How Houston’s Crime Lab is Transforming Criminal Justice

Sandra Guerra Thompson, Univ. of Houston
Vice-Chair of the Board of Directors
Houston Forensic Science Center
Objectives

What is Houston Forensic Science Center?

How is it governed?

What has the lab accomplished?

How can a lab transform criminal justice?
How Harris County Deputies Mistook a Sock Full of Cat Litter for a Half Pound of Meth

BY MEAGAN FLYNN
Scientific evidence = trust in justice

Unfortunately, most labs operate like black boxes . . . that sometimes explode.
“NAS report”

• 2009
• 13 recommendations
• Separation of forensic science operations from law enforcement or prosecution
COPS IN LAB COATS

Curbing *Wrongful Convictions* through Independent Forensic Laboratories

SANDRA GUERRA THOMPSON
Building the Infrastructure for 'Justice Through Science': The Texas Model
by Sandra G. Thompson & Nicole Casarez

• Provides an overview of Texas reforms

• Most important reform: Texas Forensic Science Commission

• Also includes discussion of HFSC
What is HFSC?

- A Local Government Corp.
  - A corporation “to aid and act on behalf of one or more local governments to accomplish any governmental purpose of those local governments.”

- HFSC incorporated in 2012 as an LGC for the City of Houston.
How is HFSC organized?

• Corporate structure
  – 9 member board of directors
  – Corporate officers, CEO, COO, CFO, etc.
  – Technical Advisory Group
  – Operates as a federal “Justice Agency”
  – Also, has 501(c)(3) status

• April 2014 – Took management responsibility from HPD.
Current Stats

7 Disciplines
• Crime Scene
• Controlled Substances
• Toxicology
• Digital and Multimedia
• Latent Prints
• Biology
• Firearms

Stats
• ~27,000 requests last calendar year
• 180-190 staff
• ~80,000 sq ft of facility
  – 11 floors, 4 buildings
• ~60% of staff is <35yo
• ~72% of staff is female
What has been accomplished?

*82% in avg TOTAL turnaround time
*67% in backlogged requests
*57% in avg PROCESS turnaround time
*94% in WAIT gap

*Data impacted by latent print backlog. Statistics calculated without latent prints
Tectonic Shift in Values

• “Radical Transparency” = Public Trust
  • Public Board of Directors meetings
  • Board meeting videos posted online
  • Meeting documents posted online (budgets, backlogs, incidents, audits)
  • Public Relations director responsive to the media & puts out news releases on incidents.
  • Searchable eDiscovery database of lab documents publicly available (SOPs, corrective action reports)
eDiscovery & Quality

• Quality reports to CEO
• Blind quality control
• Increased reporting
• Increased access
Other New Lab Values

• Redefining the “client” as the entire criminal justice system—not only police and prosecution.

• Quality -- pioneered blind quality testing in five disciplines, also live testimony monitoring & transcript audits.
Other New Lab Values

• **Studied Efficiency**
  – Lean Six Sigma has increased lab efficiency
  – High efficiency lab building concept

• **Developing research culture**
  – Publishing papers, applying for grants
  – Solidifying the scientific basis of forensics
  – Improving processes, new applications
Lean Six Sigma: a methodology that relies on a collaborative team effort to improve performance by systematically removing waste and reducing variation. It combines **lean** manufacturing/lean enterprise and **Six Sigma** to eliminate eight kinds of waste.
How the Lab is Transforming State Criminal Justice

• Texas Forensic Science Commission has asked HFSC to assist it in studying crime scene investigation standards.
• Texas DPS has now begun posting corrective action reports.
• Other labs watch board meetings and study the lab’s SOPs.
Building Parity with Law Enforcement

• Quick lab results help solve cases.
• “Investigative leads” in latent prints, firearms—popular with investigators.
• Hurdles have included disagreements with police union over HFSC’s Crime Scene Unit, which until recently employed mostly officers.
• CSU investigates homicides & officer-involved shootings. Now all civilian.
Transforming *Local* Criminal Justice

- Controlled Substances Section had a 14-day turnaround that allowed creation of “impact docket” to get people into rehab quickly.
- October 2017, post-Hurricane Harvey, courts trying to reduce jail overcrowding caused by storm delays.
- CS section tweaked process to reduce turnaround from 14 days to *7 days*!
Uncovering Wrongful Convictions

• In 2014, Controlled Substances section tested drugs from cases that had already resulted in guilty pleas.
• Found hundreds of cases where tests showed no CS, different CS, or different weight CS.
• Most other labs destroy drug evidence if there’s a guilty plea pre-testing.
Some Future Goals

• eDiscovery portal for prosecutors and defense attorneys.
• Providing reasonably priced forensic work for defense attorneys.