



OSAC Overview and CSI Subcommittee Update

Michael P. Kessler

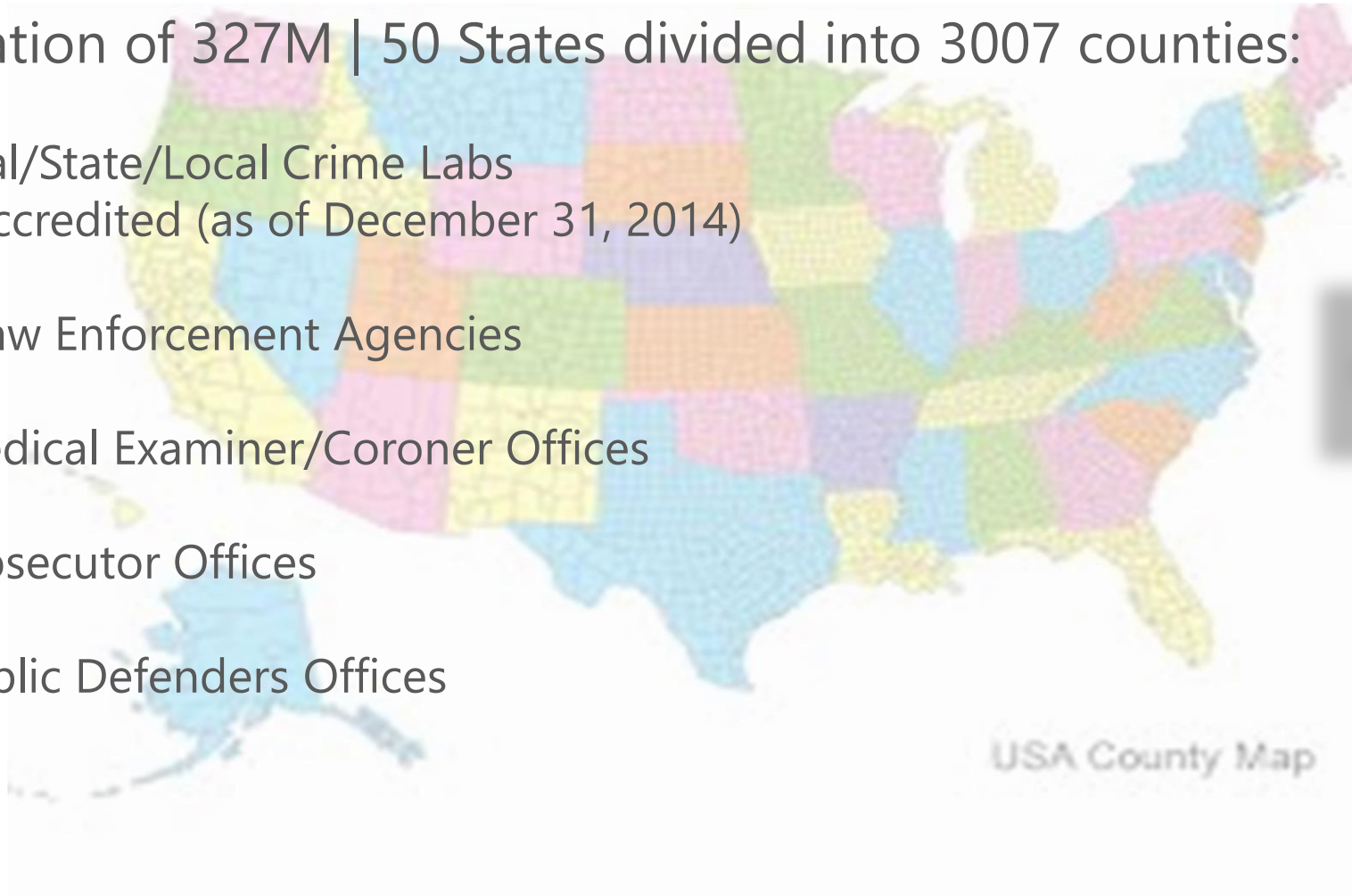
NE Division of the IAI

December 4, 2011

Forensic Science Landscape in U.S.

U.S. population of 327M | 50 States divided into 3007 counties:

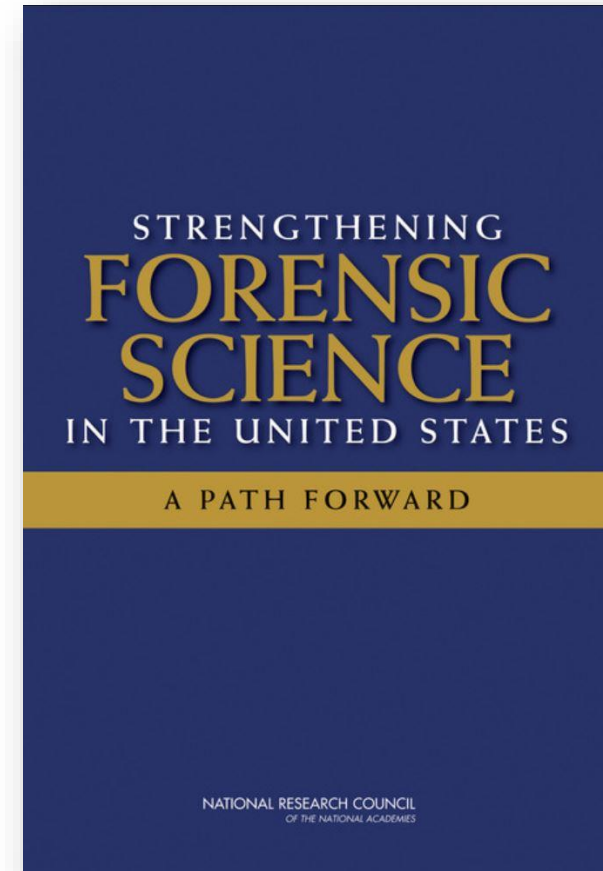
- 409 Federal/State/Local Crime Labs
 - 88% accredited (as of December 31, 2014)
- 18,000+ Law Enforcement Agencies
- 2,400+ Medical Examiner/Coroner Offices
- 2,300+ Prosecutor Offices
- 3,000+ Public Defenders Offices



U.S. has NO forensic science owner!

Issues in Forensic Science

- Fragmented and inconsistent operations within and between jurisdictions
- Under resourced and understaffed labs
- Different types of practitioners with different levels of training and performance standards
- Lack of mandatory training, continuing education, certification, and accreditation programs
- Limited opportunities for research funding
- Lack of standards within and between disciplines



OSAC's Origin

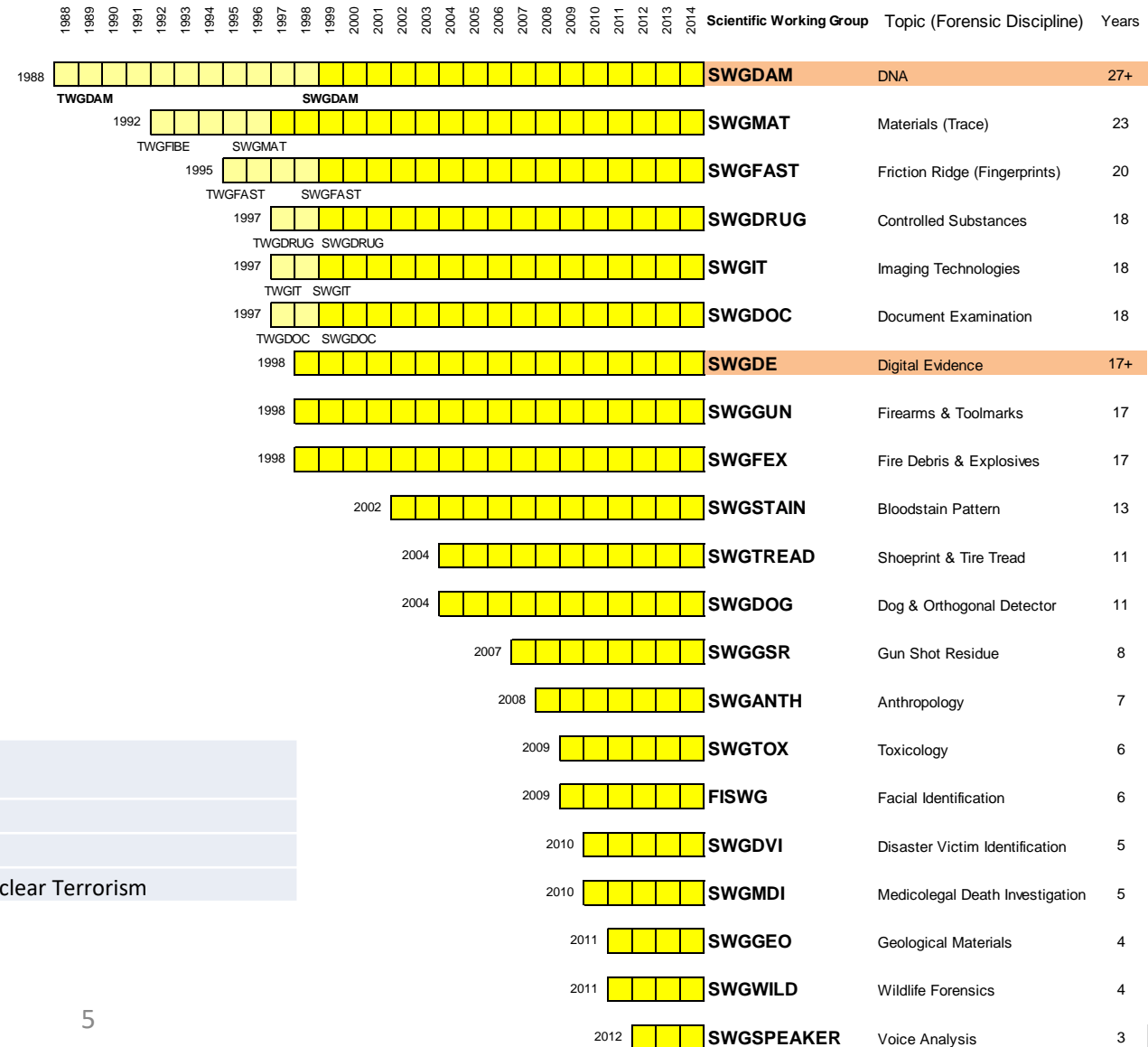
National Academy of Sciences (NAS)
Report published:
February 18, 2009

NIST announces
creation of OSAC at
NCFS: February 4, 2014



Scientific Working Groups (SWGs)

- Collectively, these 21 SWGs have had over 750 participants and produced over 250 documents
- Most SWGs have ceased operations
- SWGDAM, SWGDE, SWGDRUG, & FISWG continue to operate



At least three other SWGs existed previously:

SWGIBRA	Illicit Business Records
SWGMPG	Microbial Genetics and Forensics
SWGCBRN	Chemical, Biological, Radiological and Nuclear Terrorism

OSAC's Objective & Core Principles

HARMONIZATION

To create a sustainable organizational infrastructure dedicated to identifying and fostering the development of technically sound, consensus-based documentary standards and guidelines for widespread implementation throughout the forensic science community

BALANCE

OPENNESS

CONSENSUS

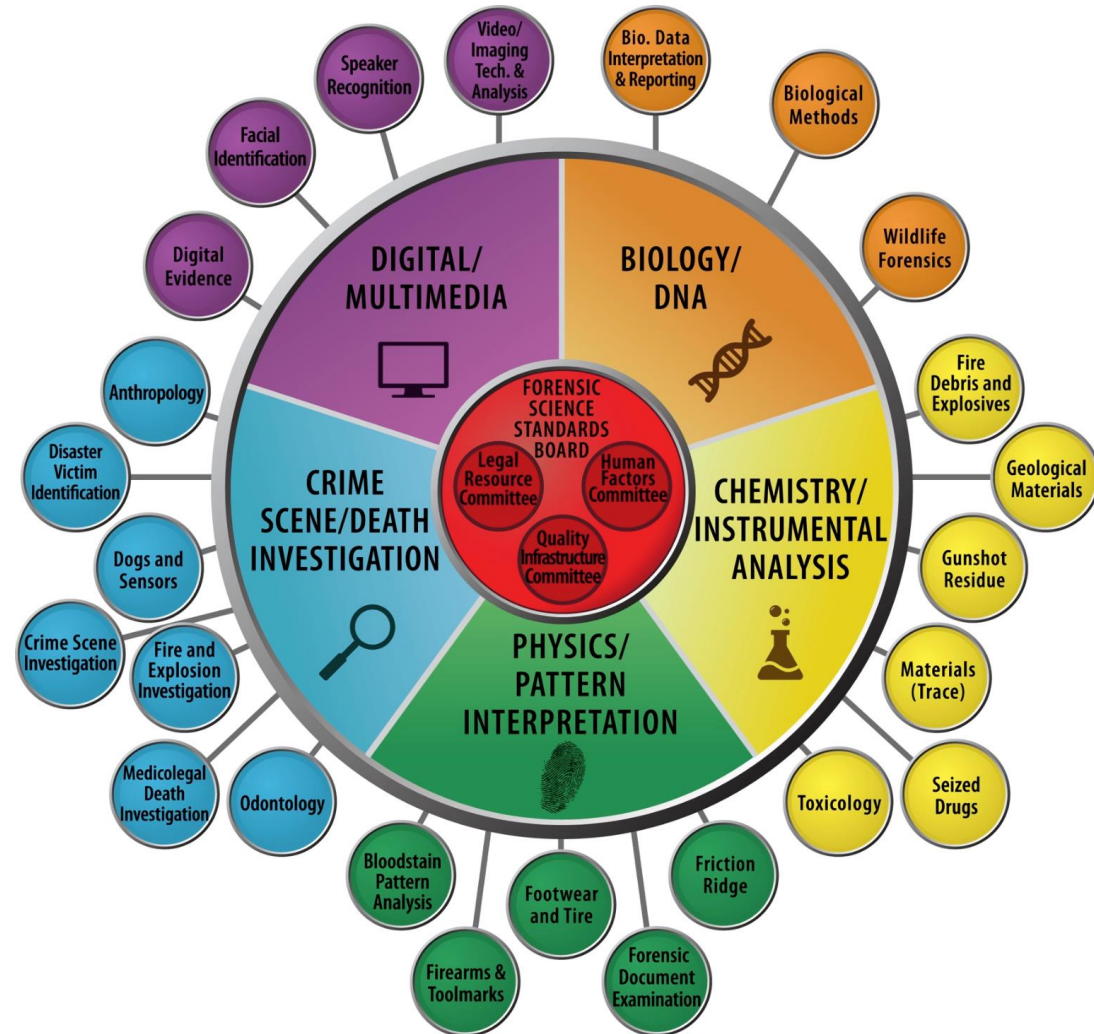
OSAC Stakeholders

To support its mission, OSAC collaborates with and supports a wide-range of stakeholders with varied interests:

- NIST
- The U.S. Department of Justice (DOJ)
- OSAC members (present and future)
- Forensic science service providers
- Academic institutions
- Representatives of the criminal justice system
- International and national standards development organizations (SDOs)
- Professional organizations (forensic science & others)
- Federal, state & local government agencies
- Non-government organizations (NGOs)
- Private sector manufacturers & service vendors supplying forensic service providers
- Quality system providers (accrediting & certifying bodies)
- The public

OSAC's Structure

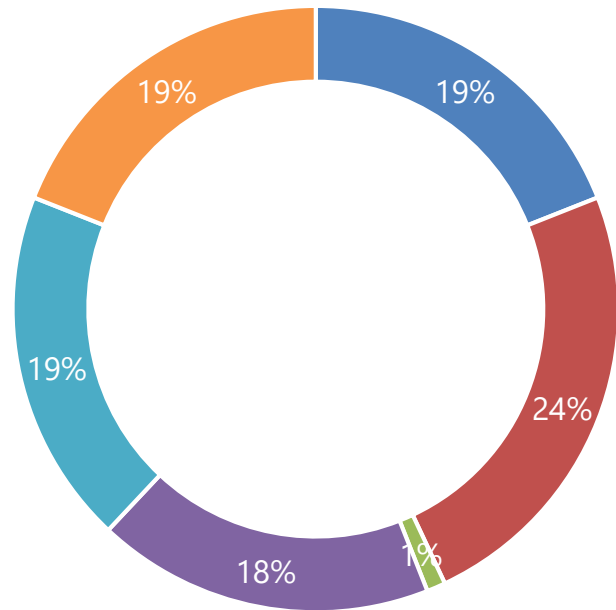
- Forensic Science Standards Board (FSSB)
- Scientific Area Committees (SACs)
- Subcommittees (SCs)
- Resource Committees (RCs)
- Task Groups (TGs)



OSAC Membership Snapshot

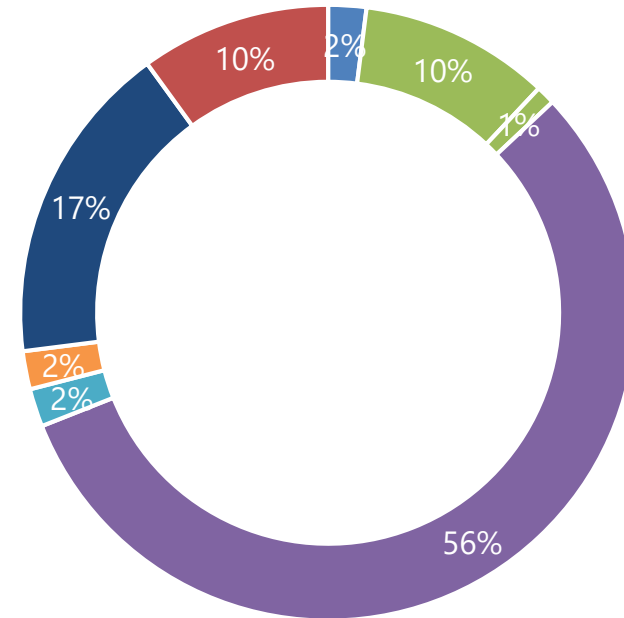


OSAC Employer & Job Classifications



Employer Classification

■ Academic ■ Federal ■ FFRDC ■ Local ■ Private ■ State



Job Classification

■ Attorney ■ Educator ■ Judge
 ■ Practitioner ■ QA Manager ■ R&D Tech
 ■ Researcher ■ Other

What OSAC...

DOES

Facilitates development of science-based standards through the formal SDO processes



Evaluates existing standards published by SDOs for placement on the OSAC Registry



Endorses standards on the Registry & **promotes** their implementation



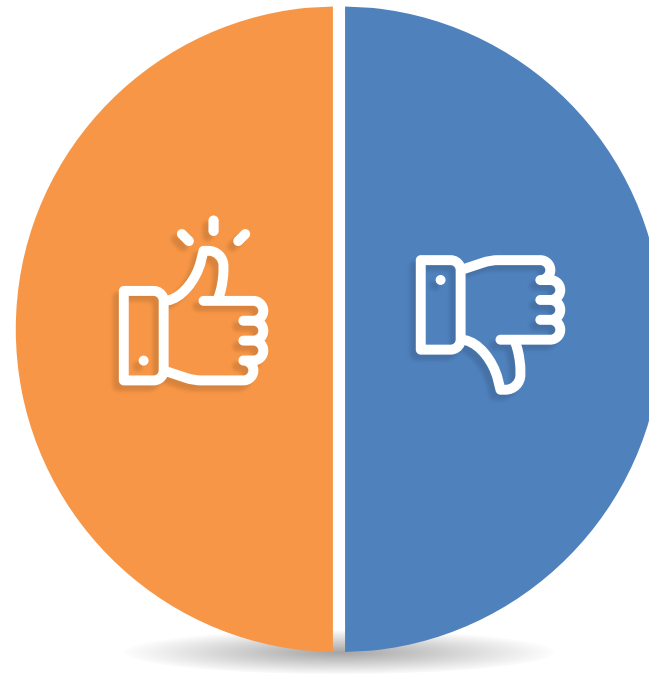
DOESN'T



Publish standards



Have the authority to enforce standards



OSAC Document Tiers



OSAC Registry

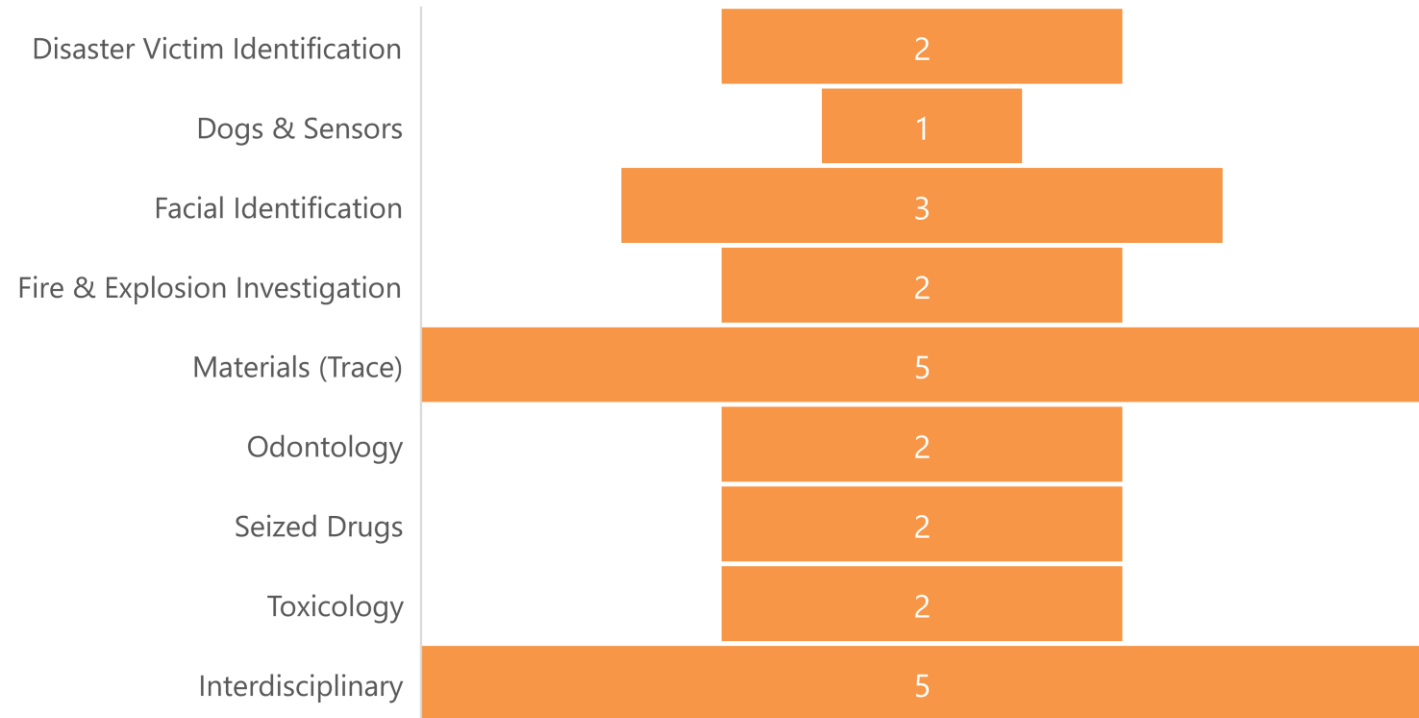


- Trusted repository of high-quality, science-based standards and guidelines for the practice of forensic science
- Documents developed using a consensus-based process and pass a technical merit review by forensic science practitioners, academic researchers, statisticians and measurement scientists
- Adoption by relevant agencies and practitioners encouraged

<https://www.nist.gov/topics/organization-scientific-area-committees-forensic-science/osac-registry>

OSAC Registry Approved Standards

24
documents



<https://www.nist.gov/topics/forensic-science/organization-scientific-area-committees-osac/osac-registry/osac-approved>

OSAC Registry Implementation Pathways

- Self Implementation
- Professional Associations
- Legal Community
- Certification & Accreditation Bodies
- Funding Bodies
- State Forensic Science Commissions/
Regulatory Authorities



<https://www.nist.gov/topics/organization-scientific-area-committees-forensic-science/implementation-plan>

OSAC Lexicon



- 4,000+ terms
- Organized by forensic discipline

<http://lexicon.forensicosac.org/Term/Home/Index>

OSAC Website

www.nist.gov/osac

NIST Search NIST **NIST MENU**

THE ORGANIZATION OF SCIENTIFIC AREA COMMITTEES FOR FORENSIC SCIENCE

Strengthening the nation's use of forensic science by facilitating the development of technically sound standards and guidelines and encouraging their use throughout the forensic science community.

- Organizational Structure
- News & Communications +
- Registry +
- Standards Approval Process +
- Charter, Bylaws and Terms of Reference
- Lexicon
- Research and Development Needs
- Catalog of External Standards and Guidelines
- Access to Standards
- Standards and Documents: Category Descriptions
- Apply to Join OSAC
- Interdisciplinary Activities

FORENSIC SCIENCE TOPICS

- Ballistics
- Digital evidence
- DNA & biological evidence
- Drugs & toxicology
- Fingerprints and pattern evidence



WHAT IS OSAC

Administered by the National Institute of Standards and Technology (NIST), the Organization of Scientific Area Committees (OSAC) for Forensic Science is a collective body of more than 550+ forensic science practitioners and other experts representing all levels of the government, academia, and industry. Together, these members have expertise in a broad array of forensic science disciplines as well as scientific research, measurement science, statistics, law, and policy.

WHAT WE DO

- OSAC is working to strengthen forensic practice through improved standards. To do this, we:
- Facilitate the development of technically sound, science-based standards through a formal standard developing organization (SDO) process.
 - Evaluate existing standards published by SDOs for placement on the [OSAC Registry](#).
 - Promote the use of the OSAC [Registry approved standards](#) throughout the forensic science community.

OSAC members only: To access the internal Google dashboard, please click [here](#).

NEWS AND UPDATES

- Two DNA Standards Considered for OSAC Registry**
NOVEMBER 12, 2019
The Organization of Scientific Area Committees (OSAC) for Forensic Science Registry serves as a trusted repository of...
- Houston Forensic Science Center is an Early Implementer of Standards on the OSAC Registry**



How Can You Get Involved?

Sign up for OSAC communications



<https://service.govdelivery.com/accounts/USNIST/subscriber/new>



Become an OSAC member

<https://www.nist.gov/topics/organization-scientific-area-committees-forensic-science/apply-join-osac>

Review and comment on documents



Stay informed

<https://www.nist.gov/topics/organization-scientific-area-committees-forensic-science>

Crime Scene Investigation Subcommittee

Task Group Organization



Research & Development Needs

- Assessing the Culture of Contextual Bias in Forensic Scene Evidence Collection, Handling, and Processing
- Assessment of Level of Personal Protective Equipment (PPE) Required at Crime Scenes
- Decontamination of Crime Scene Equipment
- Laboratory Techniques and Technologies at the Crime Scene
- Use of Technology for Crime Scene Documentation

<https://www.nist.gov/topics/forensic-science/osac-research-development-needs>

Development Priorities

- Education, Training, Credentials
- Guiding Principles
- Methods

Draft Standards in Development

- Standard for Crime Scene Investigation Guiding Principles
- Standard Guide for Crime Scene Reconstruction
- Standard Practice for the Documentation and Processing of Shooting Scenes
- Standard for Law Enforcement Response to Crime Scenes
- Standard Method for the Chemical Testing of Suspected Projectile Impacts
- Standard Method for Measuring Trajectory Angles
- Standard for the Collection and Preservation of Physical Evidence During Crime Scene Investigations
- Standard Collection and Preservation of Arthropod Samples from Humans or Other Animals

New Standards Sent to SDO

Standard Practice for Crime Scene Investigator Training, Continuing Education, Professional Development, Certification, and Accreditation

- Sent to ASTM (Spring 2019)
- Received persuasive negatives votes upon initial ballot (Summer 2019)
- Became Annex to ASTM E2917-19a – Standard Practice for Forensic Science Practitioner Training, Continuing, Education, and Professional Development Programs
- Reballoted at ASTM as Annex to E2917-19a (Fall 2019)
- Undergoing changes based on persuasive negative votes (currently)

Interdisciplinary Training Standard Added to the OSAC Registry

National Institute of Standards and Technology (NIST) sent this bulletin at 12/02/2019 10:00 AM EST

NIST

[View as a Web Page](#)

Interdisciplinary Training Standard Added to the OSAC Registry



ASTM E2917- 19a

Highlights from Training & Education Draft Standard (as proposed)

Crime Scene Investigator (definition) - a forensic science practitioner whose responsibility is to use the appropriate combination of knowledge, skills, and experience to undertake one or more of the following tasks in relation to a crime scene investigation: documentation, search for or identify evidence, evidence collection, and preservation of evidence.

Highlights from Training & Education Draft Standard (as proposed - continued)

Education Requirement (proposed)

- Associate's Degree with at least 8 hours of physical science coursework.
 - Current practical experience and acquired knowledge, skills, and abilities may be substituted when assessing whether a current practitioner meets the minimum educational requirement.

Continuing Education (proposed)

- A minimum of 48 hours over the course of 2 years.
 - Shall include external training.
 - Responsibility of parent agency.
 - Continuing education must be structured, measurable, and documented.

Highlights from Training & Education Draft Standard (as proposed - continued)

Certification / Accreditation (proposed)

- All CSIs certified/licensed or unit accredited.
- Certification/licensure within 2 years of meeting eligibility requirements.
- Accredited certification body.
- Accreditation to ISO/IEC 17020 or ISO/IEC 17025 by accredited accrediting body.
- The crime scene unit, forensic service provider, and its parent agency shall provide funding, support, and opportunities for certification/licensure and/or accreditation

Revised Standards Sent to SDO

E1843-16 Standard Guide for Sexual Assault Investigation, Examination, and Evidence

- Sent to ASTM for revision (Fall 2019)
- Currently on open ballot

E2123-16 Standard Practice for Transmittal of Evidence in Sexual Assault Investigation

- Sent to ASTM for revision (Fall 2019)
- Currently on open ballot

E2124-15 Standard Practice for Specification for Equipment and Supplies in Sexual Assault Investigation

- Sent to ASTM for revision (Fall 2019)
- Currently on open ballot

Existing ASTM Standards in Registry Approval Process

E1459 – Standard Guide for Physical Evidence Labeling and Related Documentation

- Virtual Subcommittee 8

E1188 – Standard Practice for Collection and Preservation of Information and Physical Items by a Technical Investigator

- Virtual Subcommittee 8

E1492 – Standard Practice for Receiving, Documenting, Storing, and Retrieving Evidence in a Forensic Science Laboratory

- Virtual Subcommittee 8

E620 – Standard Practice for Reporting Opinions of Scientific or Technical Experts

- Virtual Subcommittee 8

Existing ASTM Standards in ASTM Revision Process

E678 – Standard Practice for Evaluation of Scientific or Technical Data

E860 – Standard Practice for Examining And Preparing Items That Are Or May Become Involved In Criminal or Civil Litigation

E1020 – Standard Practice for Reporting Incidents that May Involve Criminal or Civil Litigation

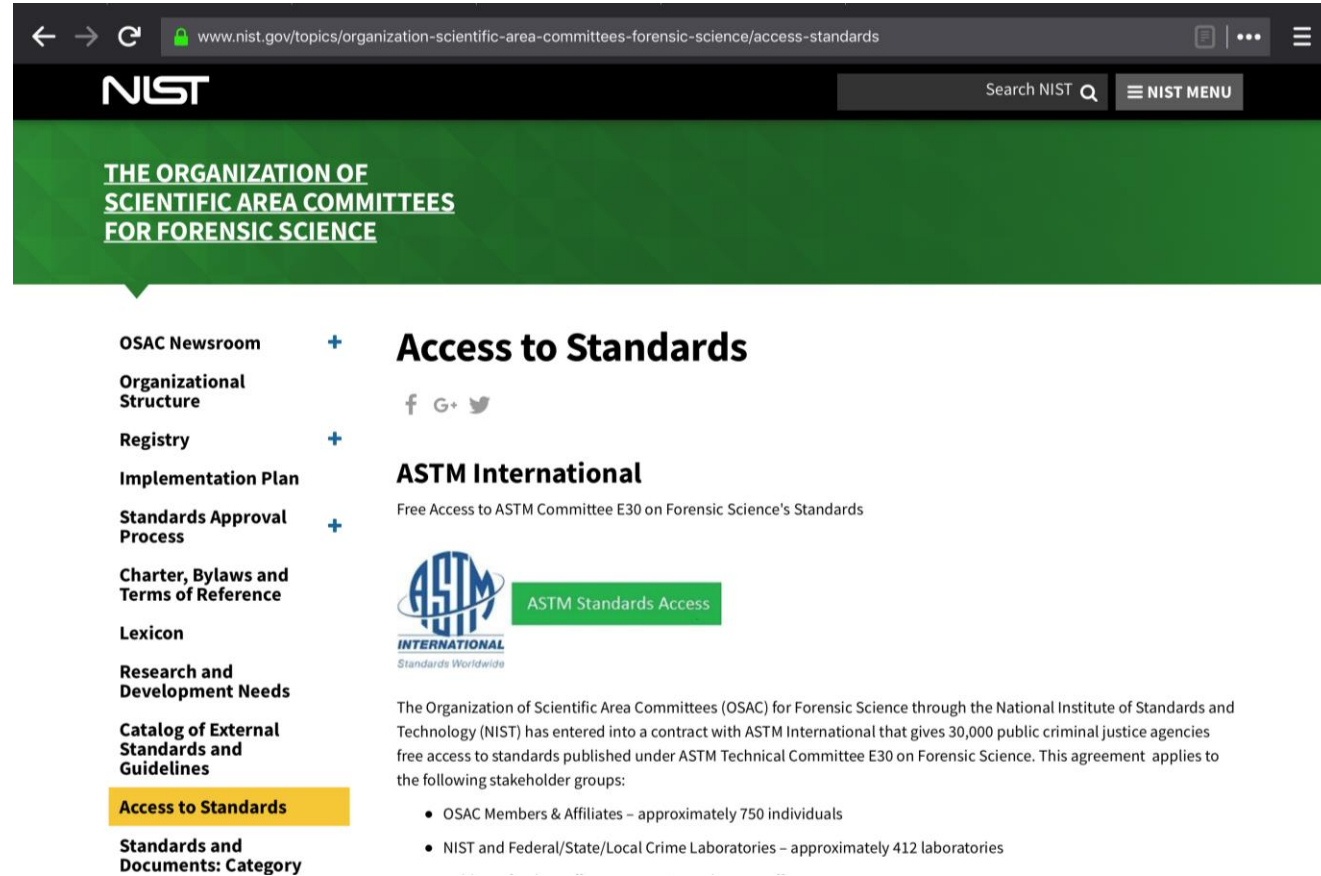
Registry Approved (December 3, 2019)

ISO 21043-2 Forensic Sciences - Part 2: Recognition, recording, collecting transport and storage of items

- *SCOPE*- This document specifies requirements for the forensic process focusing on recognition, recording, collection, transport and storage of items of potential forensic value. It includes requirements for the assessment and examination of scenes but is also applicable to activities that occur within the facility. This document also includes quality requirements.

Accessing Published Standards

ASB – public access (currently)
ASTM – free access via OSAC



The screenshot shows a web browser window with the URL www.nist.gov/topics/organization-scientific-area-committees-forensic-science/access-standards. The page header includes the NIST logo, a search bar, and a "NIST MENU" button. The main content area has a green banner with the text "THE ORGANIZATION OF SCIENTIFIC AREA COMMITTEES FOR FORENSIC SCIENCE". Below this is a navigation menu on the left with items like "OSAC Newsroom", "Organizational Structure", "Registry", "Implementation Plan", "Standards Approval Process", "Charter, Bylaws and Terms of Reference", "Lexicon", "Research and Development Needs", "Catalog of External Standards and Guidelines", and "Access to Standards" (highlighted in yellow). The main content area features a section titled "Access to Standards" with social media icons, followed by "ASTM International" with a sub-heading "Free Access to ASTM Committee E30 on Forensic Science's Standards". This section includes the ASTM logo and a green button labeled "ASTM Standards Access". Below this is a paragraph explaining the agreement between OSAC and ASTM International, and a bulleted list of stakeholder groups: OSAC Members & Affiliates (approximately 750 individuals) and NIST and Federal/State/Local Crime Laboratories (approximately 412 laboratories).

How Can You Get Involved?

Sign up for OSAC
communications



<https://service.govdelivery.com/accounts/USNIST/subscriber/new>



Become an OSAC member

<https://www.nist.gov/topics/organization-scientific-area-committees-forensic-science/apply-join-osac>

Review and comment
on documents



Stay informed

<https://www.nist.gov/topics/organization-scientific-area-committees-forensic-science>

THANK YOU!

Michael P. Kessler
mkessler@fiu.edu
michaelpaulkessler@gmail.com