

Crime Laboratory Management

Jami J. St.Clair



CRIME LABORATORY MANAGEMENT

Jami J. St Clair

with contributions by
Jo Ann Given *and* Michael W. St Clair



ACADEMIC PRESS

An imprint of Elsevier Science

Amsterdam Boston London New York Oxford Paris
San Diego San Francisco Singapore Sydney Tokyo

Copyright © 2002, Elsevier Science Ltd

All Rights Reserved

No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or any information storage and retrieval system, without permission in writing from the publisher.

ACADEMIC PRESS

An imprint of Elsevier Science

84 Theobald's Road, London WC1X 8RR, UK

<http://www.academicpress.com>

ACADEMIC PRESS

An imprint of Elsevier Science

525 B Street, Suite 1900, San Diego, California 92101-4495, USA

<http://www.academicpress.com>

ISBN 0-12-664051-3

Library of Congress Control Number 2002113742

A catalogue record for this book is available from the British Library

Transferred to digital printing in 2008.

*In memory of my father,
James Franklin Jackson,
who, when he learned that I wanted to work in
a crime laboratory, surmised that I'd always have work;
and with love to my husband, Mike,
who has supported me and the "work" ever since*

PREFACE

Many crime laboratory supervisors are promoted not on their management abilities but on their analytical abilities. They quickly learn that the position requires an entirely different set of abilities. While training programs are mandated to teach a new forensic scientist how to perform DNA analysis, few laboratories require new supervisors to fulfill a training program on effective laboratory management. General management classes can be applied to the crime laboratory setting but there are often idiosyncrasies that exist for crime laboratories that are not taught in these classes. Therefore, new laboratory supervisors must learn by trial and error. They learn a little here and pick up some more there. After several years, they have acquired the skills to respond effectively to situations that commonly occur in the crime laboratory.

This text endeavors to fulfill several objectives. It attempts to fill in some of the gaps that exist in the training for new laboratory supervisors and provide new perspectives to experienced directors. It may also give an overview of crime laboratory operations to non-science administrators that oversee laboratories as well as others interested in crime laboratory operations. Finally the text provides many subjects useful to crime laboratory analysts that aspire to become supervisors or just wish to know more about laboratory management.

Crime Laboratory Management is broken into nine chapters where classical management theories proposed by such notables as Steven Covey and Ken Blanchard are applied to crime laboratory management. Accompanying the theoretical discussions are practical applications and scenarios that can be adapted by forensic laboratory managers for use in their own laboratories.

Chapter 1, "The Role of the Crime Laboratory", details the crime laboratory's responsibility to various segments of society and addresses why laboratories must be accountable to suspects as well as victims. Laboratories may operate as an independent public agency, as a unit within a law enforcement agency or as a commercial enterprise. Regardless of their organizational structure, laboratories share common operational elements and require similar personnel positions to fulfill their missions. The duties of the positions and the requirements of the individuals that fill the positions are discussed.

The most important task of a crime laboratory director is discussed in

Chapter 2, "Human Resource Management". Initially, personal leadership is stressed because only through self-awareness of one's own strengths and weaknesses can one effectively manage others. This awareness can also make a manager aware of the needs of the individuals that they manage. For a crime laboratory supervisor to ensure that the laboratory is operating to its maximum potential, they need to understand how to fulfill their employee's needs. This chapter also addresses practical tips for hiring the right individuals as well as developing and evaluating employees.

It is commonly accepted that employees of crime laboratories are held to a higher standard than those in other careers. New crime laboratory employees must pass a barrage of tests to ensure that their past behavior is free of illegal or unethical acts. While it is expected that their past behavior will be indicative of their future actions, this is not always the case. Chapter 3, "Ethics", explores the common reasons why unethical acts are committed. If these reasons are identified, they can be addressed and prevented. Models for ethical decision-making as well as practical training scenarios that can be used to teach forensic scientists how to resolve conflicts are also presented.

The need for crime laboratories to ensure a high-quality work product has been illustrated time after time in recent years. Many within the forensics community promote accreditation of laboratories and certification of analysts as a measure of quality. Chapter 4, "Quality in Crime Laboratories", is written by Jo Ann Given, a past chair of ASCLD/LAB®, the United States' most recognized crime laboratory accrediting body. Ms. Given provides a thorough discussion of the various accrediting, certifying and standard-setting bodies active in the United States and in the international community.

Crime laboratories are faced with daily changes to their operations. Chapter 5, "Strategic Management", addresses how laboratory managers can prepare for future trends and respond to events that affect the laboratory's operations by developing and managing from a strategic plan. The chapter also discusses the various management programs that have been adopted by organizations, including total quality management and balanced scorecard. While these programs vary, they share many common elements such as a customer focus, employee participation, and a continuous improvement of processes. These elements are highlighted and discussed.

The day-to-day activities of crime laboratories are usually well established. However, changes in environment, such as the passage of a new law, often require that the laboratory address these changes in order to maintain the effective operation of the laboratory. A "project" is undertaken to determine the need for the change, determine the best alternative, and implement the

selected processes. Chapter 6, “Project Management”, discusses the steps necessary to successfully complete a project. The chapter also gives practical tips for managing a project as it progresses and evaluating its results to ensure that it achieves the desired outcomes.

All crime laboratories, both public and private, operate with scarce resources. Funds that are used for one purpose are not available for another. Therefore, the effective use of budgetary resources is necessary to ensure that the crime laboratory continues to operate in alignment with its goals and objectives. As many crime laboratories are public agencies, Chapter 7, “Resource Management”, discusses classical theories regarding public budgeting, including how agencies operate with limited funds, as well as how they determine which processes to eliminate if funding is reduced to a critical level. The chapter also presents a practical discussion regarding how crime laboratories can supplement their budgets, including where to seek grants and how to successfully write a proposal.

One of the skills that new laboratory supervisors must develop quickly is communication. The ability to effectively communicate to employees, administrators and external stakeholders is essential to gaining the support necessary to fulfill the laboratory’s goals and objectives. Chapter 8, “Effective Communications”, gives practical information on various aspects of communications. Practical tips regarding public speaking and written correspondence are presented, and because today’s crime laboratory directors must be politically astute, this chapter provides a practical discussion regarding the US political process. It addresses how a laboratory manager can actively promote their laboratory’s needs or those of the forensic community to elected officials. The National Forensic Science Improvement Act provides an illustrative example of the theories discussed.

Finally, crime laboratory managers must ensure that their laboratories operate as safely as possible. The safety of their employees should be considered with day-to-day operations as well as when new processes are instituted. Chapter 9, “Safety in the Forensic Laboratory”, is written by Michael St Clair, Certified Safety Professional, and outlines general safety precautions for the crime laboratory. The chapter includes practical discussions regarding common physical and chemical hazards, chemical management, spill control, biological hazards, facility safety equipment, and personal protective equipment.

On a personal note, the production of this text has allowed me to research many aspects of crime laboratory management. It does not in any way imply that I am the ideal laboratory manager; just ask my employees. I, like all other managers, strive each day to learn new processes and approaches that will improve the operations of the crime laboratory. I get ideas from professional managers employed in forensics as well as other public and private careers.

I take advantage of opportunities to attend management workshops and hear about new management techniques. Mostly I have learned from experience, including trial and error: a lot of error. This text reflects some of what I have learned in the past 20 years of formal and informal learning. While I have attempted to include what I consider to be the most important aspects of crime laboratory management, it does not and cannot cover every situation that a manager will face.

Crime laboratory management is an evolving art. The same approaches that were successful 20 years ago will not produce the same results today. Individuals can continue to grow and improve only through constant learning and adaptation to new information. It is my hope that the reader will gain new information from this text that will help them to improve their own management abilities as well as the operation of their organization.

ABOUT THE AUTHORS

Jami J. St Clair has over twenty years of experience in local and state crime laboratories and private forensic laboratories. Ms St Clair holds a Bachelor of Science degree in Forensic Science from Eastern Kentucky University and a Master of Arts degree in Public Policy and Management from The Ohio State University. She served as President of the American Society of Crime Laboratory Directors in 1998 and is currently the Crime Laboratory Director for the Columbus Police Crime Laboratory in Columbus, Ohio.

Jo Ann Given has many years of experience in private research, and state and federal forensic laboratories. She holds a Bachelor's degree in Chemistry and a Masters degree in Analytical/Organic Chemistry from Old Dominion University. Ms Given served as President of the American Society of Crime Laboratory Directors in 1989 and served two terms as Chair of the American Society of Crime Laboratory Directors/Laboratory Accreditation Board (ASCLD/LAB). She has served on several scientific working groups and is presently ASCLD/LAB's representative to the National Cooperation for Laboratory Accreditation (NACLA). Ms Given is currently the Director of the Naval Criminal Investigative Service Laboratory in Norfolk, VA.

Michael St Clair has over eighteen years of experience in the environmental health and safety field. He is a Certified Safety Professional in Comprehensive Practice as affirmed by the Board of Certified Safety Professionals. His experience includes personnel exposure monitoring, biological exposure monitoring, sampling for chemical and biological contaminants, emergency response and management of an extensive environmental compliance program. Mr St Clair's field experience includes oversight, as well as health and safety responsibilities on environmental remediation projects.

CONTENTS

PREFACE	ix
ABOUT THE AUTHORS	xiii
CHAPTER 1 THE ROLE OF THE CRIME LABORATORY	
THE "GLAMOROUS" CRIME LABORATORY	1
ROLE OF THE CRIME LABORATORY IN SOCIETY	2
LABORATORY OPERATIONS	5
CRIME LABORATORY ORGANIZATIONAL STRUCTURE	10
SUMMARY	21
CHAPTER 2 HUMAN RESOURCE MANAGEMENT	
INTRODUCTION	23
PERSONAL LEADERSHIP	24
HIRING	37
TRAINING	48
DEVELOPING PEOPLE	51
EVALUATIONS	53
TROUBLE-SHOOTING PERFORMANCE PROBLEMS	57
RESOLVING CONFLICT	60
BRINGING ALL TOGETHER WITH TEAM BUILDING	65
SUMMARY	67
CHAPTER 3 ETHICS	
INTRODUCTION	71
WHY UNETHICAL ACTS OCCUR	72
ETHICAL DECISION-MAKING	77
TEACHING ETHICS TO FORENSIC SCIENTISTS	79
ETHICAL DILEMMAS	81
ETHICAL DILEMMAS FACING CRIME LABORATORY DIRECTORS	86
PREVENTION	88
SUMMARY	89
CHAPTER 4 QUALITY IN CRIME LABORATORIES (<i>Jo Ann Given</i>)	
INTRODUCTION	93
ACCREDITATION	95
EUROPE	102

	INTERNATIONAL PROGRAMS	102
	CERTIFICATION	104
	PERSONAL COMPETENCE	109
	PROFICIENCY TESTS	110
	STANDARDS	112
	THE FUTURE	116
CHAPTER 5	STRATEGIC MANAGEMENT	
	INTRODUCTION	119
	IMPORTANCE OF STRATEGIC PLANNING	120
	MISSION STATEMENTS	124
	DEVELOPING A STRATEGIC PLAN	124
	OBSTACLES TO ACHIEVING CONSENSUS	127
	A SCENARIO	128
	ORGANIZATIONAL MANAGEMENT PROGRAMS	130
	ORGANIZATIONAL EXCELLENCE	133
	SUMMARY	135
CHAPTER 6	PROJECT MANAGEMENT	
	INTRODUCTION	137
	ESTABLISHING PROJECT NEED	138
	PROJECT INITIATION	140
	PROJECT DELEGATION	147
	EVALUATION OF PROGRAMS	150
	A PROJECT MANAGEMENT SCENARIO	156
	SUMMARY	158
CHAPTER 7	RESOURCE MANAGEMENT	
	INTRODUCTION	159
	PUBLIC BUDGETING	159
	MANAGING A BUDGET	161
	GRANTS	170
	PARTNERSHIPS	181
	SUMMARY	182
CHAPTER 8	EFFECTIVE COMMUNICATIONS	
	INTRODUCTION	185
	PUBLIC COMMUNICATIONS	186
	WRITTEN COMMUNICATIONS	190
	PRESENTATIONS	192
	MEDIA RELATIONS	201
	WHEN THINGS GO WRONG – ISSUE MANAGEMENT	208
	GOVERNMENT RELATIONS	210
	SUMMARY	224
CHAPTER 9	SAFETY IN THE FORENSIC LABORATORY (Michael W. St Clair)	
	INTRODUCTION	229
	SAFETY CULTURE	229

	PHYSICAL HAZARDS	231
	ELECTRICAL HAZARDS	232
	COMPRESSED GASES AND COMPRESSED GAS CYLINDERS	233
	CHEMICAL HAZARDS	237
	CHEMICAL MANAGEMENT	243
	BIOLOGICAL HAZARDS	249
	FACILITY SAFETY EQUIPMENT	250
	PERSONAL PROTECTIVE EQUIPMENT	257
	SUMMARY	264
APPENDIX A	AMERICAN ACADEMY OF FORENSIC SCIENCES CODE OF ETHICS AND CONDUCT	265
APPENDIX B	AMERICAN SOCIETY OF PUBLIC ADMINISTRATORS CODE OF ETHICS	268
APPENDIX C	AMERICAN SOCIETY OF CRIME LABORATORY DIRECTORS CODE OF ETHICS	270
APPENDIX D	AMERICAN SOCIETY OF CRIME LABORATORY DIRECTORS GUIDELINES FOR FORENSIC LABORATORY MANAGEMENT PRACTICES	271
APPENDIX E	SAMPLE GRANT PROPOSAL	276
INDEX		279

THE ROLE OF THE CRIME LABORATORY

If you want a place in the sun, prepare to put up with a few blisters.
(Abigail van Buren)

THE “GLAMOROUS” CRIME LABORATORY

In the past several years, crime laboratories have taken on a glamorous air of mystery. People are led to believe that crime laboratories are exciting places. There is something new happening every day. Analysts are beautiful people involved in every step of criminal investigations including crime scene processing, evidence collection, interviewing witnesses, collecting body fluids, crime re-enactments, bench analysis of every type of evidence using the most sophisticated instrumentation available, arresting the suspect, and prosecuting the guilty. They work 24 hours without tiring because they love their job. And why not? They can solve any crime single-handedly in 48 minutes and still have time for a beer with the guys. The truth is much more mundane and considerably more frustrating.

The glamour of working in a crime laboratory quickly fades for a new employee who is faced with analyzing 15 “crack” or “meth” cases a day, every day for months on end. They stand on their feet in a windowless laboratory with antiquated and inadequate instrumentation. The only time they leave the laboratory is to travel three hours to testify in court. They get assigned a ten-year-old unmarked cruiser that only has an AM radio but does have 100,000 miles and was used by a cigarette-smoking overweight narcotics agent. When they arrive at court they find that the case settled yesterday and “we forgot to call.”

The analysts and managers that have chosen to make this life a profession are highly adaptable individuals. They realize the budgetary limitations of government work. They accept the ethical requirements of their positions both on and off the job. They accept the demands on their time by law enforcement and the courts. They are willing to work for less than they are worth and with no recognition for their efforts. They fight for funding for instrumentation when their agency would rather fund cruisers. And they absorb the criticism thrust on them by opposing attorneys, defense experts and journalists.

Life in the crime laboratory is often boring, with occasional bursts of frustration. But it is a vital function in the criminal justice process. Without forensic testing, the guilty would walk free and the innocent would be imprisoned. Even with all the frustrations, lack of recognition and inadequate salaries, it is this realization that provides forensic examiners with the satisfaction to continue to perform their duties with integrity.

Crime laboratory management is an often-overlooked discipline of forensic science. Without effective management, crime laboratory analysts become overly frustrated and leave employment. Crime laboratory staff commit ethical violations or criminal acts. Laboratory procedures and scientists stagnate and lose pace with national standards. Case completion slows and backlogs grow to unmanageable levels.

To effectively manage a crime laboratory, managers must understand the roles of their crime laboratories and their responsibilities within the system. They must accept their obligations to their employees, their superiors, the law enforcement community, prosecutors, victims, suspects, and the public. They must understand the importance of fiscal accountability and ethical responsibility. In short, they must be able to balance the needs of all the people all of the time with limited resources.

ROLE OF THE CRIME LABORATORY IN SOCIETY

From the collection of evidence through the sentencing of the convicted, the crime laboratory plays an integral role in the criminal justice process. The crime scene investigators are either part of a laboratory or they have received extensive training from one. Of course, all the examination and analysis of the physical evidence is performed at the crime laboratory. Most courts will not proceed with indictment, much less prosecution, if the laboratory analysis is not complete. And finally many sentences in drug cases rely upon the weight of the controlled substance that is provided by the crime laboratory.

Regardless of a crime laboratory's role or level of involvement, they have a responsibility to perform services in a manner responsive to the demands of their stakeholders. While these demands may vary between segments of the population, many elements remain the same. For example, forensic scientists are expected to approach every situation in an objective, scientific manner with a high degree of integrity. A crime laboratory's challenge is to meet the various expectations of its stakeholders with the same high level of responsiveness.

RESPONSIBILITY TO THE POLICE

By their very nature, crime laboratories have a close relationship with law enforcement agencies. The physical evidence upon which they perform analysis is collected or seized by police officers. Forensic scientists often meet with officers to discuss circumstances surrounding casework. These discussions assist both officer and analyst in determining the significance of the evidence. If a suspect and victim are known to have an intimate relationship, the presence of semen may not be significant. However, if they are estranged, it can be very important. Arguably, these meetings can be valuable in the efficient and effective analysis of cases.

A common point of discussion and often disagreement among supporters and critics of crime laboratories is how close a relationship should forensic scientists have with the police. While communication is important, it is equally important that a forensic scientist remains objective. Many people outside the criminal justice system infer that crime laboratories that reside in police departments owe their primary allegiance to their employer. While it is important that a crime laboratory assists the police, it is equally important that forensic scientists do not view themselves as “cops in lab coats.” When forensic scientists align themselves with police and seek to support law enforcement’s theories above all else, unethical practices are prone to happen. It is the responsibility of crime laboratory management to ensure that forensic scientists do not view themselves only as instruments of the police.

RESPONSIBILITY TO THE PROSECUTION

The necessity for detailed notes and overall quality in analysis becomes apparent in the courtroom. It is not at all uncommon for a forensic scientist to be criticized while on the witness stand for something that should have been recorded but was not. It is therefore the crime laboratory management’s responsibility to ensure that the prosecution can rely upon the quality of their analysis.

Impartiality is important in this stage of the criminal justice process as well. An expert witness wields a great deal of influence over a jury. The jury believes that they are unbiased scientists beyond reproach. If they testify to findings that were obtained in a manner that was less than objective or to conclusions that are beyond what the evidence allowed, the jury could be swayed to find an individual guilty for a crime that they did not commit. On the other hand, if cross-examination reveals a bias, the jury may disallow the testimony of the forensic scientist and allow a guilty individual to be set free.

RESPONSIBILITY TO THE VICTIM

An often-repeated dogma among those who investigate homicides is that they speak for the victims who can no longer speak for themselves. Also, a forensic scientist has an obligation to a homicide victim and their family and friends to perform a comprehensive analysis of the evidence. The physical evidence may be the only way of identifying a killer. This same concept applies to all victims of violent crime.

Forensic scientists also have a responsibility to those who are not yet victims. By thoroughly analyzing evidence from one rape case, a suspect can be identified and prosecuted, thereby preventing them from raping again. Also, by identifying controlled substances in a white powder, the forensic scientist assists in prosecuting a drug addict who may resort to burglary or more violent crimes in order to obtain money to buy more drugs.

As with other stakeholders in the criminal justice process, forensic scientists must not align themselves too closely with the victim. In doing so, they risk obscuring their objectivity. They may also be tempted to stretch their conclusions to assist in prosecuting a suspect to provide closure to a victim or to their loved ones.

RESPONSIBILITY TO THE SUSPECT

While assisting to identify the guilty is a primary function of crime laboratories, it is equally important to identify the innocent. With the prevalence of DNA analysis in casework, a suspect is exonerated a large percentage of the time analysis is performed. Many convicted offenders are being released as post-conviction DNA testing reveals that the body fluid originally used to convict them is not theirs. Exonerations not only lie within the domain of DNA analysis: vindication also regularly occurs when a bullet does not match a firearm or a white powder fails to show the presence of a controlled substance.

It is also the crime laboratory's obligation to the suspect to provide results in an expeditious manner. By quickly analyzing the evidence, an innocent suspect will be able to quickly resume a normal life without undue stress.

RESPONSIBILITY TO SOCIETY

In addition to the roles that a crime laboratory plays in the criminal justice process, they also play an important role outside the process. Generally, crime laboratories are supported through taxes. As a public agency, a crime laboratory is responsible for operating efficiently and effectively. This includes careful consideration of all functions, from prudent budgeting to fair treatment of personnel.

As a public agency, the crime laboratory must be responsive to the public's request for information. Crime laboratories often fill the role of teacher. The field of forensic science has interested students for many years. Crime laboratories are often asked to allow students to shadow employees or they may receive requests to provide presentations to local schools. Also, journalists often approach laboratories for the opportunity to provide interesting stories for print, radio or television. While these can mean significant interruptions to the daily operations, the requests to provide training should be balanced with the laboratories' other responsibilities.

LABORATORY OPERATIONS

There is no "average" crime laboratory. Crime laboratories operate within many different environments. While there are some private laboratories, most crime laboratories are supported by public funds. Authority may come from the local municipal level, regional or the federal level. Laboratories may operate as a division of a law enforcement agency, prosecutor's office, or medical examiner's office – or they may be independently operated. Although the primary goal of all laboratories is the same, the span of operation of the laboratories differs.

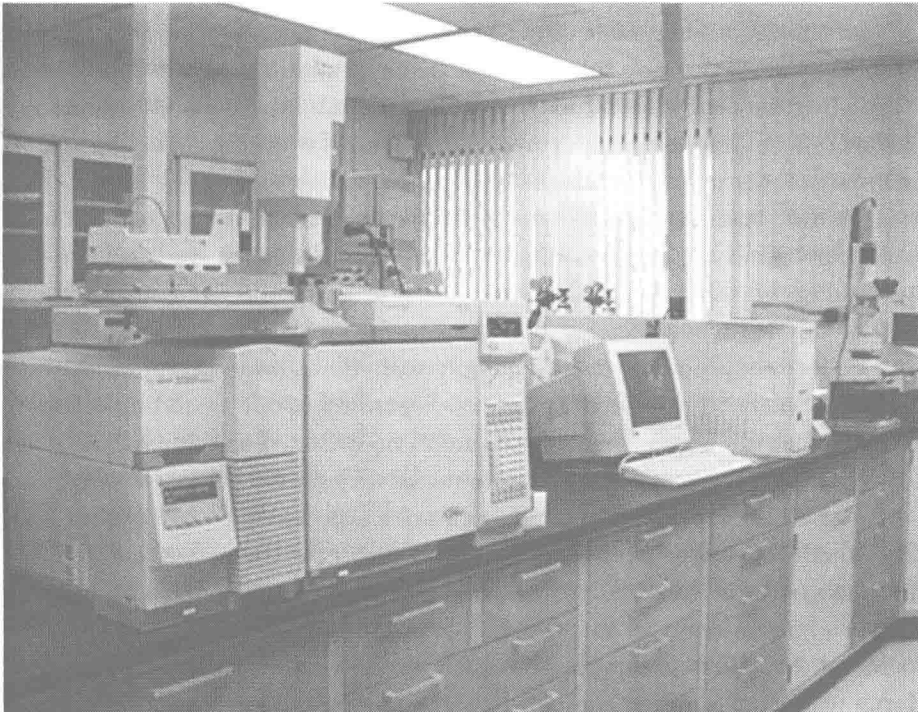


Figure 1.1

Many crime laboratories offer analyses in numerous disciplines.