

# NIST Biometric Quality Workshop

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Biometrics Sample Quality Challenge

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*From Science and Technology... Security and Trust*



# Homeland Security



# Biometrics Sample Quality Concerns

## *The Collection Challenge*

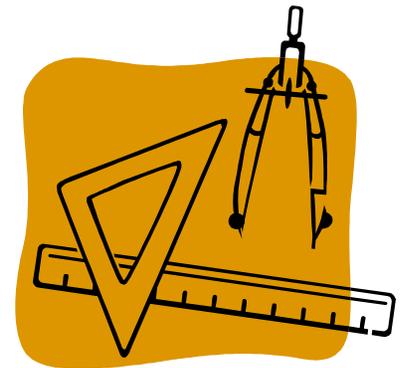
- Most biometric matching capabilities focus on using “good” or “excellent” quality biometric samples to obtain a reasonable level of confidence with respect to match results
- The volume of biometric samples of strategic value but lower quality has grown
- Work is needed to increase yield of “excellent” and “good” quality biometric samples



# Biometrics Sample Quality Concerns

## *The Research Challenge*

- Research on quality must not be limited to an academic exercise!!
- Biometric sample quality approaches must:
  - Provide a normalized predictor of matching performance
  - Be agnostic with different vendor matching algorithms
  - Be agnostic with different sensor technologies
  - Transcend organizational and application boundaries
- Biometric implementations must provide users with reasonable degree of confidence that biometric match results are accurate, comparable and reliable



# Biometrics Sample Quality Concerns

## *The Operational Challenge*

- We must ensure that emerging biometrics technologies will support the future operational use of multi-modal biometric applications
  - How do we determine consistent and meaningful quality thresholds in controlled and uncontrolled environments?
  - How do we improve the human-sensor interface to maximize the reliable collection of biometric samples of sufficient quality?
  - How can we provide feedback to permit automated or manual intervention to improve reacquisition of samples?
  - How do we take the guess work out of interpreting quality and match scores to enable users and make them more effective and efficient?



# Contact Information

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