



*Caveon Webinar Series*  
**“Preventing and Detecting Cheating on High Stakes Tests”**

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**Presentation Overview**

- Overall Summary
- External Assistance
  - Training
  - Security Audit
  - Data Forensics
  - Investigations
- Dealing with Media



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**Overall Summary**

- Provide Appropriate Training
- Evaluate the Adequacy of Your Security Procedures
- Perform Cheating Analyses Routinely
- Follow Up Thoroughly on All Suspicions
- Take Appropriate and Public Action



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### Providing Appropriate Training

- Focus on Test Administration
  - Greatest vulnerability for all programs
  - Biggest “bang for the buck”
- Build on State and Vendor Materials
- Make Sure Everyone is Trained
- Have Building Administrators Participate



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### Issues for which External Assistance is Recommended

- External Test Security Audit
- Data Forensics
- Web Patrol (Monitoring Internet)
- Security Investigations



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### Test Security Audit: The Importance of Knowing

- Validates your Security Practices
- Identifies Vulnerabilities
- Recommends and Prioritizes Actions to Correct
- Shows Your Seriousness about Security



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## Test Security Audit: What is it?

- Systematic Review by Experienced Professionals
- Objective Third Party Evaluation
- Use Formal Standards
- Seek Practical and Specific Advice



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## Need External Security Auditors

- Do Your Own Security Reviews Regularly
- Have Such Reviews as an Assignment for a Key Staff Member
- Can't do a Full Security Review Internally
  - It's like evaluating your own children
  - Are they more beautiful or talented or smart?
  - Need objective and well-informed perspective



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## Caveon Test Security Audit Topics

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| 1. Security Plan                         | 8. Test Administration                       |
| 2. Roles & Responsibilities              | 9. Test Scores & Results                     |
| 3. Budget & Funding                      | 10. Physical security                        |
| 4. Legal Precautions & Agreements        | 11. Information Security                     |
| 5. Test & Item Design                    | 12. Web & Media Monitoring                   |
| 6. Test & Item Development & Maintenance | 13. Security Awareness & Training            |
| 7. Test Publication                      | 14. Security Incidence Response Plan         |
|  | 15. Conducting Security Investigations [New] |



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## Psychometric Analyses - Detecting Cheating

### Data Forensics

- Looking at Your Test Data
- Has a Test been Compromised?
- When and Where was it Compromised?
- “Traditional” Procedures No Longer Good Enough



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### Data Forensics - School Districts

- Type of Data Available to Districts Usually Limited
  - Gains Analyses
  - Erasure Analyses in Paper and Pencil - by Inspection
    - Not practical except when there is a tip or something observed
- More Sophisticated Analyses Require More Data and are Very Desirable



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### Data Forensics Benefits

- Use Data to make Informed Decisions
- Train from Known Threats
- Detect and Deter Cheaters
- Stay Ahead of Cheating Methods
- Evaluate Test Admin Security Procedures
- Evidence of Strong Action - Bringing in Independent Experts



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### Other Data Forensics Analyses

- Similarity of Responses for Pairs and Groups of Students
- Aberrance - Failure to Have a Logical Pattern, e.g., Answering More Hard Items Correctly than Easy Ones
- Complete Erasure or Answer Changing Analyses - What % Wrong to Right



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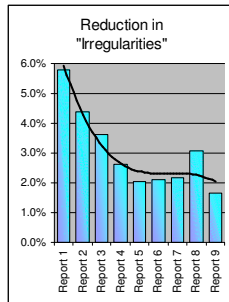
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### Success Story - State Assessment

- 72% reduction - 2 years
- Test admin monitoring
- Conditional status
- Districts follow through
- "Students confess"
- Coordinator training



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## Web Patrol

- Are “Secure” Items on the Internet?
- Occurs in High Stakes Testing
- Long Testing Windows Tend to Lead to “Leakage” (Here comes the consortia)
- Involves Searching Tools, Expert Sleuthing, and Quick Follow-Up
- Very Common with Certification Programs



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## Conducting Investigations

- Evaluating Cases Warranting Follow-Up
- Using all Available Data
- Interviewing Teachers, Test Coordinators, Principals
- First Response is Always - “There is no problem”
- Careers are at Stake - Need Very Solid Evidence



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Any Questions?



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### Atlanta Public Schools Story -

- Persistent Accusations of Cheating in APS Schools
- Consistent Denials
  - Reports are wrong
  - Newspaper is prejudiced
- Data Revealed Unmistakable Evidence of Improprieties
  - Extreme cases very pronounced - one over 10 to 52<sup>nd</sup> power



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### Outcome for APS

- Superintendent Out - A National and Highly Regarded Educator
- All Deputy Superintendents Out
- Many Principals and Teachers Confess
- Those Pleading Fifth Amendment Declared Guilty
- Names of all Judged Guilty Published
- APS Situation Known Nationwide



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### Media Lessons from Atlanta

- Expect Media Attention
- Get Out Front with Your Own Story
- Cultivate Local Media
  - Most do not understand test results
  - Looking for interesting story - a no problem administration is not a good story
- Learn Who You Can Trust
- Don't Expect a Cheating Story to Go Away - You Cannot Control It



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### FURTHER INFORMATION

- **Caveon Security Insights Blog**
  - <http://www.caveon.com/blog/>
- **Twitter**
  - @Caveon
- **LinkedIn**
  - Caveon Company Page
  - Caveon Test Security Group
    - Please contribute!



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