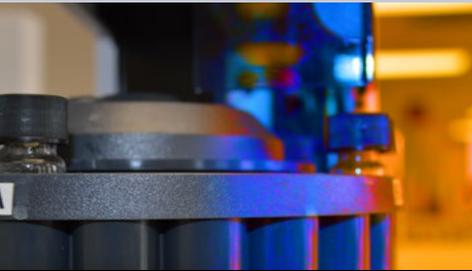


WHAT'S NEWS @ HFSC

HOUSTON FORENSIC SCIENCE CENTER • NOVEMBER 2017

HFSC Brings Leading Expert on Cognitive Bias, Dr. Itiel Dror, to CSI Academy

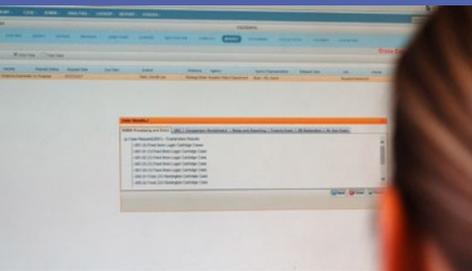
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Dr. Itiel Dror, a leading international expert on cognitive bias, presented a two-day workshop to HFSC's new crime scene investigators.

Dr. Dror has researched cognitive bias in forensics. His research has found that certain information can bias a forensic scientist and influence the objectivity of the result. Being aware that such bias exists and can be influenced by environmental and informational factors can help investigators, scientists and crime laboratories put policies and procedures in place to minimize such exposures.

During the crime scene specific workshop, Dr. Dror provided the CSIs with a brief introduction on how the brain collects and processes information, and the limitations of that power. Dr. Dror then gave a number of tests that demonstrated how the brain compresses and assimilates information.

The CSIs have been introduced to forms of bias that can affect them in their work, and participated in a number of activities that demonstrated how significantly our own biases impact how

we perceive our environment and influence decision making.

Finally, Dr. Dror provided the group of 13 CSIs who recently graduated HFSC's first-ever academy, with methods to deal with cognitive bias and minimize its impact on their work.

"Dr. Dror's presentation improved my interpretation of how the human brain can be biased and how to counter its affects to ensure impartiality in making critical decisions, such as those performed while at a crime scene," said Jake Lambuth, a CSI who attended the two-day workshop.

Dr. Dror also gave a two-hour lecture to all of HFSC's employees, providing them with a basic overview of how the brain works and showing examples of how quickly the brain processes information and how easily that data can be inadvertently manipulated, leading to bias.

Simply being aware of how experience, environment and other factors can lead to bias, can help minimize the problem because an agency can then set down policies that minimize the problem.

"HFSC has taken and will continue to take steps to decrease bias in its work," said Dr. Peter Stout, HFSC's CEO and president.



A Few Words From Our PRESIDENT

HOUSTON FORENSIC SCIENCE CENTER

Peter Stout, PH.D.
CEO/President

I have been thinking recently about risk, change, difficult decisions and their consequences. The more HFSC chooses a path others have not yet tread on, the weight of the journey becomes apparent. It is hard to be different. It can be scary and exhausting, and there are moments when running back to the safety of "the known" seems like the best bet. My oldest boy is a self-professed history nerd. This has been great, as it has given me the chance to revisit history lessons I looked past when I was focused on studying the sciences. The Roosevelts, both parts of the family that landed in the White House, faced some of our country's greatest challenges in the last century. Their comments about fear, hard choices and facing those difficulties ring true to me now as I feel HFSC's growing pains and realize not everyone will choose to stay on this road. And that is OK.

A speech Teddy Roosevelt gave in 1910, may be a little dated in language, but the message suits HFSC today:

"It is not the critic who counts; not the man who points out ... where the doer of deeds could have done them better. The credit belongs to the man who is actually in the arena, whose face is marred by dust and sweat and blood; who strives valiantly; who errs, who comes short...who spends himself in a worthy cause; who at the best knows in the end the triumph of high achievement, and who at the worst, if he fails, at least fails while daring greatly."

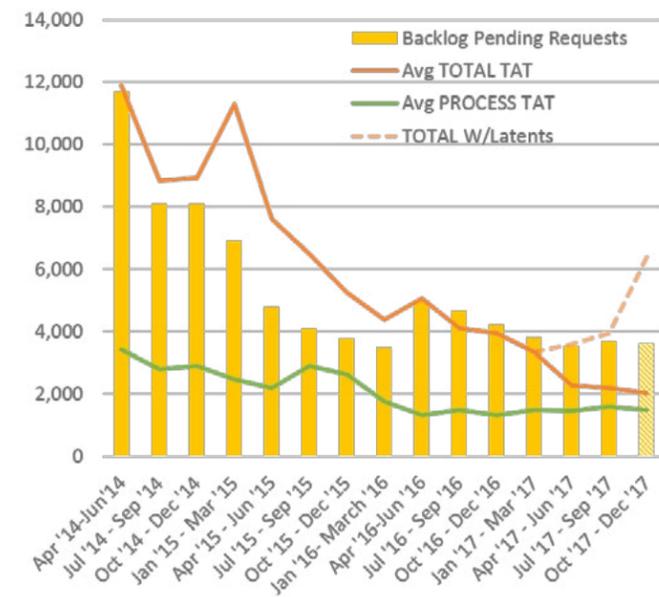
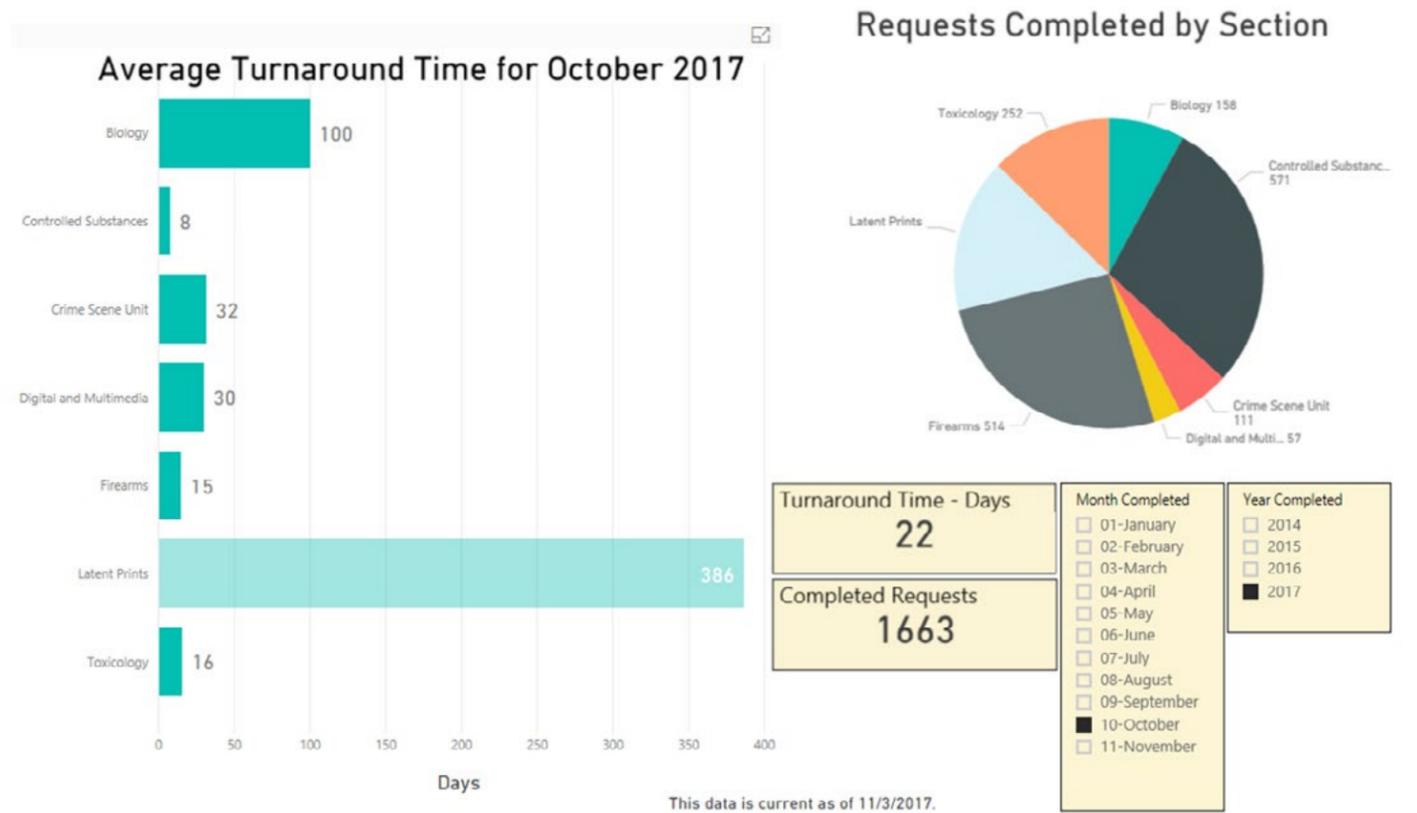
A relentless focus on the right answer quickly and efficiently will in the end benefit every citizen whose life is touched by the justice system. To do this, we must question everything and make hard, data-driven decisions.

Despite the difficulties, we will be better for taking the hard road; for daring greatly to run a laboratory differently. Who's joining me?


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



HFSC's Latent Print Section has been whittling away at a backlog that grew significantly when more than 2,000 cases were received in one week of April 2016. That was when the Houston Police Department found a year's worth of fingerprint requests in the property room and sent them all to HFSC in the span of a few days.

Now, as the group begins knocking out the older cases in that pile, it makes it appear the turnaround time is higher. With the Latent Print Section, the average turnaround time for HFSC is about 70 days. Once that section is removed, the average turnaround time drops to 22 days.

As those older cases are completed, the numbers will be more reflective of HFSC's work. More than 85 percent of the work is completed on average in 22 days.

Please visit the HFSC website at www.houstonforensicscience.org to get the most up-to-date information about backlogs and turnaround times. The information is updated each Friday.

DRUG ANALYSIS: IMPACTS OF CHANGE

HFSC shaves days off turnaround time, with limitations

The Houston Forensic Science Center's Controlled Substances Section made changes in October designed to help the criminal justice system deal with jail overcrowding caused by stalled or delayed trials after Hurricane Harvey.

By looking at the big picture and following the path evidence takes through the system _ which is different from the defendant's road _ HFSC has made process changes that shave several days off the turnaround time from offense to lab result. This allows prosecutors and defense attorneys to more quickly decide which cases should go to trial, which should be dismissed and where a plea deal can be negotiated, alleviating jail overcrowding, a concern for Harris County District Attorney Kim Ogg following the hurricane's destruction of Houston's courthouses.

James Miller, manager of HFSC's Controlled Substances Section, said until his team started looking at the process more deeply they didn't realize there was a delay with evidence getting into the system.

By having evidence dropped off at the lab twice a week, instead of only once, the group has been able to both move evidence through the system more quickly and shorten the lab's process time.

"We've actually improved both processes," Miller said.

Since the new process started in mid-October, it is unclear exactly how much faster work is being completed.

At the moment, the data shows the average turnaround time for drug analysis has dropped from about 11 days to around

eight. But since that data includes a week or so when the lab was only receiving one evidence drop, it remains unclear whether that will remain the turnaround time or further reductions will be seen.

However, since not all cases are created equal there are limitations to what HFSC can do to more quickly complete analysis.

Priority cases _ those prosecutors or law enforcement ask to push to the front of the line because they require drug analysis results to proceed with charges _ are moved out quickly, often within a day or two. Single-item cases, such as a one rock crack case, can be in and out the door in 24 hours.

But larger cases, such as the smoke shop raids that result in hundreds of items of evidence, may not be completed in 30 days. "It is not physically possible to process that amount of evidence in such a short time and do quality work," Miller said.

HFSC works with stakeholders to set expectations on these cases or to identify portions of the evidence that can be processed first to help move the defendant through the system. Unfortunately, it is not always possible to expedite these cases.

Finally, there are cases where additional testing or retesting are requested after the initial work has been completed. The lab's primary focus is on new untested cases so these requests may not be completed in less than 30 days. Again, in these cases HFSC will notify the stakeholders of any anticipated delays.



HFSC's Controlled Substances Section has found ways to cut down turnaround time on drug analysis, with limitations that account for the size and complexity of a case.

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CM CHRISTIE

FUNDS NEW DRUG-TESTING ROBOT

Council Member Jack Christie toured the Houston Forensic Science Center's laboratory several months ago and vowed he would be back with help.

And he kept his promise.

During Christie's visit to the lab, Dr. Peter Stout, CEO and president, explained that while great progress has been made in decreasing turnaround times and eliminating backlogs, HFSC is continually challenged by power supply issues, cramped space and tight resources. Dr. Stout told the council member that HFSC is not able to get enough high-tech instrumentation to deal with some of the newest drug threats, such as synthetic cannabinoids or "Kush" and the opioids.

So Council Member Christie cutback on "paper clips and pens" and gave HFSC \$35,000 to buy a new robot that automates a process that until now had been done more manually, burning time for analysts. The robot is used in the toxicology section, which analyzes biological fluids for the presence of drugs and alcohol.

"The citizens ask us ... keep taxes low but keep us safe," Christie said. "This machine will help expedite catching the bad guys."

Christie, who is a medical doctor, shared with the board of directors a story about a 13-year-old girl he knew who had been taking Adderall to treat ADHD. However, Adderall is addictive and one of its side effects is that it creates suicidal tendencies.



This young girl, he said, ended up committing suicide, and is an example of how American society is becoming more dependent on dangerous prescription drugs and opioids.

Houston is cash-strapped and can't fund thousands of more police officers, Christie said. But after touring HFSC, he said he believed providing additional dollars for forensic testing could help battle crime in the city.

"I toured the forensic center and was very impressed with the scientific base," Christie said. "The previous administration appointed some of you all, some of the experts in the field, to keep crime low."



HFSC will begin a phased roll out of its new LIMS in November



Toxicology analysts put chemicals in small tubes loaded onto robots



This robot will automate some work done in the Toxicology Section



Latent print examiners compare fingerprints found in a database

LIMS HFSC'S PHASED LIMS ROLL OUT

HFSC will begin in mid-November the phased rollout of its new Laboratory Information Management System (LIMS.) To ensure minimal disruption to production and laboratory activities, and due to the size of Houston's lab and the scope of the project, disciplines will be brought online incrementally. The Digital Forensic and Latent Print sections will be the first two disciplines to fully operate in the new JusticeTrax LIMS. The remaining disciplines will gradually transition from the current system to the JusticeTrax LIMS in December and January.

What does this mean for HFSC stakeholders?

Initially, very little. Attorneys and law enforcement will continue to receive the same high-quality product. Laboratory reports will be formatted to make them easier to read and consistent between disciplines. Requests for testing will be made in the same manner. Requestors will receive completed laboratory reports via email.

In later phases of the project, stakeholders will see more significant changes to how they make requests. Changes will be communicated in advance and training will be available.

RIGHT ANSWER

Robbers brandishing guns broke into a Houston home in the dead of night.

The terrified residents, the oldest of them held at gunpoint, watched helplessly as the armed robbers emptied the house of guns and jewelry.

Houston Police Chief Art Acevedo declared it an urgent case on October 13. These nighttime home invasions, when burglars break into residences when people are in the house, need to be investigated quickly because it can prevent other, even more violent crimes, in the future.

The chief needed answers quickly to make an arrest.

And so, HFSC's Latent Print Section went to work.

The quick turnaround by HFSC's latent print examiners and crime scene unit is the latest example of the importance of delivering stakeholders with quality, credible, scientific results early on in an investigation.

Tim Schmahl, the Latent Print Section manager, assigned the case at 1 p.m. on October 13 to an examiner. By 3 p.m., suitable palm and fingerprints had been run through the regional database. The Houston Police Department's robbery division had the findings from the full comparison and verification of one finger by 4, as well as other preliminary associations.

Perfect timing.

That quick turnaround allowed HPD to determine whether the information pointed to a suspect. And at least one set did. Prints lifted and developed from a vase by HFSC crime scene investigators appeared to be from a suspect.

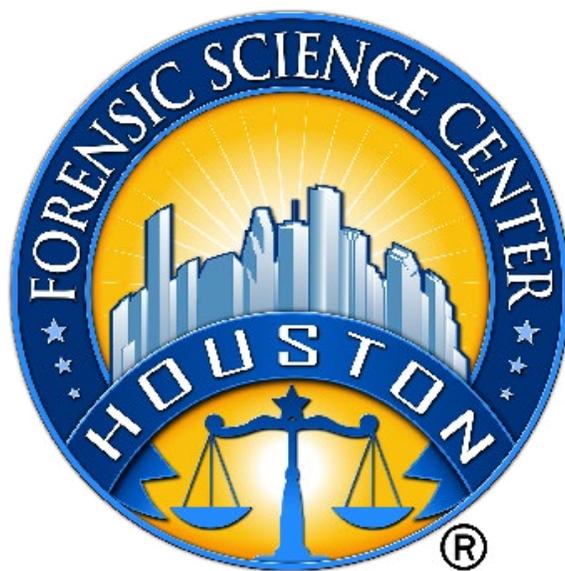
By October 18, the latent case had been closed and fully reported. Two of the 10 latent fingerprints compared traced back to the suspect. Schmahl explained the findings to the investigator.

Arrests have been made, charges have been filed, all in less than a week.

"Police need information early in an investigation to prevent crime," Dr. Peter Stout, HFSC's CEO and president said. "Hence we must provide stakeholders with accurate, credible, scientific results when it is still relevant to their work."

**"POLICE NEED
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RIGHT TIME



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