred to within the ASCLAD Standards, the importance of complete, well documented laboratory records, of which activities is certainly a major contributor, is suggested within those standards. Therefore, the reader is advised to bear this thought in mind while proceeding through the following laboratory activities information. As is indicated on Table II-2, some aspects of laboratory activities records maintenance are believed to be more important than others. Activities of major importance have been so designated on the table while activities of less importance, yet still essential and therefore important to documentation purposes, have been indicated on the table as being of minor importance.

Overall Recommendation

Serious voids in activity records documentation and maintenance were obvious for each activity and within every laboratory. Keeping in mind the suggested tone of the ASCLAD Standards, all laboratories are advised to maintain accurate, well documented records for each of the activities and services mentioned in this section. The dispersal of available funds in the future is certain to be based, in part, upon the laboratory services provided and the activities documented by each laboratory. Accountability will play a vital role in this process.

Overall Response to Laboratory Activities

The conclusion made from all of this is that every laboratory should record all activities completely; however, the actual task will not be nearly as simple as was the conclusion. A main reason for this difficulty lies in a variance of definitions to like terminologies used in all laboratories. Such common laboratory words as evidence, case, examination, and turnaround time were discovered to be used differently in many laboratories. (See Activities Section of Volume III.) As a result, records representing those particular activities were maintained as per each particular definition of the term used by the individual laboratory. A case, as defined by one laboratory, may in fact represent two cases in another laboratory. One examination as defined by a particular laboratory may represent more than one, or no examinations, in another laboratory. Another complication found to this conclusion was that evidence descriptions and/or case types are labeled differently throughout the laboratories. A marijuana case in one laboratory might be labeled as a drug or narcotics case in another laboratory. A rape case in one laboratory may, in another laboratory, be broken down into such label descriptions as semen, blood, hair, clothing, etc. Thus, while complete, accurate documentation of laboratory activities is critically important, the need for uniformity in definitions and methods, across the board, is equally as important.

To accomplish such a prodigious task, a superintending mechanism whereby guidance, direction, regulation, and consultation may be imposed and/or offered should be created. It cannot be assumed that this sort of universality will be worked out adequately without the necessary guidance and moderation.

LABORATORY USERS ASSESSMENT OF
MISSOURI'S CRIMINALISTICS LABORATORIES

This information was compiled by the survey questionnaires that were distributed to Missouri police departments, sheriffs' departments, and prosecuting attorney's offices. The majority response to each question is indicated separately for police agencies, sheriffs' agencies, and prosecuting attorneys. Recommendations and conclusions follow the responses to the whole set of questions.

1. Question - Additional regional laboratory services are needed to handle present demands for evidence analysis.

Response - The majority of police respondents said no to this question while the majority of sheriffs' agencies and prosecutors said yes.

2. Question - Additional regional laboratories will be needed to handle future demands for evidence analysis.

Response - All three groups responded in majority agreement to this question.

3. Question - Additional capabilities in the form of instrumentation, equipment, personnel, and training are needed now and will be needed in the future.

Response - All three groups responded in majority agreement to both present and future needs.

4. Question - Do you anticipate your agency's demand for laboratory services to change in the immediate future?

Response - Each of the three groups indicated a majority response of no to this question.

5. Question - How important is the availability of criminalistics laboratory services to your needs?

Response - All three groups responded that criminalistics laboratory services are indispensable to their needs.

Overall Recommendation

User agencies in Missouri were found to believe that additional laboratory services are, and will continue to be, an ongoing need in the state. While this evaluator does not recommend that additional laboratories be constructed, it is felt that Missouri's present resources can be more efficiently utilized to meet the present and projected service needs of the user agencies.

GENERAL CONCLUSION TO VOLUME II

The satisfaction of today's and tomorrow's demands for laboratory services appears to depend not upon the continued construction of new laboratories or the physical and instrumental expansion of all of our present laboratories, but rather the solution seems to be one of effecting an overall organization and utilization of our present facilities, manpower, and instrumentation in such a way as to provide for a selective laboratory reinforcement of any or all of these entities on the basis of such things as laboratory caseload size, types of cases that constitute the bulk of analysis in a laboratory's geographic area, the volume of area service demands, and comprehensive laboratory operational efficiency. Missouri's crime laboratories cannot continue to function in this confusing arrangement of independent institutions which determine all of their own rules for administration, management, and operation. The evidence presented in this chapter overwhelmingly suggests that a Missouri crime laboratory network should be designed, implemented, and placed in the control of an administrative body with the authority to regulate such a network and the ability to maintain a responsive knowledge and insight into the real or potential needs of each particular laboratory and/or its service area. Senate Bill 202 assigned this responsibility to the Missouri Department of Public Safety.

TABLE II-1

NON-COMPLIANCE WITH STANDARDS FOR
MANAGEMENT AND OPERATIONS

	ASCLAD Standard A-1 Organizational Chart	ASCLAD Standard A-2 Written Objectives	ASCLAD Standard A-3 Trng & Develop.	MAPP Standards A-4 Standardization	ASCLAD Standard B-1 Written Tech. Procedures	ASCLAD Standard B-2 Written Procedures Sections a, b, c, d, e, f, g, h, i, j	NAC Standard B-3 Reporting System Sections a, b, c, d, e, f, g, h
Independence			X Training X Develop. Prog.	X			X-d, e, f, g, h
Springfield	X	X	X Training X Develop. Prog.	X	X	X-c	X-a, b, c, d, e, f, g, h
University of Mo Columbia	X	X	X Training X Develop. Prog.	X		X-a, b, c, d	X-a, b, c, d, f, g, h
NEMSU Kirksville		X	X Training X Develop. Prog.	X	X	X-a, b, d, e, f	X-a, c, d, e, f, g, h
St. Louis County				X	X	X-c, d	X-a, b, c, d, e, f, g, h
SEMO Cape Girardeau	X	X	X Training X Develop. Prog.	X	X		X-b, d, e, f, g, h
MSSC Joplin			X Training X Develop. Prog.	X		X-a, b, c, d	X-a, c, d, e, f, g, h
MSHP Central Jefferson City			X Develop. Prog.	X	X	X-d	X-a, b, c, d
MSHP Troop B Macon			X Develop. Prog.	X	X	X-c, d	X-c, d, e, f, g, h
MSHP Troop G Willow Springs			X Develop. Prog.	X	X	X-c, d	X-b, c, d, e, f, g, h
MSHP Troop H St. Joseph			X Develop. Prog.	X	X	X-c, d	X-c, d, e, f, g, h
St. Louis City		X		X	X	X-d	X-a, b, c, d, e, f, g, h

TABLE II-2

NON-COMPLIANCE WITH ACTIVITIES DOCUMENTATION

	Incomplete Records for No. of Cases Received Annually	No Breakdown of Case Totals By Case Type	No Records for Examinations Conducted Per Year	No Records of Case Turnaround Time	Incomplete or No Records for Agencies Served Annually	No Records for Total Examinations by Evidence Type	Incomplete or No Records for Annual Mileage Traveled	No Records for Annual Court Appearances
Independence				X		X	X	
Springfield		X	X	X		X	X	X
Univ of Mo Columbia				X		X	X	
NEMSU Kirksville		X		X			X	X
St. Louis County		X		X	X		X	
SEMO Cape Girardeau				X		X	X	
MSSC Joplin				X		X	X	
MSHP Central Jefferson City				X	X	X	X	
MSHP Troop B Macon				X		X		
MSHP Troop G Willow Springs				X		X		
MSHP Troop H St. Joseph						X		
St. Louis City			X	X		X	X	

3. How many newly authorized laboratory positions have been created in your organization in the past four years?

Newly Authorized Position Title	Actual				Anticipated	
	75	76	77	78	79	80

4. On an annual basis, what is the average number of analyst (professional) positions vacated in your agency because of transfers, resignations, dismissals, retirements, and deaths? 1 2 3 4 5 6 7 8 or more

5. Is the quantity and quality of the following items of equipment adequate or inadequate?

Equipment Type	Equipment Quantity		Equipment Quality		Not Available
	Adequate	Inadequate	Adequate	Inadequate	
Microscope					
Spectrophotometer					
Chromatographs					
Balance					
Camera/Enlarger					
Other (Specify)					

6. Do you utilize consultants for examinations?

A. Yes No

B. If "yes", in what analytical areas or for what types of cases?

7. If you perform laboratory work for other laboratories, in what analytical areas or for what types of cases? _____

8. If your laboratory conducts research, please indicate the type of projects/activities involved. _____

9. What are the minimum education, training, and experience standards for promotion in your laboratory? _____

10. If you also have minimum standards for your technical support level personnel, please list. _____

11. What of the following benefits are offered to your laboratory employees?

- Vacation Days or Weeks Per Year _____
- Holidays Number of Days Per Year _____
- Sick Leave Number of Days Per Year _____
- Hospitalization
- Major Medical
- Accident Insurance
- Life Insurance
- Professional Meetings
- Dues Paid to Professional Organizations
- Retirement Plan

12. Are any of the laboratory employees provided any of the following:

- Car Overtime Pay
- Car Allowance High Hazards Pay

13. Do you conduct on-the-job training for your laboratory personnel: Yes No

14. In your opinion, what are the significant problem areas facing the criminalistics profession? _____

14. Is there a formal on-the-job (OJT) training program for new employees?
 Yes No Comments: _____
15. Does the laboratory have and use a formalized training program other than OJT?
 Yes No Comments: _____
16. Does the laboratory have a formalized employee development program?
 Yes No Comments: _____
17. Are there promotional opportunities with a clear delineation of the qualifications needed? Yes No Comments: _____
18. A. In what areas are lab staff regarded as experts by the courts? _____
 B. What criteria was used by the courts to make this determination? _____
 C. Typically, what types of cases require appearance at:
 (1) Preliminary hearings: _____
 (2) Trial: _____
 D. In what types of cases are depositions and/or written reports regularly admitted without personal appearance? _____
19. Are crime laboratory staff journalistically recognized? If "yes", please indicate articles, publications, topics, and dates. _____
20. Are educational allowances in the form of either time off, tuition, and/or travel reimbursement provided to laboratory professional staff?
 Yes No Comments: _____

21. Does the crime laboratory provide training to other agencies? If "yes", what is the scope of that training? _____
22. What instruments, tests, or expertise do you consider to be somewhat unique to your laboratory? _____
23. What computer facilities, if any, does your laboratory have access to? _____
24. What procedural manuals, if any, do you use (or have you used) in conjunction with which analyses? _____
25. Is every regional laboratory receiving from all agencies using its services partial annual support based on the number of sworn personnel employed by each agency rather than on case costs? Yes No Comments: _____
26. Is there a clerical pool capable of handling all clerical needs available at the laboratory? Yes No Comments: _____
27. Does your crime laboratory have full service capabilities in the form of instrumentation, manpower, and facilities? Yes No Comments: _____
28. Are all crime laboratories standardized to improve the:
 Yes No Evidence analysis process
 Yes No Decrease case backlogs
 Yes No Compile technical data which could be exchanged between laboratories to reduce the time required for evidence analysis?
29. Does the laboratory have a stated list of objectives? Yes No
30. Have the objectives been communicated to all employees? Yes No
31. Does the laboratory possess written technical procedures for each of its disciplines? Yes No Comments: _____

CONTINUED

1 OF 3

32. Does the laboratory test new technical procedures thoroughly to prove their efficiency in identifying evidence materials? Yes No
Comments: _____
33. Does the laboratory use controls and standards to ensure the validity of the testing parameters? Yes No Comments: _____
34. Does the laboratory routinely check the reliability of its reagents, where the reagent/s reliability is important in precluding false conclusions?
 Yes No Comments: _____
35. Does the laboratory ensure that the conclusions and expert testimony of its examiners are reasonable within the constraints of forensic knowledge?
 Yes No Comments: _____
36. If the laboratory has an indication of a technical problem, do they immediately initiate a review and take any corrective action required? Yes No
Comments: _____
37. Does the laboratory have a well understood and preferably written procedure on:
- Yes No Handling of evidence
 - Yes No Preparation, storage, and destruction of case records or reports
 - Yes No Control of materials and supplies
 - Yes No Maintenance of equipment
 - Yes No Inventory of equipment
 - Yes No Normal duty hours
 - Yes No Extra duty hours
 - Yes No Leave time
 - Yes No Job requirements or descriptions
 - Yes No Personnel evaluations
 - Yes No Employee grievances
38. Are clear vertical channels of communications present within the laboratory?
 Yes No
39. Are staff meetings a routine function? Yes No
40. Does the forensic library contain books, journals, etc., dealing with each area of expertise provided by the laboratory to its users? Yes No

41. Does a system exist to ensure that each analyst reviews all pertinent literature? Yes No
42. Does the laboratory participate in proficiency testing programs conducted by an independent agency? Yes No
43. Does the laboratory conduct intra-laboratory proficiency testing using known standards or some other technique? Yes No
44. Does the laboratory have written procedures to protect evidence from experiencing deteriorious change? Yes No
45. Does the laboratory utilize a written chain of custody record with all necessary date? Yes No
46. Is all evidence marked for identification? Yes No
47. Is evidence stored under proper seal? Yes No
48. Is evidence protected from loss, transfer, and/or contamination? Yes No
49. Has every crime laboratory director designed and implemented a reporting system that provides data relative to its involvement in:
- | | | | |
|--|-----------------------------|--|------------------|
| <input type="checkbox"/> Yes <input type="checkbox"/> No | Reported crimes | <input type="checkbox"/> Yes <input type="checkbox"/> No | Suspects charged |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | Investigated crimes | <input type="checkbox"/> Yes <input type="checkbox"/> No | Prosecutions |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | Suspects identified/located | <input type="checkbox"/> Yes <input type="checkbox"/> No | Acquittals |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | Suspects cleared | <input type="checkbox"/> Yes <input type="checkbox"/> No | Convictions |
50. Does the manner in which evidence is submitted regularly prohibit indepth analysis because of cross contamination or other difficulties? Yes No
Comments: _____
51. What kind and type of evidence kits are developed and disseminated to law enforcement agencies? _____

LABORATORY PROFESSIONAL STAFF
QUESTIONNAIRE

1. Please indicate your formal education background:

High School & College	Year	Degree	Major Courses of Study

2. Please indicate any significant forensic science courses taken at any time:

Course Description	Year	Conducted By (Inst. or Org.)

3. Approximately what percent of your time is spent in the following criminalistics activities?

- | | | | |
|---------------------------|------|---------------------------------------|------|
| A. Administration | ___% | G. Present Findings to Other Agencies | ___% |
| B. Supervision | ___% | (Police, Pros. Atty, Coroner) | |
| C. Laboratory Analysis | | H. Research | ___% |
| Examinations, Comparisons | ___% | I. Scientific Training | ___% |
| D. Report Writing | ___% | J. Other Instructional Training | ___% |
| E. Official Travel | ___% | K. Other (Specify) _____ | ___% |
| F. Court Appearances | | | |

4. Please list (in order of frequency) the topics on which you are most often called upon to testify.

- | | |
|----------|----------|
| A. _____ | C. _____ |
| B. _____ | D. _____ |

5. A. In your criminalistics laboratory employment are you:

- A sworn officer A civilian

B. If "sworn", have you completed the standard basic police or deputy training prescribed by your agency? Yes No

C. If sworn, were you:

- Transferred to the laboratory from police or deputy duty
 Hired directly for the laboratory

6. How would you rate the following in your criminalistics organization?

	Outstanding	Good	Fair	Poor
Supporting Personnel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Physical Plant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Size of Work Area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Instruments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other Equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Supervision	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Library Facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (Specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. What can be done to raise the level of understanding and acceptance of criminalistics by outside groups?

8. A. Are your meetings with counsel adequate to prepare you for court presentation?

Yes No

B. If "no", in what ways can this be improved? _____

9. Please indicate briefly what you believe should be the minimum standards for education, training, and experience for individuals entering your forensic speciality. _____

10. In your field, what areas (i.e., management training, technical, etc.) are most in need of research? _____

11. Please list any of your memberships in professional organizations, licenses, certifications that you consider to be significant to your criminalistics profession. _____

12. Is there a formal written job description for your work as a criminalist?

Yes No

13. What do you believe should be the minimum education, training, and experience standards or qualifications for individuals entering the field as criminalists?

14. List any of your publications (in your forensic speciality) for the years 1975-78 that you consider significant. Include title, journal, volume, and date.

A. _____

B. _____

C. _____

15. In what areas of criminalistics is research most needed?

ATTACHMENT II-C

MISSOURI DEPARTMENT OF PUBLIC SAFETY
Missouri Council on Criminal Justice
Criminalistic Laboratory User Survey

Purpose: The following information is requested to determine the laboratory user's expectations of what services a criminalistics laboratory should provide. Information supplied will be used to improve the existing criminalistics laboratory network and the delivery of criminalistics services. Your honest and fair response to the following questions is greatly appreciated.

Instructions: Please respond to the following questions supplying the appropriate response. Certain questions are present for demographic purposes only. Specific answers of individual respondents will be held in confidence.

1. Which of the following agencies best represents your affiliation?

- A. Municipal police department C. Prosecuting attorney
 B. County sheriff's department

2A. What criminalistics laboratory do you use on a primary and secondary basis?
(Select the appropriate letters and enter one in each box.)

Primary laboratory

Secondary laboratory

- | | |
|--|--|
| a. MSHP Central Laboratory GHQ | g. St. Louis County Police Department Laboratory |
| b. MSHP Satellite Laboratory Troop B | h. Springfield Police Department Laboratory |
| c. MSHP Satellite Laboratory Troop G | i. Region 9 MSSC Regional Laboratory |
| d. MSHP Satellite Laboratory Troop H | j. SEMO Regional Laboratory |
| e. Independence Regional Laboratory | k. Region III Laboratory-Univ. of Mo. Laboratory |
| f. St. Louis City Police Department Laboratory | l. Northeast Mo. State Regional Laboratory |

B. Explain your reasoning for the selection of these laboratories on a primary and secondary basis.

Primary laboratory: _____

Secondary laboratory: _____

Are there frequent scheduling conflicts between trial dates and availability of criminalistics laboratory professional staff to appear as expert witnesses?

Primary laboratory: 1 2 3 4 5
 Never Seldom Sometimes Often Always

Secondary laboratory: 1 2 3 4 5
 Never Seldom Sometimes Often Always

Are laboratories generally responsive in the processing of evidence to be used in probable cause hearings as a basis for securing arrest and/or search warrants?

Primary laboratory: 1 2 3 4 5
 Never Seldom Sometimes Often Always

Secondary laboratory: 1 2 3 4 5
 Never Seldom Sometimes Often Always

5. Do the primary and secondary laboratories provide quick, timely results for the State in preliminary hearings?

<u>Primary laboratory:</u>	1	2	3	4	5
	Never	Seldom	Sometimes	Often	Always
<u>Secondary laboratory:</u>	1	2	3	4	5
	Never	Seldom	Sometimes	Often	Always

6. Are existing laboratory scientific capabilities usually sufficient to accommodate your evidentiary analytical needs?

<u>Primary laboratory:</u>	1	2	3	4	5
	Never	Seldom	Sometimes	Often	Always
<u>Secondary laboratory:</u>	1	2	3	4	5
	Never	Seldom	Sometimes	Often	Always

7A. The "Speedy Trial Law", excepting the sanctioned delays, says in effect that the arraignment of a defendant shall be held within 10 days from the filing of an indictment or information and that upon the entering of a plea of not guilty at the arraignment, the trial shall commence within 180 days. What impact, if any, do you see the implementation of this law having on your needs for the analysis of physical evidence?

- A. No effect on any of my analytical needs.
- B. Some effect on some of my analytical needs.
- C. Some effect on all of my analytical needs.
- D. Drastic effect on some of my analytical needs.
- E. Drastic effect on all of my analytical needs.

7B. If responses B-E in 7A are selected, please describe the type of effect and the types of evidence or cases affected.

8. Which of these situations most accurately reflects your opinion.

- | | | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Additional regional laboratories are needed to handle <u>present</u> demand for evidence analysis. |
| <input type="checkbox"/> | <input type="checkbox"/> | Additional regional laboratories will be needed to handle <u>future</u> demand for evidence analysis. |
| <input type="checkbox"/> | <input type="checkbox"/> | Additional capabilities in the form of instrumentation, equipment, personnel, and training are needed to accommodate the <u>present</u> demand for evidence analysis. |
| <input type="checkbox"/> | <input type="checkbox"/> | Additional capabilities in the form of instrumentation, equipment, personnel, and training will be needed to accommodate the <u>future</u> demand for evidence analysis. |

- | | | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Both additional laboratories and expanded capabilities are needed to meet the <u>present</u> demands for evidence analysis. |
| <input type="checkbox"/> | <input type="checkbox"/> | Both additional laboratories and expanded capabilities will be needed to meet the <u>future</u> demands for evidence analysis. |

9A. Do you anticipate your agency's demand for services changing in the immediate future for any reason? Yes No

9B. If yes, please explain why and, if possible, estimate the increase or decrease in terms of cases involved. _____

10. What is the maximum turnaround time (time which elapses from the submission of evidence to the laboratory until the time when the results are received back from the laboratory) for you to be adequately prepared for preliminary hearings or other purposes?

a. Preliminary hearings _____ days

b. Other purposes, specify: _____

_____ days

11A. Should every Missouri criminal justice agency be assigned to a specific laboratory on a primary and secondary basis? Yes No

11B. If yes, what factors should be considered in the assignment? _____

12A. Is your agency presently affiliated with a major case squad? Yes No
 Not applicable

12B. If yes, please indicate the name and address of the major case squad spokesman.

13. Please list the type of cases for which you normally request laboratory analyses.

- | | |
|----------|----------|
| A. _____ | D. _____ |
| B. _____ | E. _____ |
| C. _____ | F. _____ |

14. How important is the availability of criminalistics laboratory services to your needs?

1	2	3	4	5
Not	Some	Moderate	Highly	Indispensable
Important	Importance	Importance	Important	

In your opinion, what changes, if any, need to be made in the management and capabilities of existing criminalistics laboratories to make them more responsive to the needs of the criminal justice agencies in your area?

EVALUATION DESIGN

MISSOURI CRIMINALISTICS LABORATORIES

- I. Statement of Hypotheses
 - A. Missouri's crime laboratories are functionally void of both in-house and overall uniform procedures for laboratory organization, management, and administration.
 - B. Missouri's crime laboratories are presently not capable of reacting uniformly to new and/or increasing demands upon manpower, instrumentation, and facilities by user agencies and increasingly technical methodologies of forensics analysis.
 - C. The needs for and the comprehensiveness of services requested or required by user agencies in certain geographic areas of the state do not necessarily correlate with the capabilities and evidence analysis services offered by the crime laboratories in those same respective geographic areas.
 - D. In the near future the realization of diminished laboratory budget allocations as a result of either fiscal reductions or inflationary increases, combined with increased service demands, will dictate that a means be employed whereby Missouri's crime laboratories can uniformly continue to offer the highest possible quality of service to user agencies at the most reasonable cost with the funds available.
- II. Assumptions
 - A. Crime laboratories do operate as per some sort of procedural guidelines or regulations.
 - B. Demands for both laboratory services and improvement of analysis techniques are increasing.
 - C. The various user agencies in different geographical areas of the state do require more or less types of certain evidence analysis capabilities.
- III. General Areas of Inspection and Evaluation Elements for Each Crime Laboratory
 - A. Organization and Management
 - 1. Organizational structure
 - a. Organizational chart
 - 2. Written job descriptions
 - 3. Training requirements
 - 4. Written laboratory personnel policies
 - 5. Written laboratory records

- a. Adequacy of record keeping procedures
 - 6. Budgetary records
 - a. Fiscal year 1978 budget
 - b. Staff salary ranges
 - c. Expenditures 1975-1978
 - B. Operations
 - 1. Written operational procedures
 - a. Extent of operational procedures
 - 2. Access to equipment
 - 3. Analysis limitations
 - C. Laboratory activities
 - 1. Individual laboratory terminology definitions
 - 2. Activities records
 - a. Annual cases received 1975-1978
 - b. Examinations conducted per year 1975-1978
 - c. Number of miles traveled per year 1975-1978
 - d. Total number of court appearances annually 1975-1978
 - 3. Breakdown of activity statistics
 - a. Total case types
 - b. Percentage case types
 - c. Examination types
 - d. Turnaround time
 - D. Laboratory Users Assessment of Individual Laboratory Performance
 - 1. Reasons for laboratory choice
 - a. Police
 - b. Sheriffs
 - c. Prosecuting Attorneys
 - 2. Cooperation by laboratories
 - a. Police
 - b. Sheriffs
 - c. Prosecuting Attorneys
- IV. Questions Related to the Standards Established by the American Society of Crime Laboratory Directors - per laboratory location
- A. Laboratory organization and management
 - 1. Planning:
 - a. Objectives:

- 1) Does the laboratory have a stated list of objectives?
- 2) Have the objectives been communicated to all employees?
- b. Managerial Authority:
 - 1) Is the basis for the laboratory manager's authority well defined?
- 2. Training and Development of Subordinates:
 - a. Does the laboratory have and use a formalized training program?
 - b. Does the lab have a formalized employee development program?
- 3. Administrative Procedures:
 - a. Does the lab have a well understood and preferably written procedure on:
 - normal duty hours
 - extra duty hours
 - leave time
 - job requirements or descriptions
 - personnel evaluations and goal setting
- 4. Communication:
 - a. Are clear vertical channels of communication present within the lab?
 - b. Are horizontal and diagonal channels encouraged?
- B. Operations
 - 1. Controlling:
 - a. Does the lab participate in proficiency testing programs conducted by an independent agency?
 - b. Does the lab conduct intralab proficiency testing using the blend or reexam technique?
 - c. Does the lab conduct intralab proficiency testing using the known standards technique?
 - d. Does the lab have written procedures to protect evidence from experiencing deteriorious change?
 - e. Does the lab utilize a written chain of custody record with all necessary data?
 - f. Is all evidence marked for identification?
 - g. Is evidence stored under proper seal?
 - h. Is evidence protected from loss, transfer, and/or contamination?
 - i. Does the laboratory have well understood and preferably written procedures on:
 - handling evidence
 - preparation, storage, and destruction of case records or reports
 - control of materials and supplies
 - maintenance of equipment
 - inventory of equipment

2. Technical Procedures and Standards

- a. Does the laboratory possess written technical procedures for each of its disciplines?
- b. Does the laboratory test new technical procedures thoroughly to prove their efficacy in identifying evidence materials?
- c. Does the lab insure that the conclusions and expert testimony of its examiners are reasonable within the constraints of forensic knowledge?
- d. If the lab has an indication of a technical problem, do they immediately initiate a review and take any corrective action required?

C. Activities

1. Laboratory Activities Records Questions

- a. Total number of cases processed during calendar year
- b. Types of cases that constitute the workload of the laboratory
- c. Number of agencies served during calendar year and breakdown
- d. The number of miles traveled to provide court testimony per calendar year.
- e. The number of court appearances in a calendar year.
- f. Average turnaround time for evidence submitted to the laboratory
- g. What kind and type of evidence kits are developed and disseminated to criminal justice agencies?
- h. Briefly define the following terms as your laboratory uses them:
 - 1) Case
 - 2) Examination
 - 3) Evidence
 - 4) Turnaround time
 - 5) Full service laboratory

V. Questions Related to Crime Laboratory Standards Established in the Missouri Action Plan for Public Safety (MAPPS)

A. Laboratory Organization and Management

1. Are all crime laboratories standardized to improve the evidence analysis process, decrease case backlogs, and compile technical data which could be exchanged between laboratories to reduce the time required for evidence analysis?

VI. Questions Related to Crime Laboratory Standards Established by the National Advisory Committee on Criminal Justice Standards and Goals (Standard 12.2)

A. Laboratory Organization and Management

1. Does the state have an established consolidated criminal laboratory system composed of local, regional, or state facilities capable of providing the most advanced forensic science services to police agencies?

2. Does every police agency have access to at least one laboratory facility capable of timely and efficient processing of physical evidence through either:

- a. A local laboratory that provides analysis for high volume, routine cases involving substances such as narcotics, alcohol, and urine; routine analysis and processing of most evidence within 24 hours of its delivery; immediate analysis of certain types of evidence such as narcotics, where the detention or release of a subject depends upon the analysis; and qualitative field tests and quantitative follow-up tests of narcotics or dangerous drugs?
- b. A regional laboratory (serving an area in excess of 500,000 population where at least 5,000 Part I offenses are reported annually) that provides more sophisticated services than the local laboratory, is within 50 miles of any agency it routinely serves, can process or analyze evidence within 24 hours of its delivery, and is staffed with trained teams of evidence technicians to assist in complex investigation beyond the scope of local agencies?
- c. A centralized state laboratory that provides highly technical analyses that are beyond the capabilities of local or regional facilities?

3. Does every crime laboratory provide that:

- a. Every employee responsible for the completion of scientific analyses or testing hold at least an earned baccalaureate degree in chemistry, criminalistics, or closely related field from an accredited institution and have a thorough working knowledge of laboratory procedures?
- b. Every employee performing supervised basic scientific tests or duties of a non-scientific nature meet the agency's requirements for employment of regular sworn or civilian personnel?
- c. The laboratory director be familiar with management techniques necessary to perform his administrative functions satisfactorily?
- d. Civilian personnel be used regularly so sworn personnel may be more appropriately deployed in other assignments, but provide that qualified sworn personnel be used when their abilities or expertise cannot be found elsewhere?
- e. A clerical pool capable of handling all of the clerical needs of the laboratory be maintained?

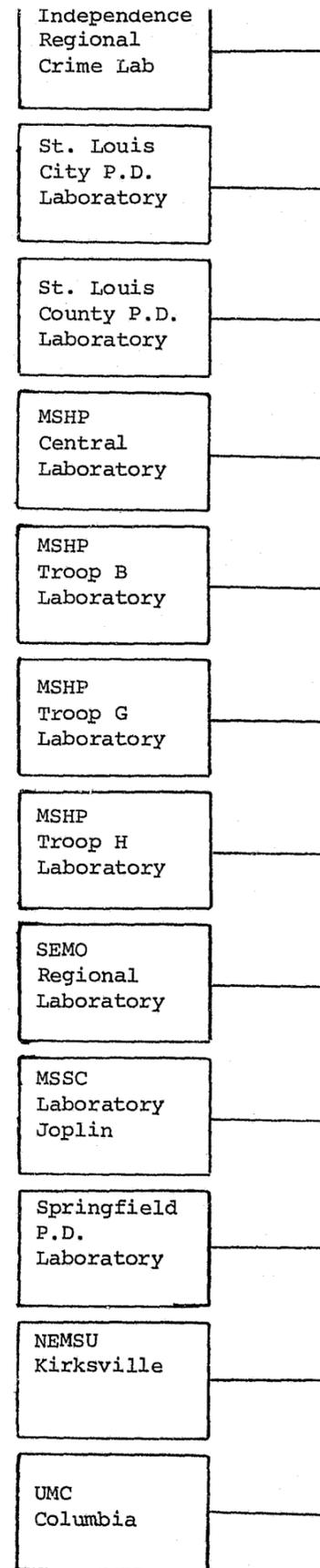
B. Operations

1. Has every crime laboratory director designed and implemented a reporting system that provides data relative to its involvement in:
 - a. Reported crimes
 - b. Investigated crimes
 - c. Suspects identified or located
 - d. Suspects cleared
 - e. Suspects charged
 - f. Prosecutions

- g. Acquittals
- h. Convictions

VII. Missouri Council on Criminal Justice Evaluation Design Organization

- A. Individual Laboratory Studies
 - 1. Data collection
 - 2. Areas of noncompliance with standards
 - 3. Users assessment
- B. Overall Missouri Crime Laboratory Evaluation
 - 1. Conglomerate observation of noncompliance with standards
 - 2. Statistics and supportive data
 - 3. Overall assessment of user agencies
- C. Model Management System Component Options
- D. Development of Ideal Management Model



Evaluation Standards

Professional Standards
from

- A. American Society of Crime Laboratory Directors - Proposed Laboratory Standards Laboratory Management and Operations
 - 1. Planning
 - 2. Organizing
 - 3. Directing
 - 4. Controlling
- B. Missouri Action Plan for Public Safety, MAPPS, Criminal Justice Goals, Standards and Action Plan for the State of Missouri
 - 21.2 Crime Laboratory Standardization
- C. Police: National Advisory Commission on Criminal Justice Standards and Goals, Chapter 12, Support Services
 - 12.2 The Crime Laboratory

VOLUME III

INTRODUCTION

Individual Studies of the
Criminalistics Laboratories of Missouri

The purpose of this volume is to provide the reader with an overview of the managerial, administrative, operative, and functional activities components of individual Missouri criminalistics laboratories. The data used in the compilation of this report, and the basis for the subsequent findings and recommendations thereof, was gathered via questionnaire surveys of all laboratory directors and employees serving in a criminalist capacity; questionnaire surveys completed by Missouri's laboratory user agencies; personal interviews of laboratory directors and staff members; statistical information collected regarding each laboratory's activities; and finally, by the personal observations of the evaluator.

The report is constructed around a four-year time frame which includes managerial and administrative information pertaining to, and activities of the laboratories between the years 1975 and 1978 inclusive. The guidelines used to evaluate the collected and analyzed individual laboratory data were obtained from three sets of currently recognized standards of administration, management, and operation for criminalistics laboratories. These sets of standards are:

- The American Society of Crime Laboratory Directors (ASCLAD): Standards for Crime Laboratories
- The National Advisory Commission on Criminal Justice Standards and Goals (NAC): Standards for Crime Laboratories - Section 12.2
- The Missouri Action Plan for Public Safety (MAPPS): Standards for Crime Laboratories - Sections 21.1, 21.2, 21.3

One of the inherent difficulties encountered throughout this entire study was the individuality with which Missouri's laboratories administer, operate, and, of primary concern here, define certain of their functions. Variations of definitions for common universal laboratory terminologies were discovered throughout Missouri's crime laboratories which, in turn, cause procedures and practices to vary likewise. With specific reference to the Activities Section of each laboratory report, the reader must be cognizant of some specific termi-

nology definitions as they are applied to the activities of each individual laboratory. Therefore, such definitions have been provided in their specific locations and are printed as given by the particular director of the laboratory within which each separate definition is found.

Reports on each laboratory found in this volume have been forwarded to the respective laboratory directors. Their review and response was requested and if a written response was received, it was included in this volume.

The reader will find each laboratory identified by region or regions. These are the MCCJ regions in which each laboratory is located.

REGION I, KANSAS CITY REGIONAL CRIMINALISTICS LABORATORY

SECTION I

Organization and Management

The Region I Criminalistics Laboratory is a division of the Criminal Investigation Bureau of the Kansas City Police Department and is located at the Department's Regional Center for Criminal Justice in Independence, Missouri. The laboratory staff is directed by Mr. Gary Howell, who reports to the Director of the Department's Criminal Investigations Bureau and ultimately is responsible to the Director for Investigations of the Kansas City Police Department. The organizational chart indicates a clear delineation of authority and span of management. (Refer to Organizational Chart, Appendix A-1.)

With the assistance of MCCJ funding, the regional laboratory became operational in 1972. Located in a free-standing structure at the Regional Center for Criminal Justice, the laboratory was found to be situated with approximately 8,000 square feet of space, perhaps 5,000 square feet of which is working bench space. A staff of eighteen full time employees maintains the five sections of the laboratory which services an average of 142 agencies per year. (Refer to the Crime Laboratory Users Index, Page 25.)

Clear, apparently accurate, written job descriptions do exist for all staff members as per Departmental policy. The indication and observation was that all employees were aware of, understood, and governed their professional activities according to such policies.

Training and educational requirements for all analysts include an on-the-job training program. All Chemistry Section Examiners are further required to hold a relevant baccalaureate degree.

The Director and three Section Chiefs are responsible for all immediate formal and informal supervision within the laboratory.

The Kansas City Police Department determines all written personnel policies that apply to the laboratory staff. The staff expressed an awareness and understanding of such policies.

Records for the laboratory are maintained by both manual and computerized methods. This highly sophisticated procedure enables the laboratory to maintain ready access to any of a number of types of extraneous data. This record keeping procedure is to be commended in terms of its appropriateness to the laboratory's volume of work.

For FY 1977, the laboratory reflects a total operating budget of \$409,973.00. Included within this total is a minimum dollar amount for staff salaries of \$175,552.00, or 43 percent of the identified budget. The annual salary range for staff members is:

Laboratory Position Title	No. of Positions	Minimum Annual	Maximum Annual
Director	1	24,132.00	30,792.00
Chief Forensic Chemist	1	19,860.00	26,628.00
Chief Firearm & Toolmark Exam.	1	19,860.00	26,628.00
Sgt.-Field Operations	1	18,588.00	21,576.00
Forensic Chemist II	3	15,552.00	20,844.00
Forensic Chemist I	1	12,816.00	17,160.00
F.A. & T.M. II	2	15,552.00	20,844.00
F.A. & T.M. II (LE)	1	12,012.00	17,712.00
Fingerprint & Photo Tech (LE)			
Color Processor	1	11,640.00	14,808.00
Evidence Coordinator	1	9,108.00	12,216.00
Police Secretary	2	8,280.00	11,640.00
Police Typist	1	8,152.00	10,044.00
Minimum Total		175,552.00	

Other expenses for the laboratory include equipment purchase and maintenance, supplies, travel, and utilities. It should be noted that a major source of income for the laboratory is derived from analysis fees charged to individual user agencies according to incremental laboratory analysis time spent on evidence submitted by those agencies. Between 1975 and 1978 the laboratory expended an approximate total of \$1,719,913.00, of which \$466,869.00 was provided by the Missouri Council on Criminal Justice. (Refer to Appendix A-2 for Four-Year Funding History)

Findings and Recommendations for Section I, Organization

Finding 1: According to the Director, the laboratory has no formal on-the-job training or employee development program.

Recommendation 1: As per the ASCLAD Standards, the laboratory should explore the possibility of obtaining a more formal type of forensics training, as well as the implementation of a formal employee development program.

Finding 2: The indication of the Director is that laboratories are not standardized to:

- Improve the evidence analysis process
- Decrease case backlog
- Compile technical data which could be exchanged between laboratories to reduce analysis time

Recommendation 2: This finding pertains to the MAPPS Standards and is addressed to all laboratories as a whole in Volume II.

SECTION II

Operations

Procedures within the laboratory regarding evidence receipt, handling, flow, analysis, and security are well written and apparently clearly understood by the staff. The laboratory does utilize a written chain of custody record for all necessary data and all evidence is marked for identification, stored under proper seal, and protected from loss, transfer, and/or contamination.

The laboratory's staff members have access to approximately \$155,000.00 worth of nonexpendable laboratory and office equipment.

As defined by the NAC Standards, the potential for full service capabilities does exist at the laboratory. The only analysis limitation within the laboratory, according to the Director, is that of questioned documents which the laboratory is incapable of processing.

Findings and Recommendations for Section II, Operations

Finding 1: The Director has not designed or implemented a reporting system that provides data relevant to the laboratory's involvement in:

- Suspects cleared
- Suspects charged
- Prosecutions
- Acquittals
- Convictions

- Recommendation 1: This finding pertains to an NAC Standard and is addressed to all laboratories as a whole in Volume II.
- Finding 2: According to the Director, the laboratory does not develop or disseminate evidence kits.
- Recommendation 2: As per increased public relations and improved evidence gathering techniques, the laboratory should explore the possibility of developing certain types of evidence gathering kits for dissemination to area agencies.

SECTION III

Activities

Case - As indicated by the Director, the laboratory uses the Uniform Crime Reporting (U.C.R.) definition which dictates that a case includes evidence submitted in connection with: criminal homicide, forcible rape, robbery, aggravated assault, burglary, larceny, auto theft, assaults, arson, forgery or counterfeiting, fraud, embezzlement, stolen property, vandalism, weapons, prostitution and vice, sex offenses, narcotic drug laws, gambling, offenses against the family and children, driving under the influence, liquor laws, drunkenness, disorderly conduct, vagrancy, all other offenses, suspicion, curfew and loitering laws, and runaways.

Evidence - As defined by the Laboratory Director, is items examined in the laboratory utilizing the physical sciences which have the potential for courtroom testimony.

Examination - As defined by the Director is an examination of evidence where one positive statement is made from either one or from a series of tests conducted in order to make that statement.

Turnaround time - As defined by the Director is time from the date that evidence is submitted until the date that analysis is complete and the report is finished.

Turnaround time figures for the laboratory were calculated from the caseload records of two sections of the laboratory, the Chemistry Section and the Firearms and Toolmarks Section. Each section of the laboratory (Chemistry; Firearms and Toolmarks; and Fingerprints and Photographs) keeps its own records and file system regarding evidence types, receipt dates, and release dates. Some items of evidence are sent to more than one section of the laboratory for analysis; therefore, in many cases it would not be possible to accurately record turnaround time per evidence item. Furthermore, the Fingerprints and Photographs Section of the laboratory operates, by and large, on a one day in-one day out basis and represents a more specialized function than is found at the other Missouri crime laboratories. For this reason, it was decided that the Chemistry Section and the Firearms and Toolmarks Section would be included independently in an attempt to estimate turnaround time. These figures were made in terms of the average number of days taken to meet the turnaround time requirements for each type of case as defined by the Region I Laboratory. The figures for the Chemistry Section are indicative of a five percent systematic sample of all evidence received by that section from January 1, 1977, through June 30, 1978. The figures for the Firearms and Toolmarks Section are indicative of a five percent systematic sample of all evidence received by that section from January 1, 1977, through December 31, 1977.

Total Number of Cases Received Annually

Year	Cases	% Increase or Decrease
1975	8,385	
1976	8,604	+3.0%
1977	8,831	+3.0%
1978	9,638	+8.0%

A total of 35,458 cases were received over the four-year period for a yearly average of 8,864 cases. Laboratory records indicate a 14 percent increase in cases received between 1975 and 1978.

Examinations Conducted Per Year

Year	Examinations	% Increase or Decrease
1975	22,883	
1976	21,794	- 5.0%
1977	27,389	+20.0%
1978	26,846	- 2.0%

A total of 98,912 examinations were conducted over the four-year period for a yearly average of 24,728 examinations. Laboratory records indicate an annual average increase of 13.5 percent in examinations conducted between 1975 and 1978.

Number of Miles Traveled Per Year

Not available

Total Number of Court Appearances Annually (In Hours)

Court records for the Region I Laboratory are maintained by total court hours spent, rather than by total number of individual appearances. The average yearly number of court hours for laboratory staff over the four-year period is 926.5 hours. This figure averages out to 115.8 total working days or an average of 29 days per year.

Activity Statistics for Breakdown of Caseload, Examination Totals, Case Type and Turnaround Time 1975-78

Type of Case	Total Cases 1975-78	% of Total Cases 1975-78	Total Examinations by Type 1975-78	Average Turnaround Time in Days	
				Chemistry Section 1-1-77/6-30-78	Firearms & Toolmarks Sect. 1-1-77/12-31-78
Narcotics & Drugs	9,164	25.8%		5.9	18.0
Burglary	5,201	14.6%	N	4.4	4.5
Traffic	2,535	7.1%	o	1.0	Not Sampled
Aggravated Assault	2,449	6.9%	t	3.7	10.5
Firearms	1,631	4.5%		Not Sampled	4.1
Robbery (Also Attempted)	1,589	4.4%	r	2.6	13.4
Forgery	1,388	3.9%	e	Not Sampled	Not Sampled
Other	1,315	3.7%	c	Not Sampled	Not Sampled
Carrying Concealed Weapon	1,300	3.6%	o	Not Sampled	3.4
Dead on Arrival	1,126	3.1%	r	Not Sampled	Not Sampled
Rape (Also Attempted)	985	2.7%	d	19.4	5.0
Homicide	898	2.5%	e	8.3	4.3
Liquor	845	2.3%	d	9.0	Not Sampled
Hit and Run	712	2.0%		4.3	Not Sampled
Fraud	698	1.9%	b	Not Sampled	Not Sampled
Arson	697	1.9%	y	36.2	7.0
Auto Theft	541	1.5%		1.0	2.0
Larceny	504	1.4%	t	5.6	Not Sampled
Suicide (Also Attempted)	459	1.2%	y	8.7	11.6
Destruction of Property	318	0.8%	p	4.2	Not Sampled
Misdemeanors	225	0.6%	e	Not Sampled	Not Sampled
Recovered Property	216	0.6%		1.0	3.7
Internal Matters	124	0.3%		Not Sampled	Not Sampled
Accidental Shooting	84	0.2%		9.0	Not Sampled
Theft from Auto	79	0.2%		Not Sampled	Not Sampled
Misc. REGIS	69	0.1%		Not Sampled	Not Sampled
Bombing	61	0.1%		Not Sampled	Not Sampled
Sodomy	52	0.1%		4.0	Not Sampled
Common Assault	48	0.1%		1.0	7.8
Molestation	32	0.09%		Not Sampled	Not Sampled
Bogus Check	27	0.07%		Not Sampled	Not Sampled
Missing Persons	20	0.05%		Not Sampled	Not Sampled
Kidnap	17	0.04%		Not Sampled	Not Sampled
Bomb Threat	10	0.02%		Not Sampled	Not Sampled
Gambling	10	0.02%		Not Sampled	Not Sampled
Vending Machines	8	0.02%		Not Sampled	Not Sampled
Incest	7	0.01%		Not Sampled	Not Sampled
Pay Phones	4	0.01%		Not Sampled	Not Sampled
Prostitution	4	0.01%		Not Sampled	Not Sampled
Exhibitionism	3	0.008%		Not Sampled	Not Sampled
Other Sex	3	0.008%		Not Sampled	Not Sampled
TOTALS	35,458	97.0%*	98,912	6.47	6.8

*3% due to rounding error

Of the 35,458 cases received from 1975 through 1978, 21,540 involved seven types of evidence and represented an average of 60.5 percent of the overall caseload for the four-year period of operation.

Findings and Recommendations for
Section III, Activities

In general, the laboratory's activities records management is superior; however, as per the ASCLAD standards and proper management techniques, some attention should be given to the following concerns and/or findings for purposes of future accountability and possible funding allocations:

- | | |
|-------------------|--|
| Finding 1: | The laboratory has no records of annual mileage. |
| Recommendation 1: | The laboratory should record monthly or annual miles traveled, if and when personal vehicles are used. |
| Finding 2: | Breakdowns of annual examinations by evidence type were not available. |
| Recommendation 2: | The laboratory should begin compilation of examination totals by evidence type. |

SECTION IV

Laboratory Users Assessment of the
Region I, Kansas City Regional Criminalistics Laboratory

Police

Of the police respondents, nine agencies utilize the laboratory on a primary basis while one agency utilizes the laboratory on a secondary basis. Of the composite of reasons given by police agencies for using the laboratory, the most significant were:

- Geographic proximity
- High quality analysis
- Promptness

The police agencies never encounter conflicts in scheduling expert testimony for the criminalists and they indicated that the laboratory is always responsive to urgent or emergency analysis needs situations.

Sheriffs

Of the sheriff respondents, two agencies utilize the laboratory on a primary basis while two others utilize the laboratory on a secondary basis. Of the composite of reasons given by sheriffs' agencies for using the laboratory, the most significant were:

- Geographic proximity
- Comprehensive analysis
- Dependability

The sheriffs' agencies sometimes encountered conflicts in scheduling expert testimony of the criminalists and they indicated that the laboratory is usually responsive to urgent or emergency analysis needs situations.

Prosecuting Attorneys

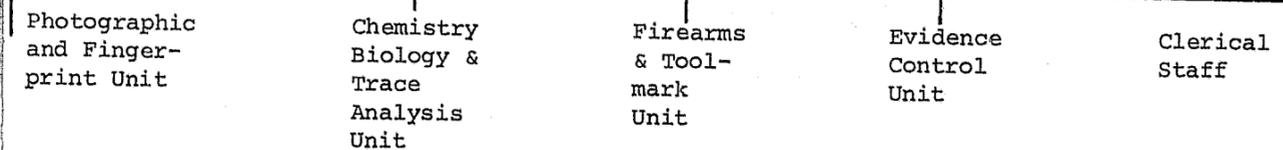
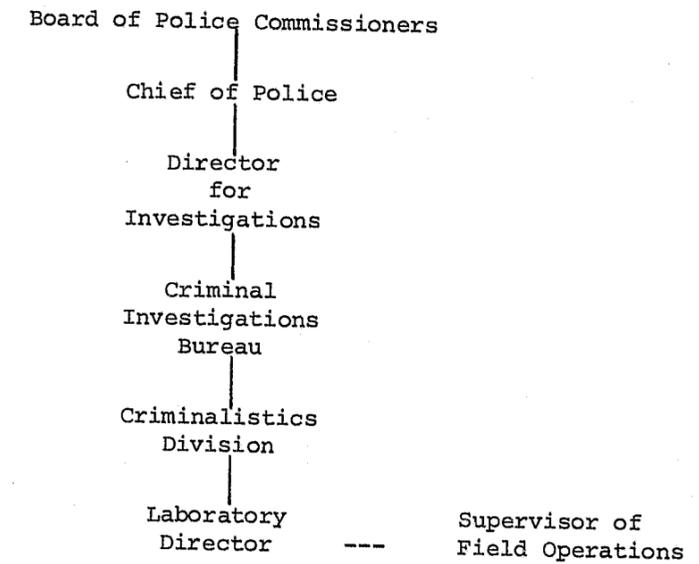
Of the prosecuting attorneys who responded, three of them utilize the laboratory on a primary basis while three others utilize the laboratory on a secondary basis. Of the composite of reasons given by prosecuting attorneys for using the laboratory, the most significant were:

- Geographic proximity
- High quality analysis
- Experience

The prosecutors seldom encounter conflicts in scheduling expert testimony of the criminalists and they indicated that the laboratory is always responsive to urgent or emergency analysis needs situations.

APPENDIX A-1

ORGANIZATIONAL STRUCTURE
Regional Criminalistics Laboratory



APPENDIX A-2

FEDERAL AND LOCAL
FUNDING HISTORY FOR THE REGION I
CRIMINALISTICS LABORATORY

MCCJ Grant Number	1975	1976	1977	1978
75-ACD2-S001	F 2,000.00 L 249.00			
75-ACD2-A014	F 150,000.00 L 194,483.00			
76-ACD2-A023		F 142,152.00 L 17,598.00		
76-ACD2-S003		F 3,200.00 L 3,200.00		
77-ACD2-S002			F 3,722.00 L 4,784.00	
77-ACD2-A020			F 82,427.00 L 10,116.00	
77-ACD2-ML27			F 1,191.00 L -0-	
78-ACD2-A012				F 80,144.00 L 8,905.00
78-ACD2-S012				F 1,532.00 L 171.00
78-ACD2-A036				F 501.00 L 175.00
TOTALS	346,732.00	166,150.00	102,240.00	91,428.00

OTHER FUNDING SOURCES FOR THE
REGION I CRIMINALISTICS LABORATORY

	1975	1976	1977	1978
Project Income	6,352.00	81,821.00	135,654.00	Not Available
KCPD	194,959.00	172,497.00	172,079.00	Not Available
TOTALS	201,311.00	254,318.00	307,733.00	250,000.00 (Estimated)

YEARLY TOTAL	548,043.00	420,468.00	409,973.00	341,428.00 (Estimated)
--------------	------------	------------	------------	---------------------------

GRAND TOTAL \$1,719,913.00

REGIONAL CRIMINALISTICS LABORATORY

Regional Center for Criminal Justice

2100 NORTH NOLAND ROAD

816-836-4800

INDEPENDENCE, MISSOURI 64051

September 10, 1979

Mr. Gary P. Maddox
Police Evaluation Specialist
MCCJ
P.O. Box 1041
621 E. Capitol
Jefferson City, Missouri 65102

Dear Gary;

I think this is an excellent and accurate evaluation, and I appreciate your having to spend a lot of time to produce such a document.

The only portion I have a problem with is in Section II, finding 2. We have had our wires crossed some where. The Regional Criminalistics laboratory has disseminated approximately 30 complete evidence kits and have stocked several more in the area. We continually re-stock the evidence kits at a no charge basis to the agencies in our region. The Regional Criminalistics Laboratory inventories 102 separate items at a cost in excess of \$4000.00 a year.

Please make this correction, and I am sorry about the mixup.

Sincerely,

Gary R. Howell
Gary R. Howell
Director

GRH:sm

RECEIVED
SEP 11 1979
MCCJ

REGION II, SPRINGFIELD CRIMINALISTICS LABORATORY

SECTION I

Organization and Management

The Region II Criminalistics Laboratory is a unit of the Springfield Metropolitan Police Department and all staff members are under the ultimate direction of Mr. Gordon Loveland, Chief of Police. The Laboratory Director, Mr. Donald Smith, is the immediate supervisor of the laboratory. No organizational chart exists which depicts the structure of the laboratory or its placement within the total department.

With the assistance of MCCJ funds, the laboratory became operational in April 1971. Located in the basement portion of the Springfield Police Department Headquarters Building, the laboratory is housed within physical space dimensions of approximately 980 square feet, of which 480 square feet is actual bench space. The laboratory also has access to, and keeps some equipment in, a 240 square foot room in the Chemistry Building on the Southwest Missouri State University campus in Springfield. A staff of three full time employees maintains the laboratory which serviced an average of 56 agencies per year during 1977 and 1978. There were no records that would indicate agencies served during 1975 or 1976. (Refer to the Crime Laboratory Users Index, Page 25)

Employees of the laboratory were found to have accurate written job descriptions dictating their laboratory activities and duties. It was indicated and observed that staff members were aware of such job descriptions, that they understood them, and that they governed their professional activities accordingly.

Professional training for staff members consists only of on-the-job type training. The laboratory does require that the professional examiners possess a relevant baccalaureate degree.

The City of Springfield determines all written personnel policies that affect the laboratory staff. Staff members indicated a knowledge of such policies and an understanding of how the policies affect and apply to them.

Laboratory records are maintained manually; however, the laboratory does have access to the Department's computer system. The manual system is considered to be adequate, according to the evaluator, for the size of the laboratory operation.

For calendar year 1978, the laboratory reflects an identified budget of \$60,351.00. Included in this total is a minimum dollar amount for professional staff salaries of \$35,102.12, or at least 58 percent of the identified budget for the year. Annual salary ranges for professional laboratory staff members are:

Title	Minimum Annual	Maximum Annual
Director	\$19,240.69	\$23,387.09
Forensic Chemist I	15,861.43	
Minimum Total	\$35,102.12	

Other expenses for the laboratory include equipment, supplies, maintenance, travel, and capital improvements. Between 1975 and 1978 the laboratory expended a total of \$211,412.00, of which \$163,505.00 was provided by MCCJ. (Refer to Appendix B-1 for Four-Year Funding History)

Findings and Recommendations for Section I, Organization

The primary assessment of the laboratory's organization and management provokes concern about the lack of certain basic organizational tools and management procedures. These include:

- Finding 1: The laboratory does not possess and apparently is not a part of any type of organizational chart.
- Recommendation 1: As per the ASCLAD Standards, a clear, concise, and well understood organizational chart should be developed depicting the placement of the laboratory within the department. This should also establish the basis for the Director's authority, which he indicates is presently not well established.
- Finding 2: The laboratory has no written or stated list or set of objectives.

Recommendation 2: The laboratory should develop a set of clear, well understood operational objectives upon which to function.

Finding 3: According to the Director, the laboratory does not have a formalized training or employee development program.

Recommendation 3: As per the ASCLAD Standards, consideration should be given to possible options for upgrading and improvement of current methods of training and development of employees, especially as the forensic sciences are becoming more and more exacting by nature.

Finding 4: The indication of the Director was that laboratories are not standardized to:

- Improve the evidence analysis process
- Decrease case backlog
- Compile and exchange technical data between laboratories to reduce analysis time

Recommendation 4: This finding pertains to the MAPPS Standards and is addressed to all laboratories as a whole in Volume II.

SECTION II

Operations

Procedures within the laboratory as they apply to evidence receipt, handling, flow, analysis, and security are primarily complete and thorough. A written chain of custody record is utilized by the laboratory for all necessary data and all evidence is marked for identification, stored under proper seal, and protected from loss, transfer, and/or contamination.

The laboratory's three staff members have access to approximately \$200,000.00 worth of nonexpendable laboratory and office equipment. Limitations to laboratory analysis capabilities were determined by the Director to be not necessarily in a particular field or evidence type as much as the laboratory is restricted by inadequate manpower, instrumentation, and facilities.

Findings and Recommendations for
Section II, Operations

- Finding 1: According to the Director, the laboratory does not possess written technical procedures for each of its disciplines.
- Recommendation 1: As per the ASCLAD Standards, the laboratory should develop or obtain written procedures for each of its disciplines.
- Finding 2: According to the Director, the laboratory does not participate in proficiency testing by independent agencies or by using either the blind or the re-exam technique.
- Recommendation 2: As per the ASCLAD Standards, proficiency testing practices involving different techniques and/or through the use of outside agencies should be explored.
- Finding 3: The laboratory has no written procedures for control of materials and supplies.
- Recommendation 3: As per the ASCLAD Standards, the laboratory should develop written procedures for control of materials and supplies.
- Finding 4: The director has not designed or implemented a reporting system that provides data relevant to the laboratory's involvement in:
- Reported crimes
 - Investigated crimes
 - Suspects identified
 - Suspects cleared
 - Suspects charged
 - Prosecutions
 - Acquittals
 - Convictions
- Recommendation 4: This finding pertains to an NAC Standard and is addressed to all laboratories as a whole in Volume II.

SECTION III

Activities

Case - As defined by the Laboratory Director is all evidence, parties, and suspects pertaining to one particular incident.

Evidence - As defined by the Laboratory Director is all physical items received by the laboratory for analysis.

Examination - As defined by the Laboratory Director is a particular disciplinary test that is performed upon the evidence. One examination is synonymous with one test.

Turnaround Time - As defined by the Laboratory Director is the time elapsing between when evidence is entered in the log (received) and when the report is written and typed.

Turnaround time figures for the laboratory were calculated from caseload records beginning on January 1, 1977, and ending on December 31, 1978, inclusive. These calculations were made in terms of the average number of days taken to meet the turnaround time requirements for each type of case as defined by the Region II Laboratory Director. The figures are indicative of 25 percent of the entire caseload for each of the respective years indicated above as 25 percent of all cases received during the two-year period was sampled.

Total Number of Cases Received Annually

Year	Cases	% Increase or Decrease
1975	Not Available	
1976	464	
1977	1,080	+58%
1978	707	-35%

A total of 2,251 cases was received between 1976 and 1978 for a yearly average of 750 cases. The above shows the respective yearly percentage increase/decrease in cases received.

Examinations Conducted Per Year

These records are not maintained by the laboratory.

Number of Miles Traveled During Calendar Year

The Laboratory Director indicated these figures were not available.

Total Number of Court Appearances Annually

The Laboratory Director indicated these figures were not available.

Activity Statistics for Breakdown of Caseload,
Examination Totals, Case Percentage, and Turnaround Time

Type of Case	Total Cases 1977	% of Total Cases 1977	Total Examinations by Type 1977	Avg. Turnaround Time in Days
Narcotic & Drug Violation	775	71.00%		9.03
Miscellaneous (Includes shooting incidences-- homicides/suicides)	61	5.60	N o t	52.51
Burglary	55	5.00		29.64
Arson	30	2.50	r	53.95
Blood	28	2.00	e	13.75
Liquor Law Violation	28	2.00	c	10.47
Rape	21	1.90	o	25.61
Assault	12	1.00	r	3.75
Destruction of Property	10	.90	d	Not Sampled
Hit and Run	10	.90	e	Not Sampled
Robbery	10	.90	d	Not Sampled
Homicide	9	.80		14.50
Accident	8	.70	b	Not Sampled
Suicide	7	.60	y	8.80
Investigation of Death	6	.50		64.00
Firearms Ident (Ballistics)	4	.30	t	Not Sampled
Larceny	3	.20	y	7.20
Forgery	1	.09	p	Not Sampled
Fraud	1	.09	e	42.00
Poisoning	1	.09		Not Sampled
TOTALS	1,080	98.00%*		
Sampled Only During 1978 (Not Complete Totals)				
Vandalism	6			18.83
Bombs	5			77.60
Gunshot Residue	3			35.35
Paint	3			79.00
Glass	2			1.50
Fingerprints	1			1.00
Hair	1			46.00
Metal	1			24.00
Sodomy	1			1.00
1977 & 1978 OVERALL AVERAGE TURNAROUND TIME IN DAYS				17.40

*2% due to rounding error

Of the 1,080 cases received in 1977, 888 involved four types of evidence and represented 80 percent of the overall caseload.

Findings and Recommendations for
Section III, Activities

Finding 1:

The evidence for the laboratory overwhelmingly indicated that efforts to maintain basic laboratory activities statistics have, in the past, been seriously neglected. In each of the activity components of concern to this report, partial or complete components of entire years of records were not available or were not maintained.

Recommendation 1:

As per the ASCLAD Standards and proper management practices, the laboratory must begin complete compilation efforts with regard to annual caseload totals and breakdowns, examinations conducted per year, and court presentations and miles traveled per year. It is also suggested that the laboratory begin to maintain records of annual or monthly turnaround time for each evidence type category. These types of records are vital in their relationship to future efforts to determine laboratory activity accountability and funding allocations.

SECTION IV

Laboratory Users Assessment of the
Region II, Springfield Metropolitan Police Department
Criminalistics Laboratory

Police

Of the police respondents, four agencies utilize the laboratory on a primary basis while four agencies utilize the laboratory on a secondary basis. Of the composite of reasons given by police agencies for using the laboratory, the most significant were:

- Geographic proximity
- Dependability

The police agencies sometimes encounter conflicts in scheduling expert testimony for the criminalists and they indicated that the laboratory is always responsive to urgent or emergency analysis needs situations.

Sheriffs

Of the sheriff respondents, four agencies utilize the laboratory on a primary basis while four others utilize the laboratory on a secondary basis. Of the composite of reasons given by sheriffs' agencies for using the laboratory, the most significant were:

- Geographic proximity
- Quick service

The sheriffs' agencies seldom encountered conflicts in scheduling expert testimony of the criminalists and they indicated that the laboratory is usually responsive to urgent or emergency analysis needs situations.

Prosecuting Attorneys

Of the prosecuting attorneys who responded, four of them utilize the laboratory on a primary basis while four others utilize the laboratory on a secondary basis. Of the composite of reasons given by prosecuting attorneys for using the laboratory, the most significant were:

- Geographic proximity
- Dependability

The prosecutors sometimes encounter conflicts in scheduling expert testimony of the criminalists and they indicated that the laboratory is always responsive to urgent or emergency analysis needs situations.

APPENDIX B-1

FEDERAL AND LOCAL
FUNDING HISTORY FOR THE REGION II
CRIMINALISTICS LABORATORY

MCCJ Grant Number	1975	1976	1977	1978
75-ACD2-B017	F 44,254.00 L 6,083.00			
76-ACD2-B005		F 47,044.00 L 8,555.00		
77-ACD2-B006			F 34,340.00 L 5,986.00	
78-ACD2-B002				F 37,867.00 L 15,484.00
TOTALS	\$50,337.00	\$55,599.00	\$40,326.00	\$53,351.00

OTHER FUNDING SOURCES FOR THE
REGION II CRIMINALISTICS LABORATORY

Source	1975	1976	1977	1978
State of Mo. (Buy-In)				7,000.00
SMSU		4,800.00		
GRAND TOTAL		\$211,413.00		



September 17, 1979

Police Headquarters
321 East Chestnut Expressway
Springfield, Missouri 65802
Phone 862-2222

Mr. G. P. Maddox
Evaluation Specialist
Department of Public Safety
Missouri Council on Criminal Justice
621 E. Capitol -- P. O. Box 1041
Jefferson City, MO 65102

Dear Mr. Maddox:

Attached you will find the response to your findings of the Region II, Springfield Criminalistics Laboratory, as per your request in your letter of August 31, 1979.

Sincerely yours,

GORDON LOVELAND
CHIEF OF POLICE
by

Donald E. Smith
Don Smith, Director
Region II Criminalistics Laboratory

DS/kw/700

Enclosure

RECEIVED
SEP 18 1979
HSP

REPLY TO MISSOURI CRIMINALISTICS LABORATORY STUDY

Section I

Finding 1 - Job responsibilities are clear. The chemist and laboratory aide report to the director. The director reports to chief of police. Basic functions: span of control, delegation of authority, assignment of responsibility, are all in perspective.

Finding 2 - There is no resource committment to permit internal laboratory objectives. Objectives of the laboratory are:
1. In integrated part of the Police Department (logistical procedure)
2. MACLD (philosophically)

Finding 3 - Insufficient resources to provide formalized training (personnel and funding). Every available workshop, seminar, or cross training session available is utilized.

Finding 4 - Insufficient staffing to provide this data. The guidelines provide for technical data exchanged with MACLD, FBI, and ASCLD.

Section II

Finding 1 - Nationally and internationally unavailable. Several alternative methods are provided the analyst. He seeks those he is most comfortable with.

Finding 2 - FSF has poor laboratories as witnessed by poor national participation. LEAA has published findings out of context and established bad recognition in the laboratories. There are no good proficiency testing facilities available. Some interchange of sampling within the state has been the most effective.

Finding 3 - Only two people working behind locked door have access to the supplies. A notebook is kept to re-order; and unlike colleges or universities, no one else has access to our supplies.

Don Smith
kw/a/3141

REGION III, UNIVERSITY OF MISSOURI CRIMINALISTICS LABORATORY

SECTION I

Organization and Management

The Region III Criminalistics Laboratory is a section of the University of Missouri - Columbia Research Reactor facility and the Environmental Trace Substance Center in Columbia, Missouri. All staff members are under the immediate supervision of Dr. J. Steven Morris, Ph.D., who reports to Dr. Robert M. Brugger, Research Reactor Director. (Refer to Laboratory Organizational Chart, Appendix C-1)

With the assistance of MCCJ funding, the laboratory became operational in 1970. Located in two separate facilities of the University, the laboratory utilizes a total of 1,800 square feet of space for both routine evidence analysis and neutron activation analysis. Both facilities also contain other laboratories which can be, and are, utilized at times for evidence analysis.

Staffed by one full time and four part time employees, the crime laboratory services an average of 36 agencies per year. (Refer to the Crime Laboratory Users Index, Page 25)

Clear, accurate job descriptions were found to exist for all staff members. It was indicated and observed that the staff was aware of and understood such written descriptions and that they governed their on-the-job activities accordingly.

Training and education for staff members consists only of on-the-job training and a required relevant baccalaureate degree for the examiners.

The University of Missouri determines all written personnel policies that affect laboratory staff. The staff indicated an awareness and understanding of such policies.

Laboratory records are maintained manually; however, the laboratory does have access to the University's computer system. Manual procedures are considered by the evaluator to be adequate for this size of operation.

For the year 1978, the laboratory had an identifiable budget of \$29,900.00. Included in this total is 10 percent of the Director's salary, 100 percent of the full time criminalist's salary, 5 percent salary for two consultants, and 15 percent salary for the secretary, or 57 percent of the identified budget. Annual salary ranges and percent of time for laboratory staff are as follows:

Title	Minimum Annual	Maximum Annual
Director (10% time)	\$ 1,850.00	Not Avail.
Two Consultants (5% time)	1,280.00	Not Avail.
Forensic Chemist (100% time)	13,500.00	\$14,500.00
Secretary (15% time)	1,000.00	Not Avail.
Minimum Total	\$17,630.00	

Other expenses include travel, equipment, and supplies. Between 1975 and 1978, the laboratory expended a total of \$151,181.00, of which \$134,380.00 was provided by MCCJ. (Refer to Appendix C-2 for Four-Year Funding History)

Findings and Recommendations for
Section I, Organization

- Finding 1: While there was an organizational chart depicting the hierarchy of laboratory members within the laboratory, no chart was available to indicate the placement of the laboratory within the overall research reactor or university structure.
- Recommendation 1: As per the ASCLAD Standards, an organizational chart should be constructed depicting the placement of the laboratory within the research reactor and/or the entire university structure.
- Finding 2: The laboratory has no long range set or list of objectives.
- Recommendation 2: As per the ASCLAD Standards, a clearly written and well understood set of long range objectives should be developed for laboratory operations.
- Finding 3: According to the Director, the laboratory has no formalized training or employee development program.
- Recommendation 3: As per the ASCLAD Standards, the laboratory should consider the available options for improvement and upgrading of current methods of training and employee development.

Finding 4: The indication of the director was that laboratories are not standardized to:

- Improve the evidence analysis process
- Decrease case backlog
- Compile technical data which could be exchanged between laboratories to reduce analysis time

Recommendation 4: This finding relates to the MAPPS Standards and is addressed to all laboratories as a whole in Volume II.

SECTION II

Operations

Procedures within the laboratory as they apply to evidence receipt, handling, flow, analysis, and security were found to be rather incomplete. This evaluator found that while written policies did exist for equipment inventory (through university policy), other written operational procedures within the laboratory were seriously lacking. No written procedures existed concerning the handling of evidence; preparation, storage, and destruction of case records or reports; control of material and supplies; or maintenance of equipment. The laboratory further was found to have no written procedures to protect evidence from experiencing deteriorious change; however, the Director advised and the evaluator's inspection revealed that the laboratory does not receive evidence which falls into this category. It was determined that the laboratory does utilize a written chain of custody record for all necessary data and that all evidence is marked for identification, stored under proper seal, and protected from loss, transfer, and/or contamination.

The laboratory's three staff members have access to approximately \$200,000.00 worth of nonexpendable laboratory and office equipment (this excludes the analysis components of the reactor facility itself). Limitations to the laboratory's analysis/identification capabilities, according to the Director, lie mainly with the fact that the laboratory is capable primarily of only drug analysis and trace elements.

Findings and Recommendations for
Section II, Operations

- Finding 1: According to the Director, the laboratory does not participate in proficiency testing programs conducted by an independent agency.
- Recommendation 1: As per the ASCLAD Standards, the availability and efficiency of proficiency testing programs involving outside and/or independent agencies should be explored.
- Finding 2: According to the Director, the laboratory does not have written procedures on:
- Handling of evidence
 - Preparation, storage, and destruction of case records or reports
 - Control of materials and supplies
 - Maintenance of equipment
- Recommendation 2: As per the ASCLAD Standards and proper management principles, the laboratory should develop well understood written policies regarding the operational components listed in Finding 2.
- Finding 3: The Director has not designed or implemented a reporting system that provides data relevant to the laboratory's involvement in:
- Reported crimes
 - Investigated crimes
 - Suspects identified or located
 - Suspects cleared
 - Prosecutions
 - Acquittals
 - Convictions
- Recommendation 3: This finding pertains to an NAC Standard and is addressed to all laboratories as a whole in Volume II.
- Finding 4: According to the Director, the laboratory does not develop or disseminate evidence kits.
- Recommendation 4: Positive public relations and improved evidence gathering techniques would be realized through the development and dissemination of evidence collection kits to area law enforcement agencies.

SECTION III

Activities

Case - As defined by the Laboratory Director is that collection of evidence samples received having to do with a particular crime or set of crimes committed by the same person or group acting as one.

Evidence - As defined by the Laboratory Director is item(s) upon which one could potentially make an analytical determination. Each unique part or piece of evidence is considered separately.

Examination - As defined by the Laboratory Director is any unique determination or analysis of a particular piece of evidence.

Turnaround Time - As defined by the Laboratory Director is that time which elapses between when evidence is submitted and the time when the requesting agency is informed of the results of the examination(s), normally by telephone. This does not include the time that it takes to write and type the report which is usually within one day.

Turnaround time figures for the laboratory were calculated from laboratory records consisting of copies of letters sent to submitting agencies with regard to evidence analysis results from April 1, 1978, to December 31, 1978. It was found that the only documentation of "in-out" time in days for evidence received over the four-year period was by the dates reflected in some of these letters. The following figures are therefore not indicative of the entire caseload and could only be collected for the 1978 year of operation.

Total Number of Cases Received Annually

Year	Cases	% Increase or Decrease
1975	587	
1976	248	- 42%
1977	None	
1978	65	-161% (from 1976)

A total of 900 cases were received over the four-year period for a yearly average of 225. The above table indicates the respective yearly decreases in cases received.

It should be noted that after September 1976, the Statewide Neutron Activation Analysis Program was discontinued and the Region III Crime Laboratory was

left virtually inactive until April 1, 1978; however, records do indicate that the laboratory did receive funds from MCCJ for fiscal year 1977.

Examinations Conducted Per Year

Year	Examinations	% Increase or Decrease
1975	6,400	
1976	2,660	-59%
1977	None	
1978	760	-72% (from 1976)

Four-year totals for examinations reveal that the laboratory conducted 9,820 examinations from 1975 through 1978. The average yearly number of examinations conducted by the laboratory for the three years of operation was 3,273. The above table shows the respective yearly decrease in examinations over the three active years.

Number of Miles Traveled During Calendar Year

These records are not kept by the laboratory.

Number of Court Appearances Annually

The average yearly number of court appearances for the laboratory staff is 20.

Activity Statistics for Breakdown of Caseload Totals, Percentages, and Turnaround Time

Case Types 1975-1978	Total Cases 1975-78	% of Overall Caseload 1975-78	Individual Examinations 1975-1978	Average Turnaround Time in Days 4/1/78-12/31/78
N.A.A.			N	
Gunshot Residue	590	65.0%	o	21.0
Hair	22	2.4	t	108.0
Paint	6	.6		Not Sampled
Glass	4	.4	r	102.5
Metal	2	.2	e	6.0
Putty	1	.1	c	Not Sampled
Dust	1	.1	o	Not Sampled
Drugs	104	11.5	r	29.8
Marijuana	155	17.2	d	16.0
Alcohol	15	1.6	e	11.3
TOTALS	900	99.1%*	d	27.8

*.9% due to rounding error

Of the 900 cases received from 1975 through 1978, approximately 93 percent involved analysis activities of two major types of evidence.

Findings and Recommendations for
Section III, Activities

The overall assessment of laboratory activities record keeping is average. As per the ASCLAD Standards and proper management techniques, some areas of concern and/or findings where attention should be directed for purposes of future accountability and possible funding allocations are:

- Finding 1: Annual mileage records are not maintained by the laboratory.
- Finding 2: Analysis completion dates are not maintained by the laboratory.
- Finding 3: Examination totals are not maintained by evidence type.
- Recommendation 1: Statistics regarding the above findings and all other aspects of the laboratory's activities, including average turnaround time and total examinations by type of evidence, should be maintained.

SECTION IV

Laboratory Users Assessment of the Region III,
University of Missouri Criminalistics Laboratory

Police

Of the police respondents, there were no agencies using the laboratory on either a primary or secondary basis.

Sheriffs

Of the sheriff respondents, one agency utilizes the laboratory on a primary basis while two agencies utilize the laboratory on a secondary basis. Of the composite of reasons given by sheriffs' agencies for using the laboratory, the most significant were:

- Geographic proximity
- Quick service

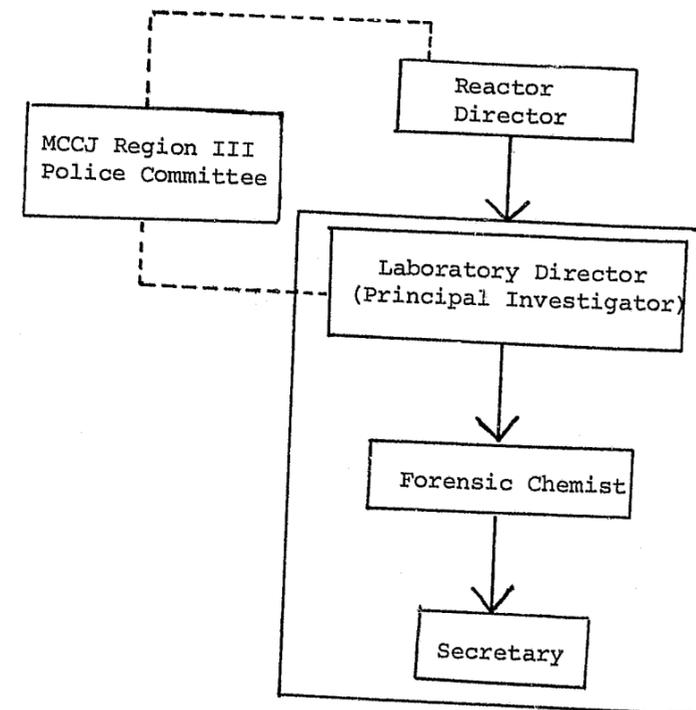
The sheriffs' agencies never encountered conflicts in scheduling expert testimony of the criminalists and they indicated that the laboratory is sometimes responsive to urgent or emergency analysis needs situations.

Prosecuting Attorneys

Of the prosecuting attorneys who responded, none of them use the laboratory on either a primary or secondary basis.

APPENDIX C-1

ORGANIZATIONAL STRUCTURE
Region III Criminalistics Laboratory



University of Missouri's
Research Reactor Facility
and Environmental Trace
Substances Research Center

APPENDIX C-2

FEDERAL AND LOCAL
FUNDING HISTORY FOR THE REGION III
CRIMINALISTICS LABORATORY

MCCJ Grant Number	1975	1976	1977	1978
75-ACD2-C014	F 12,942.00 L 1,901.00			
75-ACD2-MU01	F 44,685.00 L 5,000.00			
76-ACD2-MU02		F 45,000.00 L 5,900.00		
77-ACD2-C024			F 5,268.00 L 585.00	
78-ACD2-C011				F 26,485.00 L 3,415.00
TOTALS	64,528.00	50,900.00	5,853.00	29,900.00

GRAND TOTAL \$151,181.00

REGION IV, NORTHEAST MISSOURI STATE UNIVERSITY
CRIMINALISTICS LABORATORY

SECTION I

Organization and Management

The Region IV Criminalistics Laboratory is a section of the Department of Law Enforcement and Corrections at Northeast Missouri State University (NEMSU) in Kirksville, Missouri. The laboratory director, Dr. Matthew Eichor, has both immediate and ultimate supervisory responsibility of the laboratory as he is also the Director of the Department of Law Enforcement and Corrections. No organizational chart was available.

In operation since July 1973, the laboratory is located in the Science Hall of the Northeast Missouri State University campus. The laboratory is accommodated with 1,500 square feet of physical space, of which approximately 1,300 square feet is bench space.

The laboratory is staffed by three part-time employees who serve an average of 14 agencies per year according to 1975-1977 figures. (Refer to the Crime Laboratory Users Index, Page 25)

No written job descriptions were found to exist for laboratory staff members.

Training and educational requirements for staff members include on-the-job training for new employees and a required, relevant baccalaureate degree.

The administrative function of Northeast Missouri State University determines all written personnel policies that affect laboratory staff. The staff indicated that they were aware of and understood such policies.

Laboratory records are maintained in a manual fashion; however, the laboratory does have access to the University computer facilities. The belief of this evaluator is that the manual system is very adequate for the laboratory's operation.

For FY 1978, the laboratory reflects an approximate identifiable budget of \$18,500.00. Included in this total is 40 percent and 50 percent respectively of the two professional staff salaries which is the total time spent in the laboratory. Annual salaries for staff members are:

Title	Minimum Annual	Maximum Annual
Director	\$25,000.00 x 40% time + \$500 for directing laboratory	Unknown
Chemist	10,000.00 x 50% time	
Secretary	Unknown 10% time	
Minimum Total	\$18,500.00	

Other known expenses include supplies for the laboratory. The total budget for the laboratory is figured into the total Law Enforcement Department budget and therefore exact laboratory expenditures could not be determined. MCCJ funds were awarded to the laboratory only during FY 1977. No complete four-year funding history could be offered or calculated. (Refer to Appendix D-1 for MCCJ Funding Chart)

Findings and Recommendations for
Section I, Organization

The fundamental assessment of administrative and organizational practices within the laboratory is one which causes immediate and critical concern over several major deficiencies in this area which include:

- Finding 1: No organizational charts exist for the laboratory.
Recommendation 1: As per basic principles of management, the laboratory should develop an organizational chart depicting not only the delineation of members within the laboratory, but also clearly indicating the placement of the laboratory within the overall departmental and University organizational framework.
- Finding 2: No written objectives were found to exist for the laboratory.
Recommendation 2: As per the ASCLAD Standards, the laboratory should develop a clearly written, well understood set or list of objectives by which to operate.
- Finding 3: According to the Director, no formal training or employee development program is available at the laboratory.

- Recommendation 3: As per the ASCLAD Standards, the laboratory should explore the availability and the possibility of obtaining a formal training and employee development program for professional staff.
- Finding 4: The laboratory does not operate on a distinct, clearly discernable, independent budget.
Recommendation 4: For purposes of future accountability and as per proper management techniques, the laboratory should be operated on a distinct, well documented and accurate budget, preferably independent from the Department of Law Enforcement's operating budget.
- Finding 5: The director indicated that crime laboratories are not standardized to:
 - Improve the evidence analysis process
 - Decrease case backlog
 - Compile technical data which could be exchanged between laboratories to reduce analysis time
- Recommendation 5: This finding relates to the MAPPS Standards and is addressed to all laboratories as a whole in Volume II.

SECTION II

Operations

Although seemingly well understood, procedures within the laboratory were, for the most part, not written with regard to evidence receipt, handling, flow, analysis, security, and disposition. The laboratory does utilize a written chain of custody record for all necessary data and all evidence is marked for identification, stored under proper seal, and protected from loss, transfer, and/or contamination.

The laboratory's three part-time staff members have access to \$31,000.00 worth of equipment in the Law Enforcement Department and an unknown amount of Science Department equipment.

Limitations to laboratory analysis capabilities were determined, by the Director, to be that the laboratory is restricted in function, primarily, to that of chemical analysis.

Findings and Recommendations for
Section II, Operations

Finding 1: According to the Director, the laboratory does not possess written technical procedures for each of its disciplines.

Recommendation 1: As per the ASCLAD Standards, the laboratory should develop or obtain written procedures for each of its disciplines.

Finding 2: The laboratory does not have written procedures on:

- Handling of evidence
- Preparation, storage, and destruction of case records and reports
- Maintenance of equipment
- Normal duty hours
- Extra duty hours

Recommendation 2: As per the ASCLAD Standards, the laboratory should develop clearly written, well understood procedures for each component listed in Finding No. 2.

Finding 3: The Director has not designed or implemented a reporting system that provides data relevant to the laboratory's involvement in:

- Reported crimes
- Suspects identified/located
- Suspects cleared
- Suspects charged
- Prosecutions
- Acquittals
- Convictions

Recommendation 3: This finding pertains to an NAC Standard and is addressed to all laboratories as a whole in Volume II.

SECTION III

Activities

Case - As defined by the Director is all evidence submitted regarding one incident.

Evidence - As defined by the Director is any real or physical tangible item that is related to a criminal incident.

Examination - As defined by the Director is to look at one item of evidence and to make one particular statement about that item.

Turnaround Time - As defined by the Director is the time which elapses from the date of receipt of evidence to the date the report is typed and sent to the submitting agency.

Turnaround time figures were calculated from caseload figures beginning on January 1, 1975, and ending on May 30, 1978, inclusive. These calculations were made in terms of the average number of days taken to meet the turnaround time requirements for each type of case as defined by the Region IV Laboratory Director. The figures are indicative of the entire caseload where receipt dates and completion dates were available. Some dates were missing from records over the sample period and could not, therefore, be used in the sample.

Total Cases Received Annually

Year	Cases	% Increase or Decrease
1975	50	
1976	66	+25%
1977	126	+52%
1978	82	-35%

A total of 324 cases were received over the four-year period for a yearly average of 81 cases. The above table indicates the respective yearly percentage increase in cases received.

Examinations Conducted Per Year

Year	Examinations	% Increase or Decrease
1975	294	
1976	508	+43%
1977	686	+36%
1978	447	-35%

A total of 1,935 examinations were conducted over the four-year period. Yearly increases/decreases are shown above.

Number of Miles Traveled During Calendar Year

Records not maintained by the laboratory.

Total Number of Court Appearances Annually

Not provided

Activity Statistics for Breakdown of
Caseload, Examination Totals, Case Type
and Turnaround Time

Type of Case 1975-1978	Total Cases 1975-78	% of Total Cases	Total Exami- nations by type 1975-1978	Avg. Turn- around Time in Days 1/1/75-5/31/78
Narcotics & Drug Law Viol.	N p	N a	1,706	37.9
Arson	o r	o v	15	95.5
Blood	t o	t a	38	104.6
Alcohol	v o	i l	90	16.1
Gasoline	i d	l a		14.0
Toxicology	d e	a b		Not sampled
Hit & Run	e d	b l		131.0
Breaking & Entering	d e	l e		Not sampled
Miscellaneous		e	86	Not sampled
TOTAL	324		1,935	39.6

Findings and Recommendations for
Section III, Activities

The overall assessment of the laboratory's activities record keeping procedures indicates some areas of concern. As per the ASCLAD Standards and proper management techniques, areas of findings and the subsequent recommendations for improvement for purposes of future accountability and possible funding allocations are:

Finding 1: Complete, well documented activities records were either not available or not provided for Miles Traveled During Calendar Year and Number of Court Appearances Annually.

Recommendation 1: Accurate, up to date and well documented activities records should be maintained on a monthly and/or annual basis for all activities components outlined in this section. Further, accurate receipt and completion dates should be maintained for all cases submitted to the laboratory as several cases were found to be entered into the case log between 1975 and 1978 yet no indication was made within the log, or elsewhere, that would indicate dates of analysis completion and/or case disposition.

SECTION IV

Laboratory Users Assessment of the
Region IV Northeast Missouri State University
Criminalistics Laboratory

Police

Of the police respondents, one agency utilizes the laboratory on a primary basis and one agency utilizes the laboratory on a secondary basis. The only reason given by the police agencies for using the laboratory is:

-Geographic proximity

The police agencies seldom encounter conflicts in scheduling expert testimony of the criminalists and they indicated that the laboratory is always responsive in urgent or emergency analysis needs situations.

Sheriffs

Of the sheriff respondents, two agencies utilize the laboratory on a primary basis and one agency utilizes the laboratory on a secondary basis. The reasons given by the sheriffs' agencies for utilizing the laboratory were:

-Geographic proximity
-Quick analysis of small or simple evidence

The sheriffs' agencies seldom encounter conflicts in scheduling expert testimony for the examiners and they indicated that the laboratory is always responsive to urgent or emergency analysis needs situations.

Prosecuting Attorneys

Of the prosecuting attorneys who responded, only two of them utilize the laboratory and always on a primary basis. The only reason given by the prosecutors for using the laboratory was:

-Geographic proximity

The prosecutors sometimes encounter conflicts in scheduling expert testimony of the examiners and they indicated that the laboratory was often responsive to urgent or emergency analysis needs situations.

FEDERAL AND LOCAL FUNDING HISTORY FOR THE
REGION IV CRIMINALISTICS LABORATORY

MCCJ Grant Number	1975	1976	1977	1978	1979
77-ACD2-D024			F 7,500.00 L 833.00		
TOTAL			8,333.00		
GRAND TOTAL			\$8,333.00		

NORTHEAST MISSOURI STATE UNIVERSITY

KIRKSVILLE, 63501

September 14, 1979

Gary Maddox
Missouri Council on Criminal Justice
621 East Capitol - P.O. Box 1041
Jefferson City, MO. 65102

Dear Sir:

Enclosed please find the responses to the evaluation of the Northeast Area Criminalistic Laboratory. I appreciate the opportunity for a response.

I also appreciate you and your agencies continual concern about improving service to area Law Enforcement and Criminal Justice agencies.

Sincerely,

Matt Eichor

Matt Eichor, PhD.
Director, Northeast Area
Criminalistics Laboratory

ME/cs
Enclosure

RESPONSE TO CRIME LABORATORY REPORT
FOR
NORTHEAST AREA (MCCJ Region IV) LABORATORY

Overview

The Crime Laboratory located on the Northeast Missouri State University campus is a direct result of area law enforcement agencies request for criminalistics service. Prior to 1973, several approaches were made to the University and finally in 1973, a laboratory was started. Cases were being processed in late 1973 and have continued to be processed on an on-going basis.

The laboratory has dedicated physical facilities and additionally has the use of all of the sophisticated equipment in the Science Division. Security is maintained for all evidence via controlled access and an elaborate alarm system.

The primary objectives of the laboratory is that of providing service to area criminal justice agencies. These services should be available regardless of population density and size of the agency. Further, laboratory services should be involved at the investigatory stages as well as the prosecution. Implementation of this investigatory aid requires that the laboratories be more accessible and responsive to area needs.

Every other activity (i.e. administrative function, activity records, training, gathering of statistics, etc.) that a laboratory is involved in must be a secondary objective and a support activity for the services that are rendered to investigators and criminal justice agencies.

At the same time it is recognized that principles of management are necessary for proper functioning and accountability. However, when any secondary support activity becomes a deterrent to the provision of services then this activity must be carefully evaluated and reassigned its proper priority.

It should be mentioned that from the beginning of the evaluation to present at least two separate MCCJ staff members have been involved, and over one year has elapsed. The second MCCJ evaluator, talked to the Northeast Missouri State University Laboratory Director at most, 45 minutes via telephone.

Northeast Missouri State University takes pride in its service to area Law Enforcement and Criminal Justice agencies. Thus it is our hope that this evaluation will be the beginning of a continual effort to upgrade our services and hopefully it will not be viewed as a final document on crime laboratories in Missouri.

The remaining portion of this response will be in the same format as that used in the evaluation. The finding will be repeated and then the response to that finding.

Findings and Responses for
Section I, Organization

Finding 1:

No organizational charts existed for the laboratory.

Response 1:

Having an organizational chart for a two man laboratory serves an extremely limited function. Individual position's are well understood. Responsibilities within the laboratory are well understood. With two individuals communication is well understood. The placement within the University structure is also well understood.

Finding 2:

No written objectives were found to exist for the laboratory

Response 2:

Though previously not written, the laboratory objectives have always been well understood. The objectives as indicated earlier will be adopted as our written objectives: *It should be pointed out that the "ASCLAD standards" referred to in the recommendation are not standards of any organization but are the result of a committee report, as of this date no action of any kind has been taken on these recommendations.*

Finding 3:

According to the Director, no formal training or employee development program is available at the laboratory.

Response 3:

No formal *written* employee development program does exist. In FY 1978-79, the two employees at the laboratory participated in six separate schools including such topics as gunshot residue analysis, liquid chromatography, management, serology, and electrophoresis. In-service training has been, is, and will continue to be an important part of the laboratory.

Finding 4:

The laboratory does not operate on a distinct, clearly discernable, independent budget.

Response 4:

All expenditures (laboratory or otherwise) are distinct, well documented and available. It would, however, be difficult to account for instrument time usage. There is no objection to having a different budget arrangement if this will enhance our primary mission.

Grant assistance for the laboratory through MCCJ has always been handled per this recommendation.

Finding 5: The director indicated that crime laboratories are not standardized to:

- Improve the evidence analysis process
- Decrease case backlog
- Compile technical data which could be exchanged between laboratories to reduce analysis time

Response 5: This finding is correct. It should be pointed out that the MAPPs recommendation was one that crime laboratory people were instrumental in having included in the Missouri Action Plan for Public Safety. The Missouri Council on Criminal Justice currently has a proposal before them to fund a grant project to assist with this finding and recommendation.

Section II

Operations

It must be remembered that the laboratory is a two man operation. The Director-Chemist and Chemist have constant contact. Evidence receipt, handling, flow, analysis, security and all matters regarding the evidence are well understood. All legal concerns are well understood and properly handled.

The laboratory's staff has access to well over \$300,000 worth of equipment, not \$31,000 as indicated by the evaluator.

Findings and Responses for Sections II, Operations

Finding 1: According to the Director, the Laboratory does not possess written technical procedures for each of its disciplines.

Response 1: This finding is correct however, the evaluator(s) failed to understand that technical procedures are generally not available anywhere for performing the required analysis. Indeed the scientific community needs to be able to adapt the latest advances in science to forensic problems. Detailed written technical procedures do not necessarily accomplish this need.

Finding 2: The laboratory does not have written procedures for:

- Handling of evidence
- Preparation, storage, and destruction of case records and reports
- Maintenance of equipment
- Normal duty hours
- Extra duty hours

Response 2: As has been pointed out previously the laboratory is a two man operation. All of the above procedures are well understood. It is recognized that written procedures would be desirable and the laboratory will strive to accomplish this.

Finding 3: The Director has not designed or implemented a reporting system that provides data relevant to the laboratory's involvement in:

- Reported crimes
- Suspects identified/located
- Suspects cleared
- Suspects charged

-Prosecutions
-Acquittals
-Convictions

Response 3: The above finding is correct. The laboratory would be anxious to be involved in providing this data as it would be important to evaluate the laboratories role in this area.

The Missouri Council on Criminal Justice will undoubtedly be anxious to fund a project for each laboratory that will allow this data to be extracted.

Section III

Activities

Activity statistics were provided as the report suggests. Though the data would be difficult to extract, the responder must question the data on turn around. This is also completely contrary to the user survey information. Finally it does not take into account the way the laboratory assists in the investigation phases.

Findings and Responses for Section III, Activities

Finding 1: Complete, well documented activities records were either not available or not provided for Total Cases Received Annually, Miles Traveled during Calendar year, and Number of Court Appearances Annually.

Response 1: Activity records were provided. It is agreed that better records should be maintained. Part of the concern of incomplete records is again a failure of the evaluators to understand the laboratory's role in the early stages of an investigation.

REGION V, ST. LOUIS COUNTY CRIMINALISTICS LABORATORY

SECTION I

Organization and Management

The Region V St. Louis County Criminalistics Laboratory is a section of the Bureau of Criminal Identification for the St. Louis County Police Department. The laboratory is under the immediate supervision of the Director, Mr. Robert Roither, who is ultimately responsible to the Assistant Bureau Director of the Forensics Unit of the St. Louis County Police Department. (Refer to Organizational Chart, Appendix E-1a and E-1b)

In operation since 1966, the laboratory is located within the basement of the St. Louis County Police Department building in Clayton, Missouri, and is accommodated with approximately 2,873 square feet of physical space, of which approximately 2,500 square feet is working bench space. A staff of ten full time employees maintains the laboratory which served 86 agencies during 1978; however, no records were available to document agencies served in other years. (Refer to the Crime Laboratory Users Index, Page 25.)

Employees of the laboratory were found to have clearly written, apparently accurate job descriptions dictating their laboratory activities. The indication and observation was that the staff was aware of and understood such descriptions and governed their professional activities accordingly.

Professional training and education for staff members consists of on-the-job training and a required, relevant four-year baccalaureate degree.

The St. Louis County Police Department determines all written personnel policies that affect laboratory staff. Laboratory employees expressed an awareness and an understanding of all such written regulations.

Laboratory records are maintained in manual fashion; however, access to the Police Department's Records Section computers is available. The opinion of this evaluator is that the volume of work handled by the laboratory suggests that a computerized records system would be markedly more dependable and efficient than is the current method.

For FY 1978, the laboratory reflects an identifiable budget of \$205,274.00. Included in this figure is a minimum dollar amount for staff salaries of \$133,296.00, or at least 65 percent of the identified budget for FY 1978. Annual salary ranges for laboratory staff members are:

Title	Minimum Annual	Maximum Annual
Laboratory Director (Supervisor)	\$ 16,045.00	\$ 20,643.00
Four Criminalist III	14,575.00	18,560.00
Two Criminalist II	12,705.00	16,045.00
Two Firearm & Toolmark Examiners (Police Officers)	12,705.00	16,045.00
One Clerk Typist	8,131.00	9,695.00
Minimum Total	\$133,296.00	

Other expenses include equipment purchases and maintenance, supplies, and travel. Between 1975 and 1978, the laboratory expended a total of approximately \$624,000.00, of which \$84,758.00 was provided by MCCJ. Other funding sources include only St. Louis County. (Refer to Appendix E-2 for Four-Year Funding History)

Findings and Recommendations for Section I, Organization

The organizational and administrative components of the laboratory are basically sound and seemingly efficient. Areas where attention to potential problems and/or findings should be directed are:

- Finding 1: The laboratory has no written list of objectives other than those written into the MCCJ grants.
- Recommendation 1: As per the ASCLAD Standards and proper management principles, the laboratory should develop a clearly written, well understood list or set of long term objectives by which to direct its operations.
- Finding 2: The indication of the director was that laboratories are not standardized to:
- Improve the evidence analysis process
 - Decrease case backlog
 - Compile and exchange technical data between laboratories to reduce analysis time

- Recommendation 2: This finding relates to the MAPPS Standards and is addressed to all laboratories as a whole in Volume II.

SECTION II

Operations

Procedures within the laboratory with regard to evidence receipt, handling, flow, analysis, security, and disposition are all clearly written and apparently well adhered to. A written chain of custody record is maintained for all necessary data and all evidence is marked for identification, stored under proper seal, and protected from loss, transfer, and/or contamination.

The ten staff members have access to approximately \$83,000.00 worth of non-expendable laboratory and office equipment.

Limitations to laboratory analysis/identification capabilities, according to the Director, are in the area of questioned documents which the laboratory is incapable of processing.

Findings and Recommendations for Section II, Operations

- Finding 1: According to the Director, the laboratory does not possess written technical procedures for each of its disciplines.
- Recommendation 1: As per the ASCLAD Standards, the laboratory should develop or obtain written technical procedures for each of its disciplines.
- Finding 2: According to the Director, the laboratory does not have written procedures for control of materials and supplies or for maintenance of equipment.
- Recommendation 2: As per the ASCLAD Standards, the laboratory should develop written procedures for both the control of materials and for the maintenance of equipment.
- Finding 3: The Director has not designed or implemented a reporting system that will provide data relevant to the laboratory's involvement in:

- Reported crimes
- Investigated crimes
- Suspects identified/located
- Suspects cleared
- Suspects charged
- Prosecutions
- Acquittals
- Convictions

Recommendation 3: This finding pertains to an NAC Standard and is addressed to all laboratories as a whole in Volume II.

SECTION III

Activities

Case - As defined by the Director is one occurrence or crime from which any evidence is collected.

Evidence - As defined by the Director is anything physical that is brought into the laboratory for analysis or examination.

Examination - As defined by the Director is anything that the laboratory does with the evidence. Examination and analysis are used synonymously in the laboratory (e.g., one analysis is one examination).

Turnaround Time - As defined by the Laboratory Director is the time from when the evidence is submitted until the time that the analysis report is written and sent out.

Turnaround time figures for the laboratory were calculated from caseload records compiled between January 1, 1977, and December 31, 1978, and are representative of a five percent sample of the overall caseload for those two years. It should be noted that where cases involve misdemeanors of marijuana or liquor from St. Louis County, turnaround time figures can be distorted in that unless the offender in each case pleads not guilty, the case is not assigned a number until such time as an opportunity is made available to analyze the evidence which may amount to days, weeks, or months that the evidence lies, more or less, dormant in the evidence room, yet is still active in the log book where it was entered when it was first received.

Total Number of Cases Received Annually

Year	Cases	% Increase or Decrease
1975	4,575	
1976	5,077	+10%
1977	5,769	+12%
1978	6,570	+13%

A total of 21,991 cases were received over the four-year period for a yearly average of 5,497 cases. The above table shows respective yearly increases in cases received between 1975 and 1978.

Examinations Conducted Per Year

Year	Examinations	% Increase or Decrease
1975	27,360	
1976	31,483	+13%
1977	37,999	+17%
1978	36,361	- 4%

A total of 133,203 examinations were conducted over the four-year period. The above table shows the respective yearly increases and decreases for a yearly average of 33,300.

Total Number of Miles Traveled Annually

The monthly average for miles traveled during the years for which the data was available, 1977 and 1978, was 207 miles.

Total Number of Court Appearances Annually

The average yearly number of court appearances for the laboratory staff is 225.

Activity Statistics for Breakdown of
Caseload, Examination Totals, Case Type
and Turnaround Time 1975-78

Type of Case*	Total Cases	% of Total Cases	Total Examinations by Type	Avg. Turn-around Time in Days
Narcotics & Drugs	81,229	61.0%	N	31.0
Alcohol	14,833	11.1	o	17.3
Firearms Identification	14,790	11.1	t	42.0
Miscellaneous§	7,193	5.4		Not Sampled
Spectrophotometer	5,574	4.1	r	Not Sampled
Clothing Process	4,514	3.3	e	Not Sampled
Hair & Fiber	1,699	1.2	c	Not Sampled
Paint	1,248	0.9	o	Not Sampled
Tool Impressions	780	0.5	r	59.0
Toxicology	496	0.3	d	Not Sampled
Glass	372	0.2	e	Not Sampled
Powder Residue	291	0.2	d	Not Sampled
Soil	184	0.1		Not Sampled
TOTALS	133,203	99.0%**		30.2
§Miscellaneous and other evidence types received				
Blood				12.3
Burglary				58.0
Arson				58.2
Assault				53.8
Leaving the Scene				83.0
Homicide				17.6
Suicide				60.0
Rape				16.6
Bomb				13.2
Tampering w/motor vehicle				36.6
Possessing stolen property				37.0
Larceny				3.5
Vandalism				1.0
Possession of Fireworks				113.0
Auto Theft				86.0

*This information is kept by the laboratory only in terms of the number of different types of analysis conducted and not by total cases received.

**1% due to rounding error.

Findings and Recommendations for
Section III, Activities

The overall assessment of activities record keeping procedures for the laboratory is mediocre. Some areas of concern and/or findings as per the ASCLAD Standards and proper management techniques where attention should be directed for purposes of future accountability and possible funding allocations are:

- Finding 1: The laboratory has no complete records depicting annual total agencies served.
- Recommendation 1: The laboratory should maintain complete documentation of the total number of agencies, together with which agencies, were served on an annual basis.
- Finding 2: The laboratory could not provide complete documentation of annual mileage.
- Recommendation 2: Accurate records indicating monthly or annual total mileage should be maintained by the laboratory.
- Finding 3: The laboratory does not keep records indicating total types of cases received.
- Recommendation 3: The laboratory was able to provide an annual total of cases received and therefore it should also be able to keep records of total types of cases received annually.

SECTION IV

Laboratory Users Assessment of the
Region V St. Louis County Criminalistics Laboratory

Police

Of the police respondents, 17 agencies utilize the laboratory on a primary basis while four agencies utilize the laboratory on a secondary basis. Of the composite of reasons given by police agencies for using the laboratory, the most significant were:

- Geographic proximity
- Good relationship
- Comprehensive services

The police agencies seldom encounter conflicts in scheduling expert testimony for the criminalists and they indicated that the laboratory is usually responsive to urgent or emergency analysis needs situations.

Sheriffs

Of the sheriff respondents, two agencies utilize the laboratory on a primary basis while one agency utilizes the laboratory on a secondary basis. Of the composite of reasons given by sheriffs' agencies for using the laboratory, the most significant were:

- Geographic proximity
- Good relationship

The sheriffs' agencies seldom encountered conflicts in scheduling expert testimony of the criminalists and they indicated that the laboratory is usually responsive to urgent or emergency analysis needs situations.

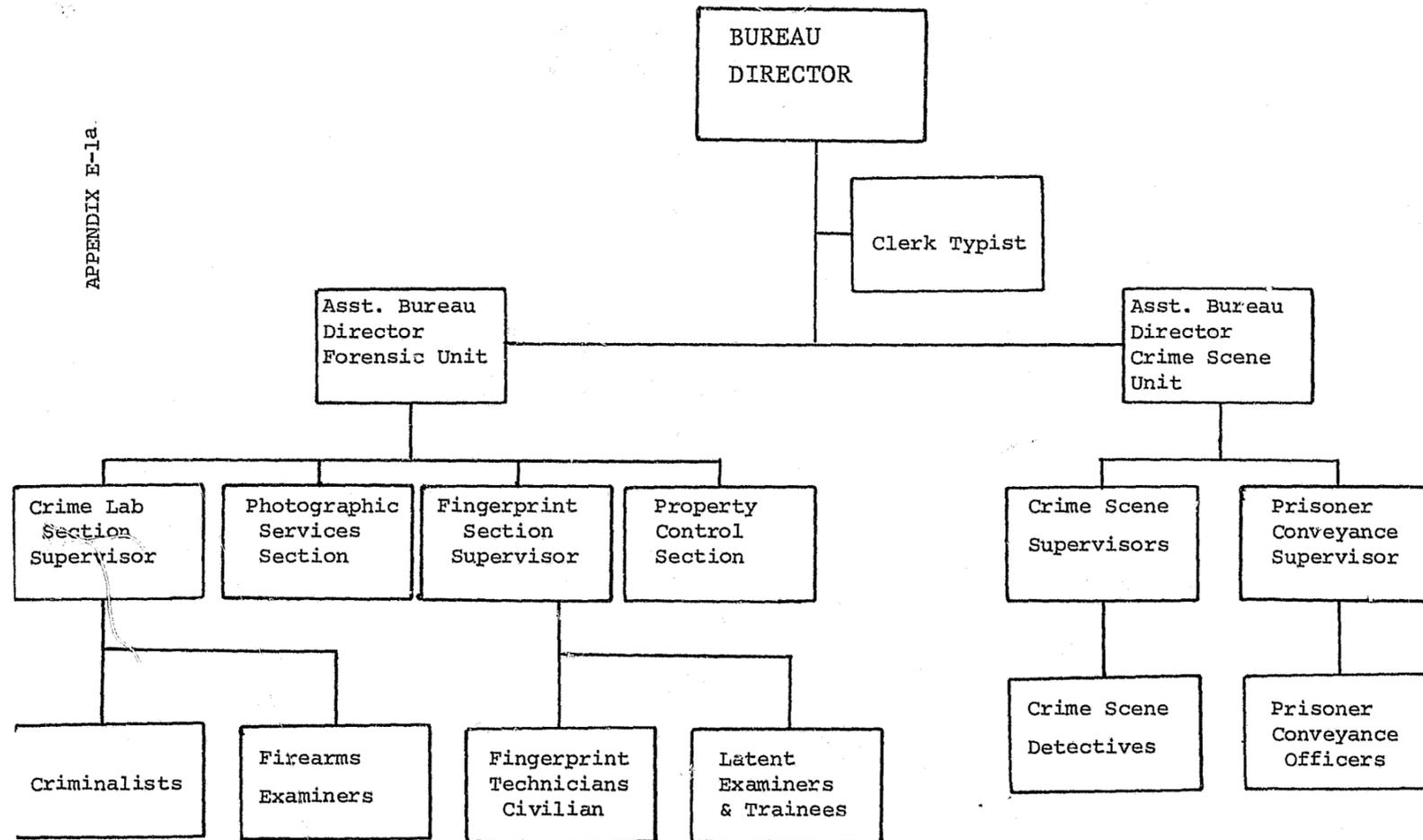
Prosecuting Attorneys

Of the prosecuting attorneys who responded, two of them utilize the laboratory on a primary basis while two others utilize the laboratory on a secondary basis. Of the composite of reasons given by prosecuting attorneys for using the laboratory, the most significant were:

- Quick response
- No service charge

The prosecutors sometimes encounter conflicts in scheduling expert testimony of the criminalists and they indicated that the laboratory is usually responsive to urgent or emergency analysis needs situations.

ORGANIZATIONAL CHART
BUREAU OF CRIMINAL IDENTIFICATION

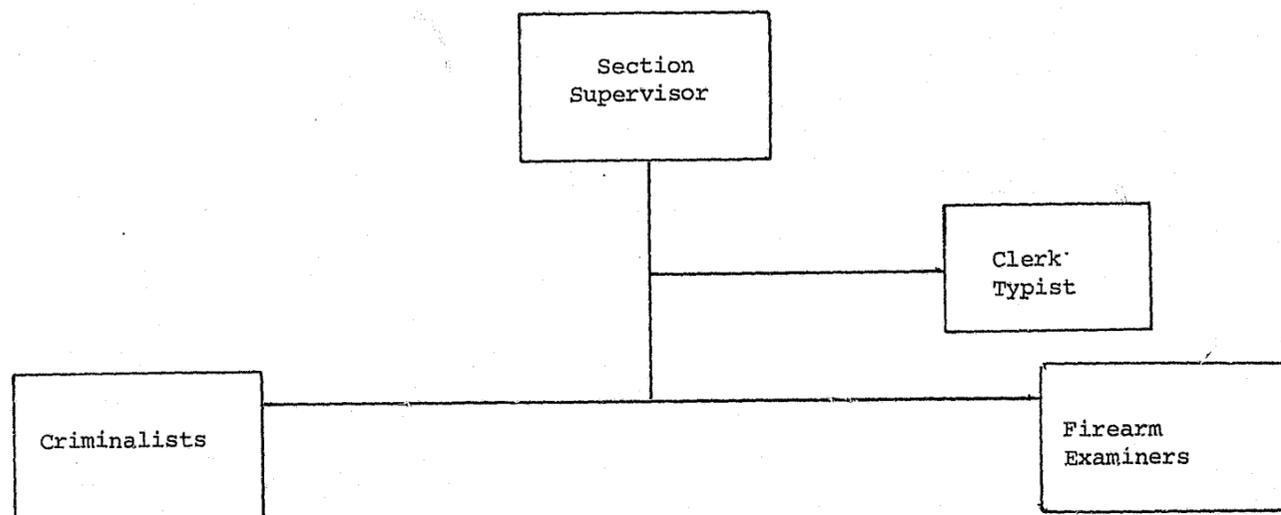


APPENDIX E-1a.

APPENDIX E-1b

ORGANIZATIONAL CHART

Laboratory Section



APPENDIX E-2

FEDERAL AND LOCAL
FUNDING HISTORY FOR THE REGION V
CRIMINALISTICS LABORATORY

MCCJ Grant Number	1975	1976	1977	1978
75-ACD2-E022	F 23,537.00* L 4,012.00*			
76-ACD2-E046		F 22,508.00* L 2,953.00*		
77-ACD2-E014			F 23,852.00* L 4,542.00*	
78-ACD2-E033				F 14,861.00 L 14,921.00
TOTALS	27,549.00	25,461.00	28,394.00	29,782.00

*Approximate figures, grant shared with St. Louis City Laboratory.

ST. LOUIS COUNTY FUNDING ALLOCATIONS
TO REGION V LABORATORY

	1975	1976	1977	1978
	Unknown*	97,951.00	144,571.00	175,492.00
YEARLY TOTALS	122,349.00	123,412.00	172,965.00	205,274.00
				624,000.00

*94,800.00 estimated into total expenditures

REGIONS VI, VII AND VIII
SOUTHEAST MISSOURI STATE UNIVERSITY CRIMINALISTICS LABORATORY

SECTION I

Organization and Management

The Region VI, VII, and VIII Criminalistics Laboratory is a section of the College of Sciences at Southeast Missouri State University (SEMO) in Cape Girardeau, Missouri. Directed by Dr. Robert C. Briner, the laboratory is under the ultimate supervision of the Dean of the University's College of Sciences. (Refer to Organizational Chart, Appendix F-1)

With the assistance of MCCJ funding, the laboratory became operational in September 1970. Located in a free-standing, self-contained structure on the SEMO campus, the laboratory has space accommodations of approximately 1,640 square feet, of which approximately 1,500 square feet is working bench space.

Staffed by three full time employees, the laboratory maintains service to an average of 92 agencies per year. (Refer to the Crime Laboratory Users Index, Page 25.)

Clear, apparently accurate, and well understood written job descriptions were found to exist for all staff members. Staff members exhibited an awareness and an understanding of such descriptions.

Training and educational preparation for the professional staff consists of on-the-job training and a required, relevant baccalaureate degree.

The administrative component of Southeast Missouri State University determines all written personnel policies that affect laboratory staff. The indication and observation was that knowledge and understanding of such policies did exist among all staff members and therefore professional activities were governed accordingly.

Laboratory records are maintained manually; however, the laboratory does have access to the University's computer system. This evaluator believes that the current method of record keeping is sufficient for the laboratory's present volume of work.

For FY 1978, the laboratory reflects an identifiable budget of \$126,994.00. Included in this total is a minimum dollar amount of \$43,879.00 for staff salaries, or at least 36 percent of the identified FY 1978 budget. The annual salary range for laboratory staff members is:

Title	Minimum Annual	Maximum Annual
Director	\$20,316.00	Unknown
Criminalist	16,693.00	Unknown
Secretary	6,120.00	Unknown
Various Student Help (\$2.00 per hour)	750.00	--
Minimum Total	\$43,879.00	

Other expenses for the laboratory include equipment purchase and maintenance, supplies, travel, and capital improvement. Between 1975 and 1978, the laboratory expended a total of \$478,266.00, of which \$247,135.00 was provided by MCCJ. Other funding sources for the laboratory include not only Southeast Missouri State University, but also individual voluntary user agency donations which are solicited by the laboratory on an annual basis. (Refer to Appendix F-2 for Four-Year Funding History)

Findings and Recommendations for
Section I, Organization

The overall assessment of the organizational and administrative functions of the laboratory is commendable. Areas of concern and/or findings in need of attention include:

Finding 1: The organizational chart provided was found to be inadequate in that it was not specific in detailing either the placement of the laboratory within the University's structure or in detailing the organizational hierarchy within the laboratory itself.

Recommendation 1: As per the ASCLAD Standards and proper methods of organization and management, the laboratory should develop or obtain a more specific organizational chart indicating very precisely how the laboratory fits into the total organizational structure and the organization within the laboratory itself.

Finding 2: The laboratory has no clear, written, long range objectives from which to operate.

Recommendation 2: As per the ASCLAD Standards and proper management principles, the laboratory should develop a set or list of clearly written, well understood long term objectives from which to direct the laboratory operations.

Finding 3: According to the Director, the laboratory has no formal training or employee development program.

Recommendation 3: As per the ASCLAD Standards, the laboratory should explore the options and possibilities available for receiving a formal type of training and employee development program.

Finding 4: The indication of the Director is that laboratories are not standardized to:

- Improve the evidence analysis process
- Decrease case backlog
- Compile technical data which could be exchanged between laboratories to reduce analysis time

Recommendation 4: This finding relates to the MAPPS Standards and is addressed to all laboratories as a whole in Volume II.

SECTION II

Operations

Procedures within the laboratory regarding evidence receipt, handling, flow, analysis, and security were all clearly written and apparently well understood. The laboratory does utilize a written chain of custody record for all necessary data and all evidence is marked for identification, stored under proper seal, and protected from loss, transfer, and/or contamination.

The laboratory's three staff members have access to approximately \$250,000.00 worth of nonexpendable laboratory and office equipment.

Limitations to laboratory analysis/identification capabilities according to the Director are in the areas of firearms and questioned documents.

Findings and Recommendations for
Section II, Operations

- Finding 1: According to the Director, the laboratory does not possess written technical procedures for each of its disciplines.
- Recommendation 1: As per the ASCLAD Standards, the laboratory should develop written technical procedures for each of its disciplines.
- Finding 2: The Director has not designed or implemented a reporting system that provides data relevant to the laboratory's involvement in:
- Investigated crimes
 - Suspects charged
 - Suspects cleared
 - Prosecutions
 - Acquittals
 - Convictions
- Recommendation 2: This finding pertains to an NAC Standard and is addressed to all laboratories as a whole in Volume II.

SECTION III

Activities

Case - As defined by the Laboratory Director is any evidence collected with relationship to one offense.

Evidence - As defined by the Laboratory Director is anything submitted by a police agency for analysis.

Examination - As defined by the Laboratory Director is a step taken in order to make a decision about the evidence. Each separate step, determination, or test is considered as one examination.

Turnaround Time - As defined by the Laboratory Director is the amount of time that elapses between when evidence is received by the laboratory and when some response is made, either in written report form or orally, to the submitting agency.

Turnaround time figures for the laboratory were calculated from caseload records beginning on January 1, 1977, and ending on December 31, 1978, inclusive. These calculations were made in terms of the average number of days taken to meet

the turnaround time requirements for each type of evidence as recorded in the Region VI, VII, and VIII case log. The figures were extrapolated for 50 percent of the entire caseload between the above-indicated dates as one-half of all cases received during that period of time were sampled.

Total Number of Cases Received Annually

Year	Case	% Increase or Decrease
1975	670	
1976	785	+15%
1977	1,034	+24%
1978	518*	

*As of June 1978

A total of 3,007 cases was received over the four-year period for a yearly average of 752 cases. The above table indicates the respective yearly percentage increase/decrease in cases received.

Examinations Conducted Per Year

Year	Examinations	% Increase or Decrease
1975	1,938	
1976	2,277	+15%
1977	3,030	+25%
1978	1,482*	

*As of June 1978

A total of 8,727 examinations were conducted over the four-year period for a yearly average of 2,181 examinations. The above table indicates the average yearly increase/decrease in examinations conducted.

Number of Miles Traveled Annually

Data not available

Number of Court Appearances Annually

The average yearly number of court appearances for laboratory staff is 33.

Activity Statistics for Breakdown of
Caseload, Examination Totals, Case Type
Percentages and Turnaround Time

Case Type 1975-1978	Total Cases 1975-78	% of Total Cases 1975-78	Total Exami- nations by Type 1975-1978	Avg. Turn- around Time in Days 1977-1978
Drugs	1,351	45.0%	N	7.9
Burglary & Prints	406	13.5	o	10.3
Blood & Urine Toxicology	317	10.5	t b	13.3
Trace Evidence	171	5.6	y	Not Sampled
Arson	150	4.9	r	32.4
Alcohol	142	4.7	e t	7.5
Death Investigation	121	4.0	c y	21.0
Serology	119	3.9	o p	Not Sampled
Rape	85	2.8	r e	17.4
Assault	66	2.1	d	16.0
Toolmarks & Firearms	65	2.1	e	4.0
Questioned Documents	14	0.4	d	41.0
TOTALS	3,007	99.0%*		12.3

*1% due to rounding error

Of the 3,007 cases received over the four-year period, 2,243 involved four types of evidence and represented an average of 76 percent of the overall caseload for those years of operation.

Findings and Recommendations for
Section III, Activities

The general assessment of the laboratory's activities records is favorable. As per the ASCLAD Standards and proper management techniques, some areas of concern and/or findings where attention should be directed for purposes of future accountability and possible funding allocations include:

- Finding 1: The laboratory does not maintain records for mileage traveled.
- Recommendation 2: The laboratory should maintain documentation, on a monthly or an annual basis, of all mileage.
- Finding 2: The laboratory does not maintain records of total examinations by evidence type.
- Recommendation 2: The laboratory should record total examinations according to evidence or case type on a monthly or annual basis.

SECTION IV

Laboratory Users Assessment of the
Region VI, VII and VIII
Southeast Missouri State University Criminalistics Laboratory

Police

Of the police respondents, eight agencies utilize the laboratory on a primary basis while two agencies utilize the laboratory on a secondary basis. The significant reasons given by police agencies for using the laboratory were:

- Geographic proximity
- Dependability
- Only service available

The police agencies seldom encounter conflicts in scheduling expert testimony for the criminalists and they indicated that the laboratory is always responsive to urgent or emergency analysis needs situations.

Sheriffs

Of the sheriff respondents, eight agencies utilize the laboratory on a primary basis while two agencies utilize the laboratory on a secondary basis. The significant reasons given by sheriffs' agencies for using the laboratory were:

- Geographic proximity
- Dependable analysis

The sheriffs' agencies seldom encounter conflicts in scheduling expert testimony for the criminalists and they indicated that the laboratory is always responsive to urgent or emergency analysis needs situations.

Prosecuting Attorneys

Of the prosecuting attorneys who responded, 12 of them utilize the laboratory on a primary basis while two of them utilize the laboratory on a secondary basis. Of the composite of reasons given by prosecutors for using the laboratory, the most significant were:

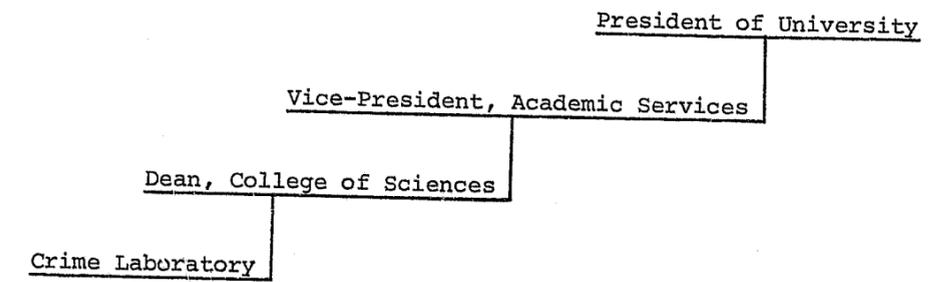
- Geographic proximity
- Only service available
- Dependability

The prosecutors seldom encounter conflicts in scheduling expert testimony of the criminalists and they indicated that the laboratory is always responsive to urgent or emergency analysis needs situations.

APPENDIX F-1

ORGANIZATIONAL CHART

Region VI, VII, and VIII Criminalistics Laboratory



CONTINUED

2 OF 3

APPENDIX F-2

FEDERAL AND LOCAL FUNDING HISTORY FOR THE
REGION VI, VII, AND VIII CRIMINALISTICS LABORATORY

MCCJ Grant Number	1975	1976	1977	1978
75-ACD2-F033	F 40,000.00 L 7,743.00			
75-ACD2-G006	F 4,647.00 L 516.00			
75-ACD2-H005	F 40,000.00 L 6,704.00			
75-ACD2-G032	F 1,037.00 L 115.00			
75-ACD2-H022	F 2,500.00 L 500.00			
75-ACD2-H025	F 881.00 L 109.00			
75-ACD2-ML28	F 16,000.00 L 2,680.00			
76-ACD2-G014		F 1,431.00 L 159.00		
76-ACD2-F029		F 25,000.00 L 5,600.00		
76-ACD2-H009		F 40,000.00 L 7,318.00		
77-ACD2-F017			F 20,000.00 L 14,591.00	
77-ACD2-G007			F 4,500.00 L 500.00	
77-ACD2-H002			F 31,331.00 L 40,604.00	
78-ACD2-F016				F 12,628.00 L 21,365.00
78-ACD2-G004				F 2,083.00 L 1,230.00
78-ACD2-H006				F 17,697.00 L 20,191.00
SUBTOTALS	123,432.00	79,508.00	111,525.00	75,194.00

OTHER FUNDING SOURCES

Local Agency Contributions	6,704.00	7,318.00	23,600.00	45,800.00
University (Utilities)	6,000.00	6,000.00	6,000.00	6,000.00
SUBTOTALS	12,704.00	13,318.00	29,600.00	51,800.00
TOTALS	136,136.00	92,826.00	141,125.00	126,994.00

GRAND TOTAL \$497,081.00

SEMO REGIONAL CRIME LABORATORY

MCCJ REGION 6, 7, AND 8
SOUTHEAST MISSOURI STATE UNIVERSITY
CAPE GIRARDEAU, MO. 63701

DR. ROBERT C. BRINER
DIRECTOR



PHONE 314
651-2221

September 13, 1979

Gary Maddox
MCCJ
621 East Capitol
Jefferson City, Missouri 65101

Dear Gary:

Enclosed please find my response to the evaluation, and I would appreciate that it be enclosed with the laboratory report. We here at the southeast regional laboratory consider the evaluation certainly a needed thing and intend to use the recommendations as goals to strive for with the idea in mind of improving service to law enforcement agencies.

I feel that we need to be continually reminded that the only function of the lab and administration is to provide service to law enforcement. With that in mind, we appreciate your attempt to improve the service delivery system represented by the crime laboratories throughout the state.

Sincerely yours,

R. C. Briner
R. C. Briner

kjr

Enclosure

SEP 14 1979
DEPARTMENT OF PUBLIC SAFETY
JEFFERSON CITY, MISSOURI

RESPONSE ON EVALUATION

The evaluation survey was in general adequate, however several of the recommended items have indeed already been adopted and implemented. Also most of the standards and goals set out by ASCLD, which is at present only a committee recommendation are in many instances difficult to apply to a two-man laboratory; however, these recommendations will be used as goals for the improvement of the SEMO Regional Laboratory. It should also be noted that the activities of the SEMO Laboratory in 1978 did not decrease as was indicated by the incorrect case summary. The figures in the report for 1978 are for the 1/2 year. The correct figures for 1978 (entire year) are as follows:

1978		
<u>Cases Received</u>	<u>% Increase</u>	<u>Total Agencies Served</u>
1110	10%	89
<u>Examinations</u>		
3885	<u>\$ Increase</u>	10%

THE FOLLOWING IS IN RESPONSE TO THE SPECIFIC RECOMMENDATIONS.

I. Organization

The organizational chart was found to be inadequate. This finding is not appropriate since the structure which was outlined is the university structure which the laboratory works under. Hierarchy within a two-man laboratory is quite well understood when one of the persons is the director. This leaves only the other technical person to be a criminalist and report to the director.

In reference to long range objectives, in light of the recent past (year to year existence) this recommendation is rather before the fact. Now that the regional laboratory/ies have some hope of continuance (re; state funding) long-range plans are now quite appropriate. However, it should be noted that long-range plans of the regional laboratory program have been developed and the passage of the legislation was planned 7-8 years ago. It is the objective of all regional laboratories to develop capabilities only as the "crime profile index" dictates in that area (i.e., provide service as need arises). The SEMO Regional Laboratory is now in the process of installing a firing tank for more firearms capabilities. This is needed as an increase in hand gun related crime has been and is being experienced in southeast Missouri.

The employe development program at the SEMO Crime Lab is to take advantage of all FBI training schools (which are free), and attendance at two classes per year per staff member or as budget allows.

In reference to standardization to improve service of laboratories within the state, the main objective of the Missouri Association of Crime Lab Directors, Inc. (MACLD) is directed toward that (See By Laws). This has been in operation for 3 years on a formal basis and 8 years on an informal basis.

II. Operations

Written technical procedures are being developed by the laboratory staff at the request of the Department of Public Safety (MCCJ).

A reporting system in reference to adjudication of cases requires the use of computer-based management data system as being developed for all labs across the state (state MCCJ grant 1980). Also the SEMO Lab is working to utilize the university computer system until the state-wide program comes into existence (2 years away). Since the regional labs work with as many as 20 or 30 counties, it is difficult to gain access to this data as many agencies and circuits are involved. Better communication between labs and court clerks is an area which needs improvement.

III. Activities

Mileage records are kept at the SEMO Regional Lab. This was instituted in October of 1978. Monthly travel requests have always been processed through university channels and are available for documentation. A complete set of court and adjudication records is being developed for use in 1980.

Records of evidence types at present are kept for cases only. This will be changed to include examinations and exhibits when the computer system is developed. At the present time one student is attempting to develop a pilot project for the SEMO Laboratory in this regard.

REGION IX, MISSOURI SOUTHERN STATE COLLEGE CRIMINALISTICS LABORATORY

SECTION I

Organization and Management

The Region IX Criminalistics Laboratory is a section of the Criminal Justice Programs Department of Missouri Southern State College in Joplin, Missouri, and is under the immediate direction of Dr. Phillip Whittle. Ultimate responsibility for the laboratory is under Mr. Donald Seneker, Director of Criminal Justice Programs for the college. (Refer to Organizational Chart, Appendix G-1)

With the assistance of MCCJ funding, the laboratory became operational in January 1972. Located within the College's Police Academy Building, the laboratory is accommodated with 1,500 square feet, practically all of which is working bench space.

The laboratory is staffed by only one full time member, a Photograph Technician, while three other staff members are shared with the college on 60-40 or 50-50 basis, who maintain service to an average of 53 agencies per year. (Refer to the Crime Laboratory Users Index, Page 25.)

Clear, accurate, and well understood written job descriptions were found to exist for both professional staff members as well as a written list of clearly stated laboratory objectives.

Training and educational preparation for the professional staff consists of an on-the-job training program conducted by the laboratory and a required, relevant baccalaureate degree.

The administrative function of Missouri Southern State College determines all written personnel policies that affect the laboratory staff. The indication and observation was that the staff is aware of and understands such policies and therefore governs their professional activities accordingly.

Laboratory records are maintained manually; however, the laboratory does have access to the College's computer system. Manual record keeping procedures for the laboratory's operations seem to be an adequate method, according to the evaluator.

For FY 1978, the laboratory reflects an identifiable budget of \$51,545.00. Included in this total is a minimum dollar amount for staff salaries of \$37,523.00, or at least 72 percent of the identified budget for FY 1978. The annual salary range for laboratory staff members is:

Title	Minimum Annual	Maximum Annual
Director (62% time)	\$12,125.00	Not Avail.
Assistant Director (62% time)	10,441.00	Not Avail.
Photo Technician	11,967.00	Not Avail.
Lab Assistant (50% time)	2,990.00	Not Avail.
Minimum Total	\$37,523.00	

Other expenses for the laboratory include equipment purchase and maintenance, supplies, and travel. Between 1975 and 1978, the laboratory expended a total of \$176,570.00, of which \$148,569.00 was provided by MCCJ. Other funding sources included donations by area law enforcement agencies and clinical receipts for tests run for local hospitals. (Refer to Appendix G-2 for Four-Year Funding History)

Findings and Recommendations for Section I, Organization

The overall assessment of organizational and managerial practices of the laboratory is quite favorable. Possible areas of attention and improvement include:

- Finding 1: According to the Director, the laboratory has no formal training or employee development program.
- Recommendation 1: As per the ASCLAD Standards, the laboratory should explore the possibility of receiving a more formal type of forensics laboratory training as well as the implementation of a formal employee development program.
- Finding 2: The indication of the Director was that laboratories are not standardized to:
- Improve the evidence analysis process
 - Decrease case backlog
 - Compile technical data which could be exchanged between laboratories to reduce analysis time

Recommendation 2: This finding pertains to the MAPPS Standards and is addressed to all laboratories as a whole in Volume II.

SECTION II

Operations

Procedures within the laboratory regarding evidence receipt, handling, flow, analysis, and security seemed to be well identified; however, it was found that such procedures were not written. The laboratory does utilize a written chain of custody record for all necessary data and all evidence is marked for identification, stored under proper seal, and protected from loss, transfer, and/or contamination.

The laboratory's four staff members have access to approximately \$94,500.00 worth of nonexpendable laboratory and office equipment.

Limitations to laboratory analysis/identification capabilities were determined by the Director to be in the areas of document examination, ballistics, and some specialized areas.

Findings and Recommendations for Section II, Operations

- Finding 1: According to the Director, the laboratory does not have written procedures on:
- Handling of evidence
 - Preparation, storage, and destruction of case records or reports
 - Control of materials and supplies
 - Maintenance of equipment.
- Recommendation 1: As per the ASCLAD Standards, the Director should develop clearly written, well understood procedures for each component in Finding No. 1.
- Finding 2: The Director has not designed or implemented a reporting system that provides data relevant to the laboratory's involvement in:
- Reported crimes
 - Suspects identified/located
 - Suspects cleared
 - Suspects charged
 - Prosecutions

- Acquittals
- Convictions

Recommendation 2: This finding pertains to an NAC Standard and is addressed to all laboratories as a whole in Volume II.

SECTION III

Activities

Case - As defined by the Laboratory Director is the evidence submitted by a law enforcement agency(ies) involving one incident.

Evidence - As defined by the Laboratory Director is any physical substance that could be used to prove or disprove a point of examination or contention.

Examination - As defined by the Laboratory Director is the necessary analysis or comparison of one particular piece of evidence. There may be more than one analysis or test in one examination.

Turnaround Time - As defined by the Director is the time from the date that the evidence is submitted until the date that the report is written, typed, and ready to send out.

Turnaround time figures for the laboratory were calculated from caseload records beginning on January 1, 1977, and ending on December 31, 1978, inclusive. These calculations were made in terms of the average number of days taken to meet the turnaround time requirements for each type of case as defined by the Region IX Laboratory Director. The figures were extrapolated from 50 percent of the entire caseload between the above-indicated dates as one-half of all cases received during that period of time were sampled.

Total Cases Received Annually

Year	Case	% Increase or Decrease
1975	703	
1976	788	+11%
1977	908	+14%
1978	572	-38%

A total of 2,971 cases was received over the four-year period for a yearly average of 743 cases. The above table shows the respective yearly percentage increase/decrease in cases received.

Examinations Conducted Per Year

Year	Examinations	% Increase or Decrease
1975	1,927	
1976	3,066	+38%
1977	2,806	- 9%
1978	2,078	-26%

A total of 9,877 examinations were conducted over the four-year period for a yearly average of 2,469 examinations. The above table indicates the average yearly increase/decrease in examinations conducted.

Number of Miles Traveled Annually

Not available

Number of Court Appearances Annually

The average yearly number of court appearances for the laboratory staff is 57.

Activity Statistics Breakdown for
Caseload, Examination Totals, Case Type Percentages and
Turnaround Time 1975-78

Case Type 1975-1978	Total Cases 1975-78	% of Total Cases 1975-78	Total Exami- nations by Type 1975-1978	Avg. Turn- around Time in Days 1977-1978
Marijuana	909	30.5%	N o t b y r e c o r d e d) 7.00
Other Controlled Drugs & Poisons	453	15.2		
Alcohol (beverages)	131	4.4) 2.60
Blood Alcohol	168	5.6) 17.00
Blood Typing	86	2.8		
Body Fluids (Drug Screen)	362	12.1		Not Sampled
Latent Fingerprints	314	10.5		23.00
Accelerants	144	4.8		Not Sampled
Seminal Fluids	45	1.5		Not Sampled
Gunshot Residues	85	2.8		11.48
Misc. Physical Evidence**	274	9.2	d	**
TOTALS	2,971	99.0%*	9,877	11.14
**Arson				5.16
Paint				30.12
Rape				11.38
Toxicology				61.76
Bullet				32.00
Hair				8.00
Serial No. Restoration				5.60
Toolmarks				11.50
Glass				39.00
Fibers				10.00

*1% due to rounding error

Of the 2,971 new cases received over the four-year period, 2,292 involved four types of evidence and represented an average of 77 percent of the overall caseload for those years of operation.

Findings and Recommendations for
Section III, Activities

Overall, the laboratory documentation of activities is quite thorough. As per the ASCLAD Standards and proper management technique, some areas of concern and/or findings where attention should be directed for the purposes of future accountability and possible funding allocations are:

- Finding 1: Breakdowns of total annual miles traveled were not available.
- Finding 2: Breakdowns of annual examinations by evidence type were not available.
- Recommendation 1 & 2: In the future, the laboratory should maintain proper documentation of annual miles traveled and a breakdown of annual examinations by evidence type.

SECTION IV

Laboratory Users Assessment of the
Region IX, Missouri Southern State College
Criminalistics Laboratory

Police

Of the police respondents, seven agencies utilize the laboratory on a primary basis and three agencies utilize the laboratory on a secondary basis. Of the composite of reasons given by police agencies for utilizing the laboratory, the most significant were:

- Geographic proximity
- Quick evidence analysis

The police agencies seldom encounter conflicts in scheduling expert testimony for the criminalists and they indicated that the laboratory is always responsive to urgent or emergency analysis needs situations.

Sheriffs

Of the sheriff respondents, three agencies utilize the laboratory on a primary basis and two agencies utilize the laboratory on a secondary basis. The significant reasons given by sheriffs for using the laboratory were:

- Geographic proximity
- Best service in the area

The sheriffs' agencies seldom encounter conflicts in scheduling expert testimony for the criminalists and they indicated that the laboratory is always responsive to urgent or emergency analysis needs situations.

Prosecuting Attorneys

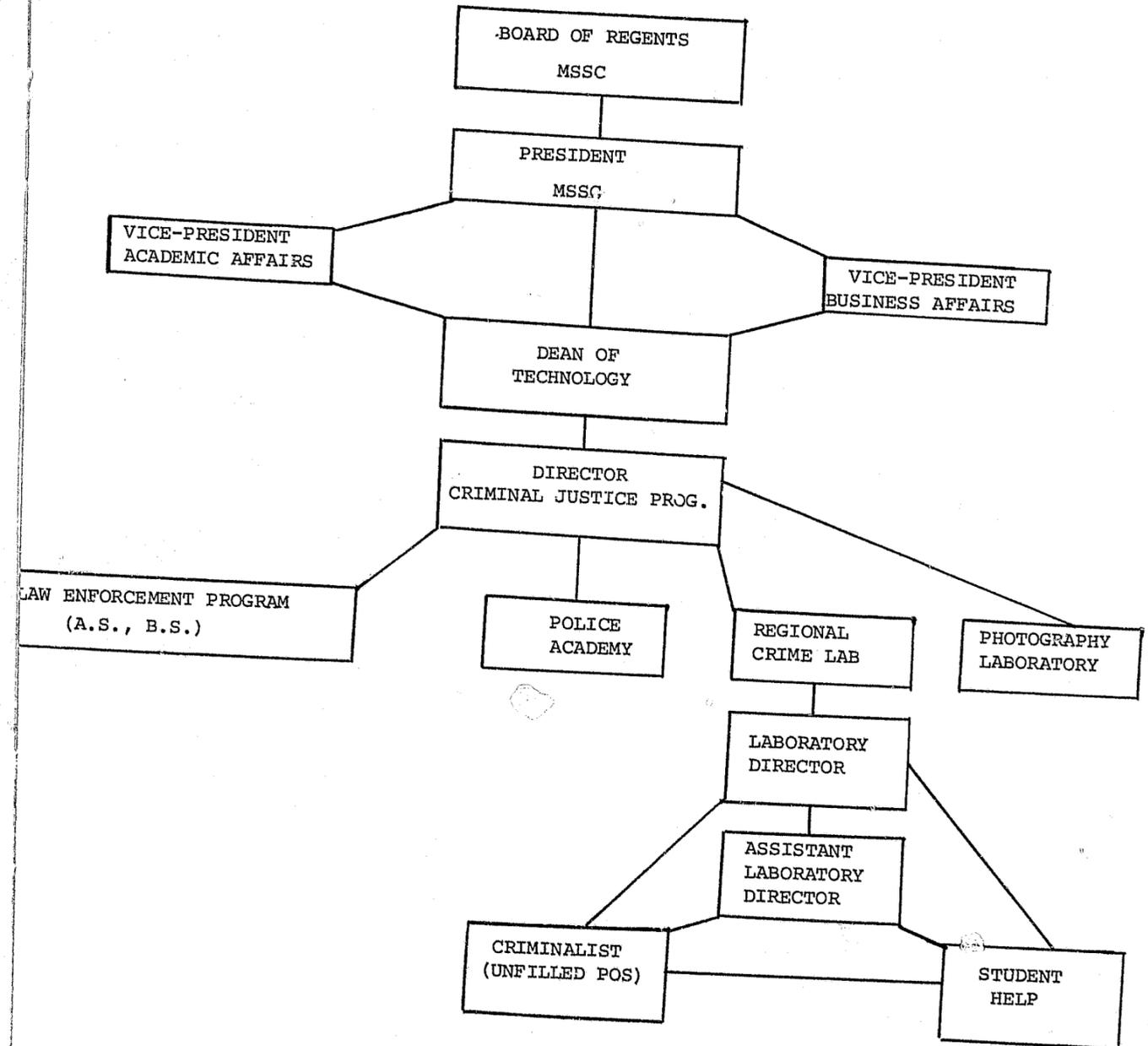
Of the prosecuting attorneys who responded, two utilize the laboratory on a primary basis and one utilizes the laboratory on a secondary basis. The reasons given by prosecutors for using the laboratory were:

- Geographic proximity
- Best service in the area

The prosecutors sometimes encounter conflicts in scheduling expert testimony of the criminalists and they indicated that the laboratory is usually responsive to urgent or emergency analysis needs situations.

APPENDIX G-1

ORGANIZATIONAL CHART



APPENDIX G-2

FEDERAL AND LOCAL FUNDING HISTORY
FOR THE REGION IX CRIMINALISTICS LABORATORY

MCCJ Grant Number	1975	1976	1977	1978
75-ACD2-I011	F 44,795.00 L 5,147.00			
76-ACD2-I001		F 45,718.00 L 5,080.00		
77-ACD2-I003			F 16,059.00 L 1,886.00	
78-ACD2-I001				F 41,997.00 L 5,118.00
TOTALS	49,942.00	50,798.00	17,945.00	47,115.00

OTHER FUNDING SOURCES

SOURCE	1975	1976	1977	1978
Local Law Enf. Agencies				1,350.00
Clinical Receipts (Hospitals)	540.00	4,610.00	1,190.00	3,080.00
	540.00	4,610.00	1,190.00	4,430.00
TOTAL	50,482.00	55,408.00	19,135.00	51,545.00
GRAND TOTAL		\$176,570.00		

MISSOURI
NEWMAN & DUQUESNE ROADS
PHONE 417-624-8100



Southern State COLLEGE
JOPLIN, MISSOURI 64801

September 15, 1979

Gary P. Maddox
Missouri Council on Criminal Justice
Department of Public Safety
621 E. Capitol - P.O. Box 1041
Jefferson City, Mo. 65102

Dear Gary:

Enclosed is a summary of my responses to the individual report concerning our laboratory. Please include these with the final report.

I am also enclosing a letter from Don Seneker outlining his responses to the report. Please include this letter with my responses.

Sincerely,
Philip R. Whittle
Philip R. Whittle, Director
MSSC Regional Crime Laboratory

cc. Don Seneker, Criminal Justice Programs
James Maupin, Dean of Technology

RECEIVED

SEP 18 1979

1001

MISSOURI SOUTHERN COLLEGE
NEWMAN & DUQUESNE ROADS - (417) 624 8100
JOPLIN, MISSOURI 64801

RECEIVED

RESPONSES TO MISSOURI CRIMINALISTICS LABORATORIES EVALUATION STUDY

ORGANIZATION AND MANAGEMENT

The Regional Crime Laboratory is administered by Missouri Southern State College; the laboratory director and forensic chemist are both employed by MSSC full time with each carrying a one-half time teaching load in the Chemistry Department during the Fall and Spring academic terms (both are full time with the Laboratory during the summer). A secretary is shared with the Criminal Justice Department and Campus Security. Student help is utilized in the criminalistics section and the photography section of the laboratory.

The recommendations of the Accreditation Committee of the American Society of Crime Laboratory Directors (ASCLD) regarding formal training and employee development are general recommendations. A small laboratory cannot maintain, nor does it need, the same type of formal training program or employee development program required in a large laboratory. Our laboratory attempts to take advantage of short courses and seminars which are feasible within budgetary constraints. The laboratory director is actively involved in regional and national forensic societies and is a member of the Drug Peer Group of the national Criminalistics Certification Study Committee; much information is transmitted informally to other laboratory employees. The informal training and close supervision of employees in our laboratory has proven very effective.

OPERATIONS

The current budget will not allow the acquisition of additional personnel nor adequate computer data facilities to maintain data relevant to the items outlined under Finding 2. The laboratory is dependant upon information from prosecutors and court records for much of the indicated information; these records are not available to us in many cases.

ACTIVITIES

The decrease in the 1978 case load is primarily due to a decrease in usage of the laboratory by Joplin Police Department due to a change in key personnel.

The turnaround time for blood alcohol determinations should be separated from blood typing, since blood alcohols are routinely performed within twenty-four to forty-eight hours. The turnaround time listed for toxicology cases is not truly reflective of our laboratory; the majority of cases involving only toxicology are completed rapidly; Homicides, suicides, and other cases which involve toxicology along with several other disciplines usually involve much longer turnaround times; however, the 61.76 days is certainly not an accurate average turnaround time for even these more involved cases.

The documentation of mileage (court appearances) and the annual examinations by evidence type are available with the 1979 laboratory data.

MISSOURI
NEWMAN & DUQUESNE ROADS
PHONE 417-624-8100

Southern State

COLLEGE
JOPLIN, MISSOURI 64801

12 Sept. '79

Dr. Philip R. Whittle
Director of Regional Crime Lab
Missouri Southern State College
Joplin, Mo. 64801

Re: Report of 31 Aug 79
by G. P. Maddox
Crime Lab Evaluation

Dear Dr. Whittle;

When you respond to the above referenced report, I would like to ask you to relay my concerns in the following areas:

- (1) Page five of the report reflects a case load drop of 26% which perhaps needs interpretation. It perhaps should be mentioned that a change in local police emphasis resulted in their sharply reduced enforcement effort on drugs. It is not for me to question this action, however, I do know that if a state of "normalcy" should reoccur in drug case enforcement, our case load in the lab will quickly regain that lost 26%. In other words, it is my opinion that the 1978 case load represents an abnormal sample and should not be given undo weight.
- (2) There are several useful suggestions made in the evaluation. Most of them would necessitate additional personnel. If the report is to be credited, it would appear that it is at least by implication suggesting that we add personnel. I am all in favor of this, and I hope that funding will be forthcoming sufficiently in excess of our current budget so that we can take advantage of the recommendations. This would allow for a more formal "employee development" program, records keeping, and similar suggested improvements.
- (3) I am somewhat concerned that the age of some equipment was not an inclusion in the report. I would point out that a program of steady upgrading of this equipment needs to be a consideration of budget planning and evaluation.

Viewed as a whole, I would have to applaud the report and I am sure that it will be helpful in guiding funding decisions in the future.

Sincerely,

Donald L. Seneker, Director
Criminal Justice Programs

MISSOURI STATE HIGHWAY PATROL
CENTRAL LABORATORY

SECTION I

Organization and Management

The Missouri State Highway Patrol (MSHP) Central Criminalistics Laboratory is a unit of the MSHP located in the agency's General Headquarters (GHQ) facility in Jefferson City, Missouri. Directed by Lieutenant Kenneth E. Miller, the laboratory is ultimately responsible to Major P. V. Volkmer, Chief of Field Services for the MSHP. The laboratory's organizational chart indicates a clear delineation of authority and span of management, both within the laboratory and as the laboratory relates to the Criminal Division. (See Organizational Chart, Appendix H-1)

In operation since 1933, the laboratory is currently housed within the basement portion of the General Headquarters (GHQ) building and utilizes approximately 4,000 square feet of space. In September 1979, the laboratory will be moving into a portion of a new structure located adjacent to GHQ, at which time the laboratory will have accommodations of approximately 12,000 square feet. A staff of 15 full time employees maintains the laboratory which serves an average of 51 agencies per year according to 1975 and 1977 figures, which were the only ones available. (Refer to the Crime Laboratory Users Index, Page 25.)

Clear, apparently accurate, written job descriptions were found to exist for all staff members as per MSHP general policy. All employees indicated an awareness and understanding of such descriptions and the evaluator's observations revealed that staff members governed their on-the-job activities accordingly.

Training and education for professional staff members includes an extensive one-year formal on-the-job training program within the laboratory itself; furthermore, continuous on-the-job training is routinely conducted within the laboratory. All new chemists and analysts are required to hold a relevant baccalaureate degree.

The MSHP determines all written personnel policies that affect the laboratory staff. This evaluator found that staff members were aware of the existence of and understood such written policies.

Records are all maintained in a manual fashion by the laboratory; however, the laboratory does have access to the MSHP computer system. The belief of this evaluator is that the volume of work conducted by the laboratory suggests that while manual procedures may be acceptable, computerized records would significantly increase the dependability and efficiency of the record keeping function.

For FY 1978, the laboratory reflects an identifiable budget of \$228,942.00. Included in this total is a minimum dollar amount for staff salaries of \$201,732.00, or at least 88 percent of the identified budget for FY 1978. Annual salary ranges for laboratory staff members are:

Title	No. of Positions	Minimum Annual	Maximum Annual
Director	1	\$ 24,000.00	Not Avail.
Senior Forensic Chemist	2	21,684.00	Not Avail.
Forensic Chemist III	2	14,916.00	Not Avail.
Forensic Chemist I	3	11,304.00	Not Avail.
Forensic Analyst III	1	14,916.00	Not Avail.
Forensic Analyst II	1	13,584.00	Not Avail.
Forensic Analyst I	1	11,844.00	Not Avail.
Steno II	1	8,676.00	Not Avail.
Clerk Typist III	3	7,200.00	Not Avail.
Minimum Total		\$201,732.00	

Other expenses for the laboratory include equipment purchases, maintenance, supplies, and travel. Between 1975 and 1978, the laboratory expended an approximate total of \$1,075,584.00, of which \$199,165.82 was provided by MCCJ. It should be noted that from 1975 through 1978, Missouri General Revenue funds allocations for all MSHP laboratory staff salaries and supplies totaled \$987,659.00. Responsibility for disbursement of these dollars lies with the MSHP Financial Division; however, this evaluator found that while salary allocations could be determined from the dollar total, no other figures were available to indicate the per laboratory allotment of the balance. (Refer to Appendix H-2 for Four-Year Funding History)

Findings and Recommendations for
Section I, Organization

The primary assessment of the laboratory's organization and management is positive. Aspects of concern regarding weaknesses or deficiencies in this area are:

Finding 1:

According to the Director, the laboratory has no formal employee development program.

Recommendation 1:

As per the ASCLAD Standards, the possibility of obtaining a formal employee development program should be explored.

Finding 2:

The indication of the Director was that laboratories are not standardized to:

- Improve the evidence analysis process
- Decrease case backlog
- Compile and exchange technical data between laboratories to reduce analysis time

Recommendation 2:

This finding pertains to the MAPPS Standards and is addressed to all laboratories as a whole in Volume II.

Finding 3:

Budget records, through no fault of the laboratory, are not well documented in terms of total specific dollar allocation amounts per laboratory.

Recommendation 3:

As per proper management techniques, future records regarding total dollar allocations to the laboratory should be clear, complete, and well documented.

SECTION II

Operations

Procedures regarding receipt, handling, flow, analysis, and security of evidence are well documented and maintained. Written records for chain of custody are utilized and all evidence is marked for identification, stored under proper seal, and protected from loss, transfer, and/or contamination.

The laboratory's 15 staff members have access to approximately \$341,000.00 worth of nonexpendable laboratory and office equipment.

It was determined by the Director that no analysis capability limitations exist, at present, within the laboratory.

Findings and Recommendations for
Section II, Operations

- Finding 1: The laboratory does not possess written technical procedures for each of its disciplines.
- Recommendation 1: As per the ASCLAD Standards, the laboratory should develop or obtain written procedures for each of its disciplines to the extent possible.
- Finding 2: The laboratory has no written procedures for maintenance of equipment.
- Recommendation 2: As per the ASCLAD Standards, the laboratory should develop written procedures for maintenance of equipment.
- Finding 3: The Director has not designed or implemented a system to provide data relevant to the laboratory's involvement in:
- Reported crimes
 - Investigated crimes
 - Suspects identified/located
 - Suspects cleared

Recommendation 3: This finding pertains to an NAC Standard and is addressed to all laboratories as a whole in Volume II.

SECTION III

Activities

Case - As defined by the Laboratory Director is a single numerical assigned file, intended to contain all pertinent data relating to evidence submitted to a forensic laboratory, for processing and relating to a specific crime event. Such a case can be initiated or opened and reopened as circumstances require. Due to the variable nature of the criminal justice process, a strict procedure for case assignment cannot be made. Each case must be assessed on its own elements and experienced judgment applied. Elements of prosecution, suspects, victims, and circumstances will determine the number of cases to be opened or reopened. The objective of a laboratory case file assignment is to provide and maintain a repository for a specific crime event history, pertinent to laboratory processing in a specific case.

Evidence - As defined by the Laboratory Director is any object or material, gas, liquid, or solid, which is related to a crime against persons or property and submitted to the laboratory for analysis or comparative processing by a criminal justice agency.

Examination - As defined by the Laboratory Director is a specimen of evidence examined by a number of modes to permit the examiner to arrive at a finding or conclusion. It may be chemically analyzed by a number of methods, weighed, measured, compared in kind and other techniques used. Each method used is considered an examination regardless of how many items compose the specimen. This applies to both an evidence or questioned specimen and a known standard. An examination includes the total inquiry.

Turnaround Time - As defined by the Laboratory Director is the number of days that pass from the time that evidence is received until the report is written, typed, and ready to send out.

Turnaround time figures for the laboratory were calculated from caseload records beginning January 1, 1977, and ending on December 31, 1978. These calculations were made in terms of the average number of days taken to meet the turnaround time requirements for each type of case as defined by the GHQ Laboratory Director. The figures are representative of five percent of the entire caseload between the above-indicated dates as a five percent random sample was conducted for all cases received during that time period.

Total Cases Received Annually

Year	Case	% Increase or Decrease
1975	1,989	
1976	1,936	-3%
1977	2,019	+4%
1978	1,992	-2%

A total of 7,936 cases were received over the four-year period for a yearly average of 1,984 cases. The above table indicates the average yearly percentage increase/decrease in total cases received over the four-year period.

Examinations Conducted Per Year

Year	Examinations	% Increase or Decrease
1975	73,061	
1976	47,056	-36%
1977	50,066	+ 7%
1978	50,210	+ 1%

A total of 220,393 examinations were conducted over the four-year period for a yearly average of 55,098 examinations. The above table indicates the average yearly increase/decrease in examinations conducted over the four-year period.

Number of Miles Traveled Annually

The average annual miles traveled during the two years for which the data was available was 67,200 miles (1977 and 1978 only).

Number of Court Appearances Annually

The average yearly number of court appearances for the laboratory staff was 195.

Activity Statistics for Breakdown of Caseload, Examination Totals, Case Type and Turnaround Time

Type of Case 1975-1978	Total Cases 1975-78	% of Total Cases 1975-78	Total Exami- nations by Type 1975-1978	Avg. Turn- around Time in Days 1977-1978
Narcotic & Drug Violations	3,122	39.3%	N	22.70
Larceny	922	11.6	o	9.30
Accident (fatal)	669	8.4	t	25.06
Forgery	657	8.2		8.00
Intoxication	459	5.7	r	13.30
Firearms Identification	338	4.2	e	9.50
Burglary	282	3.5	c	6.94
Arson	225	2.8	o	25.50
Assault	199	2.5	r	17.60
Homicide	190	2.3	d	30.00
Miscellaneous	157	1.9	e	10.80
Investigation of Deaths	119	1.4	d	11.50
Hit and Run	114	1.4		28.90
Robbery	100	1.2	b	Not Sampled
Destruction of Property	90	1.1	y	5.50
Rape	89	1.1		21.60
Liquor Law Violations	73	0.9	t	13.30
Fraud	72	0.9	y	2.00
Suicide	36	0.4	p	Not Sampled
Poisoning	23	0.2	e	Not Sampled
TOTALS	7,936	99.0%*		18.71

*1% due to rounding error

Of the 7,936 cases received from 1975 through 1978, 6,676 cases involved seven types of evidence and represented an average of 84.1 percent of the overall caseload for the four-year period of operation.

Findings and Recommendations for
Section III, Activities

Overall, it was found that the laboratory, insofar as it represents a substantial portion of Missouri's total evidence analysis needs, could and should be keeping more complete documentation of certain activities. As per the ASCLAD Standards and proper management techniques, some areas of concern and/or findings where attention should be directed for purposes of future accountability and possible funding allocations are:

Finding 1:

The laboratory does not keep accurate documentation on the total number of agencies served annually.

Recommendation 1:

Complete records should be available that will indicate and identify exactly how many and what agencies were served by the laboratory during the year.

Finding 2:

The laboratory does not maintain records depicting total examinations according to evidence or case type.

Recommendation 2:

The laboratory should begin to record all monthly or annual examination totals according to evidence or case type.

Finding 3:

The laboratory could not provide complete documentation on annual mileage traveled.

Recommendation 3:

The laboratory should begin to maintain accurate monthly or yearly mileage records for the laboratory.

SECTION IV

Laboratory Users Assessment of the Missouri State Highway Patrol Central Laboratory

Police

Of the police respondents, 16 agencies utilize the laboratory on a primary basis and 16 agencies utilize the laboratory on a secondary basis. Of the composite of reasons given by police agencies for selecting the Central Laboratory, the most significant were:

- Geographic proximity
- High quality, specialized analysis
- Dependable service

The police agencies seldom encountered conflicts in scheduling expert testimony of the criminalists and they indicated that the laboratory is always responsive in urgent or emergency analysis needs situations.

Sheriffs

Of the sheriff respondents, 24 agencies utilize the laboratory on a primary basis and 23 utilize the laboratory on a secondary basis. Of the composite of reasons given by sheriffs' agencies for selecting the laboratory, the most significant were:

- Geographic proximity
- Comprehensiveness of services offered
- Quick, dependable service

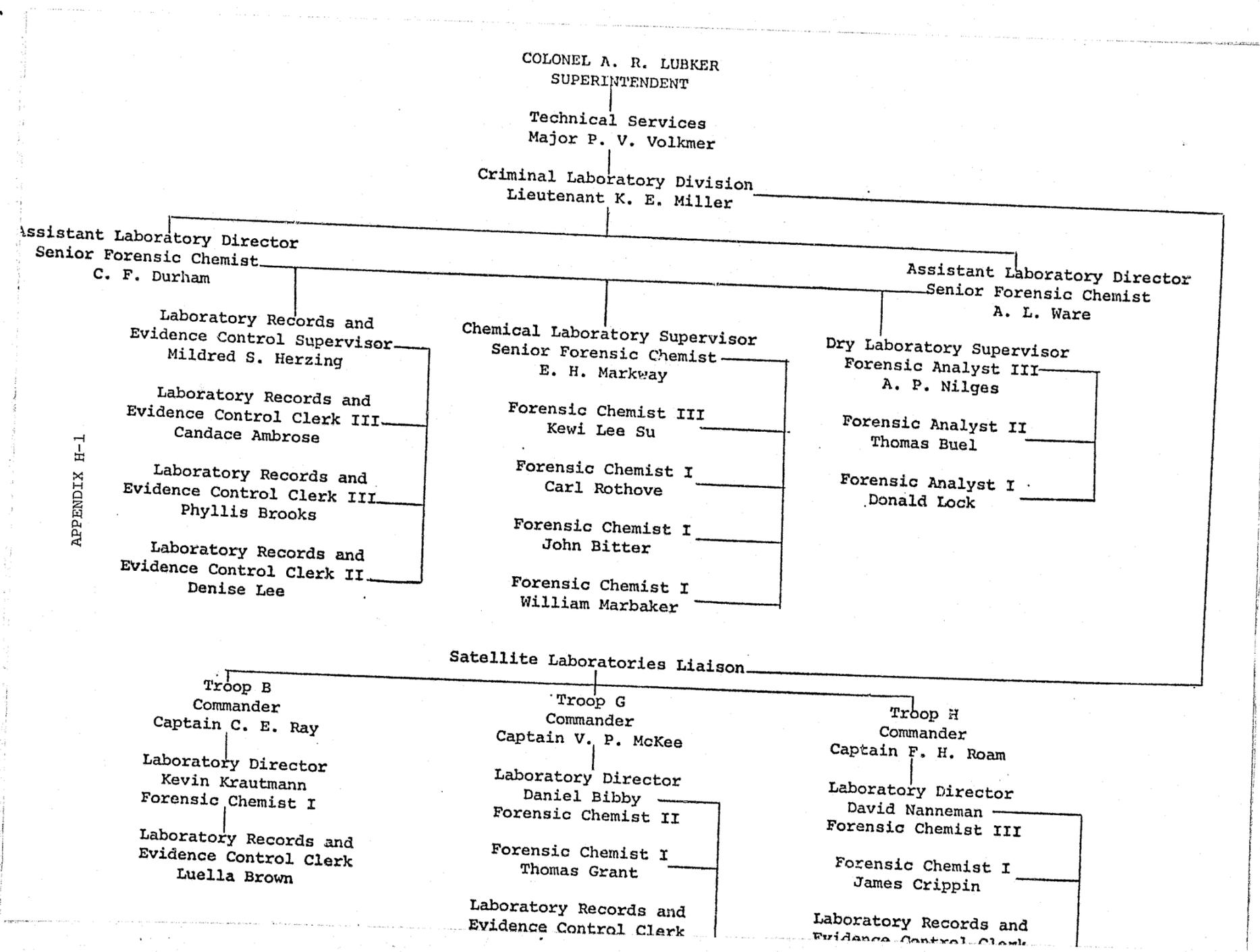
The sheriffs' agencies seldom encountered conflicts in scheduling expert testimony of the criminalists and they indicated that the laboratory is always responsive to urgent or emergency analysis needs situations.

Prosecuting Attorneys

Of the prosecuting attorneys who responded, 22 utilize the laboratory on a primary basis and 16 utilize the laboratory on a secondary basis. Of the composite of reasons given by prosecutors for using the laboratory, the most significant were:

- Geographic proximity
- High quality service
- Most comprehensive

The prosecutors sometimes experience scheduling conflicts for the expert testimony of the criminalists and they indicated that the laboratory is usually responsive to urgent or emergency analysis needs.



APPENDIX H-1

APPENDIX H-2

FEDERAL AND LOCAL FUNDING HISTORY
FOR THE MSHP CENTRAL LABORATORY

MCCJ Grant Number	1975	1976	1977	1978
76-ACD2-HP01		F 105,396.00 L 50,550.00		
77-ACD2-HP03			F 35,881.00 L 12,199.00	
77-ACD2-HP09			F 33,642.00 L 3,778.00	
78-ACD2-HP08				F 24,246.00 L 2,964.00
TOTAL		155,946.00	85,500.00	27,210.00

MISSOURI GENERAL REVENUE FUNDS ALLOCATED TO THE
MISSOURI STATE HIGHWAY PATROL
CRIMINALISTICS LABORATORY SYSTEM

	FY 1975	FY 1976	FY 1977	FY 1978
	232,543.00	255,825.00	242,163.00	257,108.00

	1975	1976	1977	1978
TOTALS	232,543.00	411,771.00	327,663.00	284,318.00

GRAND TOTAL \$1,256,295.00

MINUS SATELLITE LABORATORY SALARIES \$1,075,584.00

Joseph P. Teasdale
Governor

F. M. W. W. W.
Director



DEPARTMENT OF PUBLIC SAFETY
MISSOURI STATE HIGHWAY PATROL

A. R. Lubker, Superintendent

1510 East Elm—Box 568
Jefferson City, Missouri 65102
Telephone 314-751-3313

September 12, 1979

Mr. Gary Maddox
Department of Public Safety
Missouri Council on Criminal Justice
Jefferson City, Missouri 65102

Dear Mr. Maddox:

The following information is submitted in response to certain statements in your evaluation report of the Missouri State Highway Patrol Central Laboratory.

1. It is stated in your report that we serve an average of 51 agencies per year according to 1975 and 1977 figures. Two hundred fifty-two agencies from 88 counties were served in 1977. These included 19 prosecuting attorneys, 68 sheriffs, 57 coroners, 72 police departments, 26 miscellaneous agencies, and 9 troops and GHQ of the Highway Patrol. In 1975, our annual report did not tabulate cases from sheriffs, coroners, or prosecuting attorneys, but did list 67 police departments, 17 miscellaneous agencies, and the 9 troops and GHQ of the Missouri Highway Patrol. Cases were received from 90 counties in 1975.
2. In reference to listed staff salaries, maximum and minimum salary ranges are available.
3. Finding I in Section II states that the laboratory does not possess written technical procedures for its disciplines. Our laboratory possesses numerous approved, written technical procedures which are available to our personnel. Our personnel can choose from these approved, written technical procedures to analyze evidence.
4. In reference to Finding 1 in Section III, our laboratory does keep accurate documentation on the agencies served, and incorporates this in our annual report.
5. In reference to Finding 2 in Section III, our laboratory records examination totals according to evidence types. This is incorporated in our monthly reports to the Superintendent. It is not incorporated in an annual report due to space limitations.
6. In reference to Finding 3 in Section III, accurate mileage records are

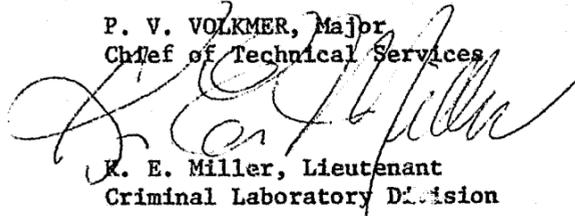
September 12, 1979

-2

maintained and submitted in our monthly report to the Superintendent.

Sincerely,

P. V. VOLKMER, Major
Chief of Technical Services



K. E. Miller, Lieutenant
Criminal Laboratory Division

MISSOURI STATE HIGHWAY PATROL
TROOP B SATELLITE CRIMINALISTICS LABORATORY

SECTION I

Organization and Management

The Missouri State Highway Patrol (MSHP) Troop B Satellite Criminalistics Laboratory is a unit of the Missouri State Highway Patrol and is located adjacent to the MSHP Troop B Headquarters facility in Macon, Missouri. The laboratory is presently inactive; however, in September 1979, directorship of the laboratory will be assumed by Mr. Kevin Krautman who will be responsible to the Personnel and Operations component of Troop B. (Refer to Organizational Chart, Appendix I-1)

With the assistance of MCCJ funding, the laboratory became operational in October 1977 and remained active until August 31, 1978. Located in a free-standing self-contained structure next to the Troop B building, the laboratory has space accommodations of approximately 600 square feet, of which 300 square feet is bench space making up the working area of the laboratory. When in operation, a staff of two full time employees will maintain the laboratory which served an annual average of 18 agencies during its eleven months of operation. (Refer to the Crime Laboratory Users Index, Page 25.)

Clear, apparently accurate, written job descriptions for laboratory staff do exist as per MSHP general policy.

Training and educational requirements for professional staff members include an intensive one year formal on-the-job training program at the Missouri State Highway Patrol Central Laboratory in Jefferson City and the requirement that all new chemists hold at least a relevant baccalaureate degree.

The MSHP determines all written personnel policies that affect the laboratory staff.

Records are maintained manually; however, the laboratory does have access to the Troop B computer terminal. Manual record keeping procedures are considered adequate for the laboratory's operations.

For FY 1978, the laboratory reflects an identifiable budget of \$26,357.00. Included in this total is a minimum dollar amount for staff salaries of \$19,248.00, or at least 73 percent of the identified budget for FY 1978. Annual salary ranges for laboratory staff are:

Title	Minimum Annual	Maximum Annual
Satellite Laboratory Director (Forensic Chemist I)	\$12,396.00	Unknown
Secretary	6,852.00	
Minimum Total	\$19,248.00	

Other expenses for the laboratory include equipment purchases, maintenance, supplies, and travel. Between 1975 and August 1978, the laboratory expended a total of \$169,264.00, of which \$120,016.00 was provided by MCCJ. It should be noted that from 1975 through 1978, Missouri General Revenue fund allocations for all MSHP laboratory staff salaries and supplies totaled \$986,639.00. Responsibility for disbursement of these dollars lies with the MSHP Finance Division; however, this evaluator found that while salary allocations could be determined from the dollar total, no other figures were available to indicate the per laboratory allotment of the balance. (Refer to Appendix I-2 for Four-Year Funding History)

Findings and Recommendations for
Section I, Organization

The basic assessment of the laboratory's organizational and managerial aspects is positive. Some areas of concern and/or findings, however, with regard to this subject include:

- Finding 1: As indicated by the Director, the laboratory has no formal employee development program.
- Recommendation 1: As per the ASCLAD Standards, the possibility of obtaining a formal employee development program should be explored.
- Finding 2: The indication of the Director was that laboratories are not standardized to:
- Improve the evidence analysis process
 - Decrease case backlog
 - Compile technical data to be exchanged between laboratories to reduce analysis time.

- Recommendation 2: This finding relates to the MAPPS Standards and is addressed to all laboratories as a whole in Volume II.
- Finding 3: Budget records, through no fault of the laboratory itself, are not well documented in terms of total, specific dollar allocation amounts per laboratory.
- Recommendation 3: As per proper management techniques, future records regarding total dollar allocations to the laboratory should be clear, complete, and well documented.

SECTION II

Operations

Procedures regarding receipt, handling, flow, analysis, and security of evidence are very impressive. Written records are maintained for chain of custody data and all evidence is marked for identification, stored under proper seal, and protected from loss, transfer, and/or contamination.

The laboratory is equipped with approximately \$50,000.00 worth of nonexpendable laboratory and office equipment.

Limitations to laboratory analysis capabilities were determined by the Director to be an inability of the laboratory to analyze and/or identify ballistics, handwriting, toolmarks, and serology.

Findings and Recommendations for
Section II, Operations

- Finding 1: According to the Director, the laboratory does not possess written technical procedures for each of its disciplines.
- Recommendation 1: As per the ASCLAD Standards, the laboratory should develop or obtain written technical procedures for each of its disciplines.
- Finding 2: According to the Director, the laboratory has no written procedures for control of materials and supplies or for maintenance of equipment.
- Recommendation 2: As per the ASCLAD Standards, the laboratory should develop written procedures for both control of materials and supplies and maintenance of equipment.
- Finding 3: The past Director had not designed or implemented a reporting system to provide data relevant to the

laboratory's involvement in:

- Suspects identified/located
- Suspects cleared
- Suspects charged
- Prosecutions
- Acquittals
- Convictions

- Recommendation 3: This finding pertains to an NAC Standard and is addressed to all laboratories as a whole in Volume II.
- Finding 4: According to the Director, the laboratory does not develop or disseminate evidence kits.
- Recommendation 4: As per positive public relations and improved evidence gathering efforts, the laboratory should consider developing certain types of evidence gathering kits for dissemination to outside agencies.

SECTION III

Activities

Case - As defined by the Central Laboratory Director is a single numerically assigned file, intended to contain all pertinent data relating to evidence submitted to a forensic laboratory, for processing and relating to a specific crime event. Such a case can be initiated or opened and reopened as circumstances require. Due to the variable nature of the criminal justice process, a strict procedure for case assignment cannot be made. Each case must be assessed on its own elements and experienced judgment applied. Elements of prosecution, suspects, victims and circumstances will determine the number of cases to be opened or reopened. The objective of a laboratory case file assignment is to provide and maintain a repository for a specific crime event history, pertinent to laboratory processing in a specific case.

Evidence - As defined by the Central Laboratory Director is any object or material, gas, liquid or solid, which is related to a crime against persons or property and submitted to the laboratory for analysis or comparative processing by a criminal justice agency.

Examination - As defined by the Central Laboratory Director is a specimen of evidence examined by a number of modes to permit the examiner to arrive at a finding or conclusion. It may be chemically analyzed by a number of methods, weighed, measured, compared in kind and other techniques used. Each method used is considered an examination regardless of how many items compose the specimen. This applies to both an evidence or questioned specimen and a known standard. An examination includes the total inquiry.

Turnaround Time - As defined by the Central Laboratory Director is the time that elapses between when evidence is submitted to the laboratory and when the analysis is completed and the report is written and typed.

Turnaround time figures for the laboratory were calculated from caseload records compiled from September 1977 through June 1978. These calculations were made in terms of the average number of days taken to meet the turnaround time requirements for each type of case as defined by the MSHP Central Laboratory Director. The figures are indicative of the entire caseload between the above-indicated dates as each case received during that time period was sampled for this purpose.

Total Number of Cases Received Annually

Year	Cases	% Increase or Decrease
1975		
1976		
1977	27 (Oct. - Dec.)	
1978	127	+37%

A total of 154 cases was received during the 15-month period of October 1977 through December 1978, for an average of 10 cases per month.

Examinations Conducted Per Year

Year	Examinations	% Increase or Decrease
1975		
1976		
1977	336 (Oct. - Dec.)	
1978	976	+268%

A total of 1,312 examinations were conducted during the 15-month period of October 1977 through December 1978 for an average of 88 examinations per month.

Number of Miles Traveled Per Year

The average monthly mileage for the 15-month period was 388 miles.

Number of Court Appearances Annually

The average monthly number of court appearances over the 15-month period was one.

Activity Statistics for Breakdown of Caseload, Examination Totals, Case Type Percentage and Turnaround Time 1975-1978

Type of Case 10-77/6-78	Total Cases 10-77/6-78	% of Total Cases 10-77/6-78	Total Exami- nations by Type 10-77/6-78	Avg. Turn- around Time in Days 10-77/6-78
Narcotic & Drug Law Violations	57	55.3%	N b o y	18.4
Motor Vehicle Acci- dent (fatal)	14	13.5	t t	14.7
Arson	8	7.7	r y	27.0
Destruction of Prop.	5	4.8	e p	30.2
Liquor Violations	4	3.8	c e	7.0
Intoxication	4	3.8	o	11.5
Burglary	3	2.9	r	20.7
Invest. of Death	2	1.9	d	50.5
Hit & Run	2	1.9	e	9.0
Homicide	1	0.9	d	19.0
Robbery	1	0.9		12.0
Suicide	1	0.9		19.0
TOTALS	104	99.0%*		19.0

*1% due to rounding error

Of the 104 cases received over the nine-month period, 79 involved three types of evidence and represented an average of 73.8 percent of the overall caseload for that period of operation.

Findings and Recommendations for
Section III, Activities

Overall, activities records for the laboratory are very well maintained. As per the ASCLAD Standards and proper management techniques, areas of concern and/or findings where attention should be directed for purposes of future accountability and possible funding allocations are:

- Finding 1: The laboratory does not maintain records indicating total examinations by evidence or case type.
- Recommendation 1: The laboratory should begin compiling monthly or annual documentation of examinations by evidence or case type.

SECTION IV

Laboratory Users Assessment of the
Missouri State Highway Patrol
Troop B Satellite Criminalistics Laboratory

Police

Of the police respondents, two agencies utilize the laboratory on a primary basis. None indicated the laboratory as a secondary preference. The reason given by police agencies for selecting the Troop B Laboratory is:

-Geographic proximity

The police agencies seldom encountered scheduling conflicts for expert testimony of the criminalists and they indicated that the laboratory is usually responsive to urgent or emergency analysis needs situations.

Sheriffs

Of the sheriff respondents, one agency utilizes the laboratory on a primary basis while six agencies utilize the laboratory on a secondary basis. Of the composite of reasons given for selecting the laboratory, the most significant were:

-Geographic proximity
-Only available service

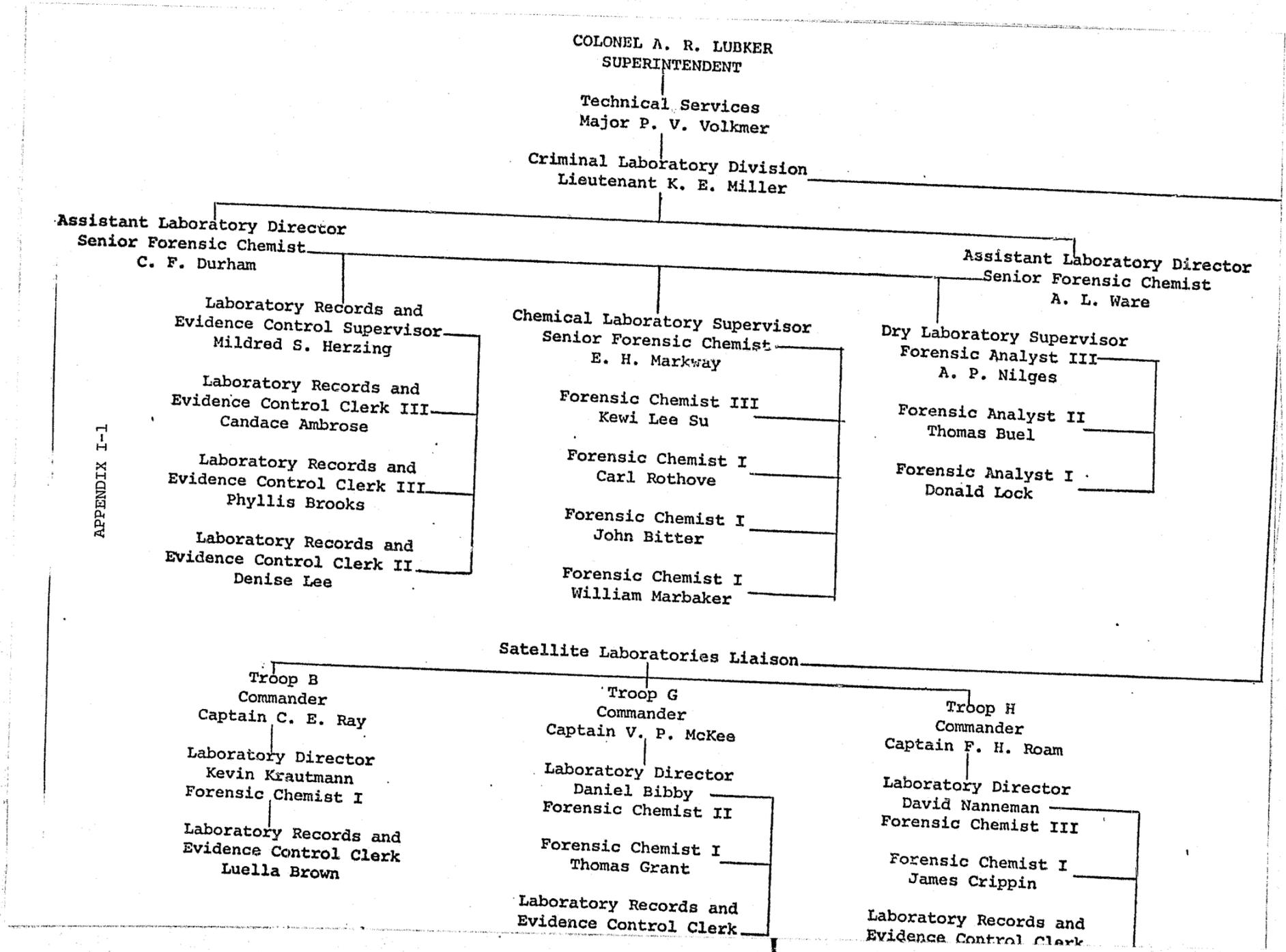
The sheriffs' agencies seldom encountered scheduling conflicts for expert testimony of the criminalists and they indicated that the laboratory is always responsive to urgent or emergency analysis needs situations.

Prosecuting Attorneys

Of the prosecuting attorneys who responded, two prosecutors utilize the laboratory on a primary basis while six prosecutors utilize the laboratory on a secondary basis. Of the composite of reasons given by prosecutors for selecting the laboratory, the most significant were:

- Geographic proximity
- The only available service

The prosecutors seldom encounter scheduling conflicts for expert testimony provided by the criminalist and they indicated that the laboratory is usually responsive to urgent or emergency analysis needs situations.



APPENDIX I-1

APPENDIX I-2

FEDERAL AND LOCAL FUNDING HISTORY
FOR THE MSHP TROOP B SATELLITE LABORATORY

MCCJ Grant Number	1975	1976	1977	1978
75-ACD2-HP03*	F 92,409.00 L 24,727.00			
77-ACD2-HP05			F 21,316.00 L 2,556.00	
78-ACD2-HP07				F 6,381.00 L 711.00
TOTAL	117,136.00		23,872.00	7,092.00

*Construction grant

MISSOURI GENERAL REVENUE FUNDS ALLOCATED TO THE
MISSOURI STATE HIGHWAY PATROL
CRIMINALISTICS LABORATORY SYSTEM

	FY 1975	FY 1976	FY 1977	FY 1978
	232,543.00	255,825.00	242,163.00	257,108.00

MISSOURI STATE HIGHWAY PATROL
TROOP G SATELLITE CRIMINALISTICS LABORATORY

SECTION I

Organization and Management

The Missouri State Highway Patrol Troop G Satellite Criminalistics Laboratory is a unit of the Criminal Division of the Missouri State Highway Patrol (MSHP) and is located within the MSHP Troop G Headquarters facility in Willow Springs, Missouri. Directed by Mr. Daniel L. Bibby, the laboratory is immediately answerable to Lt. F. H. Roark of the Troop G Special Services Unit and ultimately responsible to Major P. V. Volkmer, Chief of Field Services for the MSHP in Jefferson City, Missouri. As is evidenced by the organizational charts, the span of management and delineation of authority are distinctly defined as they pertain, not only to the laboratory's placement within Troop G, but also within the entire MSHP Criminal Division. (Refer to Organizational Charts, Appendix J-1a and J-1b)

With the assistance of MCCJ funding, the laboratory became operational in February 1975. Located within the basement floor of the Troop G Headquarters building, the laboratory was found to be accommodated within two floors with combined measurements of 518 square feet, of which 394 square feet is working bench space. A staff of two full time employees maintains the laboratory which serves an average of 36 agencies per year. (Refer to the Crime Laboratory User Index, Page 25.)

It was indicated by the Director that no written job descriptions existed for either of the staff members; however, later investigation revealed that such descriptions are written into MSHP policy and therefore do exist for the Troop G Laboratory staff which evidently is not aware of such written duties.

Professional preparation for the laboratory chemist is quite extensive due to the MSHP's stringent emphasis on training. An on-the-job training program is mandatorily conducted for all new MSHP criminalists at the MSHP Central Laboratory in Jefferson City for a period of one year. The laboratory furthers this initial training with continuous on-the-job training. Additionally, MSHP policy requires that the criminalist hold a relevant baccalaureate degree.

The MSHP determines all written personnel policies that affect the laboratory staff. Staff members indicated no awareness of such written policies as personnel evaluations or employee grievance procedures. The staff was, however, aware of the other written policies of administration and indicated an understanding of them.

Manual records are maintained by the laboratory and the Director indicated no computer system was available. The evaluator believes that manual record keeping procedures are adequate for the laboratory's operations.

For FY 1978, the laboratory reflects an identifiable budget of \$20,153.00. Included in this total is a minimum dollar amount for staff salaries of \$18,516.00, or at least 92 percent of the identified budget for FY 1978. The annual salary range for laboratory staff members is:

Title	Minimum Annual	Maximum Annual
Laboratory Director	\$10,608.00	\$16,860.00
Secretary	7,908.00	Unknown
Minimum Total	\$18,516.00	

Other expenses for the laboratory include equipment purchases, maintenance, supplies, and travel. Between 1975 and 1978 the laboratory expended approximately \$60,635.00, of which \$4,557.00 were MCCJ funds. It should be noted that from 1975 through 1978, Missouri General Revenue fund allocations for all MSHP laboratory staff salaries and supplies totaled \$987,639.00. Responsibility for disbursement of these dollars lies with the MSHP Finance Division. Contact with the Finance Division revealed to this evaluator that while salary allocations to each individual laboratory could be determined from the total FY 1978 General Revenue sum of \$257,108.00, no other figures were available to indicate the per laboratory dispersal of these dollars. (Refer to Appendix J-2 for the Four-Year Funding History and Revenue Allocations)

Findings and Recommendations for
Section I, Organization

The primary assessment of the organizational and managerial aspects of the laboratory is very favorable. Aspects of concern and/or findings of laboratory deficiency in this area are:

- Finding 1: According to the Director, there is no formal employee development program available for laboratory employees.
- Recommendation 1: As per the ASCLAD Standards, the laboratory should explore the possibility of obtaining a formal employee development program.
- Finding 2: As was indicated by the questionnaire survey, the staff is apparently not aware of some MSHP administrative policies that apply directly to them as employees of the MSHP (i.e., job descriptions, personnel evaluation and grievances, etc.)
- Recommendation 2: As per proper principles of management, the Laboratory Director should make a dedicated effort, as should the administrators of the MSHP, to keep the lines of communication open and to disseminate MSHP policy information affecting employees.
- Finding 3: According to the Director, the laboratory does not ensure that the conclusions and expert testimony of its examiner are reasonable within the constraints of forensic knowledge.
- Recommendation 3: As per the ASCLAD Standards, the laboratory should make every effort to ensure that all conclusions and expert testimony offered by examiners is reasonable within the constraints of forensic knowledge.
- Finding 4: The indication of the Director was that laboratories are not standardized to:
- Improve the evidence analysis process
 - Decrease case backlog
 - Compile and exchange technical data between laboratories to reduce analysis time

- Recommendation 4: This finding relates to the MAPPS Standards and is addressed to all laboratories as a whole in Volume II.
- Finding 5: Budget records, through no fault of the laboratory itself, are not well documented in terms of total specific dollar allocation amounts per laboratory.
- Recommendation 5: As per proper management techniques, future records regarding budgetary allocations must be maintained in a clear, specific, and well documented manner for purposes of new allocations to each MSHP laboratory.

SECTION II

Operations

Procedures with regard to the laboratory's receipt, handling, flow, analysis, and security of evidence are quite impressive. The laboratory was found to utilize written records for chain of custody and all evidence is marked for identification, stored under proper seal, and protected from loss, transfer, and/or contamination.

The laboratory's two staff members have access to approximately \$8,500.00 worth of nonexpendable laboratory and office equipment.

Limitations to laboratory analysis/identification capabilities, according to the Director, are in the areas of fingerprints, handwriting, ballistics, and toolmarks, none of which can be processed at the laboratory.

Findings and Recommendations for Section II, Operations

- Finding 1: According to the Director, the laboratory does not possess written technical procedures for each of its disciplines.
- Recommendation 1: As per the ASCLAD Standards, the laboratory should develop or obtain written procedures for each of its disciplines to the extent possible.
- Finding 2: According to the Director, the laboratory does not always check new technical procedures thoroughly to prove their efficiency in identifying evidence materials.

- Recommendation 2: As per the ASCLAD Standards, all new technical procedures should be checked thoroughly to prove their efficiency in identifying evidence materials.
- Finding 3: According to the Director, the laboratory has no written procedures for control of materials or maintenance of equipment.
- Recommendation 3: As per the ASCLAD Standards, written procedures should be developed for both the control of materials and the maintenance of equipment.
- Finding 4: The Director has not designed or implemented a system to provide data relevant to the laboratory's involvement in:
- Investigated crimes
 - Suspects identified/located
 - Suspects cleared
 - Suspects charged
 - Prosecutions
 - Acquittals
 - Convictions
- Recommendation 4: This finding pertains to an NAC Standard and is addressed to all laboratories as a whole in Volume II.
- Finding 5: According to the Director, the laboratory does not develop evidence kits.
- Recommendation 5: As per positive public relations and more professional evidence gathering, the laboratory should explore the possibility of developing some types of evidence gathering kits for dispersal to area agencies.

SECTION III

Activities

Case - As defined by the Director is all evidence submitted dealing with one incident.

Evidence - As defined by the Director is anything submitted for analysis.

Examination - As defined by the Director is the determination of one physical or chemical property of a substance.

Turnaround Time - As defined by the Director is the number of days from the date that evidence is submitted to the date that analysis is completed and the report is written. This does not include time taken to type the report and/or to send it out, which is usually one day at the most.

Turnaround time figures for the laboratory were calculated from caseload records beginning on June 1, 1977, and ending on December 31, 1978, inclusive. These calculations were made within the parameters of the average number of days taken to meet the turnaround time requirements for each type of case as defined by the Troop G Laboratory. The figures are indicative of the entire caseload between the above-indicated dates as each case received during that time period was sampled for this purpose.

Total Number of Cases Received Annually

Year	Cases	% Increase or Decrease
1975	193	
1976	296	+65%
1977	350	+16%
1978	299	-15%

The total number of cases received between 1975 and 1978 was 1,138 for an annual average of 285. The above table indicates the respective yearly increases and decreases in cases received. There was an average increase of 66 percent in the total of new cases received from 1975 through 1978.

Examinations Conducted Per Year

Year	Examinations	% Increase or Decrease
1975	1,933	
1976	3,190	+60.5%
1977	7,792	+41.0%
1978	4,758	-61.0%

Four-year totals for examinations reveal that the laboratory conducted 17,673 examinations from 1975 through 1978. The average yearly number of examinations conducted by the laboratory for that period of time was 4,418. The above table shows the respective yearly percentage of increases and decreases in examinations over the four-year period.

Number of Miles Traveled During Calendar Year

Average yearly mileage for the four-year period is 9,318.

Total Number of Court Appearances Annually

The average yearly number of court appearances for the laboratory staff is 59.

Activity Statistics for Breakdown of Caseload, Examination Totals, Case Type Percentage and Turnaround Time 1975-1978

Type of Case 1975-1978	Total Cases 1975-78	% of Total Cases 1975-78	Total Examinations by Type 1975-1978	Avg. Turn-around Time in Days 1977-1978
Narcotic & Drug Violation	680	59.0%	N	26.6
Intoxication	128	11.2	o	12.6
Accident	94	8.2	t	16.1
Liquor Law Violation	42	3.6		12.0
Hit and Run	29	2.5	r	35.0
Miscellaneous Other Invest.	29	2.5	e	21.6
Burglary	27	2.3	c	44.8
Investigation of Death	26	2.2	o	24.0
Destruction of Property	17	1.4	r	12.0
Arson	14	1.2	d	32.2
Homicide	14	1.2	e	17.0
Assault	13	1.1	d	15.3
Rape	11	0.9	b	38.2
Poisoning	4	0.3	y	Not Sampled
Suicide	4	0.3		12.0
Larceny	4	0.3	t	Not Sampled
Robbery	2	0.1	y	Not Sampled
Firearms Identification	0	0.0	P	N/A
Forgery	0	0.0	e	N/A
Fraud	0	0.0		N/A
TOTALS	1,138	99.0%*		24.5

*1% due to rounding error

Of the 1,138 new cases received from 1975 through 1978, 942 involved four types of evidence and represented 82.6 percent of the overall caseload for those years of operation.

Findings and Recommendations for
Section III, Activities

An overall assessment of the laboratory's activity documentation is very positive. As per the ASCLAD Standards and proper management techniques, an area of concern where attention should be directed for purposes of future accountability and possible funding allocations is:

Finding 1: Breakdown of total examinations by evidence type was not available.

Recommendation 1: The laboratory should begin to maintain a breakdown of examinations by evidence type.

SECTION IV

Laboratory Users Assessment of the
Missouri State Highway Patrol
Troop G Satellite Criminalistics Laboratory

Police

Of the police respondents, one agency utilizes the laboratory on a primary basis and three others utilize the laboratory on a secondary basis. The reason given by police agencies for selecting the Troop G laboratory is:

-Geographic proximity

The police agencies sometimes encountered scheduling conflicts for expert testimony of the criminalists and they indicated that the laboratory is often responsive to urgent or emergency analysis needs situations.

Sheriffs

Of the sheriff respondents, two agencies utilize the laboratory on a primary basis while one agency utilizes the laboratory on a secondary basis. The reason given by sheriffs' agencies for selecting the laboratory is:

-Geographic proximity

The sheriffs' agencies seldom encountered scheduling conflicts for expert testimony of the criminalists and they indicated that the laboratory is usually responsive to urgent or emergency analysis needs situations.

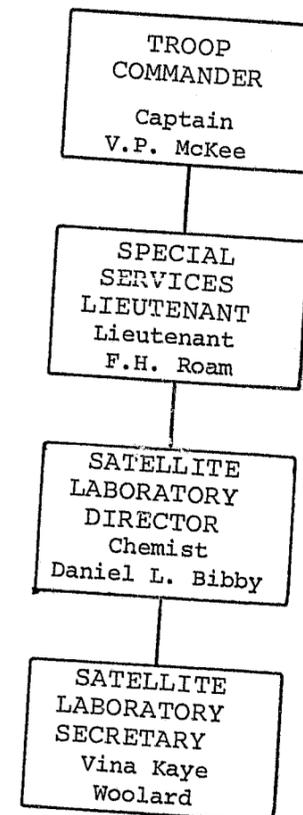
Prosecuting Attorneys

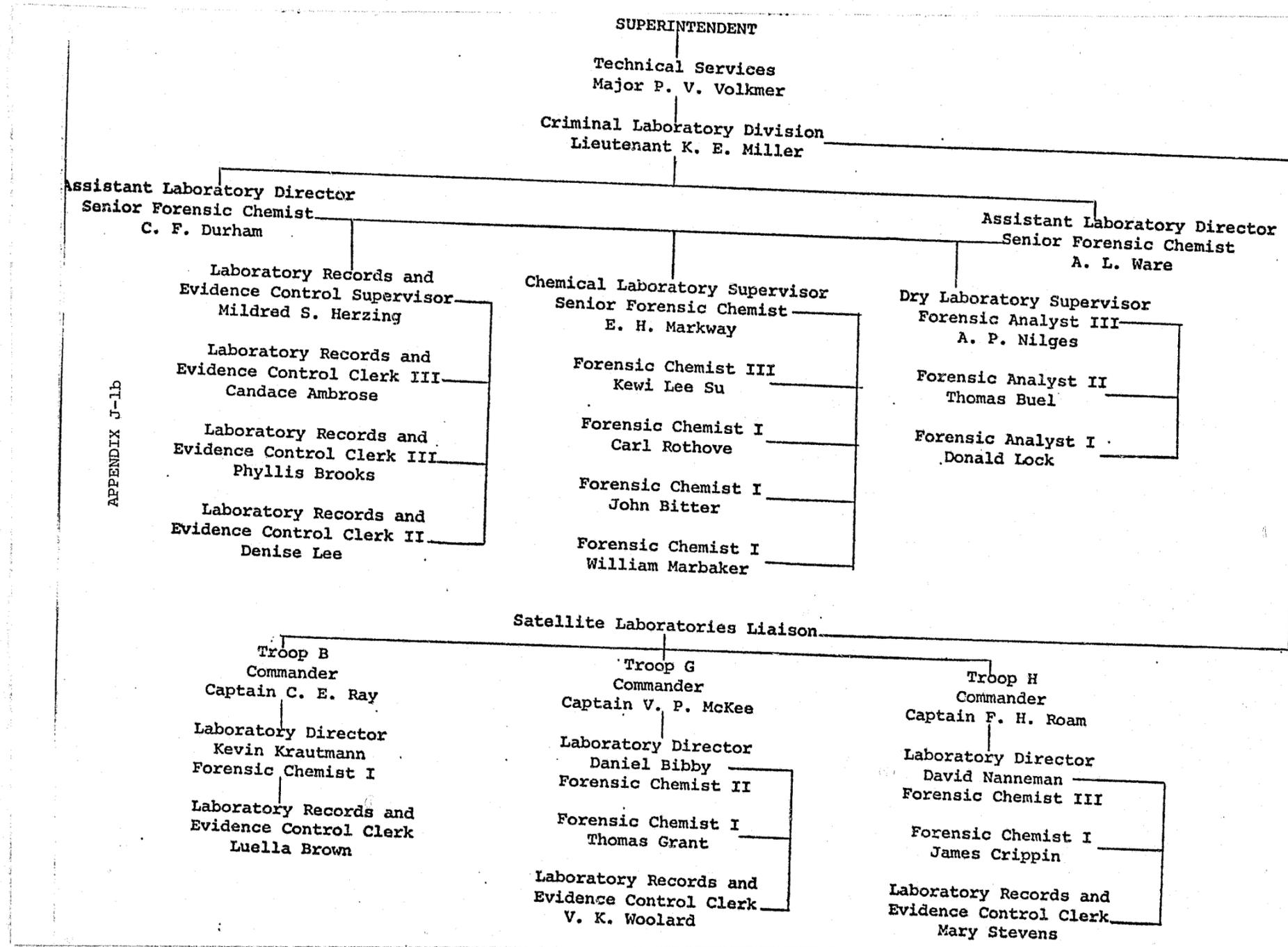
Of the prosecuting attorneys who responded, two prosecutors utilize the laboratory on a primary basis while one prosecutor utilizes the laboratory on a secondary basis. The reason given by prosecutors for selecting the laboratory is:

-Geographic proximity

The prosecutors seldom encountered scheduling conflicts for expert testimony of the criminalists and they indicated that the laboratory is always responsive to urgent or emergency needs situations.

ORGANIZATIONAL CHART
MISSOURI STATE HIGHWAY PATROL
TROOP G SATELLITE LABORATORY





APPENDIX J-1b

APPENDIX J-2

FEDERAL AND LOCAL FUNDING HISTORY
FOR THE MSHP TROOP G SATELLITE LABORATORY

MCCJ Grant Number	1975	1976	1977	1978
77-ACD2-HP04			F 3,084.00 L 345.00	
78-ACD2-HP06				F 1,473.00 164.00
TOTALS			3,429.00	1,637.00

MISSOURI GENERAL REVENUE FUNDS ALLOCATED TO THE
MISSOURI STATE HIGHWAY PATROL
CRIMINALISTICS LABORATORY SYSTEM

	FY 1975	FY 1976	FY 1977	FY 1978
	232,543.00	255,825.00	242,163.00	257,108.00

MISSOURI
DEPARTMENT OF PUBLIC SAFETY
JEFFERSON CITY, MO.

September 10, 1979

Mr. G. P. Maddox, Evaluation Specialist
Department of Public Safety
Missouri Council on Criminal Justice
P. O. Box 1041
Jefferson City, Missouri 65102

Dear Mr. Maddox,

I wish to offer the following clarifications to statements included in your evaluation report on the Troop G Satellite Laboratory.

1. Regarding Section I, Finding 3: The Missouri State Highway Patrol trains new chemists for approximately one year (see Section I, paragraph 4 of your evaluation) in proper analytical techniques. This training includes knowns, unknowns, controls, actual cases and observation of court testimony. With the exception of the implementation of a formal program for individual development and continuing education along with inner laboratory proficiency standards, the Missouri State Highway Patrol has done all in its power to provide the chemists with the opportunity to gain the knowledge and to come to appropriate conclusions and give coherent testimony in court. It was my contention that it is not possible for anyone or any organization to "ensure" or guarantee the "conclusions and expert testimony" of another individual.

2. Regarding Section II, Finding 2: The statement given is correct but incomplete. Since the laboratory does not have the time or finances necessary to acquire material to check new technical procedures thoroughly, those new procedures are not used.

Sincerely,

Daniel L. Bibby

Daniel L. Bibby
Missouri State Highway Patrol
Troop G Satellite Laboratory Director

September 18, 1979

Mr. G. P. Maddox, Evaluation Specialist
Department of Public Safety
Missouri Council on Criminal Justice
P. O. Box 1041
Jefferson City, Missouri 65102

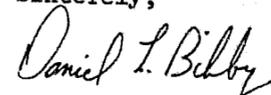
Dear Mr. Maddox,

This letter is in regard to your Missouri Criminalistics Laboratory Evaluation study of the Troop G Satellite Laboratory. On further study of your report, I found a few other small errors in addition to those I informed you about in my September 10 letter. Due to the promotion of F. H. Roam, our new Special Services Lieutenant is Lieutenant E. D. Elmore.

In looking at your figures on the total number of cases received annually, I find myself unable to reach the percentages that you did. The percent increases according to my figures for 1976, 1977 and 1978 were +53%, +18% and -15% respectively. For the examinations conducted per year my percentages for the years 1976, 1977 and 1978 were +65%, +144% and -39% respectively. The average yearly mileage for the four year period is 8703 miles.

Upon checking with the personnel department of the Missouri State Highway Patrol there are no written policies as to personal evaluations or employee grievance procedures.

Sincerely,



Daniel L. Bibby
Missouri State Highway Patrol
Troop G Satellite Laboratory Director

MISSOURI STATE HIGHWAY PATROL
TROOP H SATELLITE CRIMINALISTICS LABORATORY

SECTION I

Organization and Management

The Missouri State Highway Patrol Troop H Satellite Criminalistics Laboratory is a unit of the Missouri State Highway Patrol (MSHP) and is located adjacent to the MSHP Troop H Headquarters facility in St. Joseph, Missouri. Directed by Mr. David Nanneman, the laboratory is immediately accountable to Major P. V. Volkmer, Chief of Field Services for the MSHP. The laboratory's organizational chart indicates quite clearly the span of management and delineation of authority, not only within the laboratory itself, but also as the laboratory fits into the entire framework of the MSHP Criminal Division. The Director, however, indicated that his authority is not well defined. (Refer to Organizational Charts, Appendix K-1a and K-1b)

With the assistance of MCCJ funding, the laboratory became operational in February 1977. Located in a free-standing, self-contained structure next to the Troop H building, the laboratory was found to be, at present, accommodated with 600 square feet, of which 250 square feet is working bench space. A new Troop H Headquarters building currently under construction will provide the laboratory with 140-200 additional square feet. A staff of three full time employees maintains the laboratory which serves an average of 30 agencies per year. (Refer to the Crime Laboratory Users Index, Page 25.)

Clear, and apparently accurate, written job descriptions do exist for laboratory staff as per MSHP general policy. All laboratory staff indicated an awareness and understanding of such descriptions and observations revealed that they governed their professional activities accordingly.

Training and educational preparation for professional staff members includes an intensive, one-year, formal on-the-job training program at the MSHP Central Laboratory in Jefferson City and the requirement that all new chemists hold at least a relevant baccalaureate degree.

The MSHP determines all written personnel policies that affect the laboratory staff. This evaluator found that staff members were unaware of the existence of such written policies as personnel evaluations and employee grievance procedures. The staff was, however, aware of other written policies of administration and indicated an understanding of them.

Records are maintained manually by the laboratory; however, access to the Troop H computer terminal is available. Manual procedures for record keeping are considered, by the evaluator, to suit the laboratory's needs quite sufficiently.

For FY 1978, the laboratory reflects an identifiable budget of \$41,521.00. Included in this total is a minimum dollar amount of staff salaries of \$34,704.00 or at least 83 percent of the identified budget for FY 1978. Annual salary ranges for laboratory staff members are:

Title	Minimum Annual	Maximum Annual
Satellite Laboratory Director (Forensic Chemist III)	\$16,368.00	\$22,728.00
Forensic Chemist I	11,484.00	15,624.00
Secretary	6,852.00	Unknown
Minimum Total	\$34,704.00	

Other expenses for the laboratory include equipment purchases, maintenance, supplies, and travel. Between 1975 and 1978, the laboratory expended an approximate total of \$183,373.00, of which \$98,672.00 was provided by MCCJ. It should be noted that from 1975 through 1978, Missouri General Revenue fund allocations for all MSHP laboratory staff salaries and supplies totaled \$987,639.00. Responsibility for dispersal of these dollars lies with the MSHP Finance Division; however, this evaluator found that while salary allocations could be determined from this dollar total, no other figures were available to indicate the per laboratory allotment of the balances. (Refer to Appendix K-2 for Four-Year Funding History)

Findings and Recommendations for
Section I, Organization

The primary assessment of the laboratory's organizational and managerial aspects is quite positive. The aspects of concern and/or findings of laboratory deficiencies in this area are:

- Finding 1: Regardless of the distinct charts of organization for the laboratory, the Director indicates that the basis for his authority is not well defined.
- Recommendation 1: As per the ASCLAD Standards, the Director should be made fully aware of and have an understanding of the basis for his authority within the laboratory and the organization as a whole.
- Finding 2: According to the completed survey, the staff is apparently not fully aware of all written personnel policies that apply directly to them as MSHP employees.
- Recommendation 2: As per proper management principles, the Director should make every effort, as should MSHP administrators, to keep the lines of communication regarding all personnel policies open and well understood.
- Finding 3: According to the Director, the laboratory has no formalized employee development program.
- Recommendation 3: As per the ASCLAD Standards, the possibility of obtaining a formal employee development program should be explored.
- Finding 4: The indication of the Director was that laboratories are not standardized to:
- Improve the evidence analysis process
 - Decrease case backlog
 - Compile and exchange technical data between laboratories to reduce analysis time.
- Recommendation 4: This finding relates to the MAPPS Standards and is addressed to all laboratories as a whole in Volume II.
- Finding 5: Budget records, through no fault of the laboratory itself, are not well documented in terms of total specific dollar allocation amounts per laboratory.
- Recommendation 5: As per proper management techniques, future records regarding total dollar allocations to the laboratory should be clear, complete, and well documented.

SECTION II

Operations

Procedures regarding receipt, handling, flow, analysis, and security of evidence are very impressive. Written records for chains of custody are utilized and all evidence is marked for identification, stored under proper seal, and protected from loss, transfer, and/or contamination.

The laboratory's three staff members have access to approximately \$50,600.00 worth of nonexpendable laboratory and office equipment.

Limitations to laboratory analysis capabilities were determined by the Director to be in the area of instrumentation for elemental and serology analysis. The laboratory is further incapable of the analysis and/or identification of ballistics, handwriting, and toolmarks.

Findings and Recommendations for
Section II, Operations

- Finding 1: According to the Director, the laboratory does not possess written technical procedures for each of its disciplines.
- Recommendation 1: As per the ASCLAD Standards, the laboratory should develop or obtain written procedures for each of its disciplines to the extent possible.
- Finding 2: According to the Director, the laboratory does not always check new technical procedures thoroughly to prove their efficiency in identifying evidence materials.
- Recommendation 2: As per the ASCLAD Standards, all new technical procedures should be thoroughly checked to prove their efficiency in identifying evidence materials.
- Finding 3: According to the Director, the laboratory has no written procedures for control of materials and supplies or maintenance of equipment.
- Recommendation 3: As per the ASCLAD Standards, written procedures should be developed for both control of materials and supplies and for maintenance of equipment.

Finding 4:

The Director has not designed or implemented a reporting system to provide data relevant to the laboratory's involvement in:

- Suspects identified/located
- Suspects cleared
- Suspects charged
- Prosecutions
- Acquittals
- Convictions

Recommendation 4:

This finding pertains to an NAC Standard and is addressed to all laboratories as a whole in Volume II.

Finding 5:

According to the Director, the laboratory does not develop or disseminate evidence kits.

Recommendation 5:

As per positive public relations and improved evidence gathering efforts, the laboratory should consider developing certain types of evidence gathering kits for dissemination to area user agencies.

SECTION III

Activities

Case - As defined by the Director is evidence submitted from an individual incident preferably involving one individual. Sometimes more than one person may be involved, but the evidence is still considered to be one case.

Evidence - As defined by the Director is materials submitted for examination.

Examination - As defined by the Director is the overall analysis of one piece of evidence or the analysis of evidence using a reagent or other procedure.

Turnaround Time - As defined by the Director is the number of days from the date that evidence is submitted until the date that analysis is completed and the report is written. This does not include the time that is taken to type the report and/or to send it out, which is usually one day at the most. Turnaround time figures for the laboratory were calculated from caseload records beginning on February 14, 1977, and ending on December 31, 1978, inclusive. These calculations were made in terms of average number of days taken to meet the turnaround time requirements for each type of case as defined by the Troop H Laboratory. The figures are indicative of the entire caseload between the above-indicated dates as each case received during the time period was sampled for this purpose.

Total Number of Cases Received Annually

Year	Cases	% Increase or Decrease
1975		
1976		
1977	347	
1978	311	-10%

A total of 658 cases was received between the two years for a yearly average of 329 cases. The above table indicates the percentage decrease in cases received between the two years of operation.

Examinations Conducted Per Year

Year	Examinations	% Increase or Decrease
1975		
1976		
1977	3,824	
1978	2,745	-28%

A total of 6,569 examinations was conducted between the two years for a yearly average of 3,284 examinations. Laboratory records indicate a decrease of 28 percent in examinations conducted between 1977 and 1978.

Number of Miles Traveled Per Year

The average mileage between the two years was 4,759.

Total Number of Court Appearances Annually

The average yearly number of court appearances for the laboratory staff was 38.

Activity Statistics for Breakdown of Caseload, Examination Totals, Case Type and Turnaround Time 1977-78

Type of Case	Total Cases	% of Total Cases	Total Examinations by Type	Avg. Turn-around Time in Days
Narcotic & Drug Violations	414	63.0%	N o t r e c o r d e d	13.54
Arson	82	12.4		9.78
Liquor Law Violations	36	5.4		18.27
Accident (fatal)	27	4.1		9.50
Intoxication	21	3.1		6.52
Hit & Run	18	2.7		22.37
Miscellaneous	17	2.5		10.61
Destruction of Property	13	1.9		11.25
Burglary	8	1.2		19.11
Poisoning	6	0.9		15.00
Assault	4	0.6		13.00
Investigation of Deaths	3	0.4		60.00
Fraud	2	0.3		37.00
Rape	2	0.3		9.00
Robbery	2	0.3		9.00
Homicide	2	0.3		4.00
Suicide	1	0.1		27.00
Firearms Identification	0	0.0	0.00	
Forgery	0	0.0	0.00	
Larceny	0	0.0	0.00	
TOTALS	658	99.0%*		13.31

*1% due to rounding error

Of the 658 new cases received from 1977 through 1978, 553 involved four types of evidence and represented an average of 84.9 percent of the overall caseload for those two years of operation.

Findings and Recommendations for Section III, Activities

The general assessment of the laboratory's activity documentation is very favorable. As per the ASCLAD Standards and proper management techniques, an area of concern where attention should be directed for purposes of future accountability and possible funding allocations is:

Finding 1: Breakdowns of examinations by evidence type are not available.

Recommendation 1: The laboratory should document examination totals by type of evidence or case.

SECTION IV

Laboratory Users Assessment of the
Missouri State Highway Patrol
Troop H Satellite Criminalistics Laboratory

Police

Of the police respondents, one agency utilizes the laboratory on a primary basis while two agencies utilize the laboratory on a secondary basis. The only reason given by police agencies for using the laboratory was:

-Geographic proximity

The police agencies seldom encounter conflicts in scheduling expert testimony for the criminalists and they indicated that the laboratory is always responsive to urgent or emergency analysis needs situations.

Sheriffs

Of the sheriff respondents, five agencies utilize the laboratory on a primary basis while five others utilize the laboratory on a secondary basis. Of the composite of reasons given for using the laboratory, the most significant were:

-Geographic proximity
-No service charge

The sheriffs' agencies seldom encounter conflicts in scheduling expert testimony of the criminalists and they indicated that the laboratory is usually responsive to urgent or emergency analysis needs situations.

Prosecuting Attorneys

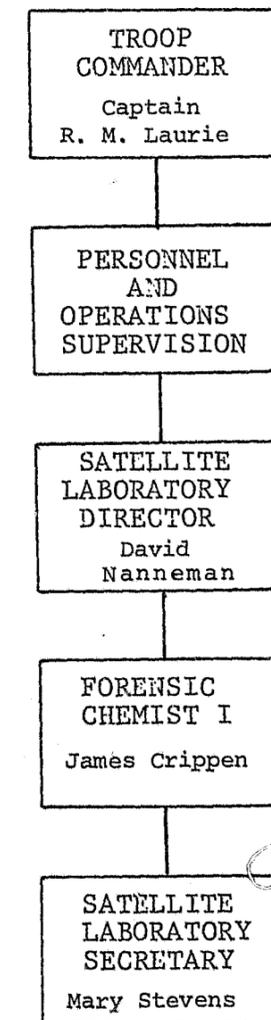
Of the prosecuting attorneys who responded, six of them utilize the laboratory on a primary basis while two others utilize the laboratory on a secondary basis. The only reason given by the prosecutors for using the laboratory was:

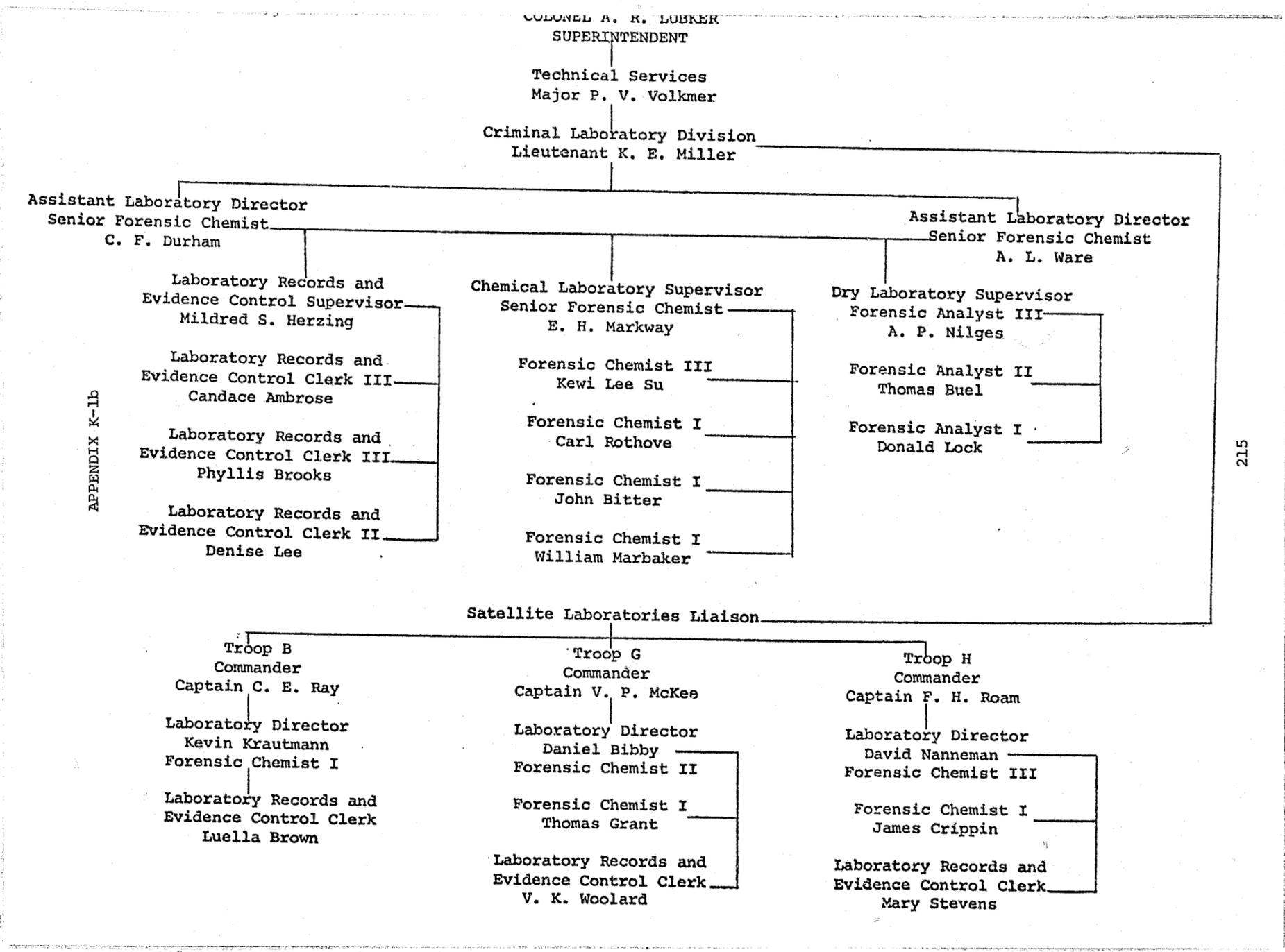
-Geographic proximity

The prosecutors sometimes encounter conflicts in scheduling expert testimony of the criminalists and they indicated that the laboratory is usually responsive to urgent or emergency analysis needs situations.

APPENDIX K-1a

ORGANIZATIONAL CHART
MISSOURI STATE HIGHWAY PATROL
TROOP H SATELLITE LABORATORY





APPENDIX K-1b

APPENDIX K-2

FEDERAL AND LOCAL FUNDING HISTORY
FOR THE MSHP TROOP H SATELLITE LABORATORY

MCCJ Grant Number	1975	1976	1977	1978
75-ACD2-HP04	F 88,993.00 L 24,727.00			
77-ACD2-HP01			F 3,572.00 L 556.00	
78-ACD2-HP09				F 6,107.00 L 710.00
TOTALS	113,720.00		4,128.00	6,817.00

MISSOURI GENERAL REVENUE FUNDS ALLOCATED TO THE
MISSOURI STATE HIGHWAY PATROL
CRIMINALISTICS LABORATORY SYSTEM

	FY 1975	FY 1976	FY 1977	FY 1978
	232,543.00	255,825.00	242,163.00	257,108.00

Joseph P. Teasdale
Governor

F. M. Wilson
Director



DEPARTMENT OF PUBLIC SAFETY
MISSOURI STATE HIGHWAY PATROL

A. R. Lubker, Superintendent

Address reply to
Commanding Officer, Troop H
MISSOURI STATE HIGHWAY PATROL
St. Joseph - 64502
Phone 816-233-0291

September 11, 1979

Mr. G. P. Maddox, Evaluation Specialist
Department of Public Safety
Missouri Council on Criminal Justice
Jefferson City, Missouri 65102

Dear Mr. Maddox:

With regard to Finding #1 under Section II Operations, this laboratory has a library of technical information and each chemist has his files with technical reference and information on the different types of analysis required.

With regard to Finding #2 under Section II Operations, "The laboratory does not always check new technical procedures thoroughly to prove their efficiency in identifying evidence materials".

This laboratory does not and cannot thoroughly check all new procedures for their efficiency.

This laboratory does thoroughly check all procedures that are used in analysis of evidence for their reliability and accuracy.

Sincerely,

F. H. ROAM, Captain
Commanding Troop H

David F. Nanneman
David F. Nanneman, Chemist

1979
DEPARTMENT OF PUBLIC SAFETY
JEFFERSON CITY, MISSOURI

ST. LOUIS METROPOLITAN POLICE DEPARTMENT
CRIMINALISTICS LABORATORY

SECTION I

Organization and Management

The St. Louis Metropolitan Police Department Criminalistics Laboratory is a unit of the Technical Services Division of the St. Louis Metropolitan Police Department. The laboratory is under the immediate direction of Lt. William Armstrong who reports to the Manager of the Department's Technical Services Division. (Refer to Organizational Charts, Appendix L-1a and L-1b)

In operation since 1927, the laboratory is located within the Central Metropolitan Police Department Building in downtown St. Louis and has physical space accommodations of approximately 4,080 square feet, of which approximately 2,000 square feet is working bench space.

A staff of 22 full time and two part time employees maintains the six sections of the laboratory which services the St. Louis Metropolitan Police Department, and, as indicated by the Director, approximately 20 other area agencies. No records were available for documentation. (Refer to the Crime Laboratory Users Index, Page 25.)

Employees of the laboratory were found to have accurate, written job descriptions dictating their laboratory activities and duties. It was the indication of the employees and the observation of the evaluator that the employees were aware of such job descriptions and that they understood them and conducted their professional activities accordingly.

The St. Louis Metropolitan Police Department determines all written personnel policies that affect laboratory staff. The indication and observation was that the staff was aware of and understood such policies and that they governed their professional activities accordingly.

Laboratory records are maintained manually; however, the laboratory does have access to the Department's computer system. The manual system does seem to function adequately, but the volume of work handled by the laboratory suggests that perhaps a computerized system would be more efficient and dependable.

Professional training for staff members includes a formal training program along with on-the-job training; however, there is no formal employee development program within the laboratory. All employees of the laboratory who work in the Criminalistics, Firearms, or Polygraph Sections are required to hold at least an earned relevant baccalaureate degree.

The supervisory function of the laboratory lies with the Director and four other professional staff members. The Director has overall formal supervisory responsibilities for the entire laboratory; however, the individual units and sections are under the immediate formal and informal direction of the supervisors of their respective areas.

Identifiable budget expenditures for 1978 indicated that approximately \$317,812.00 was allocated to the laboratory. This figure includes a minimum dollar amount of \$193,087.00 for salaries, or at least 61 percent of the identified budget for the year. Annual salary ranges for eleven laboratory staff members are:

Title	Minimum Annual	Maximum Annual
Commander (Director)	\$20,844.00	\$ --
Chief Criminalist	18,512.00	22,386.00
Criminalist II	16,016.00	19,422.00
Criminalist I	12,038.00	17,654.00
Firearm Examiner	15,017.00	15,760.00
Polygraph Examiner	15,017.00	15,760.00
Technical Artist	15,017.00	15,760.00
E.T.U. Supervisor	18,569.00	19,159.00
Evidence Technician	15,017.00	15,760.00
Typist	7,689.00	9,177.00
Chief Property Clerk	10,583.00	12,760.00
Property Clerk	8,764.00	10,583.00
Office Clerk	7,331.00	8,764.00
File Clerk	6,973.00	8,406.00
Laboratory Helper		
Document Examiner	5,700.00	5,700.00
Minimum Total	\$193,087.00	

Other expenses include equipment, supplies, and maintenance. Between 1975 and 1978, the laboratory expended a total of \$1,216,176.00, of which \$56,905.00 was provided by MCCJ. (Refer to Appendix L-2 for Four-Year Funding History)

Findings and Recommendations for
Section I, Organization

The overall fundamental assessment of the organizational and managerial components of the laboratory is favorable. In consideration of staff size and the volume and types of cases that go through the various laboratory sections, the laboratory seems to be quite sound administratively; however, some findings in need of attention should be noted:

Finding 1: The laboratory does not possess a written set or list of objectives.

Recommendation 1: As per the ASCLAD Standards, the laboratory should develop a written set or list of laboratory objectives that will assimilate themselves into the laboratory's operations and which will be communicated and understood by all staff members.

Finding 2: The indication of the Director is that crime laboratories are not standardized to:

- Improve the evidence analysis process
- Decrease case backlog
- Compile and exchange technical data between laboratories to reduce analysis time

Recommendation 2: This finding relates to the MAPPS Standards and is addressed to all laboratories as a whole in Volume II.

Finding 3: There is no indication in the records of analysis or report completion dates.

Recommendation 3: Records indicating analysis completion times and dates should be maintained in the future for the purposes of turnaround time calculation and accountability.

SECTION II

Operations

Operational procedures of the laboratory with regard to evidence receipt, handling, flow, analysis, and security are, for the most part, well written and followed by staff members. A written chain of custody record is utilized for all evidence movement. The evidence is always marked for identification, stored under proper seal, and protected from loss, transfer, and/or contamination.

The 23 staff members have access to approximately \$179,227.00 worth of non-expendable laboratory and office equipment.

Limitations to laboratory analysis capabilities were determined by the Director to be in the area of toxicology.

Findings and Recommendations for
Section II, Operations

- Finding 1: According to the Director, the laboratory does not possess written technical procedures for each of its disciplines.
- Recommendation 1: As per the ASCLAD Standards, the laboratory should develop or obtain written technical procedures for each of its disciplines.
- Finding 2: According to the Director, the laboratory does not have written procedures for the maintenance of equipment.
- Recommendation 2: As per the ASCLAD Standards, the laboratory should develop written procedures for equipment maintenance.
- Finding 3: The Director has not designed or implemented a reporting system to provide data relevant to the laboratory's involvement in:
- Reported crimes
 - Investigated crimes
 - Suspects identified/located
 - Suspects cleared
 - Suspects charged
 - Prosecutions
 - Acquittals
 - Convictions
- Recommendation 3: This finding pertains to an NAC Standard and is addressed to all laboratories as a whole in Volume II.

SECTION III

Activities

Case - As defined by the Laboratory Director is all items or specimens submitted under a violation or a series of violations which happened at the same time involving the same people.

Evidence - As defined by the Laboratory Director is any material (solid, liquid, or gaseous) that tends to prove a point in question.

Examination - As defined by the Laboratory Director is the physical work involved in determining the quantity or quality of a given item. This may include more than one test or analysis.

Turnaround Time - As defined by the Director is that time existing from the time that the evidence is received by the laboratory until the items are examined and report is written and typed.

A unique situation exists at the laboratory with respect to turnaround time in that logs, files, receipts, records, etc., contain no completion dates. Dates received were easily retrievable; however, there was no place where completion dates could be documented. The sole exception to this was found in some of the staff members' personal logs. The logs are all kept individually and are strictly up to the discretion of the individual staff members to keep. Not all staff members maintained personal logs and for those who did maintain logs, not all of them kept analysis completion dates. Due to the fact that these circumstances left the probability of determining any reasonably accurate estimates of turnaround time practically impossible, this section has been omitted.

It should be noted that an interesting aspect of this subject with the St. Louis Metropolitan Laboratory lies in the fact that 95 percent of all narcotics submitted to the laboratory are examined on a "while you wait" basis within 30 minutes time.

Total Number of Cases Received Annually

Year	Cases	% Increase or Decrease
1975	15,713	
1976	16,139	+3%
1977	15,413	-5%
1978	16,564	+7%

A total of 63,829 cases were received over the four-year period for a yearly average of 15,957 cases. The above table shows respective yearly increases and decreases in cases received.

Examinations Conducted Per Year

The figures indicated in the Cases Received Annually section above are the only figures available in terms of examinations conducted as they are indicative of the total number of cases or specimens submitted which are examined. Individual test or examinations records are not kept by the laboratory.

Number of Miles Traveled During Calendar Year

These records are not maintained by the laboratory.

Total Number of Court Appearances Annually

The average yearly number of court appearances for the laboratory staff for the four-year period was 455.

Activity Statistics for Breakdown of Caseload, Examination Totals, Case Type and Turnaround Time 1975-1978

Type of Case	Total Cases	% of Total Cases	Total Examinations by Type	Avg. Turn-around Time in Days
Firearms	12,027	18.8%	N o t r e c o r d e d	N o t a v a i l a b l e
Marihuana	9,987	15.6		
Other Drugs	6,198	9.7		
Comparison	3,772	5.9		
D.W.I.	3,619	5.6		
Bullets & Shells	3,451	5.4		
Blood	2,758	4.3		
Liquor & Beer	2,389	3.7		
Hard Narcotics	2,356	3.6		
Powder Residue & TMD	1,889	2.9		
Potent Drugs	1,882	2.9		
Latent Prints	1,708	2.6		
Documents	860	1.3		
Polygraph	834	1.3		
Miscellaneous	792	1.2		
Technical Arts	791	1.2		
Semen	785	1.2		
Blood Alcohol	684	1.0		
Microscopy (all other)	535	0.8		
Hallucinogenics	459	0.7		
Tool Mark & Restoration	198	0.3		
Instrumental (all other)	176	0.2		
Chemical	19	0.02		
Powder & Shot Pattern	2	0.003		
Clothing:				
Homicide & Rape	2,303	3.6		
Burglary	1,025	1.6		
Narcotics	15	0.02		
Paint:				
Microscopic	519	0.8		
Instrumental	32	0.05		
Glass:				
Microscopic	525	0.8		
Instrumental	141	0.2		
Hair & Fibers				
Microscopic	29	0.04		
Instrumental	4	0.006		
Soil:				
Microscopic	25	0.03		
Instrumental	4	0.006		
Chemical				
Arson:				
Chemical	2	0.003		
Instrumental	893	1.3		
TOTAL	63,829	99.0*		

*1% due to rounding error

Of the 63,829 cases or specimens received over the four-year period, 46,379 involved seven types of evidence and represented an average of 72.45 percent of the overall caseload for those years of operation.

Findings and Recommendations for
Section III, Activities

The general assessment of activities record keeping procedures for the laboratory is average. As per the ASCLAD Standards and proper management techniques, some areas of concern and/or findings where attention should be directed for purposes of future accountability and possible funding allocations are:

Finding 1: Such activities records as total agencies serviced, total examinations, total miles traveled, and average turnaround time figures are not recorded and cannot be determined from laboratory records.

Recommendation 1: As per the ASCLAD Standards and proper management practices, the laboratory should begin compilation of the above types of data or develop a method by which such information can be determined from the records. This information can be important in terms of future accountability and funding allocations.

SECTION IV

Laboratory Users Assessment of the
St. Louis Metropolitan Police Department
Criminalistics Laboratory

Police

Of the police respondents, one agency utilizes the laboratory on a primary basis while eight agencies utilize the laboratory on a secondary basis. The significant reasons given by police agencies for using the laboratory were:

- Geographic proximity
- Comprehensive capability

The police agencies seldom encounter conflicts in scheduling expert testimony for criminalists and they indicated that the laboratory is sometimes responsive urgent or emergency analysis needs situations.

Sheriffs

Of the sheriff respondents, two agencies utilize the laboratory on a primary basis while no agencies indicated the laboratory as a secondary preference. The only reason given by the sheriffs' agencies for using the laboratory was:

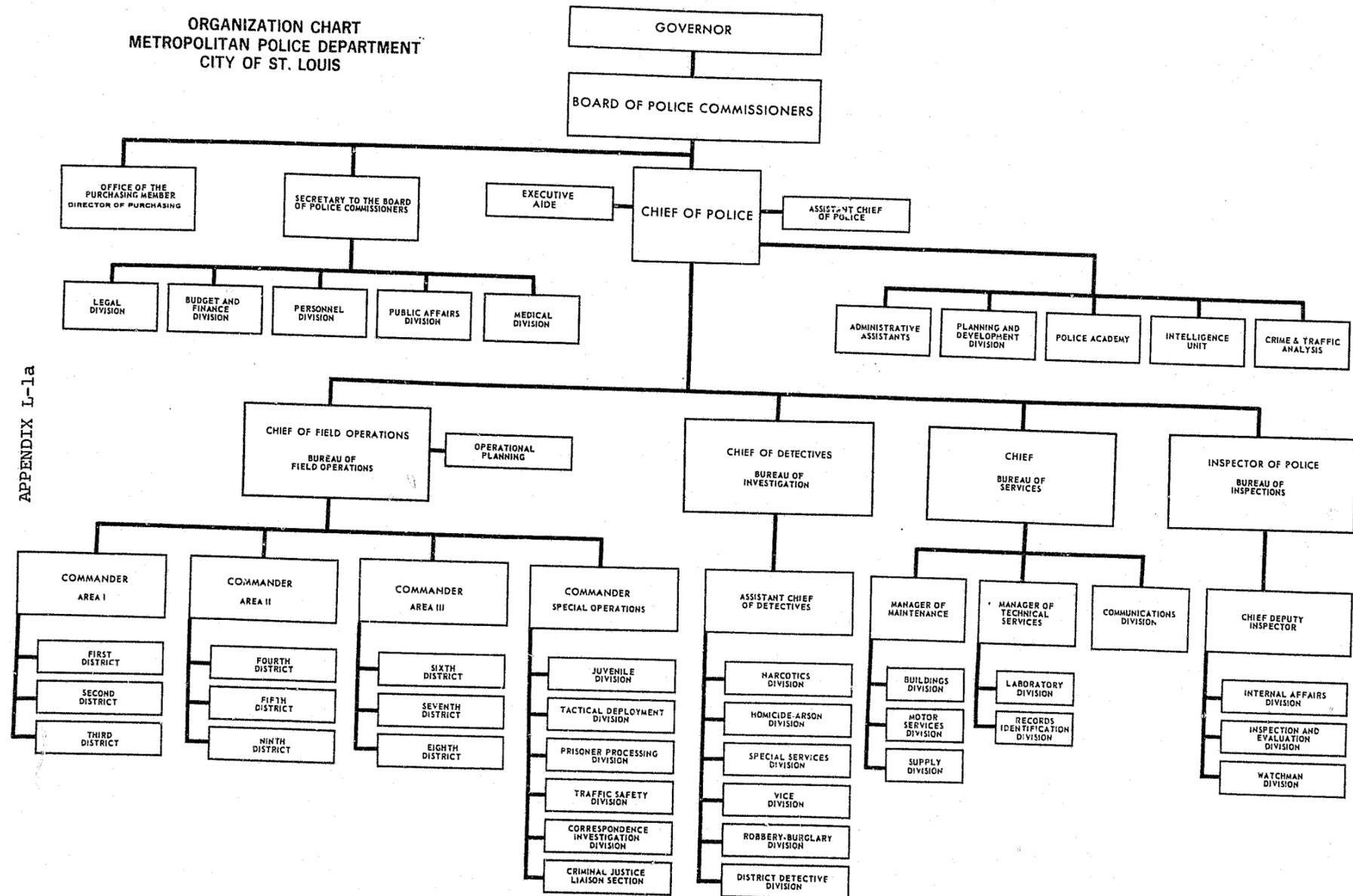
- Geographic proximity

The sheriffs' agencies seldom encounter conflicts in scheduling expert testimony for the criminalists and they indicated that the laboratory is usually responsive to urgent or emergency analysis needs situations.

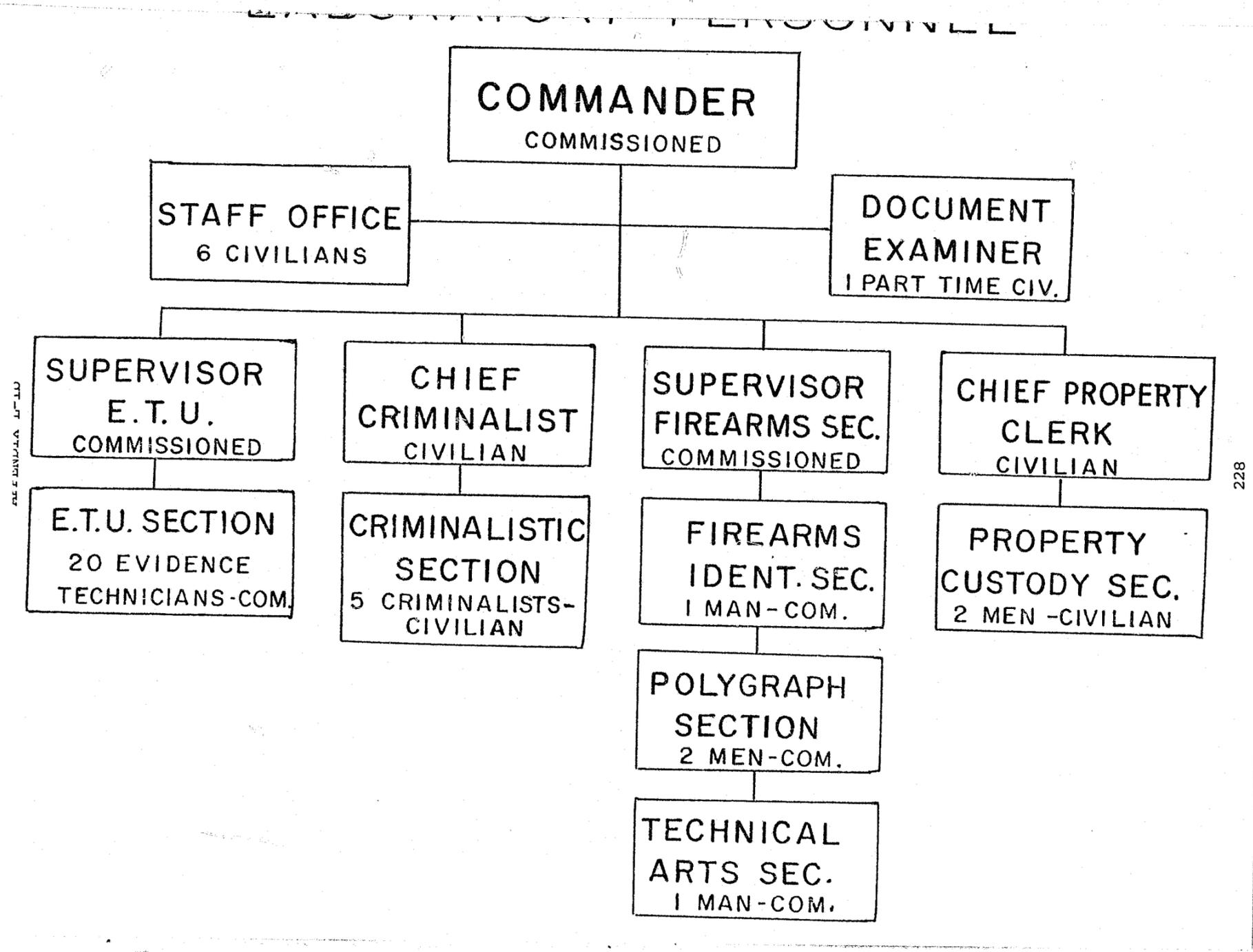
Prosecuting Attorneys

Of the prosecuting attorneys who responded, none indicated the laboratory as either a primary or secondary preference.

ORGANIZATION CHART
METROPOLITAN POLICE DEPARTMENT
CITY OF ST. LOUIS



APPENDIX L-1a



CT 117 VTCM 117

APPENDIX L-2

FEDERAL AND LOCAL FUNDING HISTORY
FOR THE ST. LOUIS METROPOLITAN POLICE DEPARTMENT
CRIMINALISTICS LABORATORY

MCCJ Grant Number	1975	1976	1977	1978
75-ACD2-E022	F 15,691.00* L 2,674.00*			
76-ACD2-E046		F 15,006.00* L 1,969.00*		
77-ACD2-E014			F 15,902.00* L 3,028.00*	
78-ACD2-T014				F 10,306.00 L 10,307.00
TOTALS	18,365.00	16,975.00	18,930.00	20,613.00

*Approximate figures; grants shared with
Region V, St. Louis County Laboratory.

ST. LOUIS CITY FUNDING

	1975	1976	1977	1978
	242,849.00	353,870.00	247,375.00	297,199.00
GRAND TOTAL	261,214.00	370,845.00	266,305.00	317,812.00
				1,216,176.00

VOLUME III

SUMMARY CONCLUSION

What has been presented within this volume is an individual overview of the developmental process; the administrative and managerial; and the operative and activities functions of each Missouri criminalistic laboratory. It is believed that in so doing the individual problem areas and some subsequent solution possibilities within and for each laboratory have been provided.

Volume II of this study has combined the materials used to compile this volume in an effort to funnel down the significant problem areas of Missouri's crime laboratories as a whole, and to offer some pertinent solutions to the totality of the crime laboratory structure as it concerns the entire state of Missouri and all of its user agencies.

END