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Latent Print Conflict Management

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A Couple of Background Facts

- Prior research has shown:
  - ACE research (Ulery, *et. al.*, 2011 and 2013; Swofford, *et. al.,* 2011)
    - False positive rate of **0.17% to 0.68%**
    - False negative rate of **7.5 to 7.88%**
  - PCAST, 2016
    - False positive frequency ranges from **0 to 2.4%**
  - ACE-V research (Langenburg, 2009)
    - Verifiers caught all false positive results
      - False positive rate of **0%**
    - No change in false negative rate – not discovered by verifiers

So…What Happened?

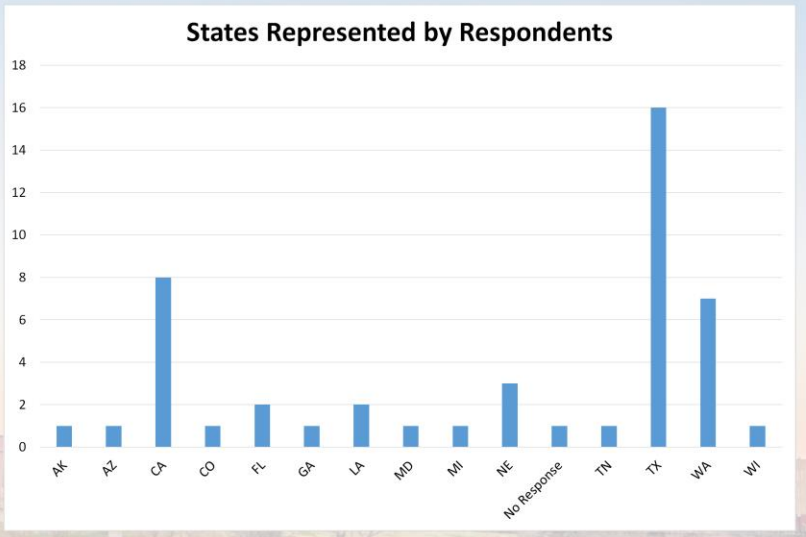
Objectives

- Determine whether there is a consensus in the community regarding differences of opinions in friction ridge analysis
  - Procedures
  - Response bias
  - Reporting procedures
- Examine conflict resolution policies provided by respondents
  - Blinding?
  - Supervisor involvement?
  - Bias?

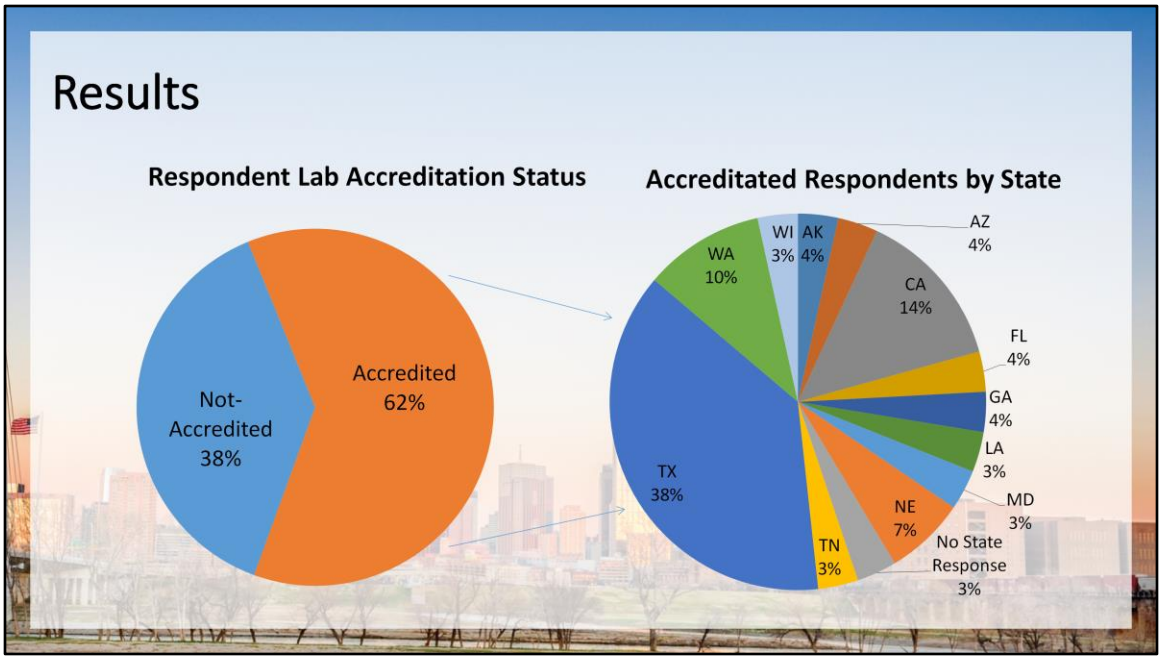
Survey Examiners

- Survey monkey used to collect responses
  - Completely anonymous – examiners were not asked to provide any identifying information
  - 9 questions posed
    - Location
    - Accreditation status
    - Conflict resolution and reporting policies
- Dissemination through the Fingerprint Interest Group by Sandy
  - Contact: Sandy Siegel – ssiegel@houstonforensicscience.org
  - Approximately 700 members
    - 47 responses received to the survey
    - Response rate 6%

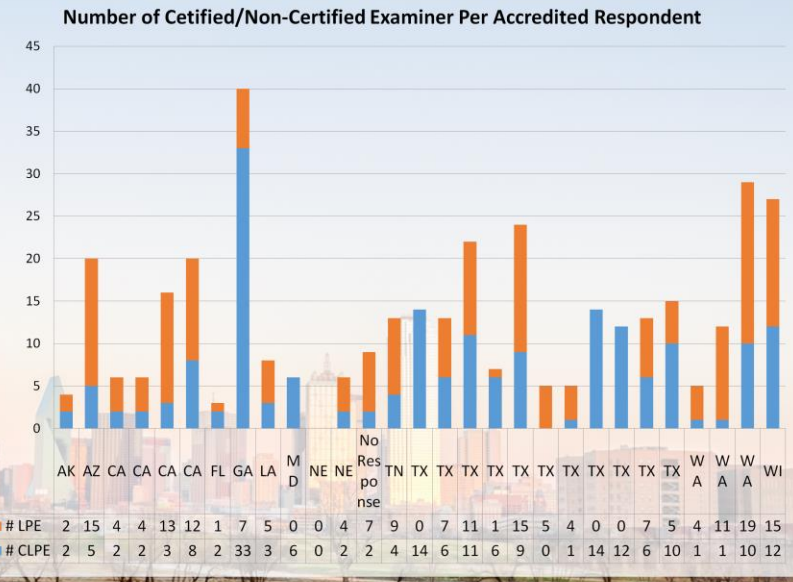
Results


States Represented by Respondents
18
16
14
12
10
8
6
4
2
0
AK
AZ
CA
CO
FL
GA
LA
MD
MI
NE
No Response
TN
TX
WA
WI

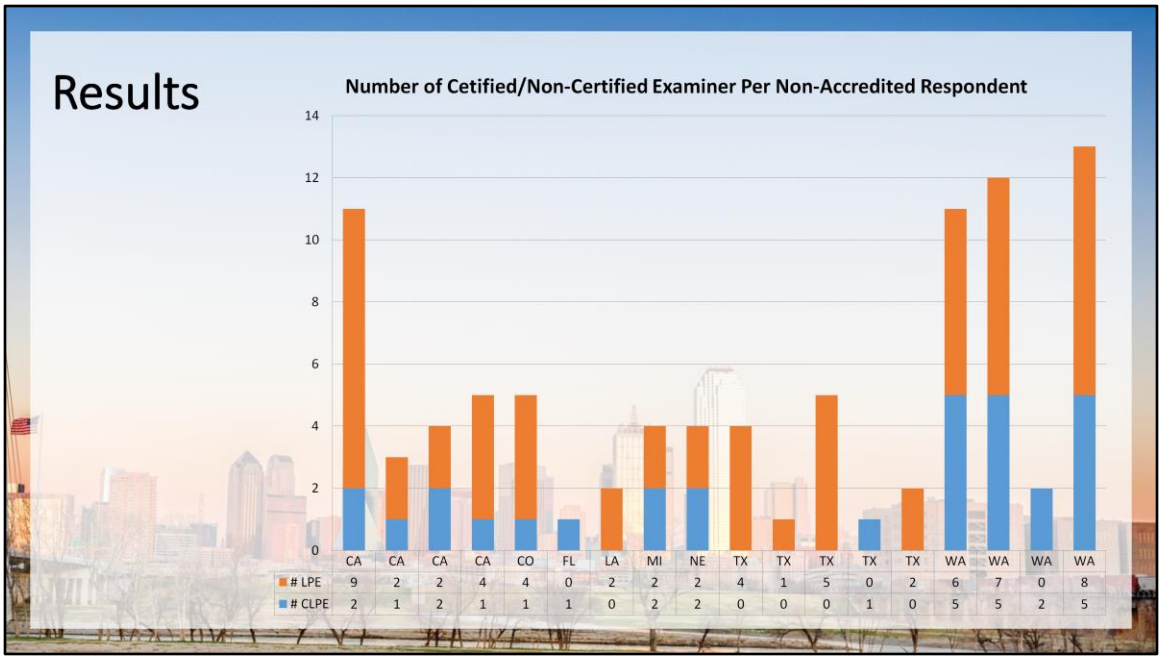
Results


Respondent Lab Accreditation Status
Not-Accredited 38%
Accredited 62%
Accreditated Respondents by State
WA 10%
WI 3%
AK 4%
AZ 4%
CA 14%
FL 4%
GA 4%
LA 3%
MD 3%
NE 7%
No State Response 3%
TN 3%
TX 38%

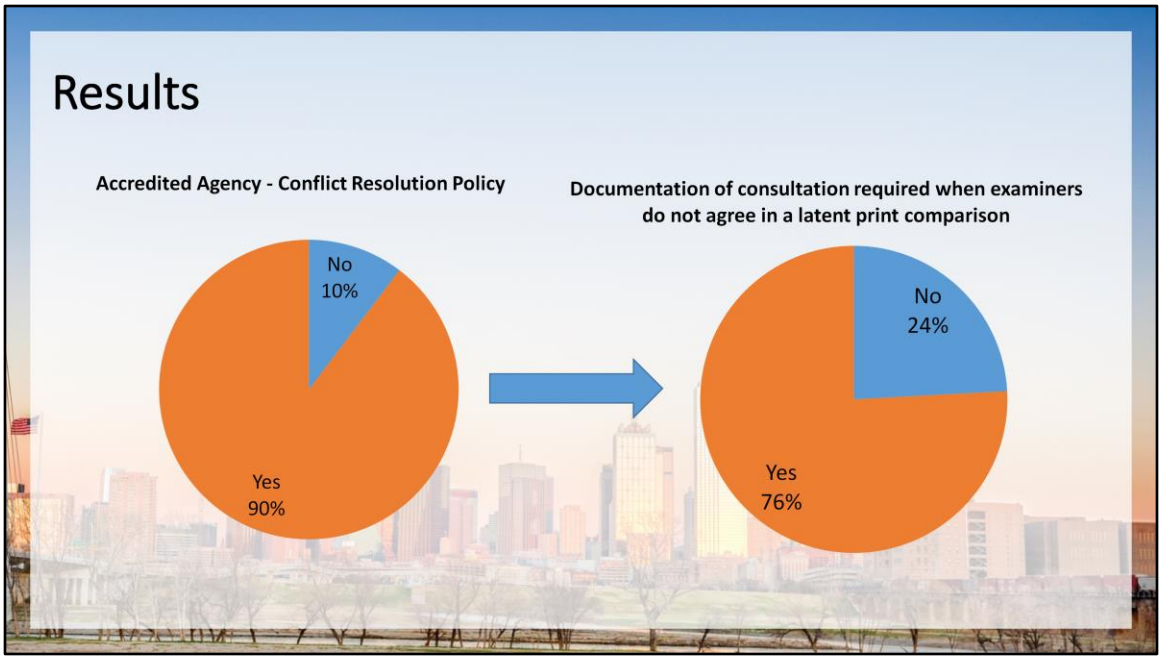
Results


Number of Cetified/Non-Certified Examiner Per Accredited Respondent
45
40
35
30
25
20
15
10
5
0
AK AZ CA CA CA CA FL GA LA MD NE NE No Response TN TX TX TX TX TX TX TX TX TX TX TX TX WA WA WA WI
LPE 2 15 4 4 13 12 1 7 5 0 0 4 7 9 0 7 11 1 15 5 4 0 0 7 5 4 11 19 15
CLPE 2 5 2 2 3 8 2 33 3 6 0 2 2 4 14 6 11 6 9 0 1 14 12 6 10 1 1 10 12

Results


Number of Cetified/Non-Certified Examiner Per Non-Accredited Respondent
14
12
10
8
6
4
2
0
CA CA CA CA CO FL LA MI NE TX TX TX TX TX WA WA WA WA
LPE 9 2 2 4 4 0 2 2 2 4 1 5 0 2 6 7 0 8
CLPE 2 1 2 1 1 1 0 2 2 0 0 0 1 0 5 5 2 5

Results

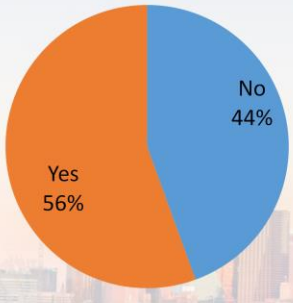

Accredited Agency - Conflict Resolution Policy
No
10%
Yes
90%
Documentation of consultation required when examiners do not agree in a latent print comparison
No
24%
Yes
76%

Results – Minimum Point Standards

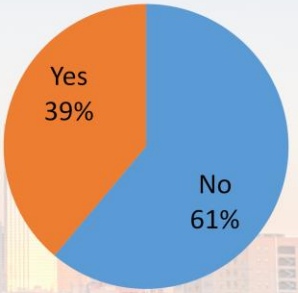
- Most agencies do not require a minimum point standard for value
  - If yes, range is 6 – 10
  - Some delineate between palm and finger (8 for finger, 12 for palm)
- Most respondents reported their agencies do not require a minimum point standard to yield a comparative conclusion
  - If yes, most reported an 8 minutia standard
    - Range 6 to 8 (finger) and 10-16 (palm)

Results

Non-Accredited Agency - Conflict Resolution Policy

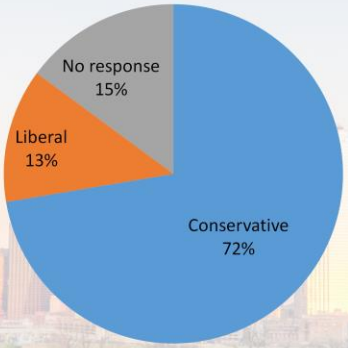


Documentation of consultation required when examiners do not agree in a latent print comparison



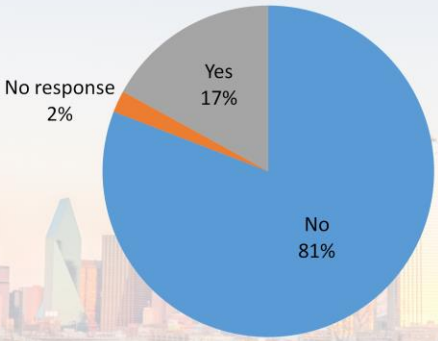
Results

Does the conflict resolution policy show a conservative response (latent reported as no value or inconclusive) or a liberal response (identification or exclusion is reported)



Results

Does the final report indicate that the conclusion was reported as a result of your agency's conflict resolution policy?



Examples of Conflict (Paraphrased) Policies

- “The case is reviewed by the Manager and either sent out as a ‘blind’ verification, given to another competent examiner(s) to verify and the consensus/majority result will be reported, typically the most conservative result.”
- “If two people disagree, the latent in question is sent out to all other working examiners, certified and non certified to complete a comparison. Once all conclusions are collected by the Supervisor the most conservative conclusion is reported out. All documentation of each examiner's work and conclusions are kept with the case.”

Examples of Conflict (Paraphrased) Policies

- “Consultation with outside agency”
- “When a conflict occurs, the two examiners discuss the print and their reasons for their conclusions. If they cannot come to an agreement a third examiner is given the print as a blind verification”
- “Assigned examiner meets with verifying analyst to discuss conflict. If a decision can't be agreed upon the decision goes to the tech lead. If he/she can't make a decision the latent is sent out to all examiners in the section for a consensus.”
- The reviewer and original scientist will bring in a supervisor to act as a mediator. If they cannot resolve the issue, the Technical Lead will review and make a recommendation. If no agreement is reached, the QA manager will form review committee who will make recommendations and their decision will be binding. The resolution of the issue will be finished prior to release of the report.

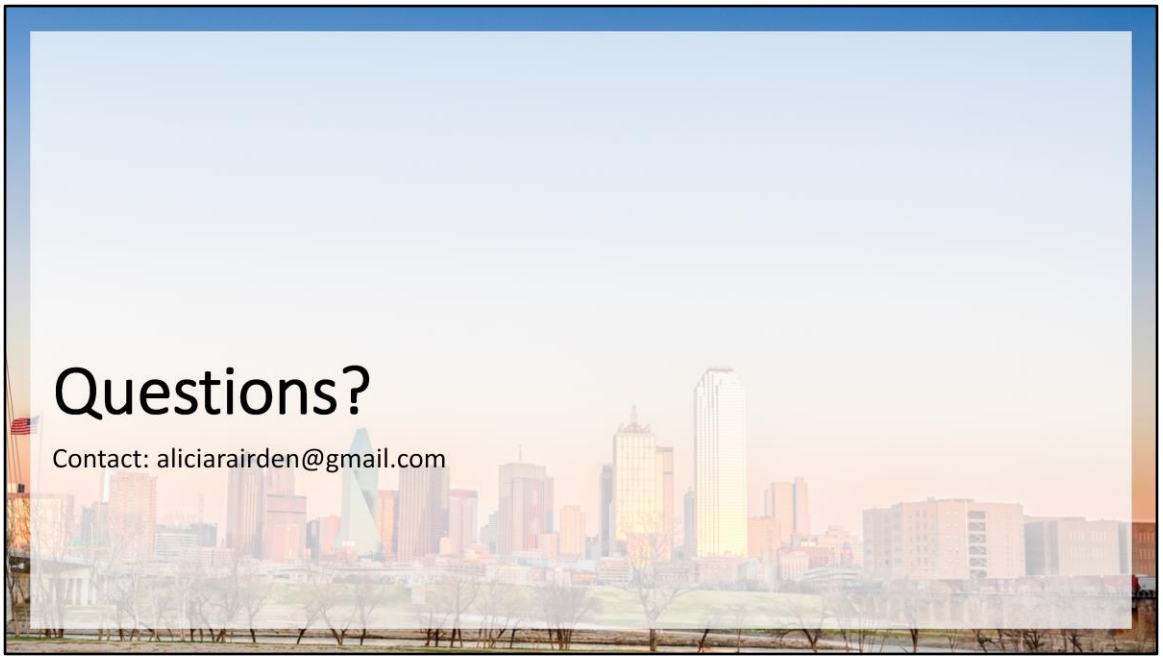
Conclusions

Conclusions

- Even with 47 respondents representing 14 states, we see no consensus
  - Most respondents reported being employed at an accredited agency
  - Accredited agencies were typically larger (represented by count of latent print examiners) and possessed a higher ratio of certified individuals
  - A majority of accredited bodies have implemented conflict resolution policies; however, some respondents reported that their respective agencies did not have a policy
  - Most required documentation of the consultation between the case and verifying examiners; however, some accredited agency respondents reported that they did not
  - While many respondents noted that their agency possessed conflict resolution policies, they were typically centered in agencies with examiner totals higher than six individuals.
  - Blind and consensus procedures prevail

Conclusions - Continued

- Limitations
  - Small sample size
  - Respondent anonymity
- Need additional research into:
  - Does bias exist in supervisor decisions?
  - When conflict occurs, can blind verifications really be blind?
  - Prevalence of consultation and conflict in functioning laboratories
    - Is there a difference in prevalence between laboratories that have implemented a minimum point standard and those that have not?
- We need more data


Questions?
Contact: aliciarairden@gmail.com