



FORESIGHT

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Completing and Submitting LabRAT

Overview



The LabRAT data collection sheet separates the minimum data necessary from the maximum data possible. At a minimum, complete the following:

1. "Open Me First" worksheet
2. "Casework Level I" worksheet, which asks for cases submitted for each investigative area and full time equivalent employees in each area; and
3. "Expenditures Level I" worksheet, which asks for personnel expenditures (salaries, wages, benefits, temporary employees and overtime) for each area of investigation and laboratory total expenditures for capital, consumables, and the lump sum of other expenditures.

LabRAT—Opening page



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Welcome to the Laboratory Reporting and Analysis Tool (LabRAT), part of the FORESIGHT project. The following worksheets address a variety of questions regarding the allocation of resources within your laboratory. As you have any questions, please contact Paul Speaker at 304-293-7810 or by email to foresightsubmission@gmail.com.



Organization (Data Source)		
Fiscal Year Begins (mm/dd/yyyy)		Fiscal Year Ends (mm/dd/yyyy)
Jurisdiction (national, state, metro, regional, private)		
Number of separate facilities		
LIMS Provider / Version		
Standard Work Week (hrs)		

Contact Information:

Person Completing LabRAT	
Phone:	
email:	
City:	
State/Prov:	
Country:	

Expenditure Information:

Currency of Expenditure data	
Do Total Expenditures include a charge for:	
utilities	<input type="text"/> enter 1 for yes; 0 for no
telecommunications	<input type="text"/> enter 1 for yes; 0 for no

Please provide a brief description of any anomalies in the reported year versus a "normal" year of operation.

--

LabRAT—Level I Casework



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Investigation area	Cases	FTE
Blood Alcohol		
Crime Scene Investigation		
Digital evidence		
DNA Casework		
DNA Database (including CODIS)		
Document Examination (including handwriting)		
Drugs - Controlled Substances		
Evidence Screening & Processing		
Explosives		
Fingerprints		
Fire analysis		
Firearms and Ballistics		
Forensic Pathology		
Gun Shot Residue (GSR)		
Marks and Impressions		
Serology/Biology		
Toxicology ante mortem (excluding BAC)		
Toxicology post mortem (excluding BAC)		
Trace Evidence (includes Hairs & Fibers, Paint & Glass)		
Administration and Support		
Other Specialties (describe below)		
TOTAL		0.00

LabRAT updates— Level I Expenditures



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Investigation area	Personnel Expenditures: Salary, Benefits, Overtime, and Temporary	Capital Expenditures current year; Service of instruments, Equipment	Chemicals, reagents, consumables, gases	Other Expenditures (all other charges & expenditures not included in the prior columns)	Total Expenditures
Total Laboratory Expenditures	This cell will automatically sum your entries from below				
Blood Alcohol		Enter the laboratory total for capital expenditures, service of instruments, and equipment leasing	Enter the laboratory total for chemicals, reagents, and consumables	Enter the total of all other expenditures, including overhead charges, that is not included in the prior three columns	This cell will automatically sum your entries from the prior columns
Crime Scene Investigation					
Digital evidence					
DNA Casework					
DNA Database (including CODIS)					
Document Examination (including handwriting)					
Drugs - Controlled Substances					
Evidence Screening & Processing					
Explosives					
Fingerprints					
Fire analysis					
Firearms and Ballistics					
Forensic Pathology					
Gun Shot Residue (GSR)					
Marks and Impressions					
Serology/Biology					
Toxicology ante mortem (excluding BAC)					
Toxicology post mortem (excluding BAC)					
Trace Evidence (includes Hairs & Fibers, Paint & Glass)					
Administration and Support					
Other Specialties (describe below)					

Optional Data



- With this data we can provide you with a full report. The “Summary Measures” worksheet will give you immediate feedback with this minimum data reporting.
- All of your Level I Casework and Expenditures data are immediately transferred to the Level II worksheets. Any additional detail on casework (e.g., TAT, backlogs, items, samples, tests, and reports) or expenditures will enhance the precision of your report.
- Partial reporting under the Level II worksheets is fine. Do not worry about having all possible blocks filled.

LabRAT updates— Level II Expenditures



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Investigation area	Personnel Expenditures: Salary, Benefits, Overtime, and Temporary	Capital Expenditures current year; Service of instruments, Equipment Leasing	Capital Expenditures, Service of instruments, Equipment Leasing for the prior four years	Chemicals, reagents, consumables, gases	Other Expenditures (all other charges & expenditures not included in the prior columns)	Total Expenditures (Personnel, Capital, Consumables, & Other Expenditures)
Total Laboratory Expenditures						
Blood Alcohol						
Crime Scene Investigation						
Digital evidence						
DNA Casework						
DNA Database (including CODIS)						
Document Examination (including handwriting)						
Drugs - Controlled Substances						
Evidence Screening & Processing						
Explosives						
Fingerprints						
Fire analysis						
Firearms and Ballistics						
Forensic Pathology						
Gun Shot Residue (GSR)						
Marks and Impressions						
Serology/Biology						
Toxicology ante mortem (excluding BAC)						
Toxicology post mortem (excluding BAC)						
Trace Evidence (includes Hairs & Fibers, Paint & Glass)						
Administration and Support						
Other Specialties (describe below)						

LabRAT—Summary Measures



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The data collection tool automatically calculates several performance metrics in a “Summary Measures” worksheet:

Expenditures Total	Cases/100K Population	Items per Case	Samples per FTE
Personnel Expenditures	Items Examined Internally/ 100K Population	Samples per Case	Tests per FTE
Capital Expenditures	Samples Examined Internally/ 100K Population	Tests per Case	Reports per FTE
Consumables Expenditures	Tests Performed Internally/ 100K Population	Reports per Case	CapitalBudget / Total Budget
Other Expenditures	Reports Generated Internally/ 100K Population	Samples per Item	Personnel Budget / Total Budget
FTE	Cost per Case	Tests per Item	Consumables Budget / Total Budget
Area Cases	Cost per Item	Reports per Item	Other Expenditures/ Total Expenditures
Items	Cost per Sample	Tests per Sample	TAT last
Samples	Cost per Test	Reports per Sample	TAT first
Tests	Cost per Report	Cases per FTE	Open Cases
Reports	Average Compensation	Items per FTE	Backlog/CASE

LabRAT—Glossary



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Lab RAT	Glossary of Definitions
backlog	Open cases that are older than 30 days after submission to the laboratory.
capital expense	Purchases of equipment, instruments, etc. with a lifetime longer than three years and a cost above \$1,000.
case - institute case	A request from a crime lab "customer" that includes forensic investigations in one or more investigative areas related to an event, crime, or investigation.
case - area case	A request for examination in one forensic investigation area. An area case is a subset of an institute case and is equivalent to the term "request."
Case – as reported in the LabRat form	Cases reported in LabRat are "area cases"
casework	All laboratory activities involved in examination of cases.
casework time	Total for operational personnel in an investigation area (in hours) subtracted by the hours of R&D and, E&T and support and service given to external partners.
full-time equivalent (FTE)	The work input of a full-time employee working for one full year.
investigation area	Area limited by item type and methods as they are listed in the "definitions of investigative areas" tab.
item	A single object for examination submitted to the laboratory. Note: one item may be investigated and counted in several investigation areas.
non-reporting manager	An individual whose primary responsibilities are in managing and administering a laboratory or a unit thereof and who is not taking part in casework.
operational personnel	Personnel in operational units providing casework, research and development (R & D), education and training (E & T) and external support services. Non-reporting unit heads are included.
personnel expense	Sum of direct salaries, social expenses (employer contribution to FICA, Medicare, Workers Comp, and Unemployment Comp), retirement (employer contribution only towards pensions, 401K plans, etc.), personnel development and training (internal or external delivery, including travel), and occupational health service expenses (employer contribution only).
report	A formal statement of the results of an investigation, or of any matter on which definite information is required, made by some person or body instructed or required to do so.
request	A request for examination in one forensic investigation area. A request is a subset of an institute case and is equivalent to the term "area case."
sample	An item of evidence or a portion of an item of evidence that generates a reportable result.
support personnel	Forensic laboratory staff providing various internal support services. Management and administration personnel not belonging to the operational units are included.
test	An analytical process, including but not limited to visual examination, instrumental analysis, presumptive evaluations, enhancement techniques, extractions, quantifications, microscopic techniques, and comparative examinations. This does not include technical or administrative reviews.
Turn-around time	The number of days from a request for examination in an investigative area until issuance of a report. (Note that an area case may have multiple requests and each new request has a separate turn-around time.)
workload	Total time spent on all work related to job, including overtime.

Lab RAT	Definitions of Investigation Areas
Blood Alcohol	The analysis of blood or breath samples to detect the presence of and quantify the amount of alcohol.
Computer Analysis	The analysis of computers, computerized consumer goods, and associated hardware for data retrieval and sourcing.
Crime Scene Investigation	The collection, analysis, and processing of locations for evidence relating to a criminal incident.
Digital evidence	The analysis of multimedia audio, video, and still image materials, such as surveillance recordings and video enhancement. Includes computer analysis as defined above.
DNA Casework	Analysis of biological evidence for DNA in criminal cases.
DNA Database	Analysis and entry of DNA samples from individuals for database purposes.
Document Examination	The analysis of legal, counterfeit, and questioned documents, including handwriting analysis.
Drugs - Controlled Substances	The analysis of solid dosage licit and illicit drugs, including pre-cursor materials.
Evidence Screening & Processing	The detection, collection, and processing of physical evidence in the laboratory for potential additional analysis.
Explosives	The analysis of energetic materials in pre- and post-blast incidents.
Fingerprints	The development and analysis of friction ridge patterns.
Fire analysis	The analysis of materials from suspicious fires to include ignitable liquid residue analysis.
Firearms and Ballistics	The analysis of firearms and ammunition, to include distance determinations, shooting reconstructions, NIBIN, and toolmarks.
Forensic Pathology	Forensic pathology is a branch of medicine that deals with the determination of the cause and manner of death in cases in which death occurred under suspicious or unknown circumstances.
Gun Shot Residue (GSR)	The analysis of primer residues from discharged firearms (not distance determinations).
Hairs & Fibers	The analysis of human and animal hairs (non-DNA) and textile fibers as trace evidence.
Marks and Impressions	The analysis of physical patterns received and retained through the interaction of objects of various hardness, including shoeprints and tire tracks.
Paint & Glass	The analysis of paints—generally, coatings—and glass as trace evidence.
Toxicology, ante-mortem	The chemical analysis of body fluids and tissues to determine if a drug or poison is present in a living individual, excluding blood alcohol analysis (BAC).
Toxicology, post-mortem	The chemical analysis of body fluids and tissues to determine if a drug or poison is present in a deceased individual, excluding blood alcohol analysis (BAC).
Trace Evidence	The analysis of materials that, because of their size or texture, transfer from one location to another and persist there for some period of time. Microscopy, either directly or as an adjunct to another instrument, is involved. Includes Hairs & Fibers and Paint & Glass as defined above.
Other Specialties	Other forensic science applications not covered by the other categories.

LabRAT—Counting Examples



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Investigative Area	Total Items	total samples from items examined internally	tests on samples examined internally	Tests conducted					
				GC/FID	GC/FID/MS				
Blood Alcohol	Blood vial is submitted for alcohol and or volatiles. GC is done in duplicate, and additional volatiles method may be done in rare cases.								
Scenario 1: Normal Alcohol	1	1	2	2					
Scenario 2: Normal Alcohol + Volatiles	1	1	3	2	1				
Crime Scene Investigation	Items, samples, tests are handled under evidence screening and processing, analytical work is not handled under CSI								
	0	0	0						
Digital evidence - Computer, Audio & Video	Scenario 1: Respond to the crime scene: review thumb drive, CD, and DVD; review each, create master copy, and capture 33 still images. Scenario 2: submitted evidence by a third party: create working copy; capture 12 still images. Scenario 3: VeriPic archiving: Research existing files/folders and create an investigative copy and capture 94 still images of file documents.								
	Items	Samples	Tests	Master copy	Working copy	Investigative copy	Review devices	Still Image Capture	
Scenario 1	1	3	5	1			3	1	
Scenario 2	1	1	2		1			1	
Scenario 3	1	1	2			1		1	
DNA Casework	(See Serology/Biology for comparison) In a case of sexual assault, the kit, the victim's underwear, and a bedsheet are submitted; due to the context of the crime, the bedsheet is not examined. The known samples of the victim and the suspect are submitted along with the one positive stain from the serology examination.								
	Items	Samples	Tests	Extraction	Quantificaton	Amplification	Separation	Mixture Interpretation	
Sexual Assault Kit:	1								
Vaginal swab		1		1	1	1	1		
Oral swab									
Anal swab									
Hair sample (not tested)									
Victim known sample		1		1	1	1	1		
Underwear (Two stains: one +, one --)	1	1		1	1	1	1		
Bedsheet (not tested)	1								
Suspect known sample	1	1		1	1	1	1		
TOTAL	4	4	16						

LabRAT Submissions



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- Target date is January 15 each year
 - Most states FY ends June 30, 20XX
 - Some labs follow calendar year, so a 1/15/20XX target is getting their data over a year after the fact
 - Many follow the federal fiscal year, which ends 9/30/20XX
- Maximus consideration requires a submission at least one month prior to the opening of the ASCLD Symposium
- email options:
 1. Front door: paul.speaker@mail.wvu.edu
 2. Back door: pjspeaker@mail.wvu.edu (your laboratory will be kept anonymous at all times)
 3. New address: foresightsubmissions@gmail.com

Future meetings at ASCLD, Maximus, & Tell your stories



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- Future meetings at ASCLD
 - Friday morning after close of the symposium
- Maximus awards
 - You have to play to win
 - FORESIGHT Levels makes this easy to start
 - Several first time submissions will be Maximus winners

- Tell your stories

