Table of Contents

• Agenda ........................................................................................................... Page 3
• November 18, 2019 Special Meeting Draft Minutes ......................... Page 6
• Proposed Board Resolution ...................................................................... Page 8
• President’s Report ....................................................................................... Page 13
• Operations Report ....................................................................................... Page 29
• Treasurer’s Report ....................................................................................... Page 34
• Crime Scene & Digital Multimedia Units Update ................................ Page 42
• Probabilistic Genotyping Report ............................................................... Page 114
• Facility Update ........................................................................................... Page 130
• Quality Report ............................................................................................ Page 133
Houston Forensic Science Center, Inc.

Board of Directors Meeting

January 10, 2020

Position 1 - Dr. Stacey Mitchell, Board Chair
Position 2 - Anna Vasquez
Position 3 - Philip Hilder
Position 4 - Francisco Medina
Position 5 - Janet Blancett
Position 6 - Dr. Robert McPherson
Position 7 - Vacant
Position 8 - Mary Lentschke, Vice Chair
Position 9 - Vacant
Ex-Officio - Tracy Calabrese
Notice is hereby given that beginning at 9 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 from November 18, 2019 special meeting. Consideration of proposed corrections, if any. Approval of minutes.

4. Public comment.

5. Report from Dr. Stacey Mitchell, board chair, including a monthly update of activities and other announcements.

6. Consider a resolution designating the annual selection of the Vice Chair of the Board of Directors, to coincide with the annual appointment of HFSC’s corporate officers, and possible related action.

Reports and presentations by corporate officers, and possible related action items

7. Report from Dr. Peter Stout, president and CEO, including technical updates, outreach efforts, staffing changes and other corporate business items.

8. Monthly operations report from Dr. Amy Castillo, vice president and COO, including a review of turnaround times and backlogs.

9. Report from Mr. David Leach, treasurer and CFO, regarding company financials and other fiscal updates.

Reports and presentations by staff

10. Report from Mr. Jerry Pena, director of CSU and digital multimedia evidence, on evidence collection, turnaround times and other updates.

11. Report from Ms. Robin Guidry, DNA technical lead, on HFSC’s validation and training for the implementation of probabilistic genotyping.
12. Report from Mr. Charles Evans, director of business development, regarding the Corporation’s completed facility project and move to 500 Jefferson, and an upcoming renovation project for the vehicle examination bay.

13. Report from Ms. Erika Ziemak, quality director, regarding quality assurance, including review of testimony monitoring, proficiency tests and corrective actions.


–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 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 session of the Board should be held or is required in relation to any items included in this Notice, then such closed or executive 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 the date, hour and place given in this Notice or as soon after the commencement of the noticed open meeting, for any and all purposes permitted by Section 551.071-551.089, inclusive, of the Open Meetings Act.

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 or vote be required in the opinion of the Board with regard to any matter considered in such closed or executive session, then such final action or vote shall be taken only in a meeting open to the public, including reconvening the open meeting covered by this Notice.

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 7th day of January, 2020
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 7th day of January 2020.

Jordan Benton
Houston Forensic Science Center, Inc.

SPECIAL MEETING OF BOARD OF DIRECTORS
MINUTES
November 18, 2019

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 November 18, 2019 special 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 posted on November 13, 2019, 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 Dr. Stacey Mitchell, board chairwoman, at approximately 8 a.m. on Monday November 18, 2019 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 during roll call: Dr. Stacey Mitchell, Philip Hilder, Anna Vasquez, Francisco Medina, Janet Blancett, Dr. Robert “Bob” McPherson and Mary Lentschke

Ms. Tracy Calabrese was absent

Chairwoman Mitchell declared a quorum was present

Dr. McPherson arrived at approximately 8:01 a.m. after the role was called. Chairwoman Mitchell asked board members if they had any changes to the October 11, 2019 board meeting minutes. The board did not request any changes. Mr. Hilder made a motion to approve the minutes. Ms. Vasquez seconded the motion. The motion passed unanimously.

E. Chairwoman Mitchell asked if members of the public wished to address the board. No one addressed the board.

F. Chairwoman Mitchell presented a chair’s report. Dr. Mitchell said HFSC’s grand opening was a success and she congratulated HFSC staff for completing the move to 500 Jefferson. Dr. Mitchell reminded the board about HFSC’s holiday party on December 14, which will be held at 500 Jefferson. She reminded members who had not already donated to fund the party to make donations to cover the remaining costs since HFSC does not use taxpayer dollars to fund
G. Chairwoman Mitchell requested the board approve the appointment of Director Mary Lentschke to serve as Vice Chair of the board. Mr. Hilder made a motion to approve. Ms. Blancett seconded the motion. The motion passed unanimously.

H. Chairwoman Mitchell requested the board approve a motion to renew the appointment of the Vice Chair position annually. She suggested the reappointment occur in June when the board appoints HFSC’s corporate officers. Ms. Akilah Mance, HFSC general counsel, recommended the board consider approving a Resolution to affirm the change at its January meeting. Dr. McPherson made a motion to approve Chairwoman Mitchell’s recommendation that the reappointment of the vice chair position occur every year in June. Ms. Vasquez seconded the motion. The motion passed unanimously.

I. Dr. Stout requested board approval to negotiate and enter into the Interagency Cooperative Agreement (ICA) between HFSC and the Houston Police Department (HPD.) Dr. Stout explained that the proposed ICA will reflect changes caused by HFSC’s move to an independent facility in 500 Jefferson. The agreement will provide a plan for the disposal of certain assets, define space sharing at the vehicle examination bay and outline accessibility between the parties to their respective computer networks, among other items. Ms. Blancett made a motion to approve. Mr. Medina seconded the motion. Ms. Mance requested the board authorize Dr. Stout to sign the finalized ICA prior to the next board meeting. Chairwoman Mitchell requested an amended vote. Ms. Blancett made a motion to approve the inclusion. Vice Chair Lentschke seconded the motion. The motion passed unanimously.

J. Dr. Stout requested board approval to negotiate and enter into agreement with a financial institution to manage the corporate employee retirement fund. He requested the authority to sign the agreement prior to the next board meeting. Dr. Stout said the new agreement will be more cost effective, offer lower fees for HFSC and its employees and have a broader selection of funds for staff to choose from. Vice Chair Lentschke made a motion to approve. Dr. McPherson seconded the motion. The motion passed unanimously.

K. Chairwoman Mitchell reminded the board that the December 13 board meeting is cancelled. Chairwoman Mitchell asked for a motion to adjourn the meeting. Dr. McPherson made a motion to adjourn. Mr. Medina seconded the motion. The meeting ADJOURNED at approximately 8:20 a.m.

By: _________________________________________
Jordan Benton Secretary
<table>
<thead>
<tr>
<th>Agenda Action Item No.:</th>
<th>6. Consider a resolution designating the annual selection of the Vice Chair of the Board of Directors, to coincide with the annual appointment of HFSC’s corporate officers, and possible related action.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject:</td>
<td>Resolution to designate the annual selection of the Board’s Vice Chair.</td>
</tr>
<tr>
<td>Background:</td>
<td>At the November 2019 special meeting of the Board, the Board of Directors voted to select a new Board Vice Chair, from among the directors, after the resignation of the previous Vice Chair. This selection prompted the Board to consider the appropriateness of selecting the Vice Chair on a reoccurring basis. After discussion, the Board voted to approve a motion to set the reoccurring selection/appointment of the Vice Chair of the Board.</td>
</tr>
<tr>
<td>Executive Summary:</td>
<td>Pursuant to the Corporation’s Bylaws Section 2.04, the Vice Chairman of the Board shall be selected from among the directors of the Board. The Vice Chair shall perform the duties and exercise the powers of the Chairman upon the Chairman’s death, absence, disability, resignation, or inability to perform the duties of the office. The Corporation’s Bylaws and Certificate of Formation do not set forth how often the Vice Chair shall be selected from among the directors or set a term of service in the position. The Board has voted to select or re-select the Vice Chair, at the annual Board meeting in which the Corporation’s Officers are appointed, pursuant to Article 5 of the Bylaws. The Board now considers the adoption of a Board resolution to memorialize this procedure relating to the Board’s management.</td>
</tr>
<tr>
<td>Fiscal Impact:</td>
<td>No anticipated additional fiscal impact.</td>
</tr>
<tr>
<td>Staff Recommendation:</td>
<td>No recommendation.</td>
</tr>
</tbody>
</table>
| By:                    | Stacey Mitchell, Board Chair 
Legal review by General Counsel |
RESOLUTION DESIGNATING THE ANNUAL SELECTION OF THE VICE CHAIR OF THE BOARD OF DIRECTORS.

WHEREAS, the Board of Directors (the “Board”) of Houston Forensic Science Center, Inc. (the “Corporation”) desires to designate the annual selection of the Board Vice Chair; and

WHEREAS, pursuant to Section 2.04 of the Corporation’s Bylaws, “from among its members the Board shall select a Vice Chairman of the Board”; and

WHEREAS, pursuant to Section 2.04 of the Corporation’s Bylaws, “the Vice Chairman shall perform the duties and exercise the powers of the Chairman upon the Chairman’s death, absence, disability, resignation, or inability to perform the duties of the office”; and

WHEREAS, the Corporation’s Bylaws and Certificate of Formation do not establish a term of service for the Board’s Vice Chair or provide for the reoccurring selection of the Vice Chair; and

WHEREAS, the Board has concluded that it is in the best interests of the Corporation to establish the annual selection of the Vice Chair and that such action will further the purposes for which the Corporation was created;

NOW THEREFORE, BE IT RESOLVED BY THE DIRECTORS OF THE CORPORATION:

SECTION 1. That the findings contained in the preamble of this Resolution are declared to be true and correct and are adopted as part of this Resolution.

SECTION 2. That this Resolution applies to the Directors of the Corporation.

SECTION 3. That the annual selection of the Vice Chair of the Board, shall be conducted in a manner consistent with the Corporation’s Bylaws.

SECTION 4. That the selection of the Vice Chair of the Board shall occur annually, at the Board’s annual meeting to appoint its Corporate Officers, as required by the Corporation’s Bylaws.

SECTION 5. That the Vice Chair of the Board, shall hold said position until the next annual meeting of the Board, at which meeting the Corporate Officers are appointed.

SECTION 6. That notwithstanding any provision of this Resolution, the Board may select a new Vice Chair upon the death, disability, resignation, or removal of the Vice Chair, or upon the expiration of the appointed term of the Director serving as Vice Chair.

SECTION 7: This Resolution shall become effective immediately upon passage by the Board of Directors.

ADOPTED this ____ day of _________________________, 2020.
The undersigned hereby certifies that this Resolution 2020-001 was duly adopted by the Board of Directors of Houston Forensic Science Center, Inc., on the _____ day of ________________, 2020.

Executed this ______ day of ______________________, 2020.

By:__________________________________

By:__________________________________

Jordan Benton, Secretary of the Board of Directors
SECTION 2.01. MANAGEMENT. Subject to the Certificate of Formation and these Bylaws, management of the affairs of the Corporation shall be vested in the directors, who together constitute the Board of Directors (the "Board").

SECTION 2.02. QUALIFICATIONS, APPOINTMENT, AND REMOVAL. The qualifications of the directors as well as the procedures for their appointment and removal shall be as prescribed by the Certificate of Formation.

SECTION 2.03. CHAIRMAN. The Chairman of the Board (the "Chairman") shall be selected as provided in the Certificate of Formation. In furtherance of the purposes of the Corporation and subject to any limitations contained in the Certificate of Formation and these Bylaws, the Chairman, by resolution of the Board, may execute all bonds, notes, deeds, conveyances, assignments, mortgages, notes, contracts, and other instruments of any kind in the name of the Corporation.

SECTION 2.04. VICE CHAIRMAN. From among its members the Board shall select a Vice Chairman of the Board. The Vice Chairman shall perform the duties and exercise the powers of the Chairman upon the Chairman's death, absence, disability, resignation, or inability to perform the duties of the office.

SECTION 2.11. PROCEDURES. At its meetings the Board shall consider matters related to the purpose of the Corporation in such order as the Board may determine. The Chairman shall preside at all meetings of the Board, except that the Vice Chairman shall preside when the Chairman is absent. In the absence of the Chairman and the Vice Chairman, a temporary chairman shall be chosen by the Board from among the directors present. The Secretary shall act as secretary of all meetings of the Board, but in the absence of the Secretary the presiding officer may appoint any person to act as secretary of the meeting. As required by Section 394.025 of the Texas Local Government Code (made applicable to the Corporation by Section 431.102 of the Texas Transportation Code), the Corporation shall keep minutes of the proceedings of the Board.
SECTION 5.01. APPOINTMENT OF OFFICERS. The Board shall appoint a President, a Vice President, a Secretary, and a Treasurer of the Corporation. The persons appointed may not be directors of the Corporation but may be employees of the City. The persons appointed shall hold the said offices until the next annual meeting of the Board, at which meeting the Board shall appoint (or reappoint) persons to hold the said offices until the next annual meeting, repeating the cycle annually. Any two or more offices, other than the offices of President and Secretary, may be held by the same person.
President’s Report

January 10, 2020
Average Turnaround Time for December 2019

- Biology: 152 days
- Latent Prints: 135 days
- Toxicology: 98 days
- Digital and Multimedia: 47 days
- Crime Scene Unit: 24 days
- Controlled Substances: 22 days
- Firearms: 11 days

Requests Completed by Section

- Digital and Multimedia: 68
- Latent Prints: 56
- Crime Scene Unit: 100
- Toxicology: 272
- Biology: 135
- Controlled Substances: 108
- Firearms: 195

Turnaround Time - Days
65

Completed Requests
974

This data is current as of 12/16/2019.
<table>
<thead>
<tr>
<th><strong>Staffing – January 2020</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• 192 staff</td>
</tr>
<tr>
<td>• 7 City of Houston civilians</td>
</tr>
<tr>
<td>• 199 HFSC employees</td>
</tr>
<tr>
<td>• 6 open positions, 3 offers accepted</td>
</tr>
<tr>
<td>• 3 crime scene investigators</td>
</tr>
<tr>
<td>• 4 active vacancies</td>
</tr>
<tr>
<td>• 2 crime scene investigator supervisors</td>
</tr>
<tr>
<td>• Forensic biology technical lead (job posted - future opening)</td>
</tr>
<tr>
<td>• 1 research and development</td>
</tr>
</tbody>
</table>
Certifications

• Adam Vinson – Molecular Biology Diplomate
  • American Board of Criminalistics (ABC)

• Brook Knapp – Drug Analysis Diplomate
  • American Board of Criminalistics (ABC)

• Cloressa Guidry – Drug Analysis Diplomate
  • American Board of Criminalistics (ABC)

• Doug Gotfredsen – Certified Mobile Examiner
  • Cellebrite

• Melissa Henry – Diplomate, Forensic Toxicology
  • American Board of Forensic Toxicology
The Big Move

January 10, 2020
The labs

• All labs operational

• Toxicology resumed blood alcohol analysis December 30
  • Drug analysis will resume later this year following validation of new instruments
NIJ Needs Assessment Report

• Mandated by Justice for All Act of 2016
• Put a price tag on the funding and resource gaps in forensics:
  • As of 2017 the gap is estimated at $640 million / year
• 570,000 backlogged requests nationally, largest number in seized drugs
• HFSC mentioned specifically for processes that offer solutions:
  • The posting of evidence submission guidelines on website helps improve quality of evidence handling, potentially increases efficiency
  • The latent print section’s preliminary investigative reports hailed as a process improvement
• Transparency and eDiscovery
Lydell Grant case
Lydell Grant: Background

• Lydell Grant convicted in 2012 for a 2010 fatal stabbing that occurred in the parking lot of a Montrose night club
• Conviction largely based on testimony from six eyewitnesses who identified Grant as the killer in a photo array
• DNA analyzed by the HPD crime lab was found to be inconclusive
• Innocence Project took the case. Additional testing and analysis done:
  • DPS uses new technology (probabilistic genotyping) to exclude Grant
  • 2010 findings sent to private company, analyzed again using probabilistic genotyping, DNA points to another suspect
  • HPD tracks suspect down in Atlanta. He confesses to the murder and is charged with murder in Houston
• Lydell Grant has been freed and will seek a ruling of “actual innocence”

WHAT HAPPENED?
DNA Reports

2010:

No conclusions will be made regarding Lydell Grant as a possible contributor to this DNA mixture.

2020:

The DNA mixture is not suitable for comparison due to an excessive number of contributors.

The minor component is not suitable for comparison due to insufficient data.
Q. It says: No conclusions will be made regarding Lydell Grant as a possible contributor to this DNA mixture. What does that mean?

A. It means that with a mixture now we're dealing with a lot more information. And when I sit down and look at the mixture and compare it to Lydell, I was not able to make a clear determination if he was a contributing individual to that mixture. I could not make a conclusion.

Q. So, in that circumstance, you could not exclude him from being a potential contributor to that DNA?

A. Correct.
What can we learn?

• Guard against “suspect driven conclusion”
• Policy, controls, proficiency, blind control
• Testimony monitoring, transcript review, testimony training
• Report language
• WILL be discussion and questions about CODIS entry and CODIS rules
• WILL be more discussion about eyewitness testimony and photo lineups
Nothing vast enters the lives of mortals without a curse.

-Sophocles, 441 BCE
The iceberg’s tip: CA man walks free bc of DNA-mixture SNAFU

It’s perhaps a testament to the reduction in size of and competition among MSM outlets that nobody has yet covered the problems with DNA-mixture forensics raised by federal District Judge Janet Neff of Michigan’s Western District* (discussed by Grits here and on the latest Reasonably Suspicious podcast). That must change; some full-time reporter(s) must step up. These issues deserve high-level coverage and national context that this humble, regional blog cannot provide.

Once you begin to pay attention, these cases are cropping up everywhere. In San Diego, we have the case of Flamencio Dominguez. In 2011, he was convicted of a 2008 murder based on DNA mixture evidence and sentenced to 50 years, reported the San Diego Union Tribune. Months before the trial, the crime lab realized the mathematics behind their old DNA-mixture analyses used an invalid baseline. They decided to abandon their old approach and switch to “probabilistic genotyping” instead.

(Similarly, in Texas in 2015, crime labs discovered every lab in the state was using erroneous math in DNA-mixture analyses in ways that risked falsely accusing innocent people, see coverage here and here. In Travis County alone, 11 cases were found where suspect matches changed to “inconclusive.” Our crime labs, too, were advised to switch to probabilistic genotyping.)
One also wonders if the good folks at the Houston Forensic Science Center, which late last month announced they would begin using the STR-Mix software, might now begin to consider that decision ill-timed? Certainly, after Judge Neff’s decision, one would question using it for either mixtures involving more than three sources or three-source mixtures where the target makes up less than 20 percent of the sample. Lots of trace-DNA samples are submitted to crime labs that don't meet those criteria!
Technology: Pros, cons, challenges

• Technology changes, scientists learn more, outcomes can change
• HFSC has an obligation to keep up with changes in science and technology
  • It can help with accuracy, quality
  • Sheds new light on old cases
  • Can put old conclusions into question
  • Raises questions about a crime lab’s obligation to look back
• Must improve to offer stakeholders the best information, but diverts HFSC resources and time to training, slowing down production
• Not being the first can be advantageous: learn from others' experiences, helps improve validations testimony
Operations Report

January 10, 2020
Highlights

• Forensic Biology/DNA update
January 2020 Company Overview

Open Quality Reports
38 Quality TAT
33% Goal: 35, 36

HFSC Request Turnaround Time
- HFSC TAT (Past 30 Days): 48
- HFSC TAT (Past 90 Days): 44

Section Request TAT (Past 30 Days)
- DNA: 100
- IBIS: 105
- Toxicology: 56
- Blood Alcohol: 35
- DFL: 40
- Late Latent: 32
- Firearms Exam: 21
- CSU Response: 18
- Seized Drugs: 18
- AV Examination: 10
- DME: 7
- NIBIN Only: 5
- AV Call Out: 2

At this time the CODIS TAT is not included in the overall HFSC TAT.

HFSC Request Backlog
- HFSC Backlog: 6318
- Outsource: 977
- DNA: 242
- Screening: 66

Section/Service Backlog Present if >15 requests are in the Backlog.
Forensic Biology/DNA Update

Backlog/Outsourcing
- Internal backlog: 242 (July 2018 internal backlog: 1,086)
- Backlogged outsourced cases: 312
- Backlogged cases awaiting CODIS review: 977
- Outsourced cases completed: 1,771

Training
- Screeners that completed training: 4
- Technicians that completed training: 7
- Report writers that completed DNA training: 1 full, 2 experienced new hires completed modified training program
- Report writers that had DNA training extended to include STRmix (probabilistic genotype) training: 6
- Report writers that completed STRmix training: 3
- Experienced report writers in STRmix training: 12
- Number of HFSC report writers after all training is completed: 11 full-time, 1 part-time, 9 support (largely do reviews)
Forensic Biology/DNA Challenges

• Facility move impacts casework capacity and training
• Commercial lab’s turnaround time 120 days
• Report writers initial training delayed due to government shutdown
• STRmix implementation/training longer than initially estimated
• Two report writers promoted internally
  • Only 5 full-time report writers until STRmix is training is complete
• Final batch of sexual assault kits will be outsourced due to lab shutdown during move
### Current Month (Preliminary)

<table>
<thead>
<tr>
<th></th>
<th>FY20</th>
<th>FY20</th>
<th>FY19</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dec. 2019</td>
<td>Budget</td>
<td>Dec. 2018</td>
<td>Budget - Actual</td>
</tr>
<tr>
<td># of Months</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Revenues:**

<table>
<thead>
<tr>
<th></th>
<th>$</th>
<th>$</th>
<th>$(2,013)</th>
<th>$</th>
<th>$(100)</th>
<th>$</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>411000</td>
<td>City of Houston-Appropriations</td>
<td>-</td>
<td>2,013</td>
<td>-</td>
<td>(2,013)</td>
<td>-100%</td>
<td>-</td>
</tr>
<tr>
<td>415000</td>
<td>City of Houston Direct OH-Appro</td>
<td>-</td>
<td>122</td>
<td>122</td>
<td>(122)</td>
<td>-100%</td>
<td>(122)</td>
</tr>
<tr>
<td>416000</td>
<td>City of Houston - Safe funds</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>420000</td>
<td>Contributions</td>
<td>-</td>
<td>1</td>
<td>6</td>
<td>(1)</td>
<td>100%</td>
<td>(6)</td>
</tr>
<tr>
<td>425000</td>
<td>In-Kind Donations</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>426000</td>
<td>Training Services</td>
<td>-</td>
<td>0</td>
<td>1</td>
<td>(1)</td>
<td>0%</td>
<td>0</td>
</tr>
<tr>
<td>440000</td>
<td>Grants</td>
<td>5</td>
<td>92</td>
<td>3</td>
<td>(87)</td>
<td>-96%</td>
<td>1</td>
</tr>
<tr>
<td>450000</td>
<td>Forensic Services</td>
<td>-</td>
<td>2</td>
<td>0</td>
<td>(2)</td>
<td>-100%</td>
<td>0</td>
</tr>
<tr>
<td>443000</td>
<td>Other</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>450020</td>
<td>Interest Income</td>
<td>10</td>
<td>0</td>
<td>1</td>
<td>10</td>
<td>10</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Total Income:** 15,231 | 131 | (2,216) | (99) | (117) | -89% | 25,172 | 13,385 | 23,778 | 11,787 | 88% | 1,396 | 6% | 26,771 | 94%

**Expenses:**

<table>
<thead>
<tr>
<th></th>
<th>FY20</th>
<th>FY20</th>
<th>FY19</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>July 1-Dec. 31, 2019</td>
<td>Budget</td>
<td>July 1-Dec. 31, 2018</td>
<td>Vs. Budget</td>
</tr>
<tr>
<td># of Months</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Personnel:**

|          | 1,143 | 1,227 | 1,121 | 84 | 7% | 7% | 82 | 22 | 7% | 61 | 7% | (22) | -2% | 6,814 | 7,360 | 6,813 | 546 | 7% | (200) | -3% | 14,729 | 46% |
|----------|-------|-------|-------|----|---|---|----|---|---|----|---|---|-----|---|-------|-------|-------|----|---|-----|---|-------|-----|
| 500010   | Salary Base - Civilian | 66 | 72 | 65 | 5 | 8% | 1 | (1) | -2% | 398 | 429 | 346 | 32 | 7% | 511 | -19% | 25,072 | 14,872 | 45% |
| 50100    | Pension - Civilian | 79 | 72 | 79 | 0 | 11% | (0) | -1% | 488 | 533 | 475 | 45 | 6% | (12) | -3% | 1,066 | 1,086 | 46% |
| 502010   | FICA - Civilian | 115 | 93 | 97 | (22) | -24% | (18) | -19% | 665 | 557 | 586 | (108) | -19% | (79) | -14% | 1,115 | 1,115 | 60% |
| 503015   | Health Insurance - Active Civil | 10 | 10 | 10 | 20 | 196% | 20 | 192% | 5 | 60 | 62 | 56 | 92% | 58 | 93% | 5 | 121 | 4% |
| 503060   | Long Term Disability - Civilian | - | - | - | - | 0% | - | - | 0% | - | - | - | - | 0% | - | 0% | - | - | - |
| 503090   | Workers Comp - Civilian Adm | 4 | 4 | 4 | 0 | 10% | (0) | -5% | 24 | 27 | 26 | 3 | 10% | 2 | 7% | 53 | 53 | 45% |
| 503100   | Workers Comp - Civil Claims | - | - | - | 0% | - | - | - | - | 0% | - | - | 0% | - | 0% | - | - | - |
| 504030   | Unemployment Claims - Admin | - | - | - | - | 0% | - | - | - | 0% | - | - | 0% | - | - | - | - | - |
| 504040   | Pension - GASB 27 Accrual | - | - | - | - | 0% | - | - | - | 0% | - | - | 0% | - | - | - | - | - |
| 504031   | Unemployment Taxes - Admin | 0 | 1 | 0 | 1 | 90% | (0) | -6% | 2 | 7 | 3 | 5 | 68% | 1 | 35% | 14 | 14 | 16% |

**Total Expenditures:** 1,388 | 1,496 | 1,376 | 97 | 7% | (22) | -2% | 8,395 | 8,973 | 8,112 | 579 | 6% | (283) | -3% | 17,047 | 47% |

**Supplies:**

<table>
<thead>
<tr>
<th></th>
<th>FY20</th>
<th>FY20</th>
<th>FY19</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>July 1-Dec. 31, 2019</td>
<td>Budget</td>
<td>July 1-Dec. 31, 2018</td>
<td>Vs. Budget</td>
</tr>
<tr>
<td></td>
<td>136</td>
<td>71</td>
<td>78</td>
<td>(65)</td>
</tr>
<tr>
<td></td>
<td>110</td>
<td>93</td>
<td>110</td>
<td>45</td>
</tr>
</tbody>
</table>

---

**HOUSTON FORENSIC SCIENCE CENTER, INC.**

**COMPARATIVE STATEMENT OF ACTIVITIES**

**ACCURAL BASIS**

For the Period July 1, 2019 through Dec. 31, 2019
### COMPARATIVE STATEMENT OF ACTIVITIES

**HOUSTON FORENSIC SCIENCE CENTER, INC.**

**ACCURRAL BASIS**

For the Period July 1, 2019 through Dec. 31, 2019

<table>
<thead>
<tr>
<th>Services:</th>
<th>FY20</th>
<th>FY19</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY20</td>
<td>FY19</td>
<td>Variance</td>
<td></td>
</tr>
<tr>
<td>Dec. 2019 Budget</td>
<td>Dec. 2018 Budget</td>
<td>FY20 - FY19 %</td>
<td></td>
</tr>
<tr>
<td>Budget - Actual %</td>
<td>FY20 - FY19 %</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Current Month (Preliminary)

<table>
<thead>
<tr>
<th>Services:</th>
<th>FY20</th>
<th>FY19</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY20</td>
<td>FY19</td>
<td>Variance</td>
<td></td>
</tr>
<tr>
<td>July 1-Dec. 31, 2019 Budget</td>
<td>July 1-Dec. 31, 2018 Budget</td>
<td>Vs. Budget %</td>
<td>Vs. FY19 %</td>
</tr>
</tbody>
</table>

#### YTD

<table>
<thead>
<tr>
<th>Services:</th>
<th>FY20</th>
<th>FY19</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY20</td>
<td>FY19</td>
<td>Variance</td>
<td></td>
</tr>
<tr>
<td>July 1-Dec. 31, 2019 Budget</td>
<td>July 1-Dec. 31, 2018 Budget</td>
<td>Vs. Budget %</td>
<td>Vs. FY19 %</td>
</tr>
</tbody>
</table>

#### FY20

<table>
<thead>
<tr>
<th>Services:</th>
<th>FY20</th>
<th>% Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY20</td>
<td>% Year</td>
<td></td>
</tr>
<tr>
<td>Budget V1</td>
<td>Completed</td>
<td></td>
</tr>
</tbody>
</table>

### Example Services

- **Temporary Personnel Services**
  - FY20: 0
  - FY19: -
  - Variance: -

- **Accounting & Auditing Svcs**
  - FY20: 6
  - FY19: 4
  - Variance: (2) -56%

- **Building Maintenance Services**
  - FY20: 34
  - FY19: -34
  - Variance: -(34) -100%

- **Credit/Bank Card Svcs**
  - FY20: -1
  - FY19: 2
  - Variance: -33% -73%

- **Management Consulting Services**
  - FY20: -67%
  - FY19: 18%
  - Variance: -(67) -80%

- **Criminal Intelligence Services**
  - FY20: -80%
  - FY19: 0%
  - Variance: -(80) -100%

- **Supplies**
  - FY20: 0
  - FY19: -
  - Variance: -

- **Misc Support Serv Recruit Relo**
  - FY20: 526
  - FY19: 0
  - Variance: 526 -100%

- **Travel - Non-training Related**
  - FY20: 95
  - FY19: 0
  - Variance: 95 -100%

- **Tuition Reimbursement**
  - FY20: -7%
  - FY19: 0%
  - Variance: -(7) -100%

- **Vehicle & Equipment Rental/Lease**
  - FY20: 158
  - FY19: 0
  - Variance: 158 -100%

- **Sub-contractor (COH-HPD) Total**
  - FY20: 64
  - FY19: 1
  - Variance: 63 -99%

<table>
<thead>
<tr>
<th>Total Services</th>
<th>FY20</th>
<th>% Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>264</td>
<td>18</td>
<td>2084%</td>
</tr>
</tbody>
</table>

**Notes:**
- All percentages are calculated based on the comparison of FY20 to FY19 data.
- Variance is indicated with positive numbers for increases and negative numbers for decreases.
- Budget V1 and Completed columns indicate the budget values and completion status.
# HOUSTON FORENSIC SCIENCE CENTER, INC.
## COMPARATIVE STATEMENT OF ACTIVITIES - ACCRUAL BASIS
For the Period July 1, 2019 through Dec. 31, 2019

### Current Month (Preliminary)

<table>
<thead>
<tr>
<th>FY20</th>
<th>FY20</th>
<th>FY19</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec. 2019</td>
<td>Budget</td>
<td>Dec. 2018</td>
<td>Budget - Actual</td>
</tr>
<tr>
<td>Non-Capital Expenditures</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>551010 Furniture and Fixtures</td>
<td>1</td>
<td>4</td>
<td>-</td>
</tr>
<tr>
<td>551015 Computer Hardware/SW</td>
<td>5</td>
<td>14</td>
<td>-</td>
</tr>
<tr>
<td>551025 Scientific/Foren Eqmt</td>
<td>-</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Total Non-Capital Expenditures</td>
<td>6</td>
<td>20</td>
<td>2</td>
</tr>
<tr>
<td>Capital Expenditures</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>170140 Improvements</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>170210 Furniture &amp; Fixtures</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>170230 Computer Hardware/SW</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>170240 Scientific/Foren Eqmt</td>
<td>56</td>
<td>7</td>
<td>-</td>
</tr>
<tr>
<td>170270 500 Jefferson - Intangible</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>170900 Const in Progress</td>
<td>121</td>
<td>8</td>
<td>-</td>
</tr>
<tr>
<td>Total Capital Expenditures</td>
<td>177</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Total Expense and Capital Before Depreciation</td>
<td>1,935</td>
<td>2,056</td>
<td>1,915</td>
</tr>
<tr>
<td>561230 Depreciation</td>
<td>143</td>
<td>42</td>
<td>42</td>
</tr>
<tr>
<td>60003 Reconciliation Discrepancies</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>570505 FA Gain/Loss</td>
<td>90</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>531085 Interest Expense</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>610000 City of Houston Direct Overhead</td>
<td>-</td>
<td>33</td>
<td>122</td>
</tr>
<tr>
<td>620000 HPD-Reimbursed Expenses</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total Expense and Capital After Depreciation</td>
<td>2,168</td>
<td>2,131</td>
<td>2,078</td>
</tr>
<tr>
<td>Net Ordinary Income less capital spending</td>
<td>(2,153)</td>
<td>(1,947)</td>
<td>(2,179)</td>
</tr>
</tbody>
</table>

### YTD

<table>
<thead>
<tr>
<th>FY20</th>
<th>FY20</th>
<th>FY19</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 1-Dec. 31, 2019</td>
<td>Budget</td>
<td>July 1-Dec. 31, 2018</td>
<td>Vs. Budget</td>
</tr>
<tr>
<td>FY20</td>
<td>FY19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Budget V1</td>
<td>Completed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Capital Expenditures</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>551010 Furniture and Fixtures</td>
<td>263</td>
<td>26</td>
<td>19</td>
</tr>
<tr>
<td>551015 Computer Hardware/SW</td>
<td>107</td>
<td>84</td>
<td>23</td>
</tr>
<tr>
<td>551025 Scientific/Foren Eqmt</td>
<td>11</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>Total Non-Capital Expenditures</td>
<td>381</td>
<td>120</td>
<td>45</td>
</tr>
<tr>
<td>Capital Expenditures</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>170140 Improvements</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>170210 Furniture &amp; Fixtures</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>170230 Computer Hardware/SW</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>170240 Scientific/Foren Eqmt</td>
<td>95</td>
<td>42</td>
<td>8</td>
</tr>
<tr>
<td>170270 500 Jefferson - Intangible</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>170900 Const in Progress</td>
<td>8</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total Capital Expenditures</td>
<td>107</td>
<td>42</td>
<td>0</td>
</tr>
<tr>
<td>Total Expense and Capital Before Depreciation</td>
<td>12,836</td>
<td>12,336</td>
<td>11,623</td>
</tr>
<tr>
<td>561230 Depreciation</td>
<td>856</td>
<td>252</td>
<td>252</td>
</tr>
<tr>
<td>60003 Reconciliation Discrepancies</td>
<td>21</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>570505 FA Gain/Loss</td>
<td>21</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>531085 Interest Expense</td>
<td>542</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>610000 City of Houston Direct Overhead</td>
<td>327</td>
<td>196</td>
<td>730</td>
</tr>
<tr>
<td>620000 HPD-Reimbursed Expenses</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total Expense and Capital After Depreciation</td>
<td>14,083</td>
<td>12,785</td>
<td>12,604</td>
</tr>
<tr>
<td>Net Ordinary Income less capital spending</td>
<td>10,589</td>
<td>601</td>
<td>11,171</td>
</tr>
</tbody>
</table>
## HOUSTON FORENSIC SCIENCE CENTER, INC.
### COMPARATIVE STATEMENT OF NET POSITION
#### By Quarter
##### (in '000's)

<table>
<thead>
<tr>
<th></th>
<th>Preliminary</th>
<th>As of 09/30/19</th>
<th>As of 06/30/19</th>
<th>As of 03/31/19</th>
<th>As of 12/31/18</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASSETS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash and Cash Equivalents</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bank of Texas-Operating</td>
<td>$12,596</td>
<td>$18,538</td>
<td>$1,124</td>
<td>$6,670</td>
<td>$12,657</td>
</tr>
<tr>
<td>Total Current Assets</td>
<td>12,596</td>
<td>18,538</td>
<td>1,124</td>
<td>6,670</td>
<td>12,657</td>
</tr>
<tr>
<td>Accounts Receivable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounts Receivable</td>
<td>42</td>
<td>209</td>
<td>1,063</td>
<td>669</td>
<td>16</td>
</tr>
<tr>
<td>Total Accounts Receivable</td>
<td>42</td>
<td>209</td>
<td>1,063</td>
<td>669</td>
<td>16</td>
</tr>
<tr>
<td>Capital Assets Net of Depreciation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capital Assets</td>
<td>37,927</td>
<td>37,657</td>
<td>37,654</td>
<td>37,533</td>
<td>6,218</td>
</tr>
<tr>
<td>Accumulated Depreciation</td>
<td>(3,181)</td>
<td>(2,753)</td>
<td>(2,335)</td>
<td>(1,918)</td>
<td>(1,887)</td>
</tr>
<tr>
<td>Total Net Capital Assets</td>
<td>34,746</td>
<td>34,904</td>
<td>35,319</td>
<td>35,615</td>
<td>4,331</td>
</tr>
<tr>
<td>Other Assets</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prepaid - HR</td>
<td>(5)</td>
<td>8</td>
<td>-</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Prepaid - Insurance</td>
<td>59</td>
<td>50</td>
<td>54</td>
<td>61</td>
<td>88</td>
</tr>
<tr>
<td>Prepaid - Service Agreements</td>
<td>224</td>
<td>255</td>
<td>129</td>
<td>131</td>
<td>226</td>
</tr>
<tr>
<td>Prepaid - Other</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>145</td>
<td>61</td>
</tr>
<tr>
<td>Total Other Assets</td>
<td>282</td>
<td>317</td>
<td>184</td>
<td>339</td>
<td>375</td>
</tr>
<tr>
<td><strong>TOTAL ASSETS</strong></td>
<td>$47,666</td>
<td>$53,967</td>
<td>$37,690</td>
<td>$43,292</td>
<td>$17,379</td>
</tr>
<tr>
<td><strong>LIABILITIES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounts Payables</td>
<td>$300</td>
<td>$790</td>
<td>$388</td>
<td>$3</td>
<td>$152</td>
</tr>
<tr>
<td>Payroll Tax Liability</td>
<td>996</td>
<td>994</td>
<td>1,603</td>
<td>552</td>
<td>490</td>
</tr>
<tr>
<td>Other Liabilities, Including Fund 2213 Billing</td>
<td>191</td>
<td>127</td>
<td>127</td>
<td>63</td>
<td>260</td>
</tr>
<tr>
<td>500 Jefferson Lease Liability</td>
<td>31,840</td>
<td>31,928</td>
<td>31,920</td>
<td>31,911</td>
<td></td>
</tr>
<tr>
<td>Deferred - Others</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>248</td>
</tr>
<tr>
<td>Total Liabilities</td>
<td>33,333</td>
<td>33,846</td>
<td>34,044</td>
<td>32,536</td>
<td>1,150</td>
</tr>
<tr>
<td><strong>NET POSITION/FUND BALANCE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unrestricted/Unassigned</td>
<td>11,426</td>
<td>17,146</td>
<td>248</td>
<td>7,053</td>
<td>11,898</td>
</tr>
<tr>
<td>Net Investment in Capital Assets</td>
<td>2,906</td>
<td>2,976</td>
<td>3,399</td>
<td>3,703</td>
<td>4,331</td>
</tr>
<tr>
<td>Total Net Position</td>
<td>14,333</td>
<td>20,121</td>
<td>3,647</td>
<td>10,756</td>
<td>16,229</td>
</tr>
<tr>
<td><strong>TOTAL LIABILITIES AND NET POSITION</strong></td>
<td>$47,666</td>
<td>$53,967</td>
<td>$37,690</td>
<td>$43,292</td>
<td>$17,379</td>
</tr>
</tbody>
</table>
## Awarded

<table>
<thead>
<tr>
<th>Awarding Agency:</th>
<th>USDOJ-OJP-NIJ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of Project:</td>
<td>NIJ FY 17 DNA Capacity Enhancement and Backlog Reduction Program</td>
</tr>
<tr>
<td>Start and End Dates:</td>
<td>01/01/2018 - 12/31/2019</td>
</tr>
<tr>
<td>Contact:</td>
<td>Monte Evans</td>
</tr>
<tr>
<td>Award Number:</td>
<td>2017-DN-BX-0027</td>
</tr>
<tr>
<td>Amount of Award:</td>
<td>$867,755</td>
</tr>
<tr>
<td>Grant Inception to date:</td>
<td>$(847,849)</td>
</tr>
<tr>
<td>Grant Balance:</td>
<td>$19,906</td>
</tr>
<tr>
<td>Status:</td>
<td>Awarded</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Awarding Agency:</th>
<th>USDOJ-OJP-NIJ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of Project:</td>
<td>Cap Enhancement for Drug and DNA Testing in Sexual Assault Cases</td>
</tr>
<tr>
<td>Start and End Dates:</td>
<td>01/01/2018 - 12/31/2020</td>
</tr>
<tr>
<td>Contact:</td>
<td>Monte Evans</td>
</tr>
<tr>
<td>Award Number:</td>
<td>2017-DN-BX-0176</td>
</tr>
<tr>
<td>Amount of Award:</td>
<td>$114,000</td>
</tr>
<tr>
<td>HFSC Match:</td>
<td>$38,000</td>
</tr>
<tr>
<td>Grant Inception to date:</td>
<td>$(999)</td>
</tr>
<tr>
<td>Grant Balance:</td>
<td>$151,001</td>
</tr>
<tr>
<td>Status:</td>
<td>Awarded</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Awarding Agency:</th>
<th>University of Virginia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of Project:</td>
<td>Quality Blind Testing Research</td>
</tr>
<tr>
<td>Start and End Dates:</td>
<td>11/26/2018 - 05/31/2019</td>
</tr>
<tr>
<td>Contact:</td>
<td>Lynn Boyter</td>
</tr>
<tr>
<td>Award Number:</td>
<td>2018 CSAFE</td>
</tr>
<tr>
<td>Amount of Award:</td>
<td>$59,000</td>
</tr>
<tr>
<td>Grant Inception to date:</td>
<td>$(62,177)</td>
</tr>
<tr>
<td>Grant Balance:</td>
<td>$(3,177)</td>
</tr>
<tr>
<td>Status:</td>
<td>Sub Award</td>
</tr>
</tbody>
</table>
**Awarding Agency:** USDOJ-OJP-NIJ  
**Name of Project:** NIJ FY 18 DNA Capacity Enhancement and Backlog Reduction Program  
**Start and End Dates:** 01/01/2019 - 12/31/2020  
**Contact:** Shelia Anderson

<table>
<thead>
<tr>
<th>Award Number</th>
<th>Award Bal. Expenditure Reported</th>
<th>Current Receivable</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018-DN-BX-0096</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Charles Heurich</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014-DN-BX-0116</td>
<td>$1,530,927</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Amount of Award</th>
<th>Grant Inception to date</th>
<th>Grant Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>$942,330</td>
<td>$684,044</td>
<td>$258,286</td>
</tr>
<tr>
<td>$588,597</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Status:** Sub - Award

---

**Awarding Agency:** USDOJ-OJP-NIJ  
**Discipline:** Seized Drugs  
**Primary Recipient:** HFSC  
**Federal Program:** 2018 Research and Evaluation for the Testing and Interpretation of Physical Evidence in Publicly Funded Forensic Laboratories  
**Solicitation Number:** NIJ-2018-13900

**Name of Project:** Establishing Sufficiency Thresholds for Assessing the Quality of Mass Spectral Data  
**Purpose:** This study proposes to initiate and test the development of a sufficiency standard that can be used as a model for the 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 - 12/31/2019  
**Contact:** Peter Harrington

<table>
<thead>
<tr>
<th>Award Number</th>
<th>Award Bal. Expenditure Reported</th>
<th>Current Receivable</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018-DU-BX-0184</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Award Date: 9/27/2018</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Amount of Award</th>
<th>Grant Inception to date</th>
<th>Grant Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>$282,703</td>
<td>$40,148</td>
<td>$40,148</td>
</tr>
</tbody>
</table>

**Subrecipient:** Ohio University  
**Subrecipient Official:** P. Maureen Valentine  
**Contact:** Peter Harrington

<table>
<thead>
<tr>
<th>Subaward Total</th>
<th>Grant Inception to date</th>
<th>Grant Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>$108,021</td>
<td>$11,591</td>
<td>$11,591</td>
</tr>
</tbody>
</table>

**Status:** Awarded

---
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 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.
Crime Scene and Multimedia

January 10, 2020
Crime Scene Unit

• Two supervisors have resigned
• Posted internally, provides opportunity for growth for CSIs
• Will leave two vacancies among the investigators
New cars
Detail data
Key for Dashboard Section Pages

Report type

- Center of ring = total pending cases
- Ring = breakdown of age for all pending cases
- TAT = Turnaround Time
- MTD = Month to date
- Critical age = 30 days
- Critical pending = requests open over 30 days

### Pending work

- **# of Unassigned**
- **# Pending Draft**
- **# Pending Tech**
- **# Pending Admin**

### Pending quality reports

- Open Quality Reports
- Quality TAT

### Total Pending Requests

- Days Old: 0-15, 16-30, 31-60, 61-90, 91-120, >121
- Goal: Threshold for the max # of requests in each bucket

### TAT by Phase of Work (MTD)

- JT-Assign TAT MTD
- JT-Draft TAT MTD
- JT-Tech Review TAT MTD
- JT-Admin Review TAT MTD

### TAT by Phase of Work (Past 90 Days)

- Avg time to close quality reports

### Month to Date

- Completed: 613
- Received: 623

### 30 Day Avg (Over Past 90 Days)

- Completed: 592
- Received: 588
Key for Dashboard Historical Pages 2/2

Received by Month

Total Received
7,689
Received per Month (Avg)*
591

Completed by Month

Total Completed
7,728
Completed per Month (Avg)*
594

* months with zero activity are not calculated into the average
Client Services and Case Management (CS/CM)
CS/CM – December Evidence Handling

Total Time by Section (Hours)
See Time Categories by Section slide for breakdown

- Seized Drugs: 5.03
- Other: 4.48
- Morgue Run: 3.97
- Firearms: 3.05
- Biology: 18.77
- Digital & Multimedia: 90.88
- Toxicology: 27.35
- Latent Print Comparison: 7.71
- Latent Print Processing: 0.23

Total Items by Section

- Seized Drugs: 340
- Other: 138
- Morgue Run: 76
- Firearms: 208
- Biology: 980
- Digital & Multimedia: 619
- Toxicology: 393
- Latent Print Comparison: 8
- Latent Print Processing: 3

Total: 980
CS/CM – December

Administrative

Requests by Type

- Subpoena for Records, 11
- Discovery, 35
- Supplemental Discovery, 4
- 3914 Request, 2
- Chapter 64, 1
- Errors, 4
- Other, 0

Subpoenas & Record Requests

- Subpoenas
- Records Requests

- ALR, 272

- September
- October
- November
- December
Received by Month

- **Total Received**: 5,090
- **Received per Month (Avg)**: 509

Completed by Month

- **Total Completed**: 5,307
- **Completed per Month (Avg)**: 531

*months with zero activity are not calculated into the average*
# of Unas 0  Pending Draft 1
Goal: 3 (+100%)  Goal: 5 (+80%)

Justice Trax Past Critical Age 0
NaN
Avg Age of Requests > 30 Days 0
Age-Oldest Unassigned 8
Age-Oldest Pending Draft 0
Age-Oldest Pending Tech 0
Age-Oldest Pending Admin 0

Total Pending Requests

Days Old
- 0-15
- 16-30
- 31-60
- 61-90
- 91-120
- >121

TAT by Phase of Work (MTD)

TAT by Phase of Work (Past 90 Days)

Open Quality Reports

<table>
<thead>
<tr>
<th>Qualtrax ID</th>
<th>Workflow #</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>52876</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td>55888</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>55940</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

Quality TAT 25
Goal: 30, 31

Avg Age of Open Reports

NaN

Month to Date

Completed 13
Received 14

30 Day Avg (Over Past 90 Days)

Completed 15
Received 15
Seized Drugs
**Received by Month**

Total Received: 7,064

Received per Month (Avg)*: 543

**Completed by Month**

Total Completed: 6,991

Completed per Month (Avg)*: 538

* months with zero activity are not calculated into the average
Toxicology
Received by Month

<table>
<thead>
<tr>
<th>Month</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 2019</td>
<td>416</td>
</tr>
<tr>
<td>April 2019</td>
<td>461</td>
</tr>
<tr>
<td>May 2019</td>
<td>391</td>
</tr>
<tr>
<td>June 2019</td>
<td>413</td>
</tr>
<tr>
<td>July 2019</td>
<td>571</td>
</tr>
<tr>
<td>August 2019</td>
<td>506</td>
</tr>
<tr>
<td>September 2019</td>
<td>603</td>
</tr>
<tr>
<td>October 2019</td>
<td>532</td>
</tr>
<tr>
<td>November 2019</td>
<td>442</td>
</tr>
<tr>
<td>December 2019</td>
<td>556</td>
</tr>
</tbody>
</table>

Total Received: 4,926

Received per Month (Avg)*: 493

Completed by Month

<table>
<thead>
<tr>
<th>Month</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 2019</td>
<td>339</td>
</tr>
<tr>
<td>April 2019</td>
<td>213</td>
</tr>
<tr>
<td>May 2019</td>
<td>420</td>
</tr>
<tr>
<td>June 2019</td>
<td>297</td>
</tr>
<tr>
<td>July 2019</td>
<td>277</td>
</tr>
<tr>
<td>August 2019</td>
<td>543</td>
</tr>
<tr>
<td>September 2019</td>
<td>566</td>
</tr>
<tr>
<td>October 2019</td>
<td>395</td>
</tr>
<tr>
<td>November 2019</td>
<td>204</td>
</tr>
<tr>
<td>December 2019</td>
<td>285</td>
</tr>
</tbody>
</table>

Total Completed: 3,547

Completed per Month (Avg)*: 355

* months with zero activity are not calculated into the average
Total Pending Requests: 733
- Days Old:
  - 0-15: 26
  - 16-30: 80
  - 31-60: 82
  - 61-90: 173
  - 91-120: 174
  - >121: 198

Justice Trax Past Critical Age: 627
- Avg Age of Requests > 30 D: 101
- Age Oldest Unassigned: 145
- Age Oldest Pending Draft: 187
- Age Oldest Pending Tech: 117
- Age Oldest Pending Admin: 112

Open Quality Reports:
- Qualtrax ID
- Workflow #: 32
- Age: Goal: 30, 31

Quality TAT: 32 (Goal: 30, 31)

Avg Age of Open Reports: NaN

TAT by Phase of Work (MTD):
- JT-Assign TAT MTD: 49.4
- JT-Draft TAT MTD: 37.0
- JT-Tech Review TAT MTD: 8.1
- JT-Admin Review TAT MTD: 6.2

TAT by Phase of Work (Past 90 Days):
- JT-Assign TAT Past 90 Days: 59.6
- JT-Draft TAT Past 90 Days: 62.6
- JT-Tech Review TAT Past 90 Days: 5.7
- JT-Admin Review TAT Past 90 Days: 12.6

Month to Date:
- Completed: 34
- Received: 106

30 Day Avg (Over Past 90 Days):
- Completed: 99
- Received: 129
**Received by Month**

- Total Received: 1,324
- Received per Month (Avg)*: 132

**Completed by Month**

- Total Completed: 617
- Completed per Month (Avg)*: 62

* months with zero activity are not calculated into the average
Firearms
Received by Month

- Total Received: 330
- Received per Month (Avg): 33

Completed by Month

- Total Completed: 322
- Completed per Month (Avg): 32

* months with zero activity are not calculated into the average
Date Range

3/1/2019 - 12/31/2019

Total TAT by Month

Requests Completed

Received to Complete

3025 Requests Completed
48 Requests Completed > 30 Days Old
1.59 %

Requests more than 30 days old are considered to be backlogged requests.
**Received by Month**

- Total Received: 3,016
- Received per Month (Avg)*: 302

**Completed by Month**

- Total Completed: 3,025
- Completed per Month (Avg)*: 303

*months with zero activity are not calculated into the average
Received Filter

Total Received: 877
Received per Month (Avg)*: 67

Completed Filter

Total Completed: 1074
Completed per Month (Avg)*: 83

* months with zero activity are not calculated into the average
Forensic Biology-Outsourcing

Original project timeline: August 2018 to September 2019
845 outsourced cases pending CODIS review (170 in process)
204 outsourced cases pending @ Bode
Bode plans to have all testing completed by October 31, 2019
Next focus: STRmix training and outsource reviews

SAKs shipped: 1080
SAKs completed: 879
Non-SAKs shipped: 661
Non-SAKs completed: 658

Critical issues
- The in-house review of all outsourced casework
- Bode delayed turnaround time for SAKs
- Current turnaround time ~120 days
- Outsource extension needed due to STRmix implementation and training

Total Cases Shipped: 1741
Cases Returned: 1537
Cases Reviewed: 158
Forensic Biology -- Outsourcing

DNA Outsourcing

- Total Outsource Reports Issued to Requestor
- Total Cases outsourced/tagged for outsource

Reviews of Outsource Reports

- Outsource Reviews Pending
- Outsource Reviews Completed
# Total Pending Requests

65 Past Critical Age
50 Avg Age of Requests > 30
0 Age Oldest Unassigned PL
76 Age Oldest Pending Draft...
70 Age Oldest Pending Tech...
48 Age Oldest Pending Admin...

# TAT by Phase of Work (MTD)

Overall TAT (Month to Date)
40.1
Overall TAT (Past 90 Days)
32.6

# Quality TAT

44
Goal: 40, 41

Avg Ago of Open Reports
119
Total TAT by Month

Requests Completed

Received to Complete

50.59
Total TAT (Rec'd-Compl.) Avg
50.16
Assigned TAT (Asgmt.-Compl.) Avg

921
Requests Completed
453
Requests Completed > 30 Days
49.19 %
% Completed > 30 Days

Requests more than 30 days old are considered to be backlogged requests.
**Received by Month**

- Total Received: 893
  - Received per Month (Avg)*: 69

**Completed by Month**

- Total Completed: 921
  - Completed per Month (Avg)*: 77

* months with zero activity are not calculated into the average
Total Received
1717
Received per Month (Avg)* 132

Total Completed
1778
Completed per Month (Avg)* 137

* months with zero activity are not calculated into the average
Latent Prints
Requests Received after 2/1/2019 (to allow for targets on incoming requests vs historical backlog)

- **Total Pending Requests**: 11...
  - Days Old:
    - 0-15: 137
    - 16-30: 13
    - 31-60: 26
    - 61-90: 16
    - 91-120: 17
    - >121: 1

- **Justic Trax Past Critical Age**: 299
- **Avg Age of Requests > 30 Days**: 140
- **Age-Oldest Unassigned**: 228
- **Age-Oldest Pending Draft**: 210
- **Age-Oldest Pending Tech**: 0
- **Age-Oldest Pending Admin**: 0

**TAT by Phase of Work (MTD)**
- **IT-Assign TAT MTD**: 148.3
- **IT-Draft TAT MTD**: 86.6
- **IT-Tech Review TAT MTD**: 13.5
- **IT-Admin Review TAT MTD**: 13.5

**TAT by Phase of Work (Past 90 Days)**
- **Month to Date**:
  - Completed: 139
  - Received: 183

**30 Day Avg (Over Past 90 Days)**
- Completed: 108
- Received: 186

**Open Quality Reports**
- Quoltrax ID 2019-028: 163
- Quoltrax ID 2019-092: 19
- Quoltrax ID 2019-028: 15

**Quality TAT**
- **30 Days**:
  - Goal: 40, 41
- **Avg Age of Open Reports**
  - 91

**Quality Filter**
- Latent Prints
- Latent Prints
Requests Received prior to 2/1/2019 (to allow for targets on incoming requests vs historical backlog)

Total Pending Requests

- Days Old
  - 0-15
  - 16-30
  - 31-60
  - 61-90
  - 91-120
  - >121

1272

Overall TAT

- (Month to Date)
  - 904.9!
  - Goal: 45, 46

- (Past 90 Days)
  - 823.4!
  - Goal: 45, 46

TAT by Phase of Work (MTD)

- IT-Assign TAT MTD
- IT-Draft TAT MTD
- IT-Tech Review TAT MTD
- IT-Admin Review TAT MTD

TAT by Phase of Work (Past 90 Days)

Open Quality Reports

- Qualtrax ID
  - 44789 2019-028
  - 52313
  - 54587 2019-092
  - 54309
  - 55214
  - 55617
  - 55637

- Workflow #
  - 163
  - 55
  - 19
  - 15
  - 12
  - 7

- Age
  - 7

Average Age of Open Reports

- 91

Quality TAT

- 30
  - Goal: 40, 41

Month to Date

- Completed
  - 8

- Received
  - 0

30 Day Avg (Over Past 90 Days)

- Completed
  - 6

- Received
  - 0
Received by Month

Total Received
2,706

Received per Month (Avg)*
208

Completed by Month

Total Completed
1,696

Completed per Month (Avg)*
130

* months with zero activity are not calculated into the average
**Date Range**
12/1/2018  12/31/2019

**Total TAT by Month**

- Received Assign TAT
- Assigned TAT
- Total TAT

**Requests Completed**

- Requests Completed within 30 Days
- Requests Completed > 30 Days Old
- Total Completed

**Selected Time Frame Averages**

- Total TAT (Recd-Compil.) Avg: 72.25
- Assigned TAT (AsgnL-Compil.) Avg: 28.18

**Received to Complete**

- 444 Requests Completed
- 293 Requests Completed > 30 Days Old
- 65.99% % Completed > 30 Days Old

Requests more than 30 days old are considered to be backlogged requests.
Total Received
585
Received per Month (Avg)*
45

Total Completed
444
Completed per Month (Avg)*
34

* months with zero activity are not calculated into the average
Digital Multi-Media
Received by Month

Total Received
97
Received per Month (Avg)*
10

Completed by Month

Total Completed
95
Completed per Month (Avg)*
10

* months with zero activity are not calculated into the average
**Received by Month**

Total Received: 140

Received per Month (Avg)*: 14

**Completed by Month**

Total Completed: 144

Completed per Month (Avg)*: 14

* months with zero activity are not calculated into the average
# of Unassigned

<table>
<thead>
<tr>
<th># of Unassigned</th>
<th># Pending Draft</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>8</td>
</tr>
</tbody>
</table>

Goal: 50 (50%)

Goal: 5 (60%)

# Pending Tech

<table>
<thead>
<tr>
<th># Pending Tech</th>
<th># Pending Admin</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Goal: 5 (80%)

Goal: 5 (80%)

### Open Quality Reports

<table>
<thead>
<tr>
<th>Qualtrax ID</th>
<th>Workflow #</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>54037</td>
<td>2019-088</td>
<td>28</td>
</tr>
<tr>
<td>55649</td>
<td></td>
<td>7</td>
</tr>
</tbody>
</table>

### Quality TAT

<table>
<thead>
<tr>
<th>Quality Filter</th>
<th>TAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital Forensics</td>
<td>14</td>
</tr>
</tbody>
</table>

Goal: 30, 31

### Total Pending Requests

- Days Old:
  - 0-15
  - 16-30
  - 31-60
  - 61-90
  - 91-120
  - >121

### Overall TAT (Month to Date)

- 57.7%
  - Goal: 45, 46

### Overall TAT (Past 90 Days)

- 61.8%
  - Goal: 45, 46

### TAT by Phase of Work (MTD)

- JT-Assign TAT MTD
- JT-Draft TAT MTD
- JT-Tech Review TAT MTD
- JT-Admin Review TAT MTD

### TAT by Phase of Work (Past 90 Days)

#### Month to Date

- Completed: 72
- Received: 46

#### 30 Day Avg (Over Past 90 Days)

- Completed: 72
- Received: 48
Service | Priority Type
--- | ---
DME | All

# of Unassigned | # Pending Draft
--- | ---
21 | 2

Goal: 0
Goal: 30 (+93.33%)

# Pending Tech | # Pending Admin
--- | ---
0 | 0

Goal: 30 (+100%)
Goal: 30 (+100%)

Goal= Threshold for the max # of requests in each bucket

23 Justice Trax Past Critical Age
128 Avg Age of Requests > 30 Days
174 Age-Oldest Unassigned
169 Age-Oldest Pending Draft
0 Age-Oldest Pending Tech
0 Age-Oldest Pending Admin

Total Pending Requests

<table>
<thead>
<tr>
<th>Days Old</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-15</td>
<td>5</td>
</tr>
<tr>
<td>16-30</td>
<td>6</td>
</tr>
<tr>
<td>31-60</td>
<td>0</td>
</tr>
<tr>
<td>61-90</td>
<td>0</td>
</tr>
<tr>
<td>91-120</td>
<td>0</td>
</tr>
<tr>
<td>&gt;121</td>
<td>0</td>
</tr>
</tbody>
</table>

Overall TAT (Month to Date)
NaN
Goal: 30, 31

Overall TAT (Past 90 Days)
52.9
Goal: 30, 31

TAT by Phase of Work (MTD)

JT Assign TAT MTD, JT Draft TAT MTD, JT Tech Review TAT MTD, JT Admin Review TAT MTD

TAT by Phase of Work (Past 90 Days)

Open Quality Reports

Qualtrax ID | Workflow # | Age
--- | --- | ---
54037 | 2019-088 | 28
55649 |  | 7

Quality TAT

14
Goal: 30, 31

Avg Age of Open Reports

28

Quality Filter

Digital Forensics

30 Day Avg (Over Past 90 Days)

Completed

Received

Month to Date

Completed

Received
Crime Scene Unit
### Open Quality Reports

<table>
<thead>
<tr>
<th>Qualtrax ID</th>
<th>Workflow #</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>51462</td>
<td>2019-073</td>
<td>68</td>
</tr>
<tr>
<td>51819</td>
<td>51819</td>
<td>62</td>
</tr>
<tr>
<td>55860</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>55847</td>
<td>2019-094</td>
<td>2</td>
</tr>
<tr>
<td>55886</td>
<td>2019-095</td>
<td>2</td>
</tr>
<tr>
<td>55890</td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

*Reports without a Workflow ID are not included in the Avg Age*

### Quality TAT

**Total Pending Requests**

- **143** requests
- **23** Justice Trax Past Critical Age
- **85** Avg Age of Requests > 30 D.
- **0** Age Oldest Unassigned
- **127** Age Oldest Pending Draft
- **133** Age Oldest Pending Tech
- **15** Age Oldest Pending Admin

**TAT by Phase of Work (MTD)**

- JT-Assign TAT MTD: 16.9
- JT-Draft TAT MTD: 12.3
- JT-Tech Review TAT MTD: 15.9
- JT-Admin Review TAT MTD: 13.0

**TAT by Phase of Work (Past 90 Days)**

- JT-Assign TAT Past 90 Days: 15.9
- JT-Draft TAT Past 90 Days: 13.0
- JT-Tech Review TAT Past 90 Days: 15.9
- JT-Admin Review TAT Past 90 Days: 13.0

### Month to Date

- **Completed**: 231
- **Received**: 221

### 30 Day Avg (Over Past 90 Days)

- **Completed**: 196
- **Received**: 177
**Date Range**

3/1/2019  12/31/2019

**Total TAT by Month**

- **Rec'd-Assign TAT**
- **Assigned TAT**
- **Total TAT**

**Requests Completed**

- **Requests Completed w/in 30 Days**
- **Requests Completed > 30 Days Old**
- **Total Completed**

**Selected Time Frame Averages**

- **Total TAT (Rec'd-Compl.) Avg**: 35.75
- **Assigned TAT (Asgmt.-Compl.) Avg**: 34.91

**Received to Complete**

- **1933 Requests Completed**
- **880 Requests Completed > 30 Days Old**
- **45.53 % % Completed > 30 Days Old**

Requests more than 30 days old are considered to be backlogged requests.
**Received by Month**

- March 2019: 176
- April 2019: 180
- May 2019: 196
- June 2019: 153
- July 2019: 239
- August 2019: 204
- September 2019: 197
- October 2019: 161
- November 2019: 150
- December 2019: 221

**Total Received**

1,877

**Received per Month (Avg)**

188

**Completed by Month**

- February 2019: 1
- March 2019: 144
- April 2019: 186
- May 2019: 159
- June 2019: 160
- July 2019: 233
- August 2019: 239
- September 2019: 239
- October 2019: 203
- November 2019: 159
- December 2019: 221

**Total Completed**

1,934

**Completed per Month (Avg)**

176

* months with zero activity are not calculated into the average
PROBABILISTIC GENOTYPING

Houston Forensic Science Center
Forensic Biology

Robin Guidry, M.S., F-ABC
DNA Technical Leader
Presentation Outline

1. Introduction to probabilistic genotyping
2. Houston Forensic Science Center’s probabilistic genotyping workflow
3. Anticipated challenges
4. Legal developments
5. Texas Forensic Science Commission
6. Training
Introduction to Probabilistic Genotyping: Motivation to Change

• Increased sensitivity to chemistries and instrumentation has lead to the detection of more “trace” contributors, more complex mixtures and more data that is subject to stochastic effects

• Significant push in the forensic genetic community to:
  • Do away with thresholds
  • Make the best use of the available information
    • Model drop out and drop in
  • Treat the data probabilistically
    • Consider everything on a continuum instead of in a binary fashion

• Advantages
  • Removes weaknesses in current approaches
  • Removes bias and enhances scientific credibility
  • Recovers wasted evidential strength
  • Models drop-out and drop-in better
Introduction to Probabilistic Genotyping: Binary v. Probabilistic

Binary vs. Probabilistic Approach:

• **Binary Approach**: using thresholds, data is evaluated for the possibility of drop out or not → the data is either interpretable or it’s not
  • Much of the data is discarded
  • Probability of 1 or 0, included or excluded

• **Probabilistic Approach**: using biological modeling, statistical theory, algorithms and probability distributions, genotypes are inferred and likelihood ratios are generated
  • It does not operate with stochastic thresholds and can take drop out into consideration, allowing better use of the DNA data
  • Considers everything on a sliding scale of probability
Introduction to Probabilistic Genotyping: STRmix™ Software

• Fully continuous method to aid interpretation of low-level DNA profiles and complex DNA mixtures

• Uses peak height information from the data and biological modeling:
  • To describe the data
  • To consider many possible genotype combinations and generate a list of plausible single-source genotypes that may have contributed to that profile/mixture (also known as deconvolution)
  • To give weight to these possible genotypes which describes how well or not the proposed genotypes explain the data

• The concepts used by STRmix™ have been used in code breaking, aeronautics and the stock market
Introduction to Probabilistic Genotyping: Likelihood Ratios

• Using the weights generated in the deconvolution process, a likelihood ratio (LR) can be calculated

• A likelihood ratio compares the probability of obtaining the evidence (the DNA profile) under two competing propositions based upon relevant case information
  • Hypothesis 1 (prosecution): the DNA was donated by the complainant and the defendant
  • Hypothesis 2 (defense): the DNA was donated by the complainant and an unknown individual

• Likelihood ratio can have any value 0 or greater
  • A value >1 favors the prosecution
  • A value <1 favors the defense (a decimal)
  • A value = 1 is neutral (uninformative, equal support for both propositions)
  • A value = 0 means an exclusion
HFSC’s Probabilistic Genotyping Workflow

• The DNA analysis process is the same until data interpretation

• **STRmix™ is NOT a black box!**
  • It is intended to assist the DNA analyst in interpretation, **NOT** to replace the human evaluation of the data
  • The analyst assigns the number of contributors that the software uses in the deconvolution process

• Prior to submission to STRmix™, two qualified analysts have to agree:
  • The quality of the sample is sufficient for interpretation
  • The number of contributors assigned
  • Any edits to the input data (e.g., removal of artifacts)
HFSC’s Probabilistic Genotyping Workflow

• After STRmix™ analysis, the analyst and technical reviewer will review the diagnostics to determine how well the interpretation has performed in accordance with underlying models and theory and to ensure the results are suitable to report
  • *Are the diagnostics intuitive?*
  • *Do they support the analyst’s interpretation of the data?*
Anticipated Challenges

• Laboratories who have transitioned before us are seeing 30 percent to 50 percent more interpretable profiles, creating more labor per case
  • HFSC hopes to gather data that will help establish the time difference between analyzing a case under the previous process compared to using probabilistic genotyping

• HFSC also anticipates requests to revisit previous data reported as unsuitable for comparison due to an excessive number of contributors or insufficient data

- The TFSC panel found the analyst’s behavior constituted professional negligence (Aug. 16, 2019)

- The DNA evidence was excluded as a result of the Daubert testimony because the “technique or theory in question was not properly applied”

- The panel identified three major areas of concern
  - Data interpretation
  - Testimony performance
    - Inadequate preparation for testimony
    - Inaccurate testimony regarding results and conclusions of the DNA analysis
    - Testimony that the STRmix™ results and the underlying data were not concordant
    - Testimony that the analyst did not follow protocol
    - Apparent lack of understanding of STRmix™ concepts at the time of trial
  - Response to the TFSC panel investigation
Daubert Opinion: US v. Daniel Gissantane

- Judge granted defense’s motion to exclude STRmix™ evidence (Oct. 16, 2019)
- Judge considered testimony from state and defense witnesses, as well as two court-appointed experts
  - Dr. Michael Coble, University of North Texas Health Science Center
  - Dr. Dan Krane, Wright State University
- It was not an indictment of probabilistic genotyping or the STRmix™ software
- Concerns raised in the legal opinion include:
  - A lack of standards for the development of use of probabilistic genotyping software
    - There are nationally recognized guidelines that mirror the standards being reviewed by the American Academy of Forensic Sciences Standards Board
  - Concern the limitations established by the validation were exceeded in this particular case
  - The 2016 report issued by the President’s Council of Advisors on Science and Technology (PCAST) was cited
    - Most studies have been undertaken by the developers
      - A response paper with internal validation data from 31 labs published to address the deficiencies described in the PCAST report
      - “…these methods appear to be reliable for three-person mixtures in which the minor contributor constitutes at least 20 percent of the intact DNA in the mixture and in which the DNA amount exceeds the minimum level required for the method.”
Texas Forensic Science Commission

• Inaugural meeting of the STRmix Working Group, July 29, 2019

• Three Subcommittees
  • Validation
  • Education and training
  • Reporting and testimony

• Goal of subcommittees is to provide work products for statewide use, such as:
  • Checklists for validation and software upgrade performance checks
  • Statewide data sharing/comparison
  • Web-based training for analysts, lawyers and judges
  • Tools to anticipate and respond to challenges regarding probabilistic genotyping
HFSC Training

- **External training**
  - 12 hours of likelihood ratio training from Dr. Michael Coble
  - Over 28 hours of training from three senior scientists from the Institute of Environmental Science and Research Limited (ESR), the home laboratory of a co-developer of STRmix™, Dr. John Buckleton
  - Over 28 hours of training from NicheVision, the US distributor of the STRmix™ software
  - 14 hours of testimony training from DNA Labs International

- **Internal training**
  - Extensive reading of manuals, publications and testimony transcripts
  - Oral exams to promote strong testimony performance
  - Exposure to the TFSC panel report and the Michigan *Daubert* decision
  - Practice sets and competency testing on the theory and the application of the STRmix™ software
Training HFSC Stakeholders Is Critical

• HFSC believes it is critical to train stakeholders during the transition to probabilistic genotyping
  • Oct. 28, 2019: Collaboration with the Harris County Institute of Forensic Science at the Children’s Assessment Center
    • HPD, HCSO and other local sexual assault investigators
  • Nov. 7, 2019: HFSC’s forensic training for prosecutors, defense attorneys
  • HFSC will continue to seek opportunities to train stakeholders and collaborate with local laboratory partners when possible
Glossary

• **Drop out**: Activity below the analytical threshold. This occurs when DNA is present but fails to amplify.

• **Drop in**: Low-level DNA that appears in a profile but is not associated with the crime sample and cannot be explained by the contributors. As chemistries increase in sensitivity the likelihood of drop in increases.

• **Analytical threshold**: A point at or above which true data can be distinguished from background noise.

• **Stochastic threshold**: A point at or above which analysts can be confident data has not dropped out.

• **Stochastic effects**: The random selection of alleles in the amplification of low-level DNA samples that results in drop out.
Robin Guidry
DNA Technical Leader
rguidry@houstonforensicscience.org
713-929-6760
500 Jefferson Project

- In summary: project delivered on schedule, required functionality, below project cost estimate, good team effort. Fannin and Travis buildings exited ahead of schedule, minimizing duplicate rent. Completing items in a few areas

- HFSC 500 Jefferson occupancy permit received from City of Houston for each floor, original retained by landlord (HFSC has copies)

- Excellent staff feedback on office/lab space

- Achieved 500 Jefferson lease cost same as original Fannin/Travis opex, Andy Icken cost directive

- Project delivered on aggressive schedule, completed 17 months after first seeing 500 Jefferson building:
  - Moved 200 staff (7 moves), 44 instruments (2 moves), 17 microscopes (1 move), applied lessons learned to each move
  - 13th, 14th, 15th floors, moved-in to essentially as is space. 18th floor and basement, purpose-built labs, requiring once-through air/power/etc.
  - Testing and balancing, commissioning basically complete
  - All labs up and running, still progressing Toxicology drug confirmations as planned. All labs in casework catch-up mode
  - Of particular note: basically flawless moves, shooting tank install, CODIS/NIBIN moves, instrument piping install, lab start-ups, etc.
• **Project under budget, relentless cost/value focus:**
  - Original project budget, $1 million: moves, IT/security, shooting tank, project management, change orders, other. Excludes lab furniture (grant/landlord), hydrogen generators (landlord)
  - Project invoiced to date: $763,000. Final cost around $800,000, project will be $200,000 below $1 million budget
  - Instrument move cost $199,000, no additional costs/change orders. Board approved not to exceed $250,000
  - Accommodated $114,000 of change orders (included in $763,000), including upgrades: epoxy floor, medical grade ceiling tiles, additional firearms armortex wall protection – provides longevity, easy clean, safety. Shared upgrade cost 50/50 with landlord
  - Lab furniture: $336,000 (including minimal $1,735 additional table/shelve needs). Board approved not to exceed $350,000
  - Landlord invoiced, reimburse $48,000 for 3 hydrogen generators

• **Good project team effort:**
  - HFSC, Board, City, landlord, contractors, consultants
  - Detailed plans, weekly HFSC/landlord meetings, HFSC steering committee meetings, project core/extended teams, critical path attention, relentless focus on decision making/project progression

• **Few remaining items:**
  - Firearms basement exhaust fans, not delivering required air flow. Landlord/HFSC reviewing
  - Latent Prints glue chamber damaged in move, repairs in progress, testing system, working to restore 100% functionality
  - Landlord/HFSC training on lab systems, protocols, documentation
  - Landlord CSU 24/7 HVAC delivery, more cost-effective option

• **Overall successful project, maximize HFSC benefit, now focus on VEB**
Vehicle Examination Bay (VEB) Renovation Project, 1305 Dart Street

- Part grant funded, tight budget/schedule, periodic HFSC Board updates:
  - $114,000 federal funding, HFSC “match” $38,000 (25% of project estimate). HFSC also funds all costs above $152,000, if applicable
  - Complete project by end 2020, prioritize, maximize cost/value
  - Tight timeline: develop scope, RFI/RFPs, bidding, contractor/consultant selection, permits, construction, completion

- Background:
  - CSU work scope at VEB, vehicle evidence capture/protection: photography, fingerprints, DNA collection
  - HFSC to remain at VEB medium/long term, need to renovate to enhance evidence protection, capture, scale

- Project scope (work-in-progress):
  - Validate existing building structure/condition, conduct repairs as/if necessary, some outside clean-up, potentially extend privacy fence
  - Enclose current four open bays (to provide total of 8 enclosed vehicle examination bays), add double doors, insulation, HVAC
  - For all 8 bays: epoxy floor, HVAC, electrical, plumbing, validate compressed air unit/venting, additional lighting, photography overhead viewing gantry, tool benches
  - Office: HVAC, new bathroom, small galley kitchenette, vinyl floor, 2 workstations
  - IT/security
  - Prioritize, complete/phase project in line with budget/schedule

- Conducting 1/9/20 Project Workshop/Kick-Off:
  - HFSC, City Design and Construction attendance
  - Workshop/follow-up deliverables: project cost estimate/scope, priority, project timeline, approved contractors, action plans
BQCs Submitted in December

<table>
<thead>
<tr>
<th>Category</th>
<th>December</th>
<th>Monthly Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toxicology</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>Seized Drugs</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Firearms BQC</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Firearms Blind Verification</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Latent Print Processing</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Latent Print Comparison</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Latent Print Blind Verification</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Biology</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Multimedia</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>
BQCs 2019: Year in Review

- Toxicology: 192 (Goal: 192)
- Seized Drugs: 191 (Goal: 195)
- Firearms BQC: 12 (Goal: 12)
- Firearms Blind Verification: 12 (Goal: 12)
- Latent Print Processing: 24 (Goal: 24)
- Latent Print Comparison: 108 (Goal: 108)
- Latent Print Blind Verification: 9 (Goal: 10)
- Biology: 48 (Goal: 48)
- Multimedia: 24 (Goal: 24)
Blind Quality: Accomplishments and Challenges

• Monthly submission goals for 2020 calculated: ~5% of each section’s output in 2019

• “Implementation of a Blind Quality Control Program in a Forensic Laboratory” manuscript published by the Journal of Forensic Sciences (JFS) as open access

• HFSC to present on blind proficiency program during Center for Statistics and Applications in Forensic Evidence (CSAFE) webinar

• Multimedia analyst incorrectly identified a case as a blind

<table>
<thead>
<tr>
<th>Forensic Discipline</th>
<th>Cases Completed in December</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toxicology – BAC</td>
<td>8</td>
</tr>
<tr>
<td>Seized Drugs</td>
<td>18</td>
</tr>
<tr>
<td>Biology</td>
<td>2 (DNA)</td>
</tr>
<tr>
<td></td>
<td>5 (screening)</td>
</tr>
<tr>
<td>Firearms – Blind Verification (BV)</td>
<td>0</td>
</tr>
<tr>
<td>Firearms</td>
<td>1</td>
</tr>
<tr>
<td>Latent Print Processing</td>
<td>0</td>
</tr>
<tr>
<td>Latent Print Comparison</td>
<td>14</td>
</tr>
<tr>
<td>Latent Print – Blind Verification (BV)</td>
<td>1</td>
</tr>
<tr>
<td>Multimedia</td>
<td>3</td>
</tr>
</tbody>
</table>
2019 Testimony Data

• 51 analysts testified last year. A technical expert monitored each testimony

• Transcript review project
  • 12 transcripts will be completed for 2019
  • 5 of those received in December and currently being reviewed
Number of Testimonies: 2018 vs 2019

- Seized Drugs: 2018: 20, 2019: 15
- Toxicology: 2018: 17, 2019: 12
- Latent Print: 2018: 2, 2019: 5
- Multimedia: 2018: 8, 2019: 8
- Firearms: 2018: 26, 2019: 16
- Crime Scene: 2018: 8, 2019: 8
Number of Analysts Testified: 2018 vs 2019
Analysts Testified vs Transcripts Reviewed

- Biology: 15 analysts testified, 5 transcripts reviewed
- Seized Drugs: 9 analysts testified, 2 transcripts reviewed
- Toxicology: 3 analysts testified, 0 transcripts reviewed
- Latent Print: 4 analysts testified, 1 transcript reviewed
- Multimedia: 5 analysts testified, 0 transcripts reviewed
- Firearms: 9 analysts testified, 2 transcripts reviewed
- Crime Scene: 6 analysts testified, 2 transcripts reviewed
Audits/Disclosures/Corrective Actions

On-site assessment on January 13 following lab relocation

• HFSC has been communicating with its accrediting bodies throughout the relocation
• HFSC has provided necessary documentation to ANAB, one accrediting body
• Assessor will focus on calibrations, performance checks and security
Detailed Data
# 2019 Proficiency Testing

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Tests in Progress</th>
<th>Tests Completed</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seized Drugs</td>
<td>-</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Toxicology</td>
<td>7</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Firearms</td>
<td>6</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>Crime Scene</td>
<td>2</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>Latent Prints</td>
<td>1</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>Multimedia</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Audio/Video</td>
<td>2</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Digital</td>
<td>1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Forensic Biology</td>
<td>25</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Quality Notified</td>
<td>Summary of Notification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------</td>
<td>----------------------------------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2019-078</td>
<td>An incorrect sample was selected while preparing for an extraction procedure. This resulted in the sample being extracted with an unintended extraction procedure.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2019-083</td>
<td>A sample was accidentally dropped into the biohazard trash bin during an extraction procedure and is, therefore, unrecoverable.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2019-093</td>
<td>An expired reagent was used during three Forensic Biology extraction procedures. The reagent was one day beyond its expiration date.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crime Scene</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2019-092</td>
<td>A crime scene investigator (CSI) was requested by the Firearms Section to photograph and collect DNA swabs from a firearm that had possible blood. While later reviewing the photographs, the CSI observed what appeared to be a patent print in the possible blood. The CSI and a supervisor contacted the Firearms Section to see if the firearm was available for comparison quality photographs but were informed that the firearm had been already been decontaminated.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2019-094</td>
<td>A crime scene investigator (CSI) did not collect a ski mask during vehicle processing from a robbery vehicle at the Vehicle Examination Building (VEB).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2019-095</td>
<td>Two crime scene investigators (CSIs) failed to properly document a crime scene. Possible blood on a vehicle and projectile underneath a separate vehicle were not properly documented through photography, videography or their scene notes.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Firearms

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.
<table>
<thead>
<tr>
<th>Quality Notified</th>
<th>Quality Notified</th>
<th>Summary of Notification</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019-090</td>
<td>12/2/2019</td>
<td>The second examiner accidentally signed electronically as the technical reviewer (as opposed to signing as the second examiner) in JusticeTrax LIMS.</td>
<td></td>
</tr>
<tr>
<td>IR</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2019-091</td>
<td>12/10/2019</td>
<td>Two cases that had handguns that did not have magazines were processed for NIBIN prior to latent print processing being performed on them. Neither case had a latent print request, however it is Firearms section policy to ensure that latent print processing is performed prior to NIBIN processing when there is no magazine present.</td>
<td></td>
</tr>
<tr>
<td>IR</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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.