

WHAT'S NEWS @ HFSC

HOUSTON FORENSIC SCIENCE CENTER · MARCH 2019

Forensic grants: What's available, what's not, what needs to happen

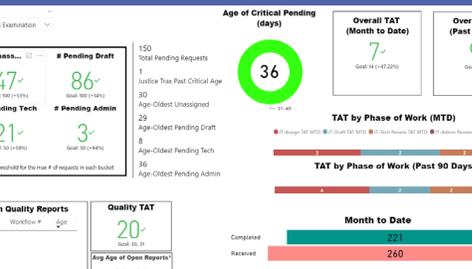
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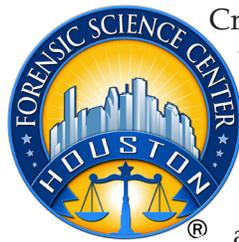
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Crime labs nationwide struggle with a common issue: a lack of resources and a limited number of available funding avenues.

The result is backlogs, long turnaround times that delay and cause costly bottlenecks in the rest of the justice system and, in some cases, lower quality work as analysts and labs struggle to provide answers more quickly in a pressure-cooker environment.

Part of the problem is the way federal grants are currently set up and the lack of available dollars for anything outside of DNA work.

"For years, state and federal governments have been narrowly focused on providing funds and resources for DNA testing to help eliminate long-standing backlogs in sexual assault kits and other evidence related to such high-profile crimes," said Dr. Peter Stout, HFSC's CEO and president.

"There are almost no grant dollars, however, for other forensic work, all of which may impact not only sexual assault cases but other major crimes as well. Grants for firearms, latent prints, toxicology, seized drugs and other disciplines are almost nonexistent," Dr. Stout said.

Meanwhile, as crime lab-

oratories focus their efforts and resources on eliminating DNA backlogs, the workload in other areas, such as drugs and toxicology, is also increasing and backlogs are growing.

In parts of the country where the opioid crisis is especially bad, crime laboratories have thousands of cases waiting for analysis and are churning out results hundreds of days after receiving requests.

HFSC has a turnaround time of less than two weeks in seized drugs, but is struggling in toxicology _ the section responsible for testing for alcohol and drugs in blood and urine. This analysis is crucial for cases of driving while intoxicated and drug-facilitated sexual assault.

But while in the DNA section, federal grants are available for the purchase of high-tech equipment to automate the lab work, those dollars aren't there for toxicology. So caseload increases, resources stagnate and technology ages _ with no relief in sight.

"Forensics is more than just DNA and there needs to be greater understanding of the importance of the other disciplines and how each can be somehow linked to major crimes _ such as homicides and sexual assaults _ but more importantly, all impact public safety," Dr. Stout said.



A Few Words From Our PRESIDENT

HOUSTON FORENSIC SCIENCE CENTER

I find I have these soapboxes I get on from which I repeat the same information over and over again, always in the hope that just one more person will hear me, and maybe even listen.

One of my favorite recently is the issue of resources _ or the lack thereof _ and the uneven distribution of the little that is available.

Anyone that will listen hears my mantra about how nearly ALL federal grant dollars are geared toward DNA, and little to nothing is put to other forensic disciplines.

But what does this really mean?

First, it means that while a small percentage of casework is related to DNA _ about 8 percent here at HFSC _ a disproportionate amount of the money and attention is geared in that direction.

DNA is often considered to be the "gold standard" of forensics, and the reasons for that are obvious.

However, what gets lost in that is the impact that myopic view has on the justice system as a whole.

For example, here in Houston we have learned that by having a short turnaround time of less than two weeks in the seized drugs area, the justice system can act more efficiently on the whole, including the successful implementation of an active, robust diversion court that sends people to rehab in lieu of incarceration.

Together these policies decrease costs for the system as a whole, improve justice and help tackle jail overcrowding.

But Houston is unusual. It got to this point by implementing policies that help with the testing of "smart" and remove the "garbage" from the process, such as analyzing drugs slated for destruction.

This isn't possible across disciplines. In toxicology _ which largely handles impaired driving cases _ it's people and instruments. That equals money.

So as a community we have an obligation to speak loud and clear about the long-standing policies that have dibilitated forensic science. It's time to make sure the science is not only good and used appropriately _ but that it is relevant when the results reach stakeholders.

Peter Stout, PH.D.
CEO/President

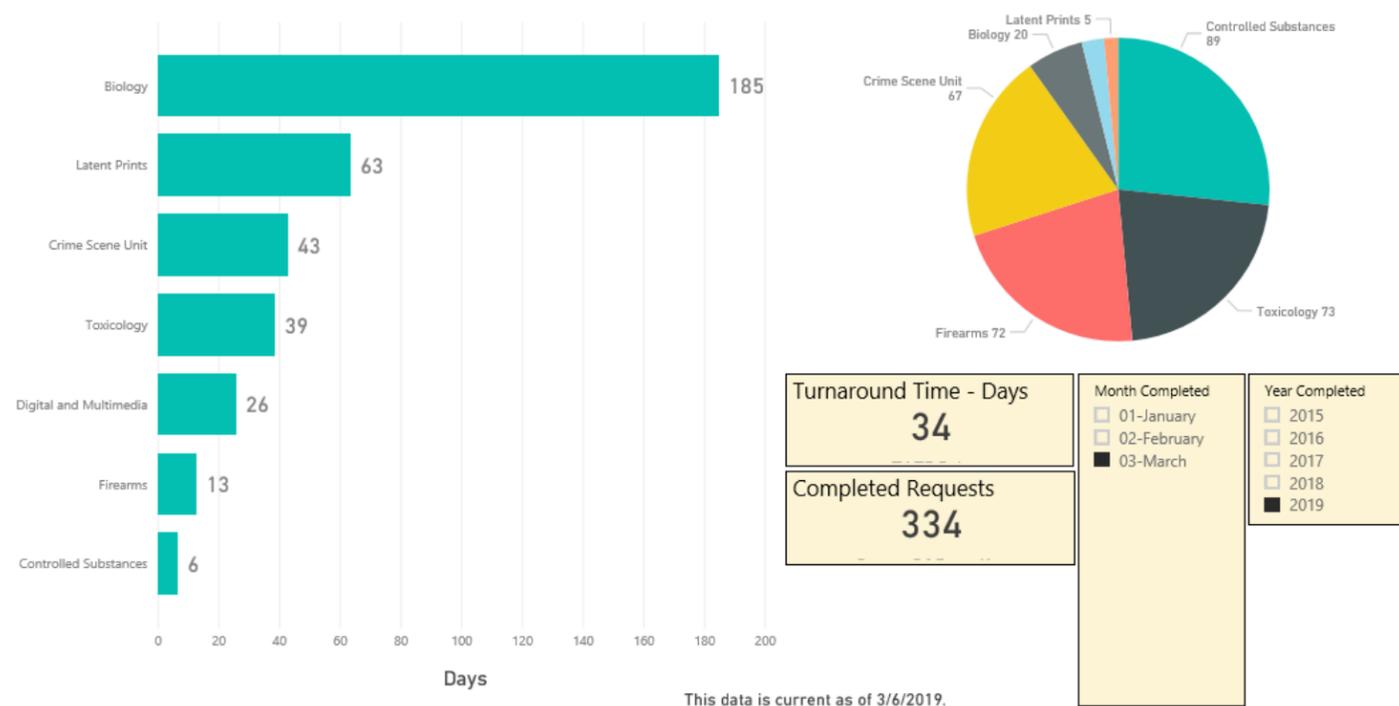


Peter Stout, PH.D.
CEO/President

Dr. Peter Stout, HFSC's CEO and president, initially joined the agency in 2015 as its chief operating officer and vice president. He has more than 15 years of experience in forensic science and forensic toxicology. Prior to joining HFSC, Dr. Stout worked as a senior research forensic scientist and director of operations in the Center for Forensic Sciences at RTI International. Dr. Stout also has served as president of the Society of Forensic Toxicologists (SOFT). He represented SOFT in the Consortium of Forensic Science Organizations and has participated in national policy debates on the future of forensic sciences in the United States. Dr. Stout has a doctorate in toxicology from the University of Colorado Health Sciences Center in Denver. Dr. Stout also served as an officer in the U.S. Navy Medical Service Corps.

HFSC At A Glance

Average Turnaround Time for March 2019



The Houston Forensic Science Center has for years posted to its website detailed data about turnaround times and backlogs, information that is crucial for the public to understand how its crime laboratory is performing.

That said, this data has sometimes been difficult to gather in part because of the way information was stored and gathered and difficulty retrieving the data in a manner that could be easily translated.

HFSC has in recent months transitioned to a new Laboratory Information Management System and launched a new request submission portal. Although moving to new databases slowed down work in the short-term, HFSC believes these changes will not only allow for a more efficient workflow and process, but also make it easier to gather and share data.

Despite the changes made in January and the challenges associated with them, HFSC achieved in early March an average turnaround time of 34 days across all disciplines and completed more than 330 requests.

HFSC is also currently in the midst of a phased move to a new facility and expects that too will impact turnaround times. The laboratories are expected to move in October and November of this year and HFSC is making plans designed to ensure the complex transition has minimal impact on casework.

For more information, please visit www.houstonforensicscience.org

EVIDENCE

COLLECTION IS KEY

DNA has become _ at least in the public's mind _ the cornerstone and gold standard of all forensics. If the DNA is there _ the suspect must be guilty.

The reality, however, is that for DNA evidence to be useful to an investigation and, finally, in trial, it must be first and foremost handled correctly from start to finish.



Everything starts at the scene with collection, which must be done in a manner that prevents contamination, degradation or destruction of the sample. And

it continues in the lab where analysts need to ensure not only analysis is done correctly, but that evidence is handled in a manner that preserves it for additional or future testing.

"HFSC's quality system is focused not only on the analytical processes, but also on the handling and preservation of evidence because we know this is where many errors occur and it can be detrimental to a case," said Erika Ziemak, HFSC's assistant quality director.

How does HFSC ensure all these steps are followed so DNA evidence can be usable from the moment of collection and through trials and appeals?

Policies, procedures and training: those are the keys to ensuring all evidence _ not only DNA evidence _ is properly handled.

HFSC's Quality Manual is

clear about how to handle situations where the quantity of the evidence is of concern: "If HFSC receives evidence in an insufficient quantity to complete testing AND reserve sufficient sample for additional testing, the laboratory will not proceed with analysis without obtaining permission from the submitting agency or a consumption order. Permission from the submitting agency can be obtained if there is no suspect listed in the case record or when there is no assigned district attorney. Otherwise a consumption order is required."

The process starts with proper collection, the cornerstone of quality forensic analysis. If the evidence is not properly collected it won't matter how good the rest of the analysis is _ the results will be irrelevant.

After collection, evidence must be packaged in a way that prevents loss, cross-contamination or destruction of the sample.

HFSC crime scene investigators (CSIs) are well trained in proper evidence collection techniques. They wear personal protective equipment (PPE) when collecting evidence from crime scenes_ including masks, gloves and booties_ to protect evidence from being contaminated with their own DNA and take special care to properly handle and package collected evidence. The unit's

procedures have detailed instructions describing how evidence should be collected, packaged and documented.

For example, when collecting possible biological evidence onto swabs, the CSI knows to collect the proper amount of evidence for testing and retesting if collecting the entire amount is not logistically feasible, such as a puddle of blood. Conversely, when collecting trace amounts of possible biological evidence, effort must be made to concentrate as much biological material as possible on the swabs.

Once at the laboratory, analysts take special care to preserve the quality and quantity of the evidence throughout analysis to allow for retesting or additional testing if necessary.

"We have been working with stakeholders for a few years now to ensure we all take measures to protect evidence," Dr. Peter Stout, HFSC's CEO and president, said. "We will continue to improve methods throughout the process to ensure the process is clean and thorough."



Crime Scene Unit

RIGHT ANSWER

The Houston Forensic Science Center's Crime Scene Unit has undergone significant change since 2014, including achieving accreditation, completely civilianizing and overhauling nearly all policies and procedures.

The outcome has been high-quality evidence collection and greater reliability at scenes where CSU services are needed, including all homicides and officer-involved shootings in the City of Houston.

In 2018, CSU processed 640 crime scenes and 441 motor vehicles, an average of 53 scenes and 37 motor vehicles per month. CSIs collected nearly 20,000 evidence items in 2018, averaging 1,660 per month, and developed 450 latent prints.

"The proper handling, packaging and submission of evidence allows for subsequent successful analysis that ultimately helps the entire justice system improve public safety for Houstonians," said Jerry Pena, director of HFSC's CSU and multimedia division.

In latent prints alone, an increase in the quality of fingerprint lifts and greater attention to looking for such evidence, led to Crime Scene Investigators developing prints from 400 cases. Of those, identifications were made in 139 cases.

"This evidence can be crucial to identifying a suspect and eliminating innocent people," Mr. Pena said. "Providing stakeholders with the right answer at the right time _ HFSC's chief mission _ begins with proper evidence collection."

HFSC's CSU is on call 24/7. CSIs are dispatched after a supervisor gathers vital information about a scene to determine if CSIs will need specialized equipment or a warrant to complete their work.

"Collaboration with law enforcement and other stakeholders on a scene is crucial to ensuring it is handled properly so forensic analysis and justice can be successful from start to finish," Mr. Pena said.

HFSC builds data management tool

HFSC'S DASHBOARD

BY JORDAN BENTON

A Houston Forensic Science Center team has created a management dashboard that provides visually appealing, real-time data that staff can use to manage daily work and provide stakeholders with better information.

Having accurate, reliable, real-time data available at the click of a mouse will help managers and staff increase operational efficiency.

"Data is a crucial tool in the effective management of a process and when you spend hours trying to find and validate the information you need you lose any efficiency you might have gained by looking at the data," said Dr. Amy Castillo, HFSC's COO and vice president.

"That has long been a sore point for our managers and our staff, who had no way of easily seeing their own workflow and productivity. This dashboard not only makes it easier for staff to manage their work, the result will be a more efficient process that staff and stakeholders will reap the benefits of," Dr. Castillo added.

The group chose to use an

**"DATA IS A
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already-purchased software to help decrease costs and ensure the project would wrap up in a reasonable 9-month timeframe.

The dashboard team spoke to all HFSC staff at the beginning of the project and identified inefficiencies that forced staff _ primarily supervisors and managers _ to use multiple systems to gather data for

section management, weekly and monthly reports or to share information with stakeholders.

Staff spent hours manually logging and organizing data to obtain usable, accurate information.

Creating an efficient process became the foundation of the dashboard project.

So, what was created?

First, each user has a unique view specifically aligned to their section and individual goals as well as a company -wide view available to all staff. This provides greater visibility on turnaround times, requests completed, age of requests, backlog, productivity and quality data. And everyone will see the same information at the same time.

The team has validated the dashboard and data and some staff have been testing the product. Training for all staff will begin later this month and the dashboard will roll out for use on April 1.



HFSC's CEO Dr. Peter Stout settles into his new space



The first staff moving to 500 Jefferson get their workspaces ready



The unpacking is real ... so much stuff

HOUSTON FORENSIC SCIENCE CENTER IS MOVING TO A NEW HOME

By JORDAN BENTON

The Houston Forensic Science Center has completed its first move to 500 Jefferson. The latent print section, along with HFSC's CEO and president, Dr. Peter Stout, are settled into their new home away from home. Next comes the digital multimedia section.

HFSC's corporate address has also changed. The new address is 500 Jefferson St., 13th floor, Houston, Texas 77002.

The first move went smoothly and with a few lessons learned there will be improvements as the remaining sections prepare for their transition.

Now the work continues. The digital and multimedia unit, along with additional administrative staff at 1301 Fannin, relocated to Jefferson on March 15. HFSC will hand back the keys to the space it

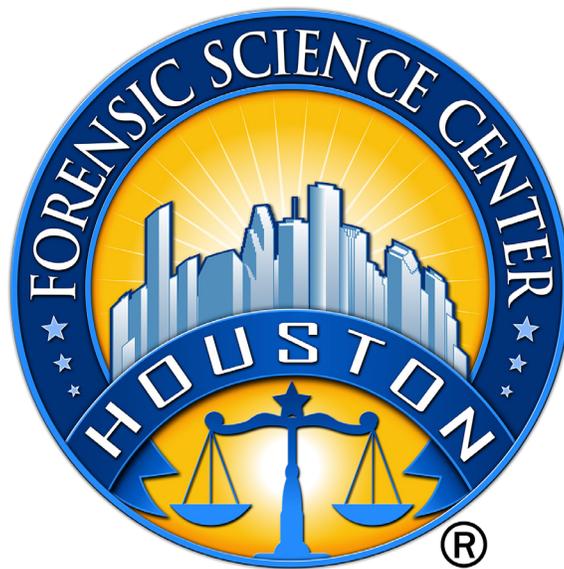
leased in 1301 Fannin by the end of April and then focus on moving staff out of 1200 Travis Street, Houston Police Department headquarters.

HFSC has been working closely with stakeholders, vendors and other agencies to share communications regarding the ongoing move.

HFSC is also working to obtain permits to begin construction of the laboratory floor and basement, which will include a firing range and

evidence processing area for the firearms section and crime scene unit. The laboratories and scientific staff will all move in October and November. HFSC will completely vacate HPD headquarters by year's end _ the first time Houston's crime lab will have its own home.





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