



Cheating on Promotional Public Safety Examinations:

Strategies for Responding to a
Widespread Test Security
Compromise

Brian L. Bellenger, Ph.D.

Courtney R. Dean, M.A.

Personnel Board of
Jefferson County



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Imagine...

- You work for a model public employer
- You adhere strictly to the Uniform Guidelines and the Principles for the Validation and Use of Employee Selection Procedures
- Your organization has well defined internal policies for developing and administering tests
- Your exams are linked to a thorough and up-to-date job analysis
- You take great care with ensuring the security of exams



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Imagine...

- You have spent months developing promotional assessment centers for two public safety job classes
- Your exams are largely video-based, high fidelity simulations with strong evidence of content validity
- You have taken great care to design tests that will likely minimize adverse impact



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And then...

- Mid-way through the test administration process, you receive concrete evidence that your test content has been leaked to some candidates



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Public Safety Cheating

- In recent years, cheating on public safety promotional exams has impacted numerous municipalities around the U.S.



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Public Safety Cheating

- Examples (Fire Service):
 - Boston, MA (FFs used cell phones to text message test answers to friends)
 - Baltimore, MD (top scorers had questions from 2001 exam that were re-used)
 - Chicago, IL (FFs cheated on EMT training exams)
 - Orlando, FL (top officers used dept. radio to listen to candidate prior to taking same exam themselves)



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Public Safety Cheating

- **Examples (Police Service):**
 - Providence, RI (Promotional exam postponed. Candidate alleged to have study material prior to other candidates)
 - Seattle, WA (Allegations investigated of promotional exam cheating)
 - Boston, MA (Detective exam tossed. Info leaked about study materials not on test)
 - Trenton, NJ (Officer paid other officer to take promotional test in his stead)
 - Durham, NC (Officer investigated for cheating on promotional exam)



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Personnel Board Example

- In 2006, began development of Fire Lieutenant and Fire Captain exams
- Analyst created test development schedule, determined sampling needs, and requested SMEs (based on demographics) for series of meetings
- Fire Chiefs selected Fire Lieutenants and Captains matching demographic requests and sent them to meetings.



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Personnel Board Example

- For each meeting attended, SMEs required to read and sign a detailed confidentiality agreement.
- SMEs were from variety of Fire Departments (multi-jurisdictional system).
- Based on shift, SMEs were grouped into separate panels to develop separate components.



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Personnel Board Example

- SME involvement included scenario/item content and scoring benchmark development.
- Separate components were pilot tested separately, and were audio/video recorded.
- All test materials were maintained electronically on a network drive accessible only to testing staff
- Paper copies of test materials and related documents were maintained behind two “card-key access only” doors



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Personnel Board Example

- Fire Lieutenant was scheduled for three-day administration (three components, one per day).
- Between Day 1 and Day 2, staff received a faxed copy of a “study sheet” that included some details of every scenario included in all three days of testing, plus some Fire Captain information.



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Personnel Board Example

- Investigation lasted approximately one year.
- Test was thrown out by Personnel Board before assessment occurred.
- Cost to taxpayers in excess of \$500,000.
- Investigation implicated small group of SMEs in leaking test information.



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Impact of Cheating

- **Costs**
 - Legal costs (investigations, administrative hearings, lawsuits from employees)
 - Staff hours (development meetings, administration of exams, photocopies, video development)
 - Customer hours (SMEs, candidates, departmental administrative staff)



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Impact of Cheating

- Perception
 - Assumption that testing staff leaked test information
 - Assumption that this is common practice/event
 - Assumption that this is a recurring problem (validity of prior exam results)
 - Instills lack of trust and confidence in system/process
 - Assumption process is unfair/biased towards one department/demographic group



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Actions and Response

- Through investigation with internal staff and SMEs, determined that leaks occurred through SME involvement.
- Despite security measures in place, apparent that local SMEs could not be used without continued test leaks.
- Solution was to use SMEs from out of state.
- Assessors were already recruited and scheduled for assessment of 2006 Fire Lieutenant exam. Assessors contacted to explain that the process would be test development rather than assessment.



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Actions and Response

- SMEs were brought in for one week.
- Day 1: Orientation, job analysis review, and critical incident brainstorming.
- Day 2: Split into separate panels led by I/O Psychologist and analyst. Further developed specific critical incidents as test scenarios, began benchmark development.



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Actions and Response

- Day 3: Completed benchmark development, created instructions and video scripts, identified resources needed.
- Day 4: Swapped scenarios across panels for review/feedback, incorporated feedback, began exercise/benchmark validity ratings.
- Day 5: Completed ratings as needed.
- Local review of exam conducted simultaneously with test administration.



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Actions and Response

- All SMEs were questioned about relationships with local fire personnel
- All SMEs were informed of prior cheating issues and required to sign a detailed confidentiality agreement
- Test development efforts were not disclosed to local fire departments (SMEs' presence was unknown)



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Actions and Response

- Video production – Worked with SMEs to identify fire department out of state but within driving distance where scenarios could be filmed securely. (rather than use local area department)



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Changes to Test Administration

- **Cell Phones**
 - Previously, collected and stored
 - Currently, not allowed
- **Candidate Tracking**
 - Previously, assigned test rooms
 - Currently, assign test rooms and seating
- **Outside Materials**
 - Previously, allowed non-fire materials
 - Currently, not allowed



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Benefits

- New procedures ensure:
 - Test content is completely secure
 - Tests demonstrate strong evidence of content validity
 - Recruitment of SMEs ensures appropriate demographic balance, no prior relationships among SMEs
 - Personal agendas much less likely to influence process
 - Development time is reduced from several months to one week
 - Development costs (personhours) is reduced significantly (two weeks for staff, SME expenses, travel for video filming vs. weeks of meetings, SME “lost time” expenses to departments)



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Benefits

- New procedures ensure:
 - Greater trust in process by candidates/fire departments
 - Eliminated rumor/innuendo of test leaks or compromise to promotional process
 - Leveled playing field (no subgroup had real or perceived advantage)
 - Greater support from Chief/Senior FD staff (due to savings and no need for their staff to be involved for any significant time commitment)
 - SMEs used in development were also used as assessors (increased familiarity with test and resource for questions related to specific exercises or benchmarks during training)



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Potential Problems

- No opportunity to pilot test (due to security concerns)
- Difficult to incorporate local SOPs/SOGs into exam unless copies of up-to-date documents available during development for reference
- Discrepancies between local practice and national standards may not be identified until test administration (when local review occurs)



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Potential Problems

- Within increasing costs for travel, can be expensive to bring in SMEs from out of state
- Staff need to be very familiar with jobs and be efficient at creating initial test plan, identifying critical incidents most amenable to measurement through simulation exercises, and facilitating full day development meetings
- Need I/O Psychologist or senior staff involvement throughout development – other projects set aside (greater time commitment over short period of time)



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Outcome at Personnel Board

- Tests developed using new methodology were not challenged
- No suggestions of test security leaks were made throughout process by any candidate or group representing firefighters
- Tests resulted in no adverse impact against any subgroup
- Tests tended to be more difficult/challenging than those developed by local SMEs (instills greater confidence in results)
- Subsequently used for police promotions at all ranks and fire promotions of additional ranks
- Passed legal scrutiny of parties and federal court in 1981 Consent Decree (currently oldest open case of employee discrimination in U.S. history)

Q and A

- Has cheating been an issue for your agency?
- How have you dealt with it?
- Would this process work in your agency?
- If a consultant recommended this process, would your agency consider it?



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Contact Information

Brian L. Bellenger, Ph.D.
Industrial/Organizational Psychologist
Personnel Board of Jefferson County
(205) 279-3578 phone
(205) 279-3579 fax
bellengerb@pbjcal.org email

Courtney R. Dean, M.A.
Industrial/Organizational Analyst
Aptima, Inc.
(781) 496-2455 phone
(781) 935-4385 fax
cdean@aptima.com email