Houston Forensic Science Center, Inc. Board of Directors Meeting October 12, 2018



HOUSTON FORENSIC SCIENCE CENTER, INC.

NOTICE OF PUBLIC MEETING October 12, 2018

Notice is hereby given that beginning at 9:00 a.m. on the date set out above, the Board of Directors (the "Board") of the Houston Forensic Science Center, Inc. (the "Corporation") will meet in the Council Annex Chambers, 900 Bagby St. (Public Level), Houston, Texas 77002. The items listed below may be taken out of order at the discretion of the Chair and any items listed for closed session may be discussed and/or approved in open session and vice versa as permitted by law.

AGENDA

- 1. Call to Order.
- 2. Roll call; confirmation of presence of quorum.
- 3. Reading of draft minutes of August 29, 2018 Board meeting. Consideration of proposed corrections, if any. Approval of minutes.
- 4. Reading of draft minutes of September 14, 2018 Board meeting. Consideration of proposed corrections, if any. Approval of minutes.
- 5. Public Comment.
- 6. Report from Board Chair, including a monthly update of activities and other announcements.
- 7. Presentation by Mr. Charles Evans, director of business development, for the Houston Forensic Science Center's (HFSC) occupancy agreement with the City of Houston to move into a new facility located at 500 Jefferson and possible related action.
- 8. Monthly operations report by Vice President and COO, including an update on staffing, outreach efforts, a review of turnaround times and backlogs.
- 9. Report from Ms. Jeniffer Molina, latent print examiner, on research into biases, blind verification and other issues impacting the field.
- 10. A presentation from Mr. Jerry Pena, director of CSU and digital multimedia evidence, on evidence collection, turnaround times and other updates.
- 11. Report from Ms. Aimee Grimaldi, Lean Six Sigma engineer, on the final outcome and improvements resulting from a Lean Six Sigma project to streamline processes for the Combined DNA Index System (CODIS.)
- 12. A report from Ms. Paula Evans, Lean Six Sigma engineer, on the final outcome and improvements resulting from a Lean Six Sigma project to streamline processes in

HFSC's supply chain management.

- 13. Report from Ms. Lori Wilson regarding quality assurance, including review of testimony monitoring, proficiency tests and corrective actions.
- 14. Treasurer's report regarding company financials and other fiscal updates.

15. Adjournment.

-NOTICE REGARDING SPECIAL NEEDS -

Persons requiring accommodations for special needs may contact the HFSC at 713-929-6760 to arrange for assistance.

-NOTICE REGARDING PUBLIC COMMENT -

Members of the public may address the Board during the "Public Comment" segment of the meeting. Each speaker should limit his or her comments to three minutes. The Chairman may limit both the number of speakers and the time allotted for each speaker. A speaker may address any subject relevant to the purpose of the Corporation; however, under Texas law the Board may not respond to or otherwise discuss a subject not listed on the Agenda set out above. (Exception: The Board may discuss a proposal to place a subject on the agenda for a future meeting.) A speaker who plans to submit a document for the Board's consideration should provide at least ten copies of the document, each marked with the speaker's name.

- NOTICE REGARDING CLOSED MEETINGS -

As authorized by Texas Government Code Chapter 551.001 (the "Open Meetings Act"), if, during the course of the meeting covered by this Notice, the Board should determine that a closed or executive meeting or session of the Board should be held or is required in relation to any items included in this Notice, then such closed or executive meeting or session as authorized by Section 551.001 et seq. of the Texas Government Code (the Open Meetings Act) will be held by the Board at that date, hour and place given in this Notice or as soon after the commencement of the meeting covered by the Notice as the Board may conveniently meet in such closed or executive meeting or session concerning any and all subjects and for any and all purposes permitted by Section 551.071-551.089, inclusive, of the Open Meetings Act, including, but not limited to:

Section 551.071 - Consultation with Attorney

Section 551.072 - Deliberation Regarding Real Property

Section 551.073 - Deliberation Regarding Prospective Gift

Section 551.074 - Personnel Matters

Section 551.076 - Deliberation Regarding Security Devices

Section 551.084 - Exclusion of Witness

Section 551.087 - Economic Development Negotiations

The presiding officer shall announce that the Board will convene in a closed meeting; that is, in "a meeting to which the public does not have access," sometimes known as an "executive session." The presiding officer's announcement will identify the provision(s) of the Open Meetings Act permitted by Section 551.071-551.089 under which the closed meeting will be held. Should any final action, final decision, or final vote be required in

the opinion of the Board with regard to any matter considered in such closed or executive meeting or session, then such final action, final decision, or final vote shall be at either:

A. The open meeting covered by this Notice upon the reconvening of the public meeting,

B. At a subsequent public meeting of the Board upon notice thereof, as the Board shall determine.

Certification of Posting of Notice of the Board of Directors ("the Board) of the Houston Forensic Science Center, Inc. (the "Corporation)

I, Jordan Benton, coordinator of board relations and executive administration, do hereby certify that a notice of this meeting was posted on Tuesday, the 9th day of October, 2018 in a place convenient to the public in the Council Annex Chambers, 900 Bagby Street. (Public Level), Houston, Texas 77002, and on the HFSC website as required by Section 551.002 et seq., Texas Government Code.

Given under my hand this the 9th day of October 2018.

Jordan Benton

Houston Forensic Science Center, Inc.

MEETING OF BOARD OF DIRECTORS MINUTES August 29, 2018

The undersigned, being the duly appointed secretary of the Houston Forensic Science Center, Inc., (HFSC and/or the "Corporation") hereby certifies the following are true and correct minutes of the August 29, 2018 meeting of the Board of Directors (the "Board") of the Corporation.

- A. In a manner permitted by the Corporation's Bylaws, the meeting was called by providing all directors with notice of the date, time, place and purposes of the meeting more than three days before the date of the meeting.
- B. In accordance with Chapter 551, Texas Government Code, made applicable to the Corporation by Section 431.004, Texas Transportation Code, a notice of the meeting was duly filed on August 23, 2018, in the same manner and location as required by law of the City of Houston, Texas (the "City").
- C. The meeting was called to order by Nicole B. Cásarez, Board chairwoman, at approximately 9 a.m. on Wednesday August 29, 2018 in the Council Annex Chambers, 900 Bagby St. (Public Level), Houston, Texas 77002.
- D. Ms. Jordan Benton called the roll. The following directors were present: Nicole B. Cásarez, Philip Hilder, Francisco G. Medina, Janet Blancett and Sandra Guerra Thompson

The following directors were absent: Anthony Graves, Dr. Robert "Bob" H. McPherson, Dr. Stacey Mitchell, Mary Lentschke and Ms. Tracy Calabrese

Chairwoman Cásarez declared a quorum was present

- E. Chairwoman Cásarez asked if members of the public wished to address the Board. No one addressed the Board.
- F. Chairwoman Cásarez presented a chair's report. She informed the Board HFSC hired Ms. Akilah Mance as its new general counsel. The Chairwoman thanked Dr. Mitchell and Vice Chair Thompson for their assistance with interviewing the general counsel candidates. She shared that Dr. Stout has been invited to testify before Congress' House Judiciary Committee.
- G. Chief Lentschke arrived at approximately 9:05 a.m.
- H. Dr. McPherson arrive at approximately 9:06 a.m.
- I. In accordance with Texas Government Code Section 551.072, et seq., deliberation regarding real property, the Board went into executive session along with President and CEO, Dr. Peter Stout, Vice President and COO, Dr. Amy Castillo, Mr. Charles Evans, director of business

development, CFO and Treasurer, Mr. David Leach, and Ms. Jordan Benton, secretary of the board.

- J. The meeting reconvened into open session.
- K. The board took no action. Dr. McPherson made a motion to adjourn. Mr. Medina seconded the motion. The meeting ADJOURNED at approximately 10:27 a.m.

By:	
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Jordan Benton Secretary	

Houston Forensic Science Center, Inc.

MEETING OF BOARD OF DIRECTORS MINUTES September 14, 2018

The undersigned, being the duly appointed secretary of the Houston Forensic Science Center, Inc., (HFSC and/or the "Corporation") hereby certifies the following are true and correct minutes of the September 14, 2018 meeting of the Board of Directors (the "Board") of the Corporation.

- A. In a manner permitted by the Corporation's Bylaws, the meeting was called by providing all directors with notice of the date, time, place and purposes of the meeting more than three days before the date of the meeting.
- B. In accordance with Chapter 551, Texas Government Code, made applicable to the Corporation by Section 431.004, Texas Transportation Code, a notice of the meeting was duly filed on September 11, 2018, in the same manner and location as required by law of the City of Houston, Texas (the "City").
- C. The meeting was called to order by Nicole B. Cásarez, Board chairwoman, at approximately 9:06 a.m. on Friday September 14, 2018 in the Council Annex Chambers, 900 Bagby St. (Public Level), Houston, Texas 77002.
- D. Ms. Jordan Benton called the roll. The following directors were present: Nicole B. Cásarez, Francisco G. Medina, Dr. Robert "Bob" H. McPherson, Dr. Stacey Mitchell, Chief Mary Lentschke, Sandra Guerra Thompson and Ms. Tracy Calabrese

The following directors were absent: Anthony Graves, Philip Hilder and Janet Blancett

Chairwoman Cásarez declared a quorum was present

- E. Chairwoman Cásarez asked if there were any changes needed for the August 10, 2018 Board meeting minutes. Dr. Mitchell made a motion to approve the minutes. Vice Chair Thompson seconded the motion. The motion passed unanimously.
- F. Chairwoman Cásarez asked if members of the public wished to address the Board. No one addressed the Board.
- G. Chairwoman Cásarez presented a chair's report. She told the Board that she and Dr. Stout appeared before City Council's Budget and Fiscal Affairs Committee to present details about HFSC's proposal to move to a different downtown facility. She asked Dr. Mitchell to update the Board regarding a NIST-sponsored event Dr. Mitchell attended. Dr. Mitchell reported that the group plans to hold a symposium at the National Institute of Science and Technology campus on standards for, and ways to improve evidence management.

- H. Dr. Peter Stout, president and CEO, gave the president's report. Dr. Stout told the Board about the Texas Forensic Science Commission's (TFSC) new licensure requirements. Analysts in accredited disciplines must pass the exam to work as forensic scientists in Texas. At HFSC, all forensic analysts and NIBIN (National Integrated Ballistics Information Network) technicians must pass the exam by January 2019. Dr. Stout reviewed the overall turnaround time (TAT,) requests received, staffing changes and certifications for the lab. Dr. Stout shared recent outreach events, including a laboratory tour with the City of Houston's new director of Boards and Commissions and the director of the Mayor's Office for People with Disabilities. He also attended a breakfast with Representative Ted Poe.
- I. Dr. Stout gave the Board an overview of the different Houston facilities HFSC considered during the two years it has spent looking for a way to move the laboratory out of Houston Police Department headquarters. Dr. Stout told the Board the 30-year lease being offered at 500 Jefferson is cost-neutral and explained why he views it as the best deal for HFSC. HFSC considered flood zones, proximity to stakeholders and the HPD property room as well as available funding as it reviewed options. Dr. Stout said that, if approved, HFSC will occupy four floors and 3,000 square feet of the basement at 500 Jefferson, for a total area of 83,000 square feet. The build out of the lab will include proper air handling for the laboratories, adequate cooling for evidence and equipment and sufficient power for instrumentation.
- J. Dr. Stout requested Board authorization to relocate the Houston Forensic Science Center to 500 Jefferson, pending approval by City Council. He also asked for Board authorization to allow himself and his delegates to negotiate an occupancy agreement with the City. Vice Chair Thompson made a motion to approve the requests. Director Lentschke seconded the motion. Ms. Benton called the role and the following members were in favor: Nicole B. Cásarez, Francisco G. Medina, Dr. Robert "Bob" H. McPherson, Dr. Stacey Mitchell, Chief Mary Lentschke, Sandra Guerra Thompson. The following members were absent: Anthony Graves, Philip Hilder, Janet Blancett. The resolution passed unanimously.
- K. Mr. Darrell Stein, director of information strategy, gave an update on the new Laboratory Information Management System (LIMS). He said the remaining forensic disciplines not yet operating in the new LIMS will be moved over by the end of the year except for DNA. The request portal for stakeholder submissions will also come online by year's end.
- L. Dr. Amy Castillo, vice president and COO, presented the operations report. She explained that the newly designed report will highlight monthly topics most relevant to each section. The usual scorecards will still be included for review at the end of the operations report, in the detailed data. Dr. Castillo summarized each section's TAT, existing backlogs and other section updates. She reviewed progress made with the DNA backlog. Dr. Castillo also updated the Board on the goals and progress made in the DNA training program and explained how updates would be given at upcoming board meetings until the training is complete in July 2019. Dr. Castillo reviewed the decreased TAT in CODIS (Combined DNA Index System) that went from 39 days to 16 days. She also told the board the NIBIN group, in coordination with stakeholders, had moved to prioritizing incoming casework and meeting a TAT of five days or less. Then, the section will work on eliminating backlogged cases as time allows. Jerry Peña, director of the Crime Scene Unit and Digital Multimedia Evidence, updated the board on crime scene call-outs, number of items of evidence collected and outreach efforts.

- M. Ms. Lori Wilson, quality division director, reviewed blind quality controls for August 2018, challenges faced in the blind program, audits, disclosures and corrective actions. Ms. Wilson said three non-conformances found during a lab-wide reassessment have been corrected and submitted to HFSC's accrediting body, ANAB, for final review and approval. Ms. Wilson said a disclosure will be made to the Texas Forensic Science Commission regarding an administrative error in a report issued by the latent print section. Ms. Wilson said the quality division is investigating a series of contamination events in the DNA section and that an analyst has been removed from the extraction portion of the DNA process until the probe is complete.
- N. In a treasurer's report, Mr. Leach said the Center was two months into the year with the approved budget and finances are on track. He reported that HFSC's outside independent auditors provided the HFSC with clean audits for both HFSC's financial results and with respect to HFSC's federal grant awards. On behalf of the Board, Chairwoman Cásarez expressed her appreciation to Mr. Leach and his financial team for their good work.
- O. The Chairwoman made a motion to adjourn. Mr. Medina seconded the motion. The meeting ADJOURNED at approximately 10:35 a.m.

By:		
•		
Jordan Benton Secretary		

500 Jefferson review with HFSC Board (10/12/18)

Occupancy Agreement delegation to HFSC CEO, project update

Occupancy Agreement approval requested

- Delegate to HFSC CEO the authority to execute an Occupancy Agreement between the City of Houston and HFSC, for 83,080sf of office/laboratory/basement space at 500 Jefferson:
 - ➤ HFSC CEO/City Mayor/City Controller to sign agreement
 - Signed City/Landlord lease and exhibits to be attached
- Occupancy agreement represents interim City/HFSC step:
 - ➤ City/HFSC will later sign a sub-lease agreement and updated ILA to align with the 500 Jefferson, 30-year lease term.

 Approval for HFSC CEO/delegates to negotiate documents
 - ➤ Sub-lease/ILA documents will be approved by City Council (probably 1st half 2019). Bring to HFSC Board for approval

Comments on Occupancy Agreement

- City standard form, discussing wording, latest version attached
- Agreement expires 6/30/19, five automatic 1-year renewals
- Clauses on occupant's use, care of premises, utilities, environmental restrictions, insurance, release and indemnifications
- City has right to terminate agreement without cause, with 90 days prior written notice. Standard clause, not feasible/not likely

500 Jefferson project status/recap

- 500 Jefferson, 30-year lease approved by City Council 10/3/18, awaiting Mayor/City Controller signatures
- Lease commences 3/1/19:
 - > 3 office floors (13, 14, 15), 1 lab floor (18), basement (B-1)

- Office floors to be ready for move-in by 3/1/19, furnished
- ➤ Lab floor/basement ready for move-in by 10/1/19
- CSU/pool car fenced parking, expect ready by 3/1/19
- > HFSC access 3 months earlier, move-in complete 12/31/19
- Exit Fannin 4/30/19
- Vehicle examination remains at Dart Street (update/renovate)
- Need to minimize duplicate facility and one-time costs

Actions/project structure

- Developing detailed gantt chart
- Will hire architectural/engineering/project management firm
- Exhibit E-1.1, final specifications, due 30 days after lease signing
- Forming multiple project teams (workshops held), including:
 - HFSC steering committee, IT, security, staff parking
 - ➤ Individual sections/departments actions, lab furniture
 - Communications, staff policy
 - > Fannin office exit, bi-monthly office clean-up days
 - > HPD (Travis space, parking, furniture), Andy Icken updates
- Determining critical path items, including:
 - ➤ IT, security, laboratory/basement readiness, firearms shooting tank, instrument moves/certification, bidding
- Currently proposing 9 individual moves (validating, will update):
 - > Standard midday Thursday-Monday+ move sequence
 - ➤ March 2019, 3 moves: Latent Prints, Digital and Multimedia, Finance/Legal, HFSC corporate address
 - ➤ May 2019, 2 moves: CSU (assumes on-site fenced vehicle parking available), Administration, IT, Quality, R&D, CS/CM
 - October/November 2019, 4 moves: Lab staff (Toxicology, Seized Drugs, Forensic Biology, Firearms), move individual labs over two moves (keep sections operating)

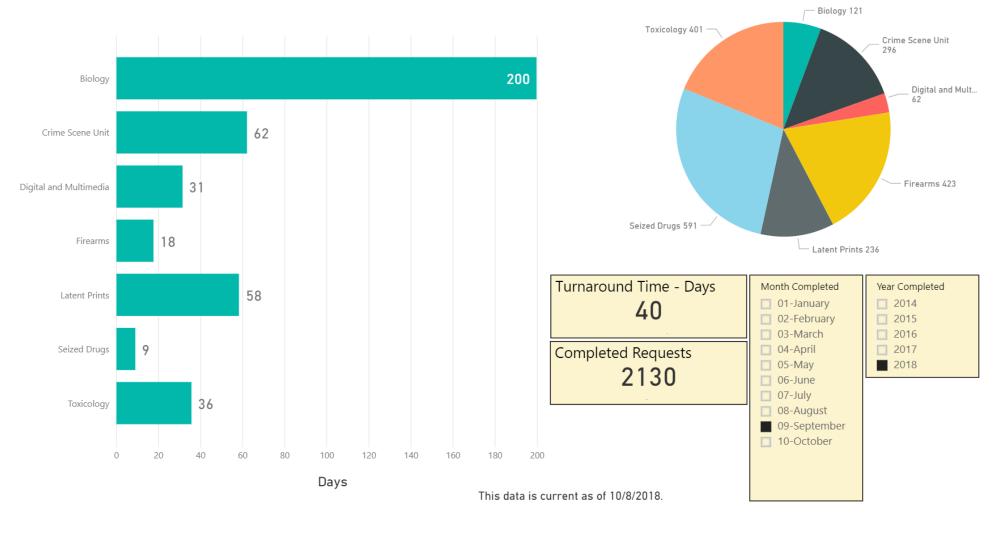
Operations Report

October 12, 2018



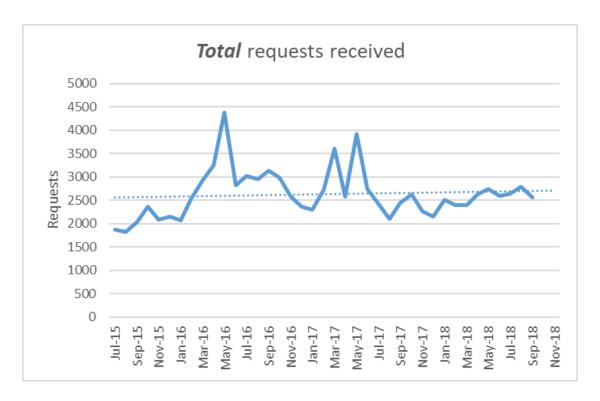
Requests Completed by Section

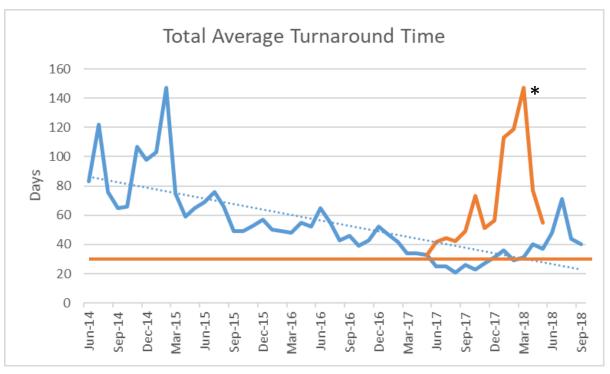
Average Turnaround Time for September 2018





Requests received







^{*} From May 2017 to May 2018 total TAT shown with latent prints (orange) and without (blue) latent print. Everything in blue beginning in June 2018 includes latent print TAT.

Staffing – October 12, 2018

- 206 staff members
 - 9 COH civilians
 - 6 COH classified
 - 191 HFSC employees
- 9 open positions, 1 offer accepted
 - 1 client services/case management (CS/CM) specialist

- 8 active vacancies
 - 1 assistant director quality
 - 1 assistant technical lead biology/DNA
 - 1 client services/case management specialist
 - 1 forensic analyst biology/DNA (grant funded)
 - 2 production leads biology/DNA (to be filled internally w/no backfill)
 - 1 quality/research associate (grant funded)
 - 1 technical supervisor toxicology



Degrees and Certifications

- Alaina Anderson Master of Science
 - Pharmaceutical science with concentration in forensic drug chemistry from Texas A & M University
- Angelica Noyola Master of Science
 - Master's of Business Administration: project management from Florida Institute of Technology
- Christine Sotomayor Certified Forensic Video Technician
 - Law Enforcement and Emergency Services Video Association (LEVA)
- Annalivia Harris Certified Quality Auditor (CQA)
 - American Society of Quality (ASQ)



Outreach

- National Forensic Science Week:
 - Sexual assault survivor Debbie Smith spoke to staff
 - Annual symposium on opioids
 - Crime Scene House Open House
 - DPS staff visited Crime Scene House
- Training for Panamanian law enforcement on firearms
- Tour of HFSC with Council Member Martha Castex-Tatum
- Meeting with Council Member Brenda Stardig
- Society of Forensic Toxicologists (SOFT)



Section	Turnaround time (days)	Relative to Prior Month	Requests >30 days	Relative to Prior Month
Forensic Biology	190	4	789	
CODIS	20	1	26	
Digital/Multimedia	27	4	2	
Firearms (Analysis)	50	↑	9	
Firearms (NIBIN)	17	4	686	1
Latent prints	59	4	1409	↑
Seized Drugs	9	1	0	
Toxicology (Alcohol Analysis)	26	\leftrightarrow	0	\longleftrightarrow
Toxicology (Drug Analysis)	71	1	221	↑



September 2018 Highlights

- Forensic biology/DNA
 - Backlog reduction
 - Training progress
- Lean Six Sigma: new projects
 - Work product evidence return
 - Multidisciplinary requests



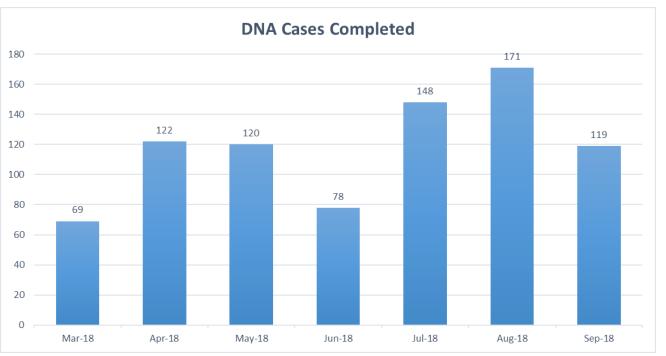
Forensic Biology Update

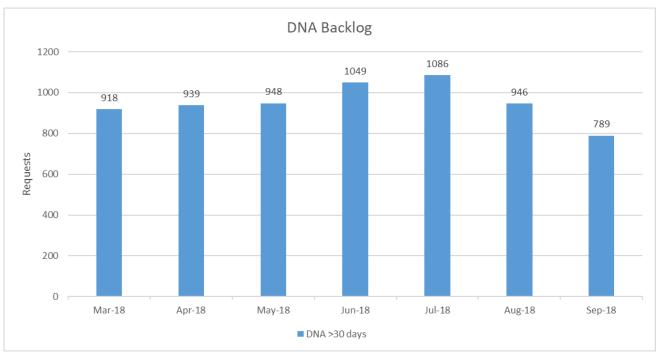


DNA Backlog Update

- Completed 119 DNA requests in August
- Cleared 157 DNA cases from the backlog in August







Forensic Biology Training



Evidence Processing Training









DNA Lab Processing Training

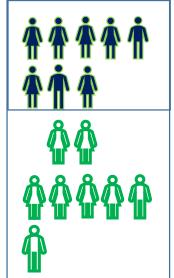
Target completion January 31,2019



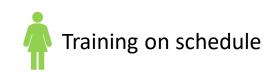
DNA Report Writing Training

Target completion July 30,2019-16 DNA Report Writers ■











Lean Six Sigma: Current Projects



Multidiscipline request process project

- Project goals: Create a simple, concise process that preserves the integrity of the evidence while reducing turnaround time
- Accomplishments: Evaluated current process, interviewed stakeholders, determined process requirements
- **Up next:** Design new process based on stakeholder feedback and quality, production data analysis
- Current project risks: Implementation of new Laboratory Information Management System (LIMS)







Evidence Return Project

- **Problem:** HFSC performs analysis that creates "work product" evidence, such as DNA extracts and test fires. There is no process for returning the evidence to the submitting agency.
- **Project Goal:** Develop a strategy to inventory and return ~200,000 DNA extracts and test fires. Create a policy to prevent a similar build up of evidence going forward.
- **Current Status:** Preliminary inventory of in-house evidence complete, team analyzing problem and process



Blind Verification

LATENT PRINT EXAMINER

JENIFFER MOLINA

HOUSTON FORENSIC SCIENCE CENTER

OCTOBER 2018

Overview

- 1st Review of current definitions and practices
 - Our agency
 - Other law enforcement agencies
- 2nd Past, current and future studies
 - How they were conducted
 - Conclusions
- 3rd Future implementations at HFSC

Current Workflow

ACE-V method

- Generally accepted method used for conducting latent examinations
 - Analysis, Comparison, Evaluation and Verification
- Currently at HFSC only comparative decisions are verified
 - ▼ Identifications, Exclusions, Inconclusives
- Verifications not done blind
- Small percentage of casework verified
 - × 17 month period 3,738 reports issued⁽⁹⁾
 - 11.61% direct comparisons & confirmations (as of Nov. 2017)
 - Investigative lead report is not an identification
 - Current workflow is to verify only comparative decisions

Current Workflow

- Contextual information (Provided by CS/CM)
 - Crime type
 - Determines workflow
 - o "Suspect/Complainant" information
 - Known who is suspect or complainant
 - Analysis results
 - ➤ Determination of whether the latent print can move forward to comparison or entry into AFIS (Automated Fingerprint Identification System)
 - Primary analyst evaluation
 - Comparative decisions are known to the verifier
 - Confirmation cases
 - Only individuals investigator determines to be relevant to the investigation are returned for full comparison

Verification

- Verification vs. Technical Review
 - Defined by HFSC Quality Manual
- Verification: Procedure used to evaluate the validity of a test result or opinion by repeating the comparison between a known and unknown
- Technical Review: review of technical records, reports and testimony to ensure validity of results, opinions and interpretations

SWGFAST/OSAC FRS

- Scientific Working Group on Friction Ridge Analysis, Study and Technology (SWGFAST)⁽¹¹⁾
 - Since the 1990's American and International forensic science laboratories and practitioners collaborated to improve discipline practices and build consensus standards
 - 2014 SWGFAST operations came to a close and transferred all documents to the Organization of Scientific Area Committees (OSAC) for Friction Ridge Subcommittee (FRS)
- OSAC FRS (10)
 - Work to strengthen the nation's use of forensic science by facilitating the development of technically sound scientific standards
- SWGFAST documents are to remain in effect until the new OSAC FRS documents are available

Verification

Definition

o "Independent application of the ACE process by a subsequent examiner to either support or refute the conclusions of the original examiner; this may be conducted as blind verification." – SWGFAST (1)

Current Practice

- Types John Black article
 - × Id's (96%)
 - ➤ Id's and Exclusions (55%)
 - All comparative decisions (52%)
 - × 100% verification
 - As of 2012 only 36% of agencies that participated in the study employed this practice (2)
- HFSC falls within 52% verifying all comparative decisions

Blind Verification

Definition

"The independent examination of one or more friction ridge impressions at any stage of the ACE process by another competent examiner who is provided with no, or limited, contextual information, and has no expectation or knowledge of the determinations of conclusions of the original examiner."
 SWGFAST⁽¹⁾

Purpose

• "...test the reproducibility of the determinations or conclusions made at any step...⁽³⁾

Why or Why Not Use Blind Verification

- Why
 - Increased quality checks on conclusions reached
 - Remove potential bias
 - Primary examiner conclusions
 - Confirmation bias
 - **X** Case information
 - Contextual
 - Test reproducibility
- Why Not
 - Backlog
 - Increased time to complete a case
 - May not test the factors that impact decision making

Studies – Itiel Dror

- 2006 Study⁽⁵⁾
 - Six examiners
 - Two sets of 4 pairs of comparisons
 - Set one no contextual information (conclusions or case info)
 - 2 Identifications
 - 2 Exclusions
 - x Set two − contextual information (conclusions and case info)
 - 2 Identifications
 - 2 Exclusions
 - Showed that bias effects could be observed

Studies – Itiel Dror

- Total of 48 experimental trials
- Total of 6 changes from the original decision
 - Two (12%) came from group with no bias information
 - Four (16.6%) came from group with bias information
- 1/3 of examiners remained consistent
- One examiner made three changes from their original decision

	1	2	3	4	5	6	7	8
Past Decision	individualization	individualization	individualization	individualization	exclusion	exclusion	exclusion	exclusion
Level of Difficulty	difficult	difficult	not difficult	not difficult	difficult	difficult	not difficult	not difficult
Contextual Information	none	suggest exclusion	none	suggest exclusion	none	suggest individualization	none	suggest individualization
Expert A	consistent	consistent	consistent	consistent	consistent	consistent	consistent	consistent
Expert B	change to exclusion	consistent	consistent	consistent	consistent	consistent	consistent	consistent
Expert C	consistent	change to exclusion	consistent	consistent	consistent	consistent	consistent	consistent
Expert D	consistent	change to exclusion	consistent	change to exclusion	change to individualization	consistent	consistent	consistent
Expert E	consistent	change to cannot decide	consistent	consistent	consistent	consistent	consistent	consistent
Expert F	consistent	consistent	consistent	consistent	consistent	consistent	consistent	consistent

Studies – Itiel Dror

- 2008 Study (6)
- As humans, we perceive and judge information based on circumstances and experts are not an exception
- If examiners are not consistent with themselves, then the basis of their judgments and professionalism is in question

Information on Circumstance

Studies – Itiel Dror

- Test: 8 conclusions
 - 4 were given with biasing information
 - × "suspect as an alibi"
 - "suspect confessed to the crime"
- Reliability
 - Testing with a 95% CI (confidence interval)
 - x Low of 0.52 to high of 0.82
 - o 0.77 in this study
 - Considerably low to what was expected
- Biasability
 - o Testing with a 95% CI (confidence interval)
 - ➤ Wide range: low of -0.60 to high of 0.92

Studies – Langenburg

Langenburg, Champod, Wertheim

- o 2009 study (4)
 - ▼ Three groups (control, low bias, high bias)*
 - The biasing information used: previous examiner conclusions
 - ▼ Six comparisons of varying difficulty
 - ▼ Four errors* among expert groups
 - Three erroneous exclusions
 - All committed in control group

Conclusions

- Years of experience not a factor in decision making
- More resistant to bias when making identifications
- Experts can be influenced by contextual bias

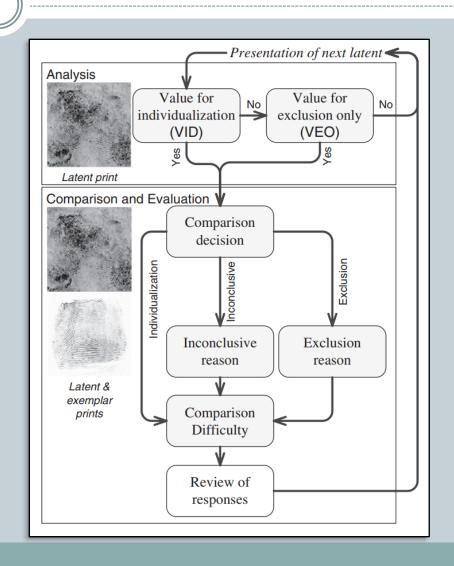
Studies - Langenburg

Suggestions

- Blind verification regime best for complex cases
- Blind verification best for cases where exclusion is the conclusion

Studies - Ulery

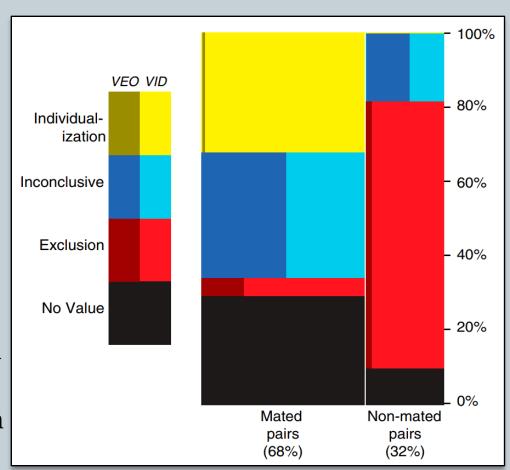
- Bradford Ulery, Austin Hicklin, JoAnn Buscaglia Maria Roberts
 - o 2011 Study ⁽⁷⁾ "Black box study"
 - o 169 latent examiners
 - 744 latent-exemplar image pairs
 - × 520 identifications
 - × 224 exclusions



Studies - Ulery

Conclusions

- False Positives
 - × 0.1%
 - 6 out of 4,083 VID comparisons
- False negatives
 - × 7.5%
 - ➤ 144 out of 169 of examiners made at least one (85%)
 - * 140 out of 169 stated they were unaware of ever making a false negative in casework (65%)



Studies - Ulery

- Probability if blind verification were implemented
 - Assuming exclusions are equally likely for all image pairs
 - × 0.3% error rate
 - Not statistically independent
 - × 0.85% error rate
- The probability of error rates based on SWGFAST (8)
 - Exclusion and inconclusive verification is optional
- The probability employing standard verification
 - Could have the same error rates, this was not calculated

Research Summary

- Limited research into the efficacy of blind verification
- Research does show issues with examiner consistency in conclusions
 - Research has shown that the latent community has been effective at mitigating erroneous identifications.
- The implementation of blind verification is suggested in most studies
 - Assumption that blind verifications work
 - There is no data to support that it does increases quality while decreasing potential errors

Summary

- The latent community is currently debating and researching the large percent of erroneous exclusions
 - Why it happens
 - How can the rate be reduced (currently ~7.5%)
- What can we do at HFSC?
 - Establish the current gaps in the section
 - Lay groundwork to implement an effective blind verification program
 - Review SOPs and workflows to ensure contextual bias is addressed
 - Ensure criteria for conclusions strengthens consistency within the section and for each examiner

References

- SWGFAST. Standard Terminology of Friction Ridge Examination (Latent/Tenprint) (Ver. 4.1) http://clpex.com/swgfast. Accessed 4/5/2018
- 2. Black, J. Is There a Need for 100% Verification (Review) of Latent Print Examination Conclusions
- 3. SWGFAST. Standard for the Application of Blind Verification of Friction Ridge Examinations (Latent/Tenprint) (Ver. 2.0) Accessed 4/5/2018
- Langenberg G, Champod C, Wertheim P. Testing for Potential Contextual Bias Effects During the Verification Stage of the ACE-V Methodology when Conducting Fingerprint Comparisons. J Forensic Science, May 2009, Vol. 54 No. 3 571 581
- 5. Dror, IE, Charlton D. Why Experts Make Errors. J Forensic Identification 2006; 54(4): 600-616
- 6. Dror, IE, Rosenthal, R. Meta-analystically Quantifying the Reliability and Biasability of Forensic Experts. J Forensic Sci. July 2008; Vol. 53 No. 4 900-903
- 7. Ulery B, Hicklin A, Buscaglia J, Roberts M. Accuracy and reliability of forensic latent fingerprint decisions. PNAS May 2011; Vol. 108 No. 19 7733-7738
- 8. SWGFAST. Standard for the Documentation of Analysis, Comparison Evaluation, and Verification (ACE-V)(Latent) (Ver. 2.0) Accessed 06/20/2018
- 9. Tim Schmahl, Latent Print Manager Houston Forensic Science Center

References

- 10. NIST https://www.nist.gov/topics/organization-scientific-area-committees-forensic-science Accessed 10/5/2018
- 11. SWGFAST; Message from SWGFAST Chari http://clpex.com/swgfast/ Accessed 10/5/2018

Thank you

QUESTIONS

CSU and Digital & Multimedia Evidence Update

Jerry Pena
Houston Forensic Science Center
October 2018



Digital and Multimedia

A/V: 60-day avg

1 pending request >30 days

AVCO: 2-day avg

0 pending requests >30 days

Digital: 17-day avg

1 pending request >30 days

Critical issues

 Multimedia transition to new LIMS/network/workflow

- Multimedia implementing comparative analysis: new service
- Currently 3 cases over 30 days:
 - 1st & 2nd are complex cases/1 digital & 1 multimedia (still in progress)
 - 3rd digital/32 days old when it arrived from another section



CSU

Total TAT

63

Call outs 48

Critical issues

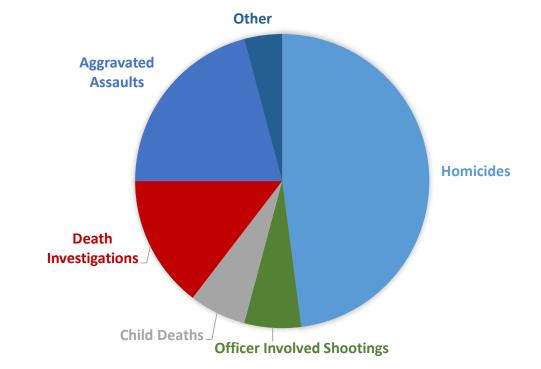
CSU callouts: 48

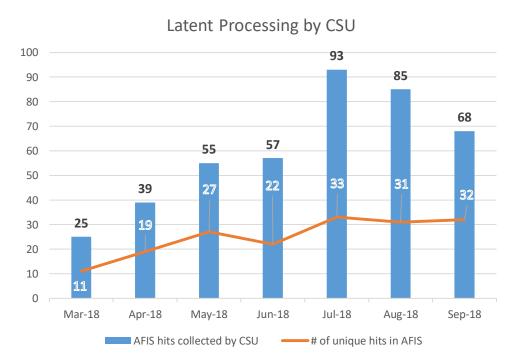
Items of evidence collected: 1,047

Cars processed at VEB: 32

Hours spent at scenes: 423 = 14hrs/day

- Vehicle shortage one vehicle with major repairs
- 4 (four) CSIs completed training
- 1 (one) new CSI in training
- Commendation from HPD (Murder of Dr. Hausknecht)

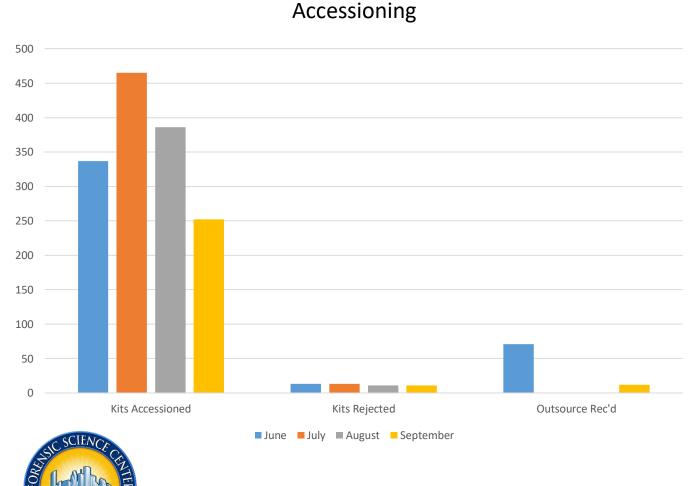




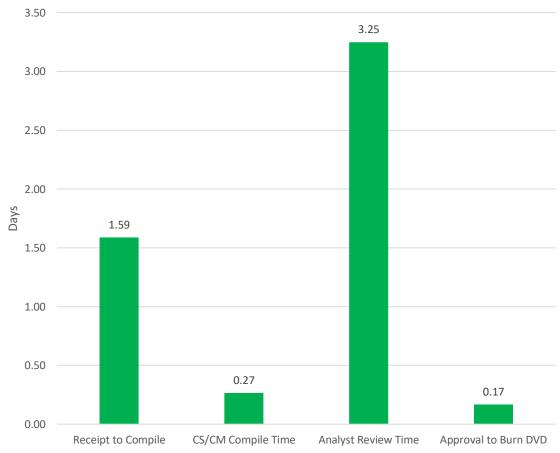
Detail data



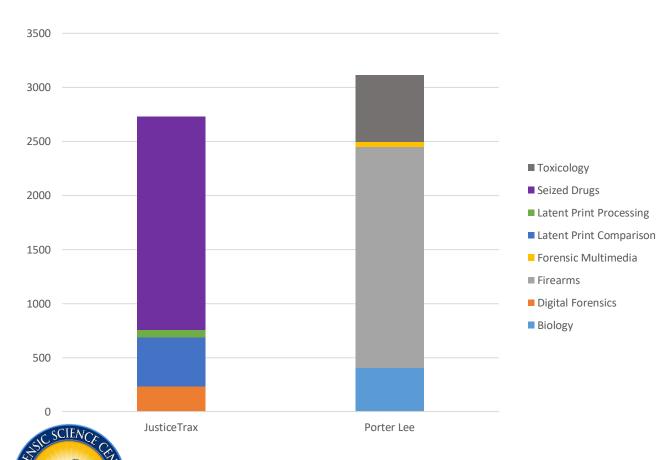
Toxicology Support



Toxicology Discovery Order TAT – by status

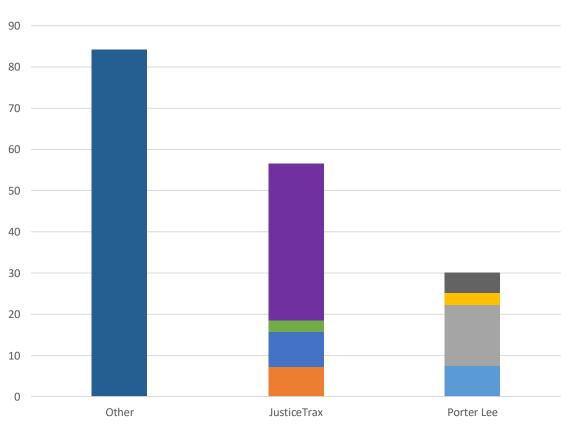


Total Items by Section & LIMS System

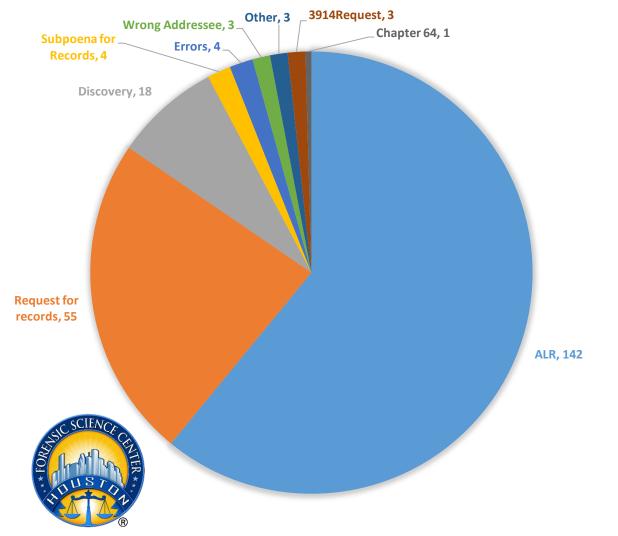


Evidence Handling

Total Time by Section & LIMS System See Slide 4 for breakdown of time categories

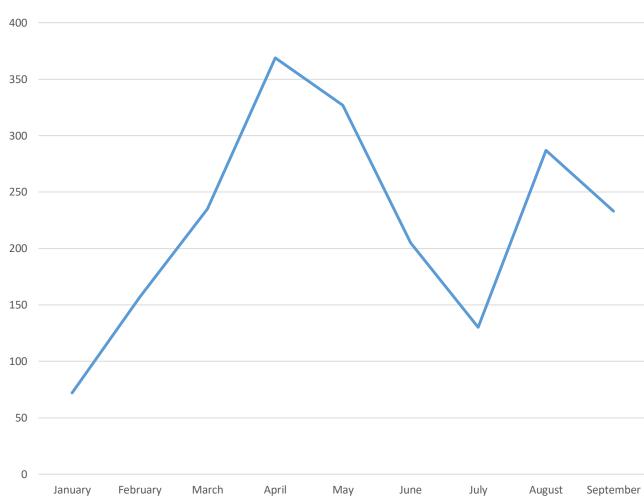


Sept. 2018 Requests by Type



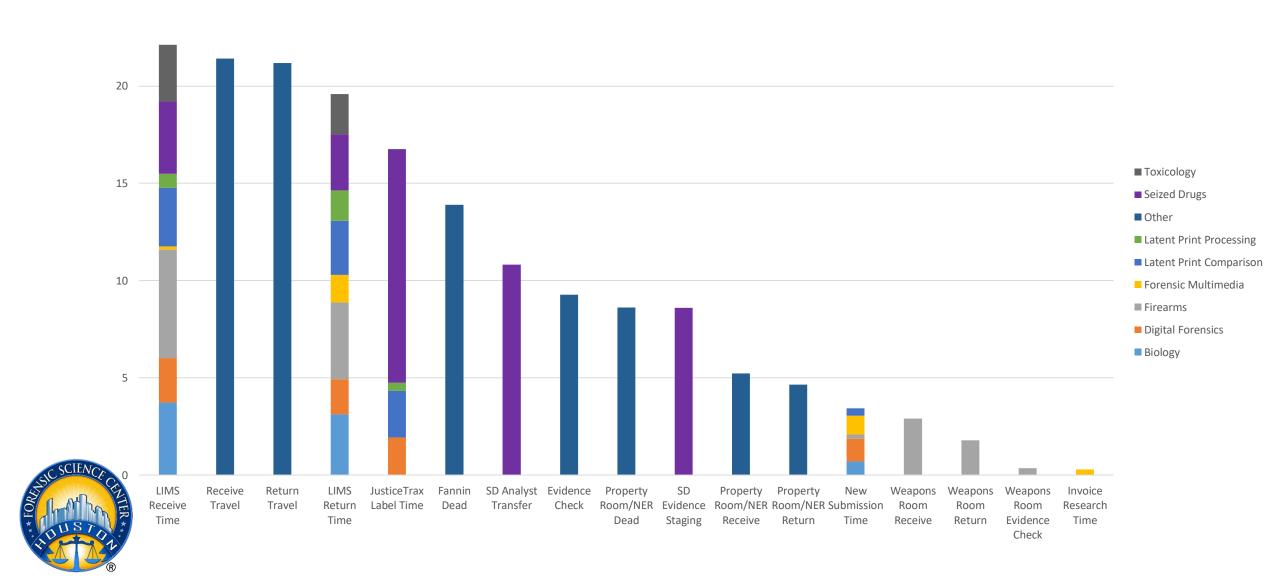
Administrative

Records Requests - YTD



Time Categories by Section





Seized Drugs





Critical issues

2

Seized Drugs: 9-day TAT average

0 pending requests >30 day

Target: TAT average <14 days

Less than 3 requests >30 days

Critical issues

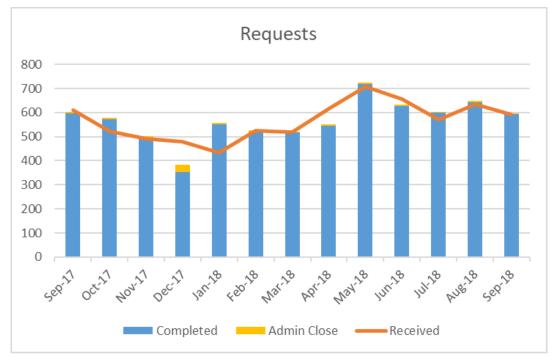
- Potential impacts of additional expedited case needs
- LIMS transition including manual entry of case requests

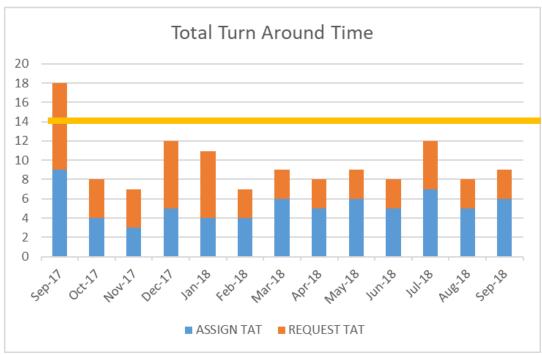
Projections for next 90 days

- Continued pressure on resources from increased case complexity and requests for expedited cases.
- Continue to track submission of opioid cases. Continue to see increases.
- Collaborations with R&D on grant submissions.



Seized Drugs





CS Live in Justice Trax on 12/11/17, metrics combined/manually tracked from Jtrax and Porter Lee for December



Firearms – Casework





Critical issues

2

Exams: 50-day avg,

9 pending requests >30 days

Target: <25 days

Critical issues

- Average age of cases over 30 days: 51 days
- JusticeTrax

Projections for Next 90 Days

- New examiner signed off for all casework
- Decrease in TAT as section gets caught up on casework (new streamlined approach to some cases)
- 1 examiner reduced casework productivity to train new NIBIN technicians



Firearms – NIBIN

Current NIBIN Requests

(received on or after 7/23/2018):

Total received in September: 422 requests

Average TAT: 5 days

Target: ≤5 days

Historical NIBIN Backlog

(received before 7/23/2018):

Total backlog: 679 requests (198 in progress)

Target: eliminated by April 2019





Critical issues

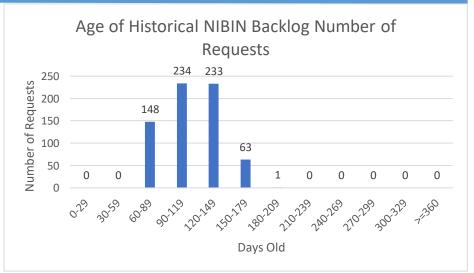
Critical issues

- 2 additional NIBIN technicians started
 9/5/2018
- NIBIN backlog, increased NIBIN workload
- Expect age and TAT of historical NIBIN backlog to increase

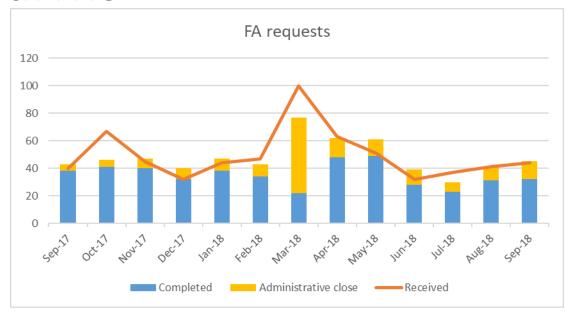
Between 9/1/2018 - 9/30/2018

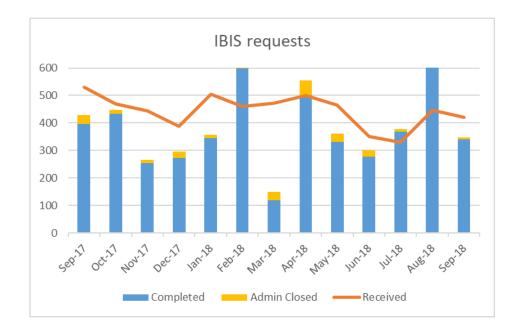
- 307 current requests completed
- 131 current requests in progress
- 33 historical backlog requests completed
- 0 historical backlog requests in progress

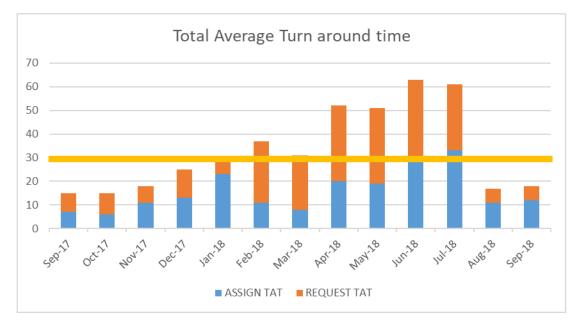




Firearms









Forensic Biology-Backlog





Critical issues

2

SA Kit: 137-day avg TAT

119 pending SAK requests >30 days

of those: ~8 >60 days, ~108 >90 days

SAK "other": 139-day avg

Non-SAK DNA: 295*-day avg

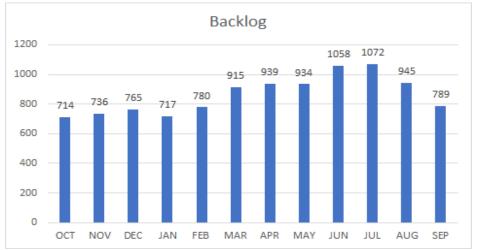
670 total requests >30 days

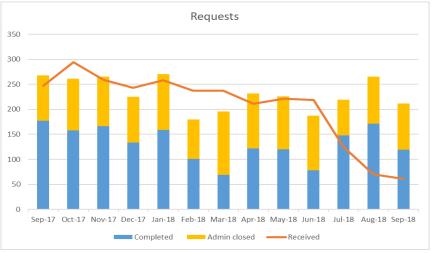
** All sexual assault kit requests are in process (except those to be outsourced)

Critical issues

- Target: minimum 12 DNA report writers, currently 8
- DNA extract storage concerns in preparation for move to new facility







^{*} one case was a stat re-calculation amended report with a TAT of 2,041 days

Forensic Biology-Outsourcing

Total Cases Shipped

370

Cases Returned

0

Cases Reviewed

0

SAKs shipped: 267

SAKs completed: 0

Non-SAKs shipped: 103

Non-SAKs completed: 0

Critical issues

The In-house review of all outsourced casework

Projections for next 90 days

- Project timeline: August 2018-September 2019
- First cases expected to be returned in November 2018



CODIS (National DNA Database)





Critical issues

Profiles Entered: 57

Matches: 150

65 Pending notifications26 Notifications over 30 days46 of the pending 65 notifications are waiting on other agencies for information.

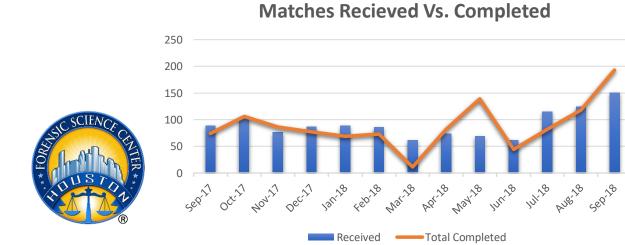
193 Total Notifications were addressed in September

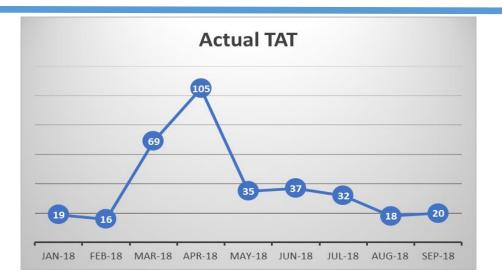
Critical issues

- Delays in notifications from DPS-Austin approximately 60 day TAT
- Obligate Allele Project

Projections for next 90 days

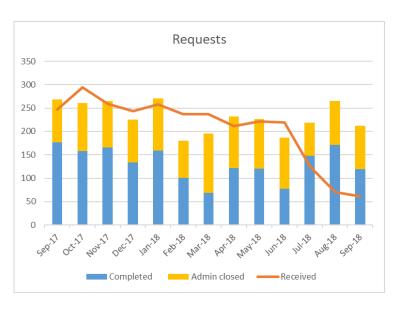
 Increase the number of cases reviewed from Obligate Allele Project.

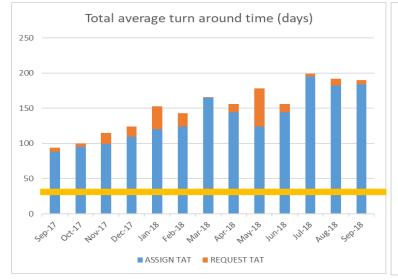


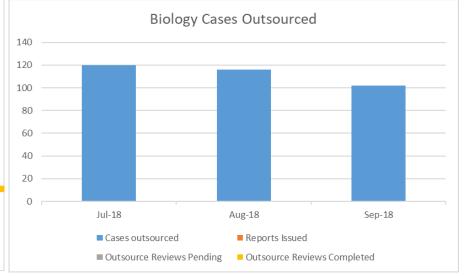


Forensic Biology -- Total

Note: In July of 2018 the number received will be impacted by the number of cases outsourced, once a case is outsourced it moves from received by Bio to Outsourced

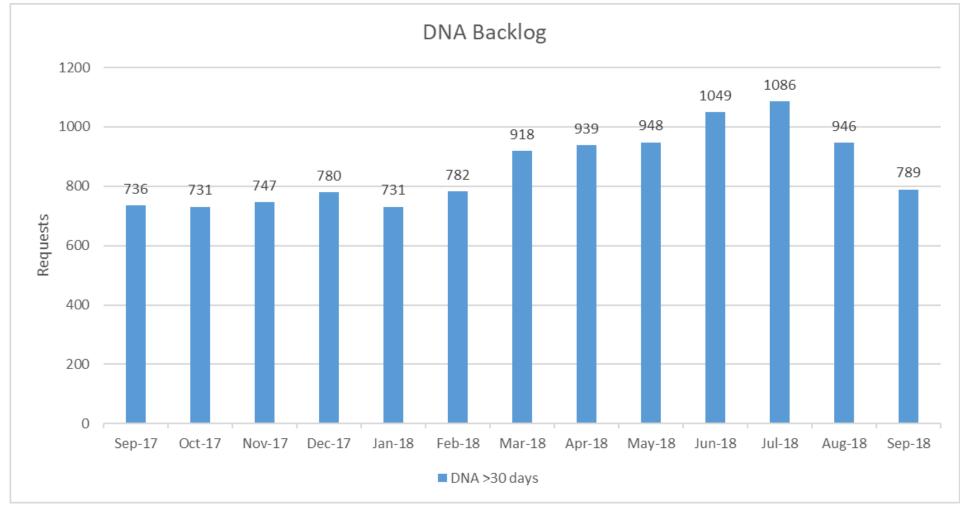








Total DNA Backlog (>30 day) requests by month





Toxicology







Alcohol: 26-day avg,

0 pending requests >30 day

Tox: 71-day avg

221 pending requests >30 day

Out-Tox: 25-day avg

0 pending requests >30 day

Critical issues

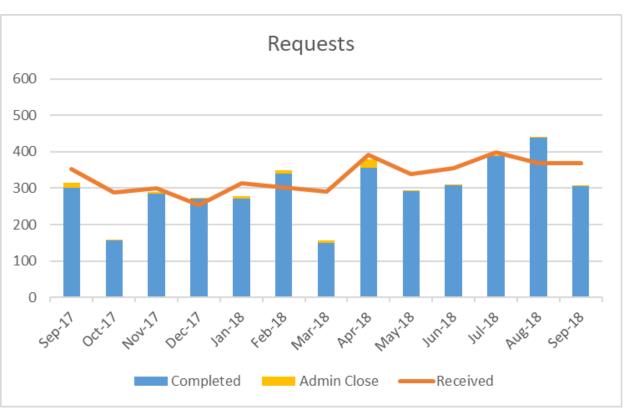
- One analyst in training, one on extended leave
- Legacy instrumentation and limited staff in the drug confirmation group
- Urgent training needs to be balanced with casework and other tasks (JT)

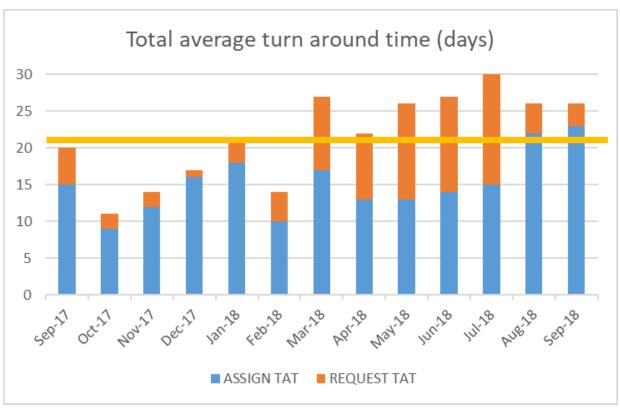
Projections for next 90 days

- Tox confirmation of SA cases and a portion of DWI cases to be outsourced
- Alcohol training of one analyst completed on September 26.
- With limited staff and training needs, longer drug confirmation TAT expected (90 days)
- Alcohol TAT to decrease in October



Toxicology: Alcohol

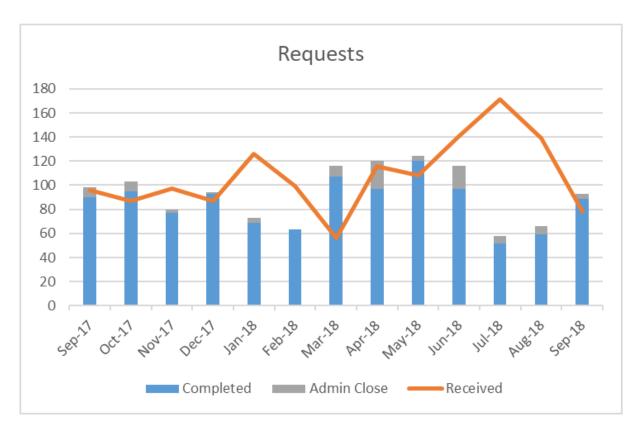


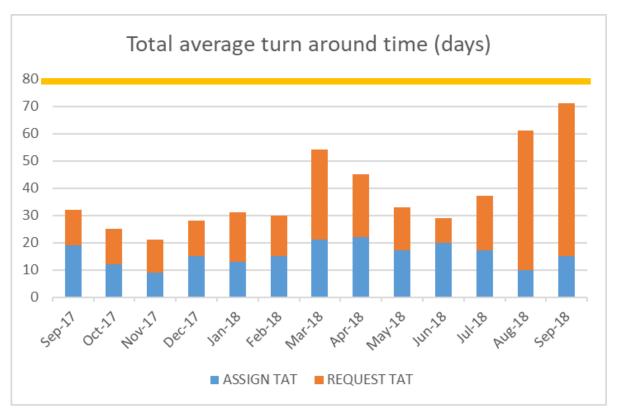




Toxicology: Other Drugs

In June of 2018 the toxicology section went live with drug analysis in house, due to instrumentation challenges and limitations, the expected TAT is 90 days until LC-QQQ can be brought on line.







Latents

Total TAT



Critical issues

Comparisons: 64-day avg TAT from request

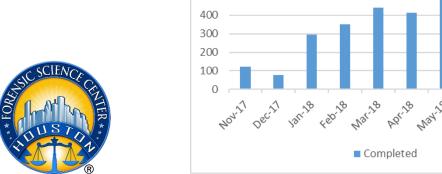
1,369 pending requests >30 day

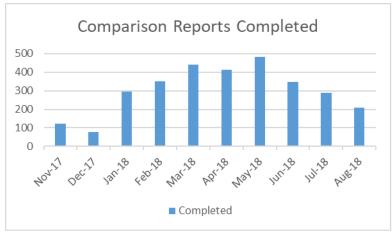
Processing: 40-day avg TAT from request,

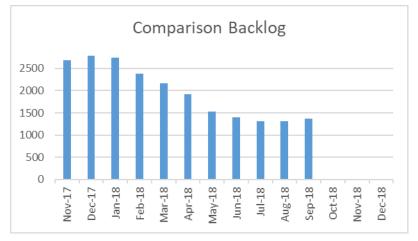
40 pending requests >30 days

Critical issues

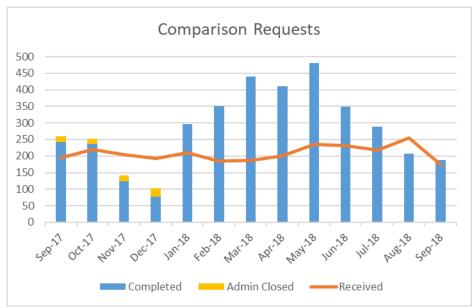
- Case completions were slowed due to larger CSU cases.
- Workflow remedies being explored to mitigate increased volume and still address elimination of backlog.
- Backlog now increasing

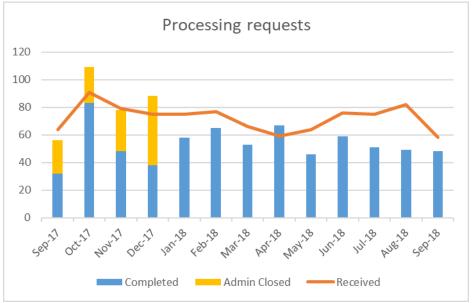


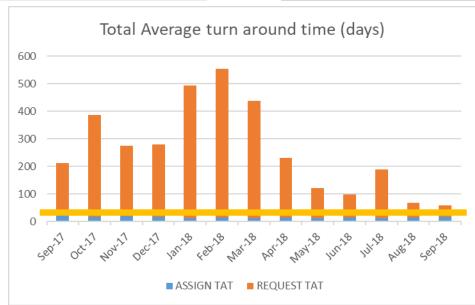




Latents

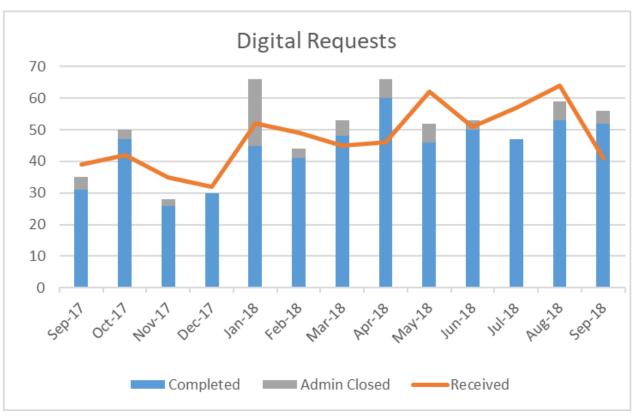


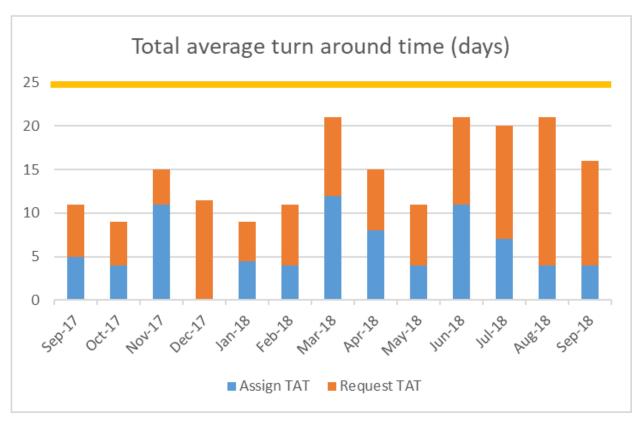




Latents Live in Justice Trax on 12/18/17, metrics from Porter Lee but estimated due to time in Jtrax in December

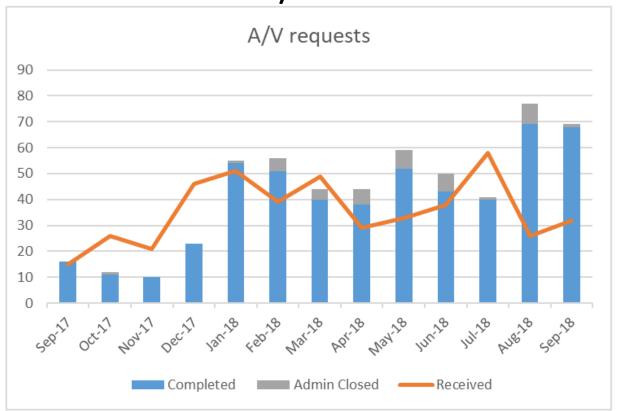
DME -- Digital

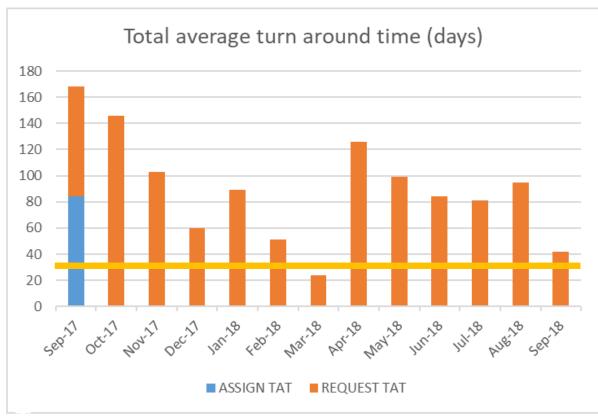






DME -- A/V





Starting December 2017: A/V and A/V call out metrics reported together



Lean Six Sigma Development Group **Current Projects**

Current Projects

Projects Completed

Projects in Queue

Project: Management Dashboard Type/Phase: D M A D V

Project Engineer: Amy Castillo Status: Green

Timeline: 4/30/2018- 1/19/2019

Accomplishments:

Approval to advance to Design

· Generating business rules for dashboard

Training team on PowerBI and data mapping

Project: Multidisciplinary Requests Type/Phase: D M A I C

Project Engineer: Aimee Grimaldi Status: Green

Timeline: 8/10/2018 – 1/31/2019

Accomplishments:

 Currently using the information that we heard from the stakeholder interviews and the LIMS data surrounding the multi-discipline requests to design the new process

Project: Work Product Evidence Return (WPER) Type/Phase: D M A I C **Status: Green**

Project Engineer: Paula Evans

Timeline: 8/22/2018 - 2/14/2019

Accomplishments:

- Approval to advance to Analyze
- Performed an evidence inventory of containers and items to estimate the amount of work product that needs to be returned
- Identified preliminary man hours needed to inventory work product prior to return
- Identified critical issues



Lean Six Sigma (LSS) Development Group Current Projects

Current Projects

3

Projects Completed

4

Projects in Queue 10

- Management Dashboard
 - On schedule
 - Timeline: April 2018-January 2019
- Multiple Discipline Request
 - On schedule
 - Timeline: August 2018 January 2019
- Work Product Evidence Return
 - On schedule
 - Timeline: September 2018 February 2019



Combined DNA Index System (CODIS) Process Improvement Project Summary



Aimee Grimaldi, MS, ASQ SSGB
Project Engineer
Lean Six Sigma Development Group

October 12, 2018

The project

Problem Statement:

An internal audit of the CODIS unit in 2016 identified a delay in notifications to external stakeholders. The team identified a resource gap

Business Case:

Improvements to the CODIS process reduces the time spent making corrections and prevents reoccurrence

Project Goals:

Improve the turnaround time of CODIS notifications without compromising quality



The project team



Kathi Sill Project Coach



Brittany Beyer DNA Analyst



Aimee Grimaldi Project Engineer



Courtney Head Manager – Forensic Biology



Erika Ziemak

Quality Specialist



Charles Evans
Project Champion



Jennifer Clay
CODIS Administrator



Jessica Powers DNA Analyst



Robin Guidry
DNA Technical Leader



Vanessa Martinucci Supervisor – Forensic Biology



Improvements made

Internal improvements

- Adequate staffing
 - Tasks broken down by skill
 - Addition of CODIS liaison
- Streamlined process
- CODIS training
 - CODIS team
 - DNA analysts

External improvements

- Notifications
 - Uploaded directly to stakeholder
 - Release of suspect name(s)
- Develop a database of case information for CODIS hits
 - Currently providing monthly a list of completed CODIS notifications to stakeholders
- CODIS training
 - Video



Quality metrics

Process improvements did not compromise the quality of the work

- Daily tracking of corrections made during CODIS entry or review
- Total number of corrections decreased after new process implementation
- This information used to determine if improvements had been successful





Production metrics

- Overall CODIS notification turnaround time dropped from 39 days to 19 days
- Efficiencies were gained at all steps of the process
- Efficiencies gained were sustainable
 - 20-day overall turnaround time for September





Project lessons learned

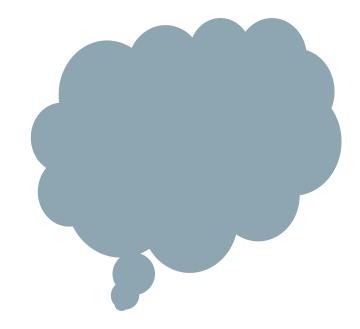
- The team adequately determined staffing needs
- Providing a list of completed cases to HPD contacts ensures stakeholder receives all notifications
- Successful internal training
- Subject matter experts need to be included in project meetings

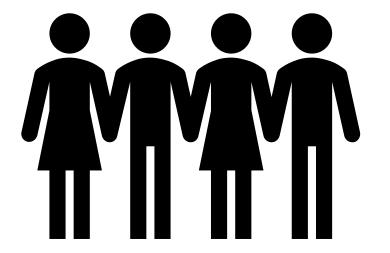




Project recommendations

- Hold additional stakeholder interviews in early 2019 to see how improvements impacted them
- Build out phases II and III of access database for CODIS case information
 - Phase II integrate with HPD
 - Phase III determine if possible to integrate with HCDAO
- When building out CODIS notifications in new LIMS consider the release of consolidated information for cases with multiple notifications







CODIS LSS project - return on investment Cost of poor quality

The right answer at the wrong time

- 2016-2017 audit of CODIS because notifications were not being released in a timely manner
- Audit = ~ 2,000 man hours = Approximately \$100,000
- TFSC self-disclosure

Total cost of poor quality ~ 500,000K





CODIS LSS project - return on investment Cost of poor quality

The project cost

- Project team of seven
 - Total of 581 hours
 - Cost: \$30,000

Project cost alone is about one-third the cost of 2016 audit

The right answer at the right time

- Unit receives ~1,100 cases a year
- Turnaround time has decreased from 39 days to 19 days
- Getting the right answer out 20 days faster
- Making CODIS a company priority
 - Worth every penny









LSSDG@HoustonForensicScience.org

SUPPLY CHAIN MANAGEMENT (SCM)

Lean Six Sigma (LSS) Project

October 12, 2018





Project Overview



- 6-month project
 - Project ran from March to September
- Project was selected due to:
 - Redundancies in procurement/inventory management process
 - Lack of role clarity
 - Lack of effective communication & visibility into the SCM process
 - Unpredictable lead times

Project Team

Project Champion: David Leach

Project Leader: Paula Evans

Team Members:

Steve Case, Finance

- Amanda Jarding, CSU
- Jordan Benton, Board coordinator
- Cloressa Kelly, Seized drugs
- Jason Jones, Finance
- Brooke Mendenhall, Toxicology
- Ashley Henry, CS/CM
- Susan Harrell, CS/CM
- Jennifer O'Callaghan, Biology



Project Goals



- Streamline the SCM process (reduce waste)
- Improve transparency and communication
- Better data collection
- No work stoppage due to supply chain
- Increase cost savings

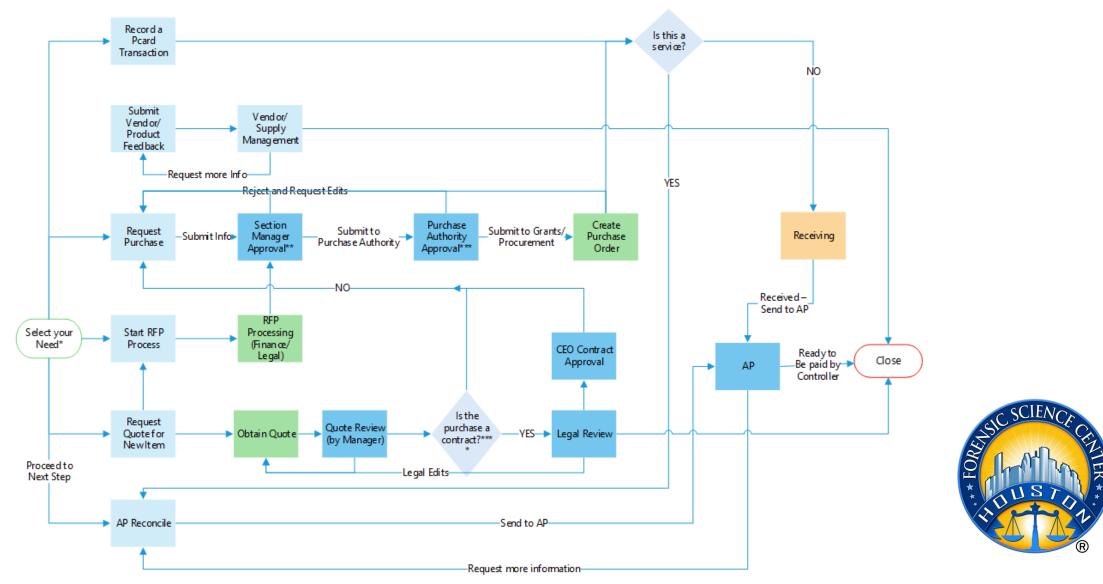


Process Improvement Design Elements

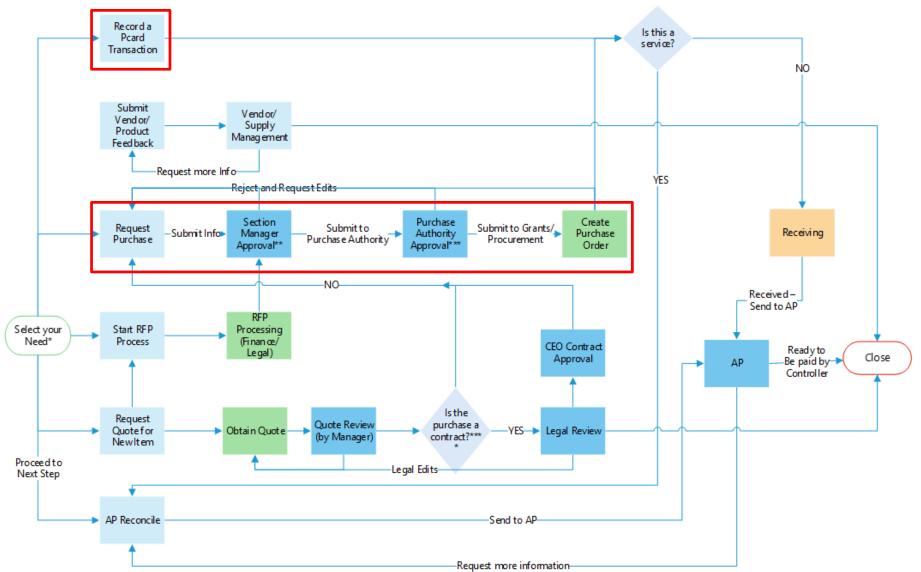
- Increase storeroom inventory
- Decrease purchase orders
- Increase credit card transactions
 - Create a pilot group that makes all purchases under \$5,000 with a credit card
- Create transparency with improved Qualtrax workflow
- Provide role clarity
- Decrease maverick spending
- Increase customer satisfaction

Process Improvement Design

create transparency, improve data collection, reduce waste, mistake proofing



Process Improvement Design









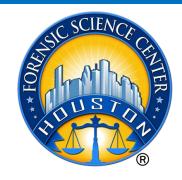
GOALS

RESULTS

Fliminated: Excel nurchase request form (huilt into workflow), manual log book in

Streamline process (reduce waste)	the storeroom (replaced with barcoding), and 100% Purchase Order (PO) inspection by Controller						
	Increased credit card spend by 25% Decreased purchase order TAT by 50% (From 16 business days to 8 business days)						
Improve transparency and communication	Expanded workflow to show end-to-end procurement process, workflow designed to send automatic communication at important milestones						
Better data collection	Procurement workflow captures quality process data enabling high-level analysis and transaction-level detail						
No work stoppage due to supply chain	Expanded storeroom items so that more inventory is managed using a visual pull system therefore no work stoppage						
Increase cost savings	Decreased cost by using credit cards for purchases under \$5,000. Created standing order that saves \$60k annually.						

SCM Cost Savings



Hard Dollars

- Bulk orders for DNA supplies
 - > \$60,000 in savings annually
- Discontinuing RFID
 - > \$32,000 in savings from not renewing a license
 - Replaced with barcoding

Soft Dollars

- Reduction in time at the create
 PO step
 - > \$10/PO in cost savings
- Conversion of Purchase Orders to Credit Card transactions
 - ~\$25 cost savings/conversionPO → Credit Card trans

Channel	% of trans	Cost per Trans
Credit Card	76%	\$9.72
PO	24%	\$34.26

Accounts Payable Improvements

- Created vendor spreadsheet to help with routing invoices for approval
- Tiered invoice approval built into workflow
- Pre-pay workflow added to procurement workflow
- Renewals/licenses training video (and pre-pay training video)
- Vendor contact flyer

In progress

- Financial policy revision
- All contracts put into Qualtrax & list of all contracts



Replication Opportunities

- Standing Orders
 - Can lead to significant discounts, however should only be done when usage rate is known
 - Reduces number of purchase orders
- Inventory Best Practices
 - Establish an inventory system with a minimum and maximum for each item
 - Monitor consumption rate of consumables/reagents.
 - Designate staff member(s) for procurement tasks and back ups

Lessons Learned

- Best practices when using credit cards
- RFID is not good for inventory tracking (25% defect rate)
- Standing orders can lead to significant cost savings



Best Practices for Purchase Card (P-Card) Activities

The Procurement Specialist will advise P-Card holder how to set-up vendor accounts. The Procurement Specialist will provide guidance on which vendor account will be set up for them (by the Procurement Specialist) and which accounts the P-Card holder must set up themselves.

Instructions and Recommendations for setting up a section's vendor account

- Billing/Shipping Address
 - The addresses below should be used when purchasing. If a website cannot store more than one address, then use the shipping address.

Billing address: Houston Forensic Science Center

1301 Fannin St, Suite 170 Houston, TX 77002

Shipping address: Houston Forensic Science Center

Attn: [Section]

1200 Travis Str, 25th Floor Houston, TX 77002

Tax Exempt Status

- A P-Card transaction greater than \$352.94 or that would incur \$30 or more in taxes must be purchased tax free. (see P-Card Pilot Guidelines, Tax Exempt Status)
- Vendors need a Texas Sales and Use Tax Exemption Certificate in order to remove taxes (both online and in store purchases)
 - Only 1 certificate is needed for each vendor. The vendors that we routinely use already have this established. You may view the vendor certificates that are already established by going to:

Corporate Policies and Procedures → Financial Policies and Documents → Tax Exempt Certificates

 The certificate template and an example of the fields that need to be filled can be found in the Qualtrax documents section under:

Corporate Policies and Procedures → Financial Policies and Documents → Procurement Cards (P-Card) SCM Project Pilot Guidelines

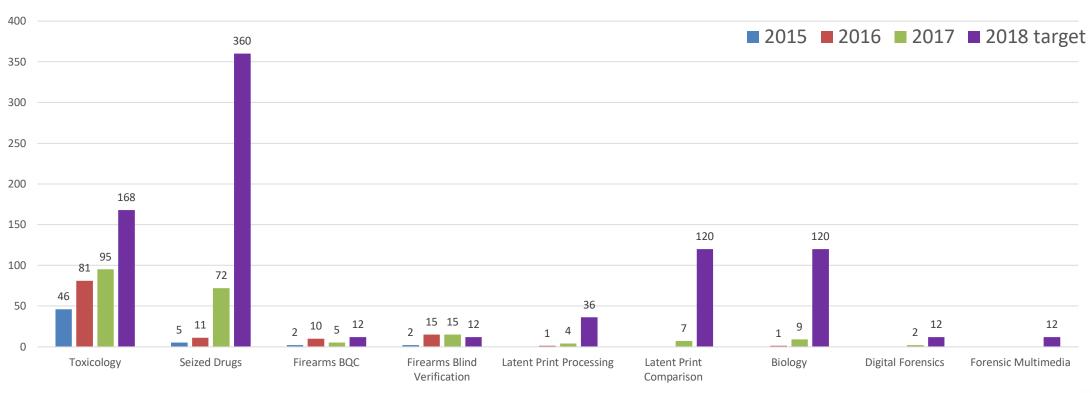
- "Seller" = Vendor Name
- "Business Address" Company Headquarters
- "Description" A description of the goods or services purchases from this vendor. Keep it general like "Software", "Lab Equipment", Etc.
- "Date" The date you filled out the form
- Most vendors will remove tax automatically from internet transactions once they receive this
 form, but some are more convoluted, and others just aren't able to do so online. See the notes
 section of the Vendor Information Sheet, or call the vendor's customer service line for
 instructions
- If a vendor does charge more than \$30 of tax on a transaction the card holder or their delegate should contact that vendor and arrange a full refund of the tax amount.
- Vendor Does not Accept American Express

Quality Division Report October 12, 2018

Updates for September 2018

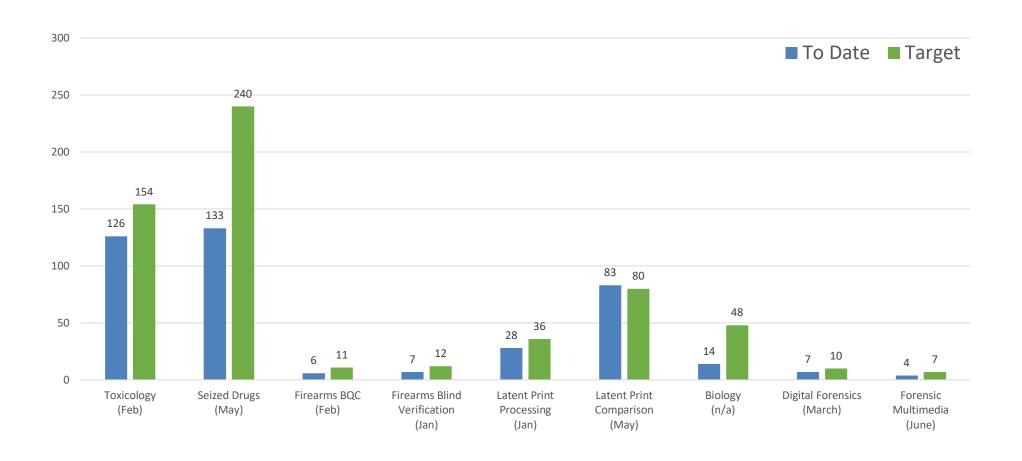


Blind Quality Control



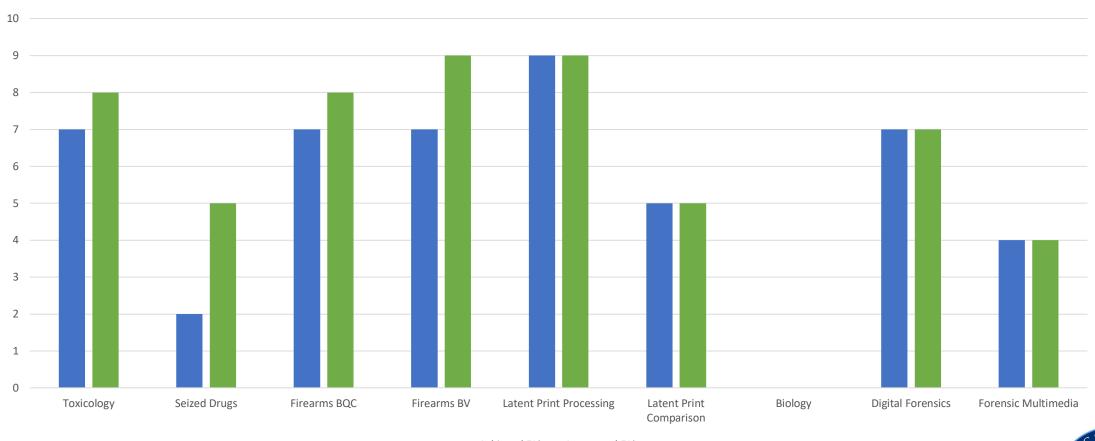


2018 BQCs





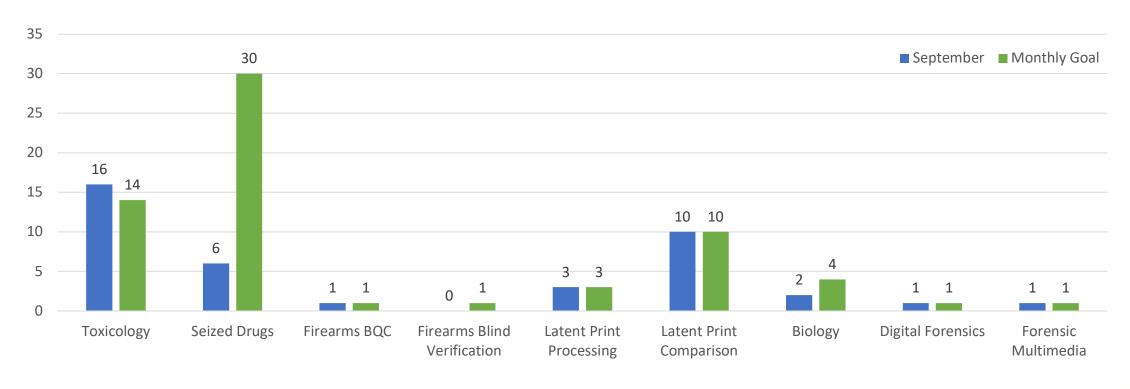
Number of Months 5% Attempted vs. 5% Achieved



■ Achieved 5% ■ Attempted 5%



Blind QCs Submitted in September





Blind Quality: Challenges and Accomplishments

- Goal of blinds equaling 5% of caseload not met in all disciplines
- A blind verification was not assigned in firearms
- Some blood tubes received from manufacturer contained methanol
 - Manufacturer will remake samples
- Blinds in seized drugs and biology have resumed
 - Narcotics approved seized drugs submitter information
 - CODIS upload procedure has been successful
- HPD's Robbery Division agreed to collaborate to submit requests

Forensic Discipline	Cases Completed
Seized Drugs	3
Toxicology – BAC	14
Biology	2 (DNA)
Firearms – Blind Verification	2
Firearms – Blind Quality Control	1
Latent Print Processing	2
Latent Print Comparison	6
Digital Forensics	0
Forensic Multimedia	0



Audits/Disclosures/Corrective Actions

- Waiting for ANAB's final accreditation decision
- Latent print nonconformance disclosed to TFSC
 - A preliminary AFIS hit was reported under an incorrect case number
 - Will be discussed at TFSC's January 2019 meeting
- Firearms nonconformance will be disclosed to TFSC
 - A preliminary NIBIN lead report was reported under an incorrect case number
 - During research, discovered another image had been uploaded to NIBIN under an incorrect case number
 - Auditing 30 cases to determine if isolated to these incidents
- Ongoing investigation into three biology contamination events
 - No indication analyst's technique is the root cause
 - Analyst released back to casework extractions



2018 Proficiency Testing(PT)

Discip	oline	Tests in Progress	Number Completed	Comments					
Seized	Drugs	6	7	3 internal marijuana PTs to be assigned					
Toxico	logy	9	5						
Firea	rms	-	7	3 internal NIBIN PTs to be assigned 5 pending receipt from manufacturer					
Crime Sce	ene Unit	-	22	Complete for 2018					
Latent	Prints	2	11	2 processing PTs pending receipt					
Digital and Multimedia	Audio/Video	8	-						
Unit	Digital	6	-						
Forensic	Biology	26	18	1 PT pending receipt					

No unsatisfactory test results for 2018



2018 Testimony Data

- 46 of 150 analysts testified so far this year in 93 proceedings
- 44 of the 46 have been monitored
 - 2 testified for work done prior to HFSC employment no monitoring needed
- Quarterly transcript reviews
 - Seven transcripts received in September covering seized drugs, digital forensics, toxicology, biology and crime scene
 - Total of 16 received this year



Detailed Data



Page 1 of 2

Quality Division Notifications

Incidents, Corrective and Preventive Actions

	Quality Notified	Summary of Notification	Comments
Biology			
2018-086 IR	9/12/2018	A Forensic Biology report issued in August 2016 contained two conclusions for one DNA sample. While the two conclusions were very similar, only one was deemed to be correct. The report was amended.	
2018-089 IR	9/4/2018	An amended report was issued to correct a statistical error in the report. The original statistics were calculated as 1 in 210 quintillion for Caucasians, 1 in 37 sextillion for African Americans, 1 in 1.2 sextillion for Hispanics and 1 in 1.3 sextillion for Asians. The recalculated statistics were 1 in 12 quintillion for Caucasians, 1 in 2.2 sextillion for African-Americans, 1 in 96 quintillion for Hispanics and 1 in 120 quintillion for Asians.	
2018-092 IR	9/19/2018	A report was issued that did not include a conclusion for one evidence item. The report was amended.	
2018-093 IR	9/19/2018	Volume discrepancies were noted in some evidence samples, reagent blanks and negative controls on an amplification plate. Although the SOP was not violated, all samples were reamplified. The data from the affected samples will not be used for reporting purposes and the two reports that were issued prior to discovery of this issue will be amended.	
2018-094 IR	9/20/2018	Through comparison of a DNA profile from a reference sample to the profile obtained on an evidence sample, the laboratory determined two loci were incorrectly deduced. These loci will not be included in statistical calculations.	
Crime Scene			

HFSC's Quality Division investigates nonconforming work and helps develop solutions in compliance with accreditation and legal standards. With regard to the items listed above, the Division has not detected any use of inaccurate results in a criminal proceeding.

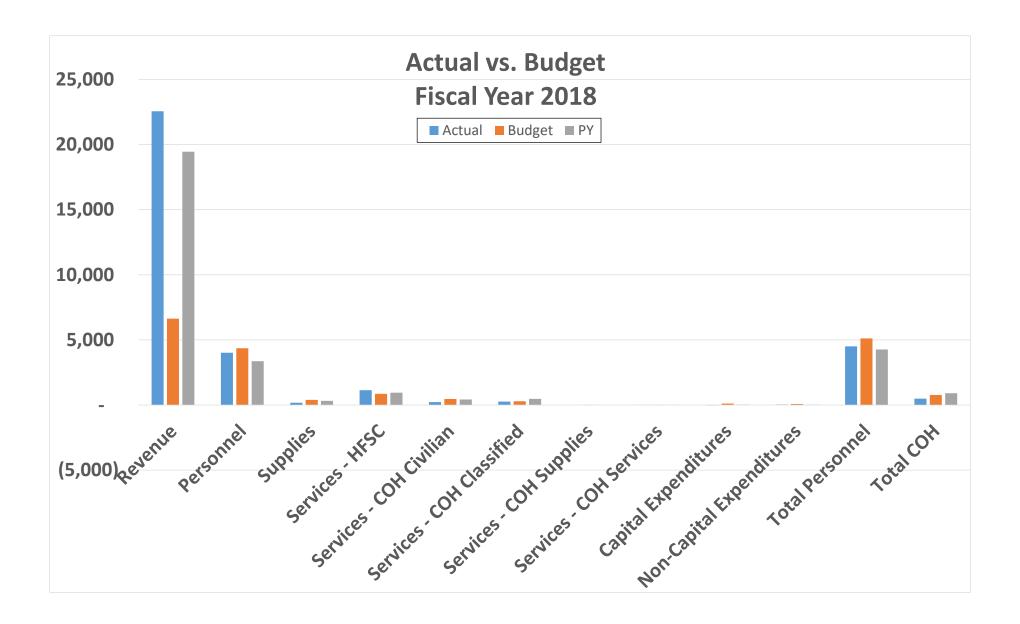
10:07:22 AM

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Quality Division Notifications

Incidents, Corrective and Preventive Actions

2018-091 CAR	Quality Notified 9/10/2018	Summary of Notification While processing a scene, a Crime Scene Investigator (CSI) used her own personal alternate light source rather than one provided by the CSU. The CSI's personal ALS was not approved for use on casework.	Comments
Latent Prints			
2018-090 IR	9/5/2018	A Latent Print processor failed to upload two cropped images into Mideo. To correct the error, the printed images were scanned and then uploaded into the Mideo case record.	
Toxicology			
2018-095 IR	9/26/2018	The expiration date of a reagent prepared in-house was listed as one year from the date of preparation. According to the SOP, the expiration date should have been six months from the preparation date.	



HOUSTON FORENSIC SCIENCE CENTER, INC. COMPARATIVE STATEMENT OF ACTIVITIES - ACCRUAL BASIS

For the Period July 1, 2018 through September 30, 2018

	, ,	101111501 00, 20		rrent Mo	Month (Preliminary)				YTD							FY19	
		FY19	FY19	FY18			iance		FY19	FY19	FY18		Va	riance		FY19	% Year
									July 1- Sept	,	July 1- Sept						
		Sept. 2018	Budget	Sept. 2017	Budget - Actual	%	FY19 - FY18	%	30, 2018	Budget	30, 2017	Vs. Budget	%	Vs. FY18	%	Budget V1	Completed
			# of Months							# of Months							
Revenues:			1							3							
411000	City of Houston-Appropriations	s -	\$ 2,013	s -	\$ (2,013)	-100%	s -		\$ 22,168	\$ 6,040	18,731	\$ 16,128	267%	\$ 3,437	0%	\$ 24,160	92%
415000	City of Houston Direct OH-Appro	122	122	122	- (=,1:1)	0%	_	0%	365	365	365	-	0%		0%	1,460	25%
416000	City of Houston - Safe funds	-		-	-	0%	_	070	_	-	-		0%	_	0%	1,400	0%
420000	Contributions	-	1		(1)	0%	-		(1)	2	-	(3)	0%	(1)	0%	8	0%
425000	In-Kind Donations	-		-	-	0%	-		-		-		0%	-	0%		0%
426000	Training Services	0	0	2	0	0%	(1)	-75%	3	1	4	1	0%	(1)	-27%	5	0%
440000	Grants	2	74	343	(72)	-98%	(342)	-99%	8	223	343	(214)	-96%	(335)	0%	890	1%
450000	Forensic Services	0	1	8	(1)	-96%	(8)	-100%	13	2	8	11	508%	5	70%	9	152%
450001	Miscellaneous Copy Fees	-	-	-	-	0%	-		-	-	-	-	0%	-	0%	-	0%
450002	Interest Income	-	0	1	(0)	-100%	(1)	-100%	1	1	1	(0)	-6%	(1)	0%	4	23%
Total Income		124	2,211	475	(2,087)	-94%	(351)	-74%	22,558	6,634	19,453	15,924	240%	3,105	16%	26,536	85%
Expenses:																	
Per	sonnel:																
500010	Salary Base - Civilian	1,100	1,173	1,383	73	6%	283	20%	3,276	3,520	2,739	245	7%	(536)	-20%	14,082	23%
501070	Pension - Civilian	64	66	80	1	2%	16	20%	162	197	153	35	18%	(9)	-6%	787	21%
502010	FICA - Civilian	79	85	99	6	7%	20	20%	238	256	199	17	7%	(39)	-20%	1,023	23%
503010	Health Insurance - Active Civil	96	110	69	14	13%	(28)	-40%	294	331	234	37	11%	(60)	-25%	1,325	22%
503015	Basic Life Ins - Active Civil	11	10	4	(1)	-10%	(7)	-194%	31	30	23	(1)	-4%	(8)	0%	119	26%
503060	Long Term Disability - Civilian	-	-	-	-	0%	-		-	-	-		0%	-	0%	-	0%
503090	Workers Comp - Civilian Adm	7	7	3	(0)	-1%	(3)	-100%	14	20	15	5	27%	1	7%	78	18%
503100	Workers Comp - Civil Claims	-	-	-	-		-		-	-	-	-	0%	-	0%	-	0%
504030	Unemployment Claims - Admin	-	-	-	-		-		-	-	•		0%	-	0%	-	0% 0%
504010 504031	Pension - GASB 27 Accrual Unemployment Taxes - Admin	1	- 1	1	1	53%	1	50%	3	3	3	1	0% 17%	(0)	0% -6%	13	21%
304031	onemployment raxes - Admin	1,358	1,452	1,640	94	6%	282	17%	4,018	4,357	3,367	339	8%	(651)	-19%	17,427	23%
-	oplies:			4			0		3		2			(4)			
511010	Chemical Gases & Special Fluids	1	1	'	1	47%	U	16%	3	4	2	1	15%	(1)	-53%	14	21%
511040	Audio Visual Supplies	0	3	2	3	000/	2	000/	1	-	7	9	0% 93%	7	0%	-	0% 2%
511045 511050	Computer Supplies Paper & Printing Supplies	3	2	3	(1)	99% -35%	0	98%	. 8	10 6	6	(2)	-30%	(2)	91% -36%	39 25	32%
511055	Publications & Printed Material	0	1	2	1	90%	2	93%	0	4	3	3	91%	2	88%	14	2%
511060	Postage	_		0	0	100%	0	100%	0	0	0	0	40%	0	21%	1	15%
511070	Miscellaneous Office Supplies	5	7	5	2	31%	(0)	-2%	21	22	18	1	5%	(3)	-16%	90	24%
511080	General Laboratory Supply	36	107	91	72	67%	55	61%	115	322	265	207	64%	150	57%	1,289	9%
511090	Medical & Surgical Supplies	-	0	-	0	100%	-		-	0	-	0	100%	-	0%	1	0%
511095	Small Technical & Scientific Eq	5	1	1	(4)	-676%	(4)	-314%	6	2	2	(4)	-211%	(4)	-215%	8	78%
511110	Fuel	0	0	-	(0)	-4370%	(0)		0	0	-	(0)	0%	(0)	0%	0	0%
511120	Clothing	4	3	1	(2)	-54%	(3)	-240%	6	9	4	3	31%	(2)	-45%	34	17%
511125	Food/Event Supplies	0	1	6	1	95%	6	99%	1	4	7	2	67%	6	83%	14	8%
511130	Weapons Munitions & Supplies	-	1	-	1	100%	-		3	2	0	(0)	-15%	(2)	-640%	9	29%
511145	Small Tools & Minor Equipment	0	2	0	1	73%	0	1%	1	5	1	4	76%	0	14%	18	6%
511150	Miscellaneous Parts & Supplies	1	1	4	(0)	-56%	2	65%	10	3	5	(8)	-298%	(5)	-92%	10	100%
		55	131	116	75	58%	61	52%	176	392	322	216	55%	146	45%	1,567	11%

HOUSTON FORENSIC SCIENCE CENTER, INC. COMPARATIVE STATEMENT OF ACTIVITIES - ACCRUAL BASIS

For the Period July 1, 2018 through September 30, 2018

		Current Month (Preliminary)						YTD						FY	19			
		FY19	FY19	FY18		Variance			FY19	FY19	FY18		Vari	iance		FY19	% Year	
										ıly 1- Sept		July 1- Sept						
		Sept. 2018	Budget	Sept. 2017	Budget - Actual	%	FY19 - FY18	%		30, 2018	Budget	30, 2017	Vs. Budget	%	Vs. FY18	%	Budget V1	Completed
Serv	vices:																	
520100	Temporary Personnel Services	1	-	-	(1)		(1)			2	-	-	(2)	0%	(2)	0%	-	0%
520105	Accounting & Auditing Svcs	4	3	4	(1)	-31%	(0)	-9%		12	9	10	(3)	-36%	(2)	-18%	35	34%
520106	Architectural Svcs	-	4	-	4	100%	-			-	13	-	13	0%	-	0%	50	0%
520107	Computer Info/Contracting Svcs	5	2	-	(3)	-210%	(5)			5	5		(0)	-3%	(5)		20	26%
520109	Medical Dental & Laboratory Ser	7	7	7	0	0%	(0)	0%		7	21	8	14	67%	1	11%	85	8%
520110	Management Consulting Services	12	5	204	(7)	-141%	192	94%		31	15	212	(16)	-105%	181	86%	60	51%
520112	Banking Services	0	0	0	0	72%	0	63%		1	1	1	0	11%	(0)	-2%	3	22%
520113	Photographic Services	-	0	-	0	100%	-			-	0	-	0	100%	-		1	0%
520114	Misc Support Serv Recruit Relo	5	10	24	5	50%	19	80%		13	30	42	16	56%	29	69%	118	11%
520115	Real Estate Rental	86	84	84	(2)	-2%	(2)	-2%		258	253	253	(5)	-2%	(5)	-2%	1,011	26%
520118	Refuse Disposal	-	0	-	0	100%	-			3	1	1	(2)	-206%	(2)	0%	4	77%
520119	Computer Equip/Software Maint.	152	52	37	(100)	-191%	(115)	-312%		302	157	145	(145)	-93%	(157)	-108%	626	48%
520121	IT Application Services	6	8	0	2	24%	(6)	-76221%		30	25	1	(5)	-19%	(30)	0%	102	30%
520123	Vehicle & Motor Equip. Services	-	0	-	0	100%	-			-	1	-	1	100%	-		3	0%
520124	Other Equipment Services	44	18	0	(26)	-141%	(44)	-46843%		155	55	34	(100)	-182%	(121)	-358%	220	71%
520143	Credit/Bank Card Svcs	-	0	-	0	100%	-			0	0	-	0	43%	(0)		0	14%
520145	Criminal Intelligence Services	-	-	-	-		-			-	-	-	-	0%	-	0%	-	0%
520520	Printing & Reproduction Serv.	-	1	1	1	100%	1	100%		2	3	1	2	51%	(0)	-30%	12	12%
520605	Public Information Svcs	1	0	-	(0)	-134%	(1)			5	1	2	(4)	-465%	(3)	-215%	3	141%
520705	Insurance (Non-Medical)	10	9	8	(1)	-9%	(1)	-15%		29	27	27	(2)	-9%	(3)	-10%	108	27%
520760	Contributions	-	-	-	-		-			(1)	-	-	1		1	0%	-	
520765	Membership & Prof. Fees	1	2	1	2	73%	1	48%		3	6	3	3	49%	0	9%	25	13%
520805	Education & Training	8	15	11	7	49%	3	31%		81	45	28	(36)	-78%	(53)	-191%	182	45%
520815	Tuition Reimbursement	6	4	5	(2)	-51%	(1)	-26%		9	12	10	2	20%	1	10%	46	20%
520905	Travel - Training Related	12	14	12	2	16%	(0)	-1%		40	43	39	3	7%	(1)	-2%	173	23%
520910	Travel - Non-training Related	(0)	1	1	1	105%	1	104%		4	4	2	(1)	-20%	(2)	-78%	14	30%
521405	Building Maintenance Services	0	2	1	2	86%	1	65%		3	6	5	4	61%	3	51%	25	10%
521505	Utilities	0	0	1	(0)	-35%	0	11%		1	1	1	(0)	-50%	(0)	-3%	4	37%
521605	Data Services	17	4	2	(13)	-294%	(16)	-824%		50	13	5	(36)	-274%	(45)	-971%	53	94%
521610	Voice Services, Equip & Labor	3	6	2	3	52%	(1)	-26%		5	17	10	12	69%	4	45%	69	8%
521705	Vehicle/Equipment Rental/Lease	-	0	-	0	100%	-			-	0	-	0	0%	-	0%	0	0%
521725	Other Rental Fees	6	3	4	(3)	-129%	(2)	-43%		7	8	7	1	12%	(0)	-5%	32	22%
521730	Parking Space Rental	4	12	21	8	66%	17	80%		36	36	38	1	1%	2	5%	146	25%
521905	Legal Services	-	2	-	2	100%	-			-	6	-	6	100%	-	0%	25	0%
522205	Metro Commuter Passes	4	6	5	1	21%	1	11%		15	17	10	2	13%	(4)	-39%	67	22%
522305	Shipping and Freight	0	1	1	1	70%	0	36%		2	4	3	2	45%	1	28%	17	14%
522430	Misc. Other Services & Chrgs	19	8	28	(11)	-136%	10	34%		27	24	49	(3)	-14%	22	45%	95	29%
522720	Insurance - General & Professional	-	-	-	-		-			-	-	-	-	0%	-	0%	-	0%
523100	Civilian Payroll	73	156	139	83	53%	65	47%		226	467	428	242	52%	202	47%	1,870	12%
523200	Classified Payroll	86	96	137	10	10%	51	37%		262	289	470	27	9%	208	44%	1,156	23%
523300	Supplies	-	1	-	1	100%	-			-	4	-	4	100%	-	0%	17	0%
523400	Services	0	2	4	2	96%	4	98%		2	7	8	5	70%	5	71%	29	8%
523000	Sub-Contractor (COH-HPD) Total	160	256	280	96	38%	120	43%		490	768	905	278	36%	415	46%	3,072	16%
	Total Services	573	542	744	(31)	-6%	171	23%		1,627	1,627	1,851	(0)	0%	225	12%	6,506	25%

HOUSTON FORENSIC SCIENCE CENTER, INC. COMPARATIVE STATEMENT OF ACTIVITIES - ACCRUAL BASIS

For the Period July 1, 2018 through September 30, 2018

			Current Month (Preliminary)					YTD						FY19			
		FY19	FY19	FY18		Var	ance		FY19	FY19	FY18		Var	iance		FY19	% Year
		Sept. 2018	Budget	Sept. 2017	Budget - Actual	%	FY19 - FY18	%	July 1- Sept 30, 2018	Budget	July 1- Sept 30, 2017	Vs. Budget	%	Vs. FY18	%	Budget V1	Completed
No	on-Capital Expenditures																
551010	Furniture and Fixtures	2	8	2	6	71%	(0)	-9%	18	25	5	7	28%	(13)	-287%	100	18%
551015	Computer Hardware/SW	15	14	5	(0)	-2%	(10)	-196%	18	43	16	25	57%	(2)	-13%	173	11%
551025	Scientific/Foren Eqmt	-	3	-	3	100%	-		1	9	4	8	93%	4	84%	36	2%
	Total Non-Capital Expenditures	17	26	7	9	33%	(10)	-138%	37	77	25	40	52%	(12)	-48%	309	12%
Ca	apital Expenditures																
170140	Improvements	-	-	-	-		-		-	-			0%	-	0%	-	0%
170210	Furniture & Fixtures	-	-	-	-		-		-	-			0%	-	0%	-	0%
170230	Computer Hardware/SW	-	-	42	-		42	100%	28	-	180	(28)	0%	152	0%	-	0%
170240	Scientific/Foren Eqmt	-	38	(126)	38	100%	(126)		8	113	-	104	93%	(8)		450	2%
170980	Const in Progress	7		537	(7)		530	99%	(60)		(147)	60	0%	(87)	0%		
	Total Capital Expenditures	7	38	452	30	80%	445	98%	(23)	113	33	136	121%	57	170%	450	-5%
Total Expense and	d Capital Before Depreciation	2,012	2,188	2,959	177	8%	948	32%	5,834	6,565	5,598	731	11%	(236)	-4%	26,258	22%
561230	Depreciation	42	40	40	(2)	-6%	(2)	-5%	126	119	120	(7)	-5%	(6)	-5%	477	26%
570505	FA Gain/Loss	-	-			0%			-	-		-	0%	-	0%	-	0%
610000	City of Houston Direct Overhead	122	122	122	-	0%	-	0%	365	365	365	-	0%	-	0%	1,460	25%
	Grant and Training Expense	-	-	-	-		-			-	-	-		-	0%		
Total Expense and	d Capital After Depreciation	2,175	2,350	3,121	174	7%	946	30%	6,325	7,049	6,083	724	10%	(242)	-4%	28,195	22%
Ne	et Ordinary Income less capital spending	(2,051)	(138)	(2,646)	(2,262)	1636%	594	-22%	16,233	(415)	13,370	16,648	-4013%	2,863	21%	(1,659)	-978%

HOUSTON FORENSIC SCIENCE CENTER, INC. COMPARATIVE STATEMENT OF NET POSITION By Quarter

(in '000's)

	Pre	eliminary				
		As of 9/30/18	As of 5/30/18	As of 03/31/18		As of 2/31/17
ASSETS						
Cash and Cash Equivalents Bank of Texas-Operating	\$	17,384	\$ 1,659	\$	6,179	\$ 10,684
Total Current Assets		17,384	 1,659		6,179	 10,684
Accounts Receivable		<u>20</u> 20	 116 116		32 32	 <u>35</u> 35
Capital Assets Net of Depreciation Capital Assets Accumulated Depreciation		6,194 (1,761)	6,217 (1,635)		5,723 (1,478)	5,021 (1,356)
Total Net Capital Assets		4,433	 4,582		4,244	 3,665
Other Assets Prepaid - HR Prepaid - Insurance Prepaid - Service Agreements Prepaid - Other		(4) 128 342 86	2 126 331		(8) 43 87 85	 5 81 126 89
Total Other Assets		552	459		207	 301
TOTAL ASSETS	\$	22,389	\$ 6,816	\$	10,662	\$ 14,684
LIABILITIES						
Accounts Payables Payroll Tax Liability Other Liabilities, Including Fund 2213 Billing Deferred - Others Total Liabilities	\$	233 552 330 6 1,121	\$ 527 1,092 133 6 1,759	\$	207 540 252 6 1,005	\$ 128 481 229 6 845
NET POSITION/FUND BALANCE						
Unrestricted/Unassigned Temporarily Restricted - SAFE Funds		16,834	475		5,413	10,100
Net Investment in Capital Assets Total Net Position		4,433 21,267	 4,582 5,057		4,244 9,657	 3,740 13,840
TOTAL LIABILITIES AND NET POSITION	\$	22,389	\$ 6,816	\$	10,662	\$ 14,684

Houston Forensic Science Center, Inc. Finance Division List of Grant Contracts As of September 30, 2018

Awarded

Awarding Agency: USDOJ-OJP-NIJ

Name of Project: NIJ FY 16 DNA Capacity Enhancement and Backlog Reduction Program

Start and End Dates: 01/01/2017 - 12/31/2018

Contact: Alissa Genovese

Current Award Number: 2016-DN-BX-0142 Awarded Invoiced Receivable

Amount of Award: \$ 741,000

Grant Inception to date: (381,212)381,212

> **Grant Balance:** 359,788

Status: Awarded

Awarding Agency: USDOJ-OJP-NIJ

Name of Project: NIJ FY 17 DNA Capacity Enhancement and Backlog Reduction Program

Start and End Dates: 01/01/2018 - 12/31/2019

Contact: Monte Evans

Current Award Number: 2017-DN-BX-0027 Awarded Invoiced Receivable

> Amount of Award: \$ 867,755

Grant Inception to date: (268,849)153,562 (115,287)

> **Grant Balance:** 598,906

Status: Awarded

Awarding Agency: USDOJ-OJP-NIJ

Name of Project: Cap Enhancement for Drug and DNA Testing in Sexual Assault Cases

Start and End Dates: 01/01/2018 - 12/31/2020

Contact: Monte Evans

Current Awarded Invoiced Award Number: 2017-DN-BX-0176 Receivable

> Amount of Award: \$ 114,000 **HFSC Match** 38,000

(999)**Grant Inception to date:**

Grant Balance: 151,001 Status: Awarded

Solicitation

Awarding Agency: USDOJ-OJP-NIJ

Discipline: Seized Drugs

Primary Recipient: RTI

Name of Project: Applied Research and Development in Forensic Science for Criminal Justice Purposes

HFSC will work with RTI to provide technology evaluation for seized materials at our laboratory. This will help ensure RTI is

Purpose: able to fully evaluate the use of near infrared (NIR)

spectroscopy for the detection of drugs from seized material

during the course of the project.

Collaboration: HFSC

Start and End Dates: Start 01/01/2019

Contact: Katherine Moore / Megan Grabenauer

Solicitation Number: NIJ-2018-13600

Amount Requested:

Status: Letter of Support

Awarding Agency: NIJ

Discipline: Seized Drugs

Primary Recipient: HFSC

Research and Evaluation for the Testing and Interpretation of

Physical Evidence in Publicly Funded Forensic Laboratories -Name of Project:

Establishing Sufficiency Thresholds for Assessing the Quality of

Mass Spectral Data

This study proposes to initiate and test the development of a sufficiency standard that can be used as a model for the Purpose: nationalized mass spectral standard. In addition, both results

and methodology from this project should have direct extension to other forensic disciplines using mass spectral

data, such as Toxicology and Trace Analysis.

Collaboration: Ohio University

Start and End Dates: 01/01/2019 - 12/31/2022

Contact: Peter Harrington Solicitation Number: NIJ-2018-13900

> Amount Requested: \$ 773,000

> > **HFSC Requested** \$ 355,322

Submitted Status:

Awarding Agency: NIJ

Discipline: Seized Drugs

Primary Recipient: Texas Southern University

Name of Project: W.E.B. Du Bois Scholars in Race and Crime Research Assessing the Impact of the No Lab, No Plea Policy

> This research serves to evaluate the No Lab, No Plea policy instituted in Harris County, Texas and to gauge how it impacts racial disproportionalities in the handling of drug offense

Purpose: cases. We also aim to determine whether reduced forensic

turnaround times and the analysis of forensic evidence are

related to sentencing outcomes.

Collaboration: Texas Southern University/HFSC **Start and End Dates:** 01/01/2019 - 12/31/2022 Contact: Howard Henderson

Solicitation Number: NIJ-2018-14220

Total Amount Requested: \$ 455,249.00 **HFSC Requested Funds:** \$ 112,357.00

Status: Submitted

Awarding Agency: NIJ

Discipline: Latent Prints

Primary Recipient: RTI

Name of Project: Applied Research and Development in Forensic Science for Criminal Justice Purposes

HFSC fully intends to collaborate and provide the resources to assist RTI in creating and validating the fingerprint database. We are able to assist in this research effort by providing the

Purpose:

time and expertise of 10 of our latent print examiners for the Selection and AFIS Team. We will also assist in recruiting 20

latent prints donors as part of the Detection Team.

Collaboration: HFSC

Start and End Dates: Start 01/01/2019 Contact: Heidi Eldridge

Solicitation Number: NIJ-2018-13600

Total Amount Requested:

Status: Letter of Support

Awarding Agency: NIJ

Discipline: Seized Drugs Primary Recipient: TSU/US/SHSU

"Applied Research and Development in Forensic Science for

Name of Project: Criminal Justice Purposes"

The Houston Forensic Science Center (HFSC) is pleased to offer our support to Texas Southern University with University of

Purpose: Houston and Sam Houston State University (the Partnership) for their proposal to develop a mobile sensor for multiplex

detection of "fentalogs" in street drugs.

Collaboration: HFSC

Start and End Dates: Start 01/01/2019

Contact: Ashraf Mozayani

Solicitation Number: NIJ-2018-13600

Total Amount Requested:

Status: Letter of Support