

Building Forensic Science Accountability Together

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SEEKING
JUSTICE FOR THE
UNJUSTLY
INCARCERATED



CARDOZO
Benjamin N. Cardozo School of Law



ISO 26000:2010(en) Guidance on social responsibility

2.1

accountability

state of being answerable for decisions and activities to the organization's governing bodies, legal authorities and, more broadly, its stakeholders



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2.20

stakeholder

individual or group that has an interest in any decision or activity of an organization



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2.21

stakeholder engagement

activity undertaken to **create opportunities for dialogue** between an organization and one or more of its stakeholders, with the aim of providing an informed basis for the organization's decisions



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2.24

transparency

openness about decisions and activities that affect society, the economy and the environment, and **willingness to communicate** these in a clear, accurate, timely, honest and complete manner

**Your transparency will lead to
other people's transformation.**

Trent Shelton

Positionality

- Scientist
- 15+ years of forensic science policy with innocence organizations
- Observer of forensic science oversight bodies across U.S.

1

**What does
accreditation
do?**

2

**What does
oversight do?**

Incident Reporting + Response

Aviation

Medicine

Forensic Science

Reporting

All accidents are investigated, and incidents are reported (Aviation Safety Reporting System, 2001)

Includes all patient safety events (Stavropoulou et al., 2015)

Includes nonconformities (ISO 17025, 2017)

Use for understanding and learning!

(Cook et al., 1998; Vincent, 2007; Howell et al., 2017)

Visibility

Accidents are highly visible, infrequent, can incur mass casualties (Helmreich, 2000)

Less visible, frequent, impacts individuals (Stavropoulou et al., 2015)

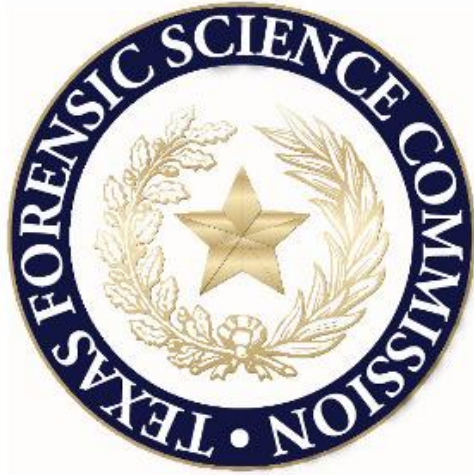
Less visible, frequency unknown

Disclosure

Ideally: confidential, voluntary, non-punitive (Aviation Safety Reporting System, 2001)

Ideally: non-punitive, confidential, independent, analyzed by experts, timely, systems oriented, responsive (Leape, 2002)

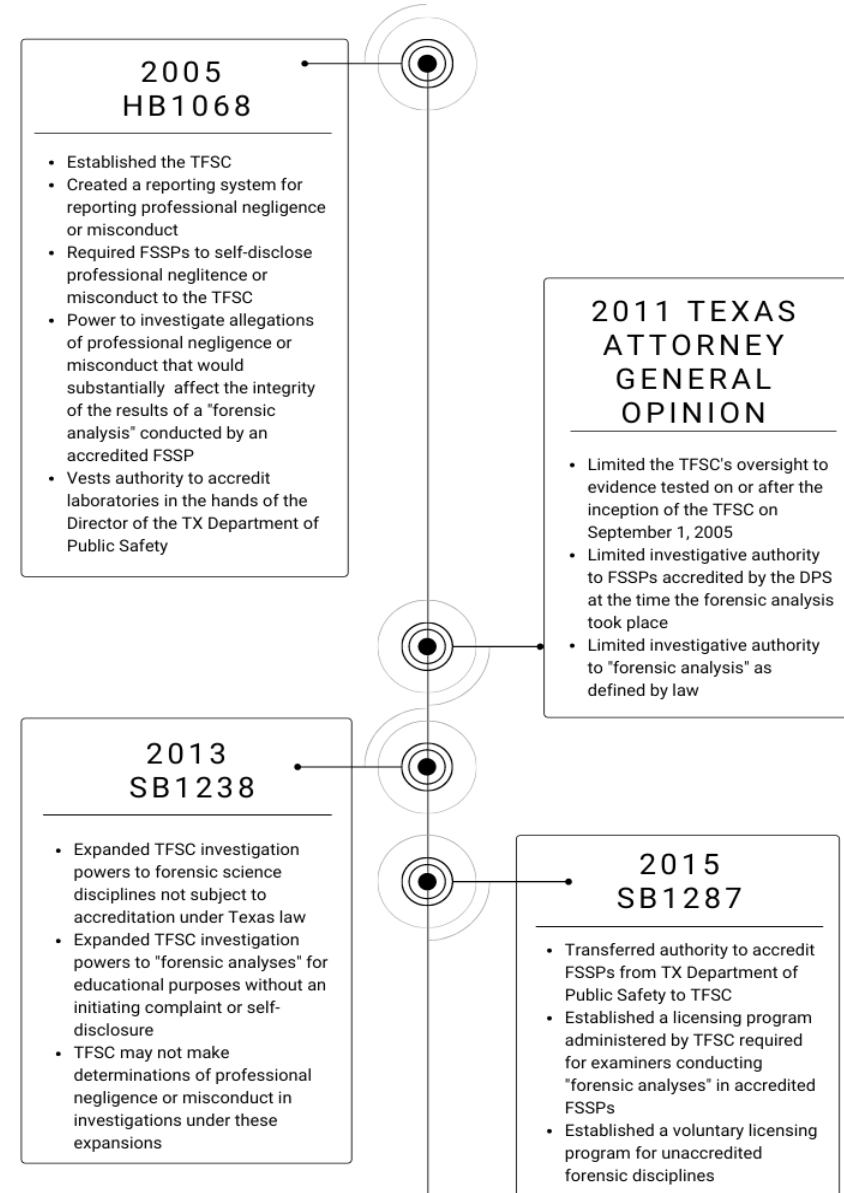
Cannot be confidential (Lipscomb, 2017; 83(R) SB 1611, The Michael Morton Act, 2013)



“Many elements of the legislature’s objective in creating the TFSC would not have been achieved through the ASCLD-LAB accreditation process alone.”

(Hinojosa and Garcia, 2012)

Evolution of Powers and Duties
Texas Forensic Science
Commission



Methods

Research Questions

What are the characteristics of complaints and self-disclosures?

Are complaints and self-disclosures significantly different?

Sample

207 Complaints

Filed by stakeholders, public

98 Self-disclosures

Filed by forensic science service providers overseen by TFSC

Produced between 2016-2020

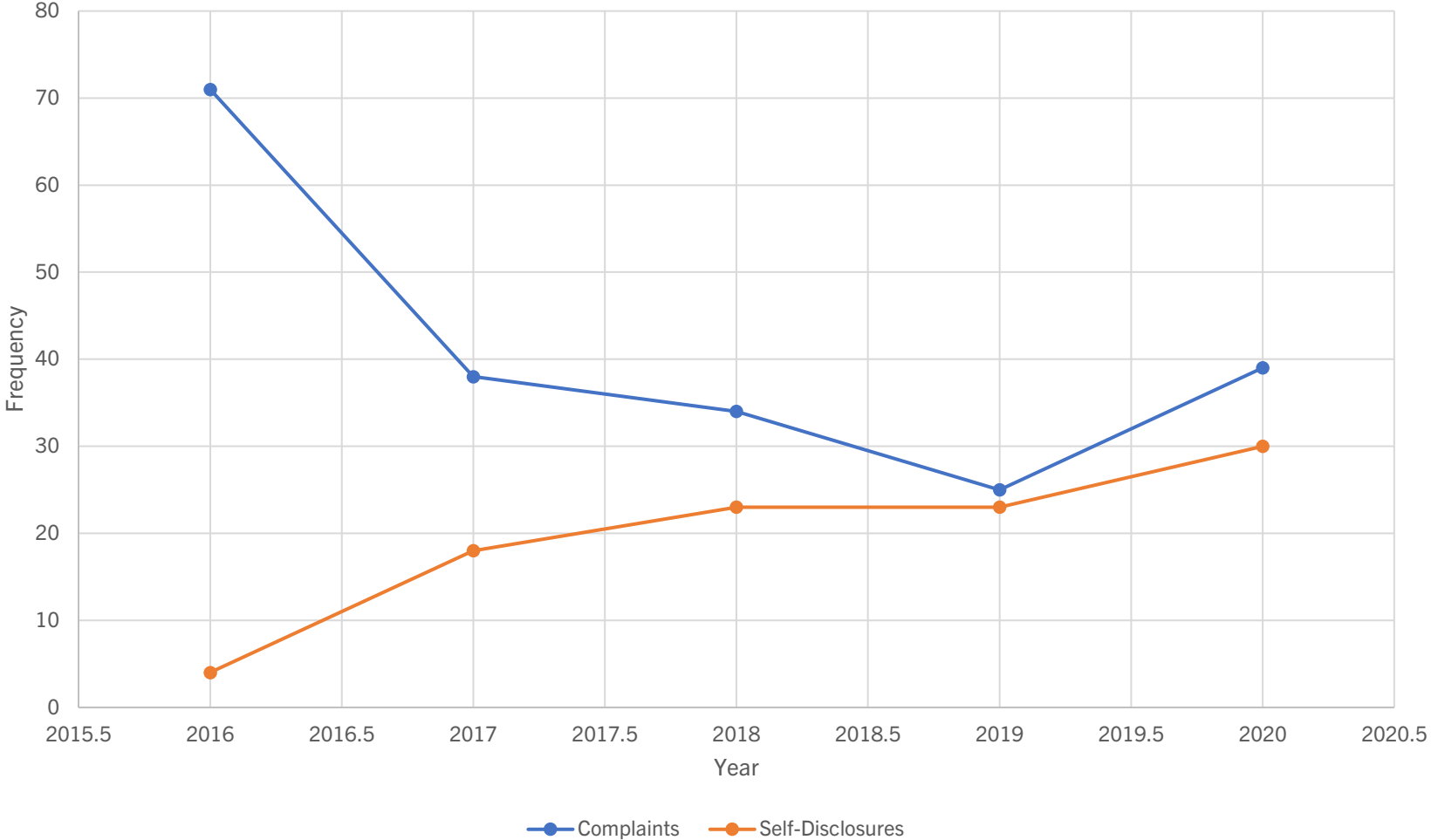
Method

Conceptual content analysis

Descriptive statistics

QUANTITATIVE Results

Distribution of Complaints and Self-Disclosures over Time



QUANTITATIVE

Results

TFSC Submissions

Submission Variables	Complaints		Self-Disclosures		Total		X ²
	n	Col%	n	%	n	%	p-value
Type of Complainant							0.000
Prosecutor/Law Enforcement	1	0%	0	0%	1	0%	
Defense Organization	7	3%	0	0%	7	2%	
Forensic Organization	0	0%	98	100%	98	32%	
Individual Person	199	96%	0	0%	199	65%	
Location of FSSP							0.003
Outside Texas	4	2%	9	9%	13	4%	
In Texas	203	98%	89	91%	292	96%	
Forensic Science Practice							0.000
Biology/DNA	85	41%	22	22%	107	35%	
Toxicology	26	13%	21	21%	47	15%	
Seized Drugs	11	5%	30	31%	41	13%	
Other	36	17%	3	3%	39	13%	
Firearms/ Toolmarks	20	10%	7	7%	27	9%	
Crime Scene	15	7%	4	4%	19	6%	
Friction Ridge	2	1%	6	6%	8	3%	
Autopsy	7	3%	0	0%	7	2%	
Evidence Coordination	1	0%	3	3%	4	1%	
Arson/Fire Debris	2	1%	1	1%	3	1%	
Trace Evidence	2	1%	1	1%	3	1%	
Quality Assurance	0	0%	0	0%	0	0%	

QUANTITATIVE

Results

TFSC Submissions

	Complaints		Self-Disclosures		Total		X ²
	n	Col%	n	%	n	%	p-value
Submission Variables							
Type of Allegation							0.000
Negligence and/or Misconduct	144	70%	10	10%	154	50%	
Non-Accredited Discipline or Nonconformity	3	1%	87	89%	90	30%	
Other/Unknown	60	29%	1	1%	61	20%	
TFSC Disposition							0.77
Dismissed	197	95%	88	90%	285	93%	
Accepted	10	5%	10	10%	20	7%	
ANAB Disposition							
Dismissed			96	99%			
Further Action			1	1%			

Forensic Science Quality Management Infrastructure

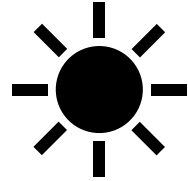


Patient Safety

(Leape, 1994; Reason, 2000)

Mistakes are opportunities for learning

Seek system level root causes rather than blaming people



Disclosure

(Leape, 2006; Eaves-Leanos & Dunn, 2012)

Disclosing errors is an ethical obligation, professional duty, and legal and regulatory mandate.



Reintegrative Shaming

(Braithwaite, 1989)

Behavior that does not harm others should not be punished.

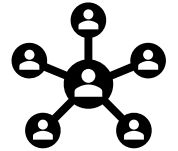
Behavior causing harm, should be held accountable with dignity and without stigma.



Repair

(Jackson et al., 2014)

Values of a system become visible during breakdown and in how repairs are initiated.



Culture of Anticipation

(Bechky, 2021)

As a captive occupation, forensic scientists incorporate the views of other stakeholders while doing “boundary work” to exert scientific authority

Methods

Research Question

What did investigations of self-disclosures reveal about how the theories of forensic science quality management infrastructure operate in these contexts?

Sample

5 Self-disclosures

Filed by TX DPS Crime labs
Incidents of evidence loss

Materials

TFSC meeting minutes
Audio/video recordings of quarterly meetings
Official Materials
TX DPS Quality Incident Reports

Method

Qualitative content analysis
Triangulation

QUALITATIVE

Sample

TFSC Record Number	Type of Evidence Lost	Quality Incident	TFSC Response	ANAB Response
18.51	Seized Drug	Evidence accidentally destroyed	FSSP presented corrective actions, no further action	No follow up required, revisit at next assessment
19.33	Seized Drug	Analyst lost evidence in lab after cleaning	FSSP presented corrective actions, no further action	No follow up required, revisit at next assessment
19.37	DNA	Evidence accidentally discarded with packaging	FSSP presented corrective actions, no further action	No follow up required, revisit at next assessment
19.42	Seized Drug	Evidence custodians destroyed evidence from wrong case before it was tested	FSSP presented corrective actions, no further action	No follow up required, revisit at next assessment
19.45	Seized Drug	Evidence from two envelopes from the same case were separated and one was lost	FSSP presented corrective actions, no further action	No follow up required, revisit at next assessment

Forensic Science Quality Management Infrastructure

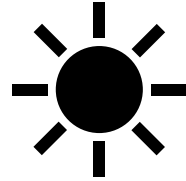


Patient Safety

TFSC offered a safe environment

Safety fostered by allowing FSSPs to provide context and explain their side

Public process followed proactive FSSP remediation



Disclosure

Entire TFSC process was an act of disclosure

Self-disclosure process was a tool for the public accountability



Reintegrative Shaming

Public meeting was itself, as produced by TFSC, is a reintegrative form of shaming

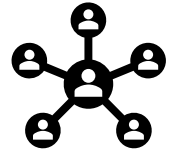
Avoided stigma, commitment to accountability rather than punishment



Repair

Recognized human nature of work (“mistake,” “inadvertent,” “accident”)

Multistakeholder and inclusive approach to investigations



Culture of Anticipation

TFSC was a stakeholder that FSSPs must consider

TFSC also anticipated practical challenges of FSSP operations; offered context

Results

- TFSC activity exhibited hallmarks of all five theories of forensic science quality management infrastructure.
- Culture of anticipation exhibited in interactions between TFSC and forensic science service providers (FSSPs)
- ANAB activity was not detectable during study period.
- Sequencing of review process and different roles for TFSC and ANAB.

Conclusions

- TFSC provided essential oversight
- Complaints fell and self-disclosures rose over time
- When FSSPs actively addressed serious quality incidents after self-disclosure, TFSC acknowledged their work.
- ANAB activity was difficult to detect and TFSC's proactive response was more visible.

Policy Implications

The best oversight is provided by a partnership of both ANAB+state forensic science commissions.

- Accreditation is essential and necessary to quality management, but state forensic science commissions produce accountability and transparency that accreditation cannot.
- Need to recalibrate the role accreditation plays in the forensic science system
- New paradigm → robust ANAB (2023) changes and integration of TFSC recommendations into surveillance activities

Distinguished between quality incidents that require investigative resources and those that can be resolved by FSSPs

Contributed to an evidence base for accreditation and state forensic science commissions

Limitations

- Government documents not produced for the purpose of research (Maxfield and Babbie, 2009)
- Author's expertise and reflexivity have benefits and consequences
- Study is limited to detected and/or reported quality incidents

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