

WHAT'S NEWS @ HFSC

HOUSTON FORENSICS SCIENCE CENTER • AUGUST 2021

Requests for firearms comparisons rise 60% in June and July as courts ramp up

INSIDE THIS EDITION



4 Years of on-the-job training cripple HFSC, crime labs



5 DNA requests increase, impact backlog elimination timeline



6 Requests for vehicle processing increase more than 60% since 2019

YOUR OPINION MATTERS

7 HFSC has received 65 survey responses since February 2020



Requests for firearms comparisons have increased 60 percent this summer compared to the same time last year as trials resume after more than a year when court activities came to a near standstill amid the global pandemic.

It remains unclear whether that upward trajectory will continue, however, it appears to be at least in part the result of requests coming in as attorneys prepare to bring cases to trial and require additional testing of evidence.

Faced with a backlog of more than 150,000 cases, it is expected that Harris County courts will try to push hard on trials and resolutions, which will likely result in more requests for forensic testing, directly impacting the firearms section and other disciplines in the Houston Forensic Science Center.

"We often see requests for firearms comparisons as cases head to trial and now, if there is a significant push in the courts due to the backlog, we expect to see a rapid increase on our end," said Donna Eudaley, HFSC's firearms section manager. "The problem we will have is that our resources remain static and if cases increase significantly _ as occurred in the past two months _ inevitably backlogs will grow and turnaround times will get longer."

Stakeholders made 107 requests

for firearms comparisons in June and July this year compared to just 67 at the same time last year.

Firearms comparison is a manual, human-reliant examination in which a forensic analyst compares cartridge cases and/or projectiles to determine whether they were fired from the same gun or if it was fired from a specific firearm.

"This can be important evidence in a trial and can also help link between crimes," said Dr. Peter Stout, HFSC's CEO and president. "This evidence is not only important at trial, often there is crucial information needed at the start of an investigation so a backlog in this section can impact both the ability to secure charges and the successful outcome of a trial."

Until now, the increase in violent crimes in Houston had not impacted comparison requests. It is likely the rise in homicides is now further contributing to this increase.

Since 2019, the flow of guns in the streets has been impacting the firearms unit responsible for inputting images into the ATF-run database, the National Integrated Ballistic Information Network. Guns submitted for processing have risen from an average of 350 per month to more than 450 per month.

"This is not sustainable in the long term and we will have to reconsider how we spend money this year and how to address expected backlogs," Dr. Stout said.



A Few Words From Our President

HOUSTON FORENSICS SCIENCE CENTER

Peter Stout, Ph.D.
CEO/President

We think of our courts, law enforcement, prosecutors, defense attorneys, jails and crime labs as the different parts that make up one whole: the criminal justice system.

We know all rely on one another for success and we understand that if one part is failing or suffering that all other pieces of this system will, in the short or long term, eventually feel that pain as well.

And yet, in practice, we tend to forget how inextricably linked these parts are and how important it is for all to function as well and to communicate openly and transparently when problems arise.

Today, in Harris County, and likely in many parts of the nation trying to recover from 18 months of pandemic paralysis, the links between these different parts of the criminal justice system are becoming more apparent as each struggles independently with immediate challenges, forgetting how that may impact others in the system.

The courts, for example, are buckling under a debilitating backlog of more than 150,000 cases. Understandably, judges and attorneys are pushing them through after a near total standstill that lasted over a year. In this rush, attorneys are asking for immediate forensic analysis on evidence items they need for trial or to resolve the case.

Crime labs, like HFSC, already strapped for resources, are trying to meet these demands while also contending with backlogs that grew due to decreased onsite staffing designed to protect the health and safety of staff and operations as well as a surge in violent crime.

Law enforcement, also hit hard by COVID due to their exposure, is battling this surge in crime during a time of heightened scrutiny.

And attorneys and courts are straining to meet the obligations of a speedy trial.

Jails, meanwhile, are packed and struggling with COVID outbreaks. And the community is demanding safety.

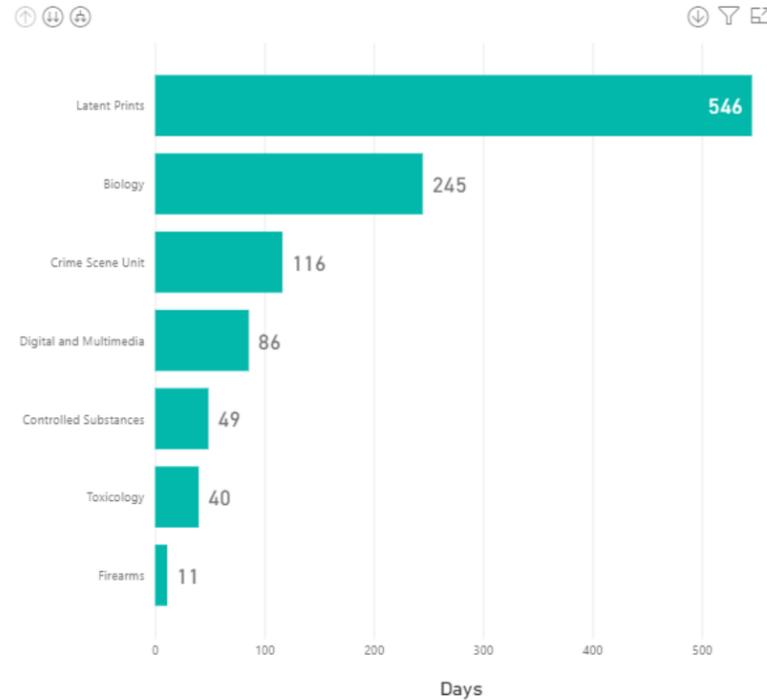
With all these competing interests and the instinct for each part of the system to pull in its own direction and immediate need, we risk the entire system unraveling. This is not sustainable.

Now is the time for us all to communicate and embrace transparency to ensure the system's success _ leading to community safety _ rather than operate in a manner that will serve only a momentary need and ultimately lead to long-term failures.

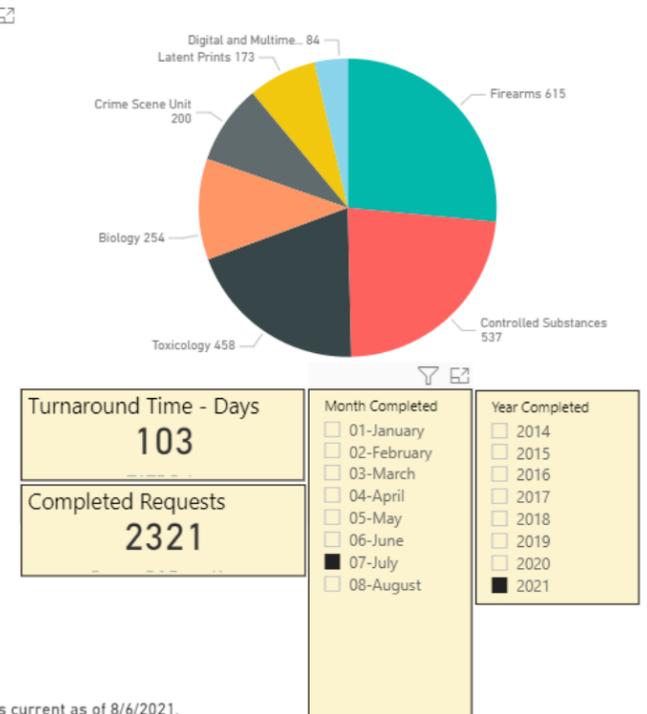
Peter Stout, Ph.D.
CEO/President

HFSC At A Glance

Average Turnaround Time for - July 2021



Requests Completed by Section



Turnaround Time - Days	103
Completed Requests	2321

Month Completed

- 01-January
- 02-February
- 03-March
- 04-April
- 05-May
- 06-June
- 07-July
- 08-August

Year Completed

- 2014
- 2015
- 2016
- 2017
- 2018
- 2019
- 2020
- 2021

This data is current as of 8/6/2021.

Looking at this data it is clear that even during pandemics, freezes, hurricanes, moves and other planned and unplanned disruptions, the Houston Forensic Science Center continues operating at full force.

HFSC analysts completed more than 2,300 requests in July, a number they keep pace with or exceed every month. And yet, as requests increase, the group finds itself facing growing backlogs and increasing turnaround times.

An overall 14 percent increase in requests this year is impacting all sections. Greater complexity and more evidence items per case is also challenging.

Some of the increased turnaround times _ such as in latent prints _ are an indication the group is digging into a long-standing backlog. But in crime scene and multimedia this is simply the result of a staff stretched thin, keeping up as best as possible with an increase in violent crime straining the system. As courts ramp up, this will likely continue.

For more information, please visit www.houstonforensicscience.org

Training forensic scientists

Years of on-the-job training makes staffing crime labs difficult

Crime laboratories often invest years in training new staff to become proficient in a given forensic science, a reality that often makes it impossible for hiring increases to immediately impact operations, backlogs and turnaround times.

“The reality is that our hiring practices have long-term benefits and fail to address current problems, such as increases in requests for service,” said Dr. Peter Stout, HFSC’s CEO and president. “This also means that as we train new analysts _ whether they are hired as additional resources or to replace folks that have moved on _ our backlogs likely will grow and so will our turnaround times.”

Hiring is also designed to address current numbers and by the time staff are fully trained and approved to work independently on casework, demand may have increased meaning capacity is almost always lagging behind.

The Houston Forensic Science Center, like crime labs nationwide, struggles with this mismatch in all disciplines.

“Until we start providing crime laboratories with enough resources to deal with surprises, including a sudden increase in requests, we will always have backlogs and turnaround times that don’t



properly meet the needs of the justice system,” Dr. Stout said.

Additionally, training a new staff member requires an experienced employee to oversee the process from beginning to end, further impacting capacity and operations.

Depending on the discipline, the training can take between six months to two years. Often, this includes a period of time when the new employee can only do casework while overseen by a more

“The consequences of a weak training program or an improperly trained analyst can be significant.”

experienced staff member.

At the end of the training, the new employee must complete competency exams and the entire training program is reviewed by the quality division before the person is authorized to complete casework.

The process is intentionally detailed and thorough.

“The consequences of a weak training program or an improperly trained analyst can be significant,” said Erika Ziemak, HFSC’s quality division director.

“The goal of each training program is to ensure our analysts have the practical and educational background and information they

need to provide reliable results to the criminal justice system knowing that people’s lives depend on sound scientific findings,” she added.

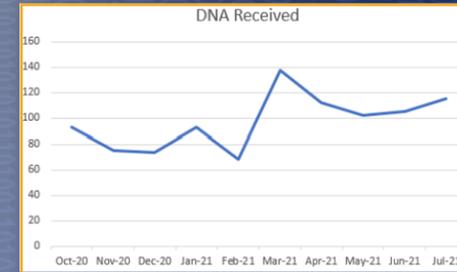
HFSC complements training with a robust continuing education program designed to ensure staff keep up with the latest scientific research and constantly bolster their knowledge.

“We have no choice but to ensure we have a vigorous training program as part of our commitment to quality,” Dr. Stout said. “That said, we also need to ensure we have resources to address demand and stakeholder needs and often-times we find ourselves struggling in part because it takes so long to replace or add staff, an issue we are now contending with at HFSC as we look at requests increase across the board.”

Requests for HFSC services have increased by 14 percent this year. Much of the increase is driven by demand for CSU, firearms and DNA services, however, all sections have been impacted. CSU has been struggling to respond to a nearly 40 percent increase in homicides and a steady rise in requests for vehicle processing. Firearms, meanwhile, is struggling with both an increase in requests to image guns into the ATF-database and a more recent rise in comparison requests. CSU is currently adding staff, however, staff hired today will not be authorized to independently process scenes for at least six months.

“There is no question this lagtime impacts the entire justice system,” Dr. Stout said.

HOUSTON FORENSICS SCIENCE CENTER DNA requests increase, impacts backlog



The forensic biology/DNA section has seen requests for some testing increase by more than 40 percent, impacting plans to eliminate a backlog by early 2022.

The section now projects it will eliminate its backlog of just over 1,300 requests in the summer of 2022.

The increase in requests is for all non-sexual assault kit (SAK) cases. The section received 403 non-SAK requests between October 2020 and February 2021. From March 2021 and through July, requests for non-SAK analysis jumped to 572, a 42 percent increase.

“We cannot keep up with what is coming in through the door and eliminate the backlog by February 2022 with the same resources,” said Courtney Head, manager of HFSC’s forensic biology/DNA section. “We also cannot increase our staffing enough to address the increase in these requests since it takes at least a year to train a DNA analyst.”

The section does have a few analysts who should complete their training in the coming weeks and this will help with some of these challenges, though still not enough to eliminate the backlog in the first quarter of 2022.

“For months now, analysts have met or exceeded projections for how many cases would be completed in a given month, however, it has not been enough to keep up with the rapid increase in requests,” Ms. Head said.

More veteran analysts are able to complete about 18 requests per month. But newer analysts are

not experienced enough to complete that many.

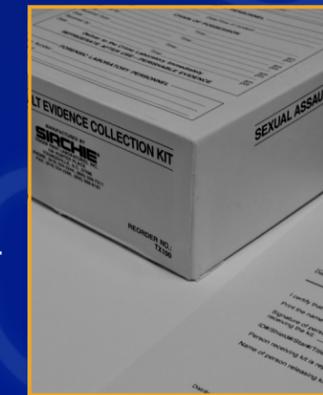
HFSC also recently introduced new software that allows for more DNA mixture data to be interpreted. That software, however, produces far more data meaning it takes longer to complete the analysis.

“New technologies always have pros and cons and in this instance we want to use the probabilistic genotyping software because of the new mixture-interpretation possibilities it provides,” said Dr. Peter Stout, HFSC’s CEO and president. “At the same time, it takes longer to fully train an analyst and for them to become comfortable with the data. It also takes far longer to sift through the information since there is so much more to interpret.”

The new backlog elimination projection is based on the number of requests received during the past five months as well as the expected addition of analysts who will be completing training.

“But, while this all looks great on paper, we are running on a razor-thin margin, meaning if one person leaves or requests increase beyond our current expectations, we will, once again, have to revisit these timelines,” Dr. Stout said.

“While having backlogs is not ideal and certainly impacts the justice system, we will not compromise quality in our effort to eliminate these backlogs and we will certainly not risk our staff’s health and safety,” he added.



Vehicles: Requests for processing up 64% since 2019



The Houston Forensic Science Center is now routinely processing at least 65 vehicles a month, up from about 40 per month in 2019.

This rapid increase in vehicle requests is further stretching a unit directly impacted by the surge in violent crime, especially homicides.

The escalation in vehicle requests is also creating capacity issues at the vehicle examination building (VEB.) The downtown facility has only eight bays for processing _ now nearly always full _ and a small parking lot to hold waiting cars.

“Simply moving cars in and out of the area to allow us to do our work has become a game of Jenga,” said Carina Haynes, HFSC’s CSU director.

“And this doesn’t even account for the human Jenga we are playing trying to find enough staff to process both scenes and vehicles,” Ms. Haynes added.

Processing vehicles associated with crimes or that are the scene involves many of the same steps and techniques applied at more traditional crime scenes. CSIs lift fingerprints, swab for DNA, collect and package evidence and take photos and video to document the vehicle. It takes about five hours to fully process a car, not including the time it takes to write a final report.

“This increase in vehicle requests alongside the rise in homicides and other violent crimes is not sustainable,” said Dr. Peter Stout,

Requests for the crime scene unit to process vehicles for evidence have increased 64 percent since 2019 and another 21 percent compared to last year. This is in addition to a rise in violent crime that has stressed the 35-member unit as they respond to homicides and officer-involved shootings across Houston’s 680-plus square miles.

HFSC’s CEO and president. “Often a CSI begins processing a vehicle and is called away in the middle to respond to another scene. We do not have the staff at the moment to dedicate folks exclusively to the VEB. But it appears to meet Houston’s demand we may need to do that.”

At this time, however, with only 35 people in the group including supervisors, that is not possible.

Another challenge with processing vehicles is that the search warrant that allows for the CSIs to enter and collect evidence from the car is limited in time. If the warrant expires before processing has occurred, CSU may not be able to complete the work at all or another warrant may need to be obtained.

“Keep in mind, we are dealing with evidence and a crime scene. This can’t be recreated and we can’t go back if something goes wrong,” Dr. Stout said. “We have to think of everything from the time limitations set by the court to the potential for contamination or evidence loss. The more vehicles we receive the more difficult this becomes.”

There have also been issues for a long time with space at the VEB and now, as numbers increase rapidly, those

limitations are creating even more problems. With only eight enclosed bays, vehicles wait outdoors to be processed. This can lead, for example, to the loss of evidence _ such as fingerprints or blood _ when it rains. Sometimes, if a window is broken, there is also a risk to



evidence on the inside of a vehicle.

While these issues are of greatest concern because they could actually impact a case, other problems caused by space limitations _ including the need to move vehicles around with a forklift _ create inefficiencies and slow down the process.

“We are grateful we were able to do some much-needed repairs last year at the VEB, but we also know we cannot in the current facility with the current resources reach maximum efficiency,” Dr. Stout said.



Survey: HFSC makes improvements from feedback

By Erika Ziemak



Continuous improvement



The Houston Forensic Science Center has received 65 survey responses since February 2020 when it added the survey link to the bottom of all staff emails in an attempt to more easily collect stakeholder feedback.

The majority of survey responses indicate stakeholders are satisfied or very satisfied with HFSC's services, however there have been occasions where stakeholders have expressed dissatisfaction.

HFSC had previously had a survey link available on its website but received few responses, leading to the decision to put a hyperlink at the bottom of all staff emails. The hyperlink reads "Help us improve! We would like to ask you a few questions about HFSC and our services. Please take this short survey."

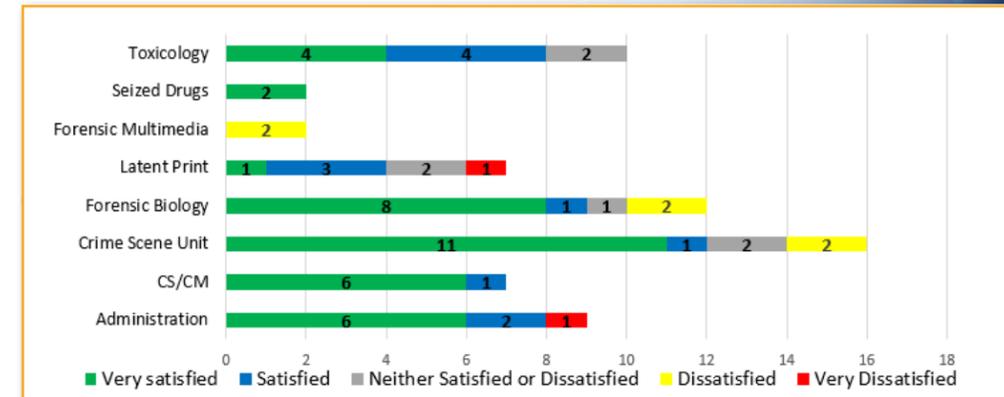
Soliciting stakeholder feedback is not only an accreditation requirement, it is also a key element to a strong quality management system. HFSC is building a culture of continuous improvement and that involves considering not only suggestions for process improvements from staff, but also suggestions from stakeholders. Stakeholders are in a key position to view the laboratory's processes from a unique perspective and HFSC is interested in all suggestions for improvement.

All survey responses are

documented, and the quality division works with the necessary parties to address responses that are dissatisfied or very dissatisfied. In some instances, HFSC seeks also to make improvements even when a stakeholder indicates satisfaction but comments on a process that could be better.

One "very dissatisfied" response centered around the slow turnaround times in the forensic biology/DNA laboratory despite the section's efforts to outsource cases and cross-train analysts to increase in-house capacity. The second "very dissatisfied" survey called HFSC to stand up a trace analysis section despite a concerted decision to close that section after careful consideration and communication with the Houston Police Department, HFSC's primary stakeholder.

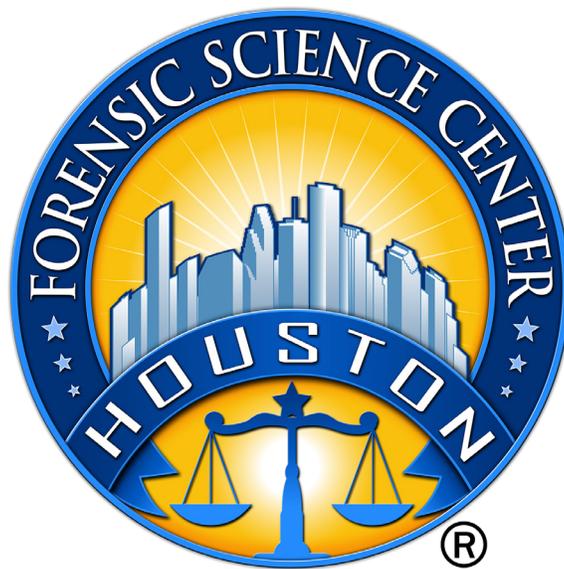
HFSC did not make changes in response to those comments, however actions have been taken to address other concerns voiced through the survey. Improvements have been made to the multimedia section's communication around scene response based on a response received from an investigator. The latent print section created standardized rejection language in response to an investigator who expressed confusion with the section's request acceptance practices.



The Houston Forensic Science Center has been gathering stakeholder feedback for about 18 months via survey link at the bottom of staff emails. Most responses have indicated satisfaction with HFSC services, however, HFSC has also made improvements based on comments expressing confusion or dissatisfaction. Stakeholders have a unique perspective into laboratory processes and HFSC will continue to review survey responses with an eye toward continuous improvement.

YOUR OPINION MATTERS





Contact Us

500 Jefferson St., 13th floor, Houston, TX 77002

info@houstonforensicscience.org

(713) 929-6760

Law Enforcement Agencies, Attorneys and Courts

(713) 929-6760 for local calls

Fax: (832) 598-7178

info@houstonforensicscience.org

legal@houstonforensicscience.org

Job Seekers

Fax: (888) 396-7190

hr@houstonforensicscience.org

Houston Forensic Science Center, Attention: HR Recruiter, 500 Jefferson St., 13th floor, Houston, TX 77002

Media Relations

Media resources are available 24 hours a day, seven days a week.

media@houstonforensicscience.org (Media requests)

pia@houstonforensicscience.org (Public Information Act requests)

(713) 703-4898 (Mobile)