The NIST Centers of Excellence expand NIST’s impact and mission delivery by enabling NIST to partner with foremost experts in critical technical areas.
Current NIST Centers of Excellence

• CHiMaD - Center for Hierarchical Materials and Design (January 2014)

• Center for Risk-Based Community Resilience Planning (February 2015)

• CSAFE - Center for Statistics and Applications in Forensic Evidence (May 2015)
NIST Centers of Excellence Program
Purpose and Overview

• Enable collaborations between NIST and leading research institutions in emerging technology areas to help NIST meet mission needs in new or expanding areas of strategic focus

• Enhance technical innovation through early alignment of measurement science with emerging fields of research

• Provide new opportunities for training of students and postdocs in measurement science

• Provide greater opportunities for NIST to engage with entrepreneurs and with industry
Programmatic Evaluation

• Does COE complement NIST programs
• Are the accomplishments and planned future objectives aligned with NIST goals and objectives
• Has the COE fostered and expanded expertise in this technical area
• Has the COE succeeded in engaging underrepresented minorities
• Development of new students and postdocs and their impact on NIST
Plans for Review of the CoE Program

- CoEs will be evaluated at year 5 to determine whether to extend the award or move in a new direction
- Robust process needed to evaluate quality, effectiveness, and value of partnership to determine continued investment
- Formal technical and operational reviews and site visits by NIST and external panels
- Performance during initial award period
- Quality of proposed plan for future period
- Alignment with NIST programmatic priorities
- Effectiveness of collaboration
Specific CSAFE Challenges

• New and scientifically sound probabilistic and statistical methods to quantify uncertainties associated with collection, analyses and interpretation of pattern and digital evidence
• Tools to train stakeholders (law enforcement, crime labs, judges, lawyers, etc.) in the application of these new approaches
• New generation of students prepared to enter the workforce with a knowledge of these skills and expertise.
NIST Scientists Involved with the Forensic CoE Program

• Lead: Susan Ballou
• Div 602 – Rich Cavanagh, John Butler, Reva Schwartz, Melissa Taylor, Robert Thompson, Shannan Williams
• Div 770 – Martin Herman
• Div 774 – Michael Garris, Elham Tabassi, Yooyoung Lee
• Div 775 – Barbara Guttman, James Lyle, Richard Ayers
• Div 776 – Will Guthrie, Simone Gittelson, Steve Lund, Hari Lyer
• Div 683 – Richard Silver, Brian Renegar, John Song, Johannes Soons, Alan Zheng
PLEASE WELCOME

Dr. Alicia Carriquiry; Distinguished Professor, Director, CSAFE