Benchmarking and Assessment of Food Transportation Security

Alan Erera

Assistant Professor

The Supply Chain and Logistics Institute

Georgia Tech

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- **~15 Faculty Researchers**
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    - UPS, Schneider, Yellow-Roadway, ...
  - Government Grants
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Who are we surveying?

- **Motor carriers serving the food industry**
  - American Trucking Association fleet directory
    - Current response rate: ~ 2%
- **Responsibility of recipient**
  - Transportation managers
  - Owners
  - Safety, security, quality managers

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PRIMARY PRODUCTION ➤ HARVEST ➤ TRANSPORTATION ➤ STORAGE ➤ PROCESSING ➤ DISTRIBUTION ➤ RETAIL/FOOD SERVICE ➤ CONSUMER

You can still participate!

- **Contact me**
  - alan.erera@isye.gatech.edu

- Benchmarking Tool for Participants
  - Excel spreadsheet-based
  - See how your firm scores in security benchmarking areas

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Security Competency Scores

Competency Area	Score (1 worst – 5 best)
Management technology	3.96
Process management	3.73
Communication management	3.71
Relationship management	3.53
Infrastructure management	3.44
Process strategy	3.27
Metrics/Measurement	3.17
Service provider management	3.14
Public Interface mgmt.	3.10
Process technology	2.64

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Research Questions

- Do better practices predict better perceived performance? What competency separates poor versus good performers?

- Are there significant differences between the security competency of large and small transporters?

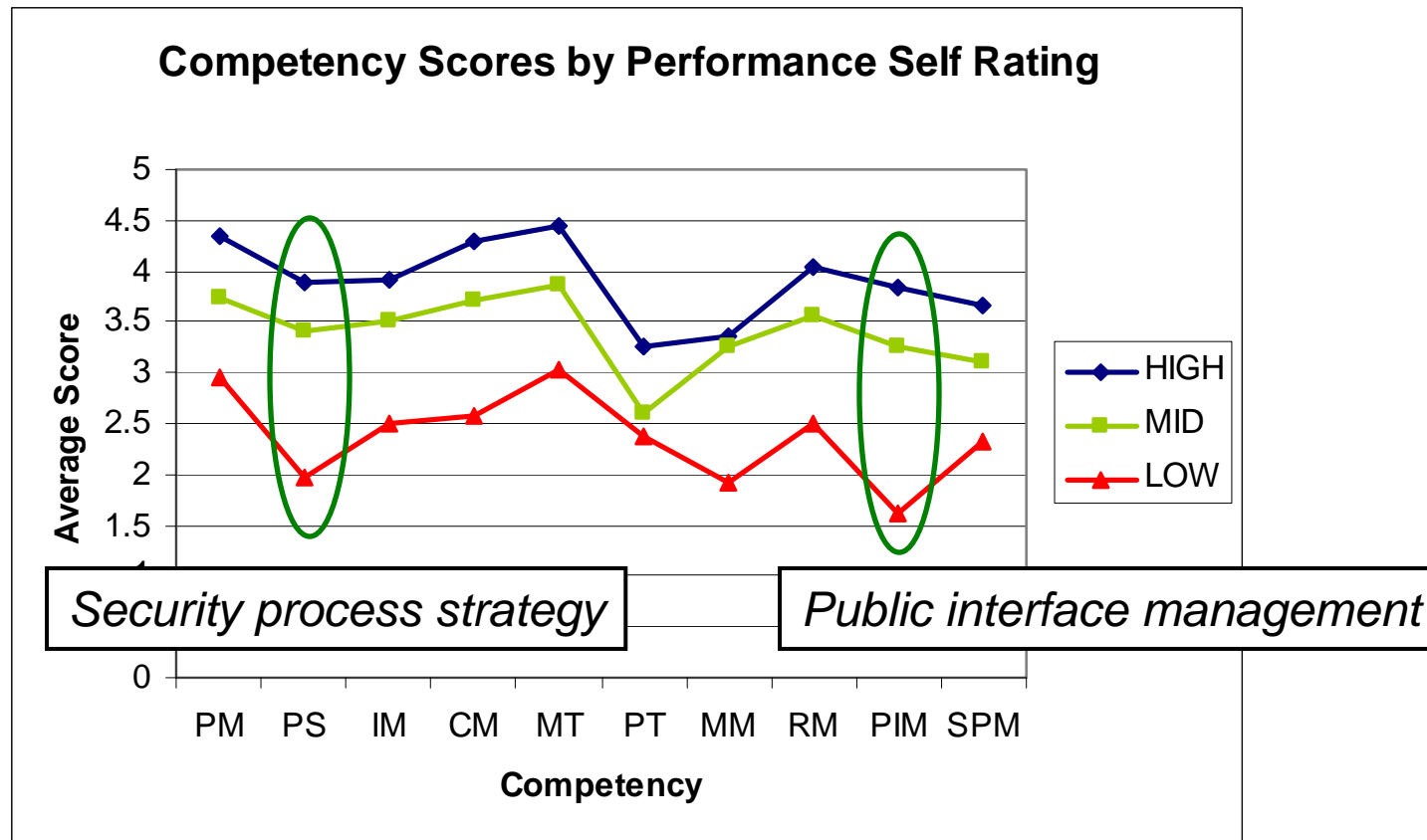- What do transporters currently do well, and not so well?

Competencies predict performance?

Competency Scores by Performance Self Rating
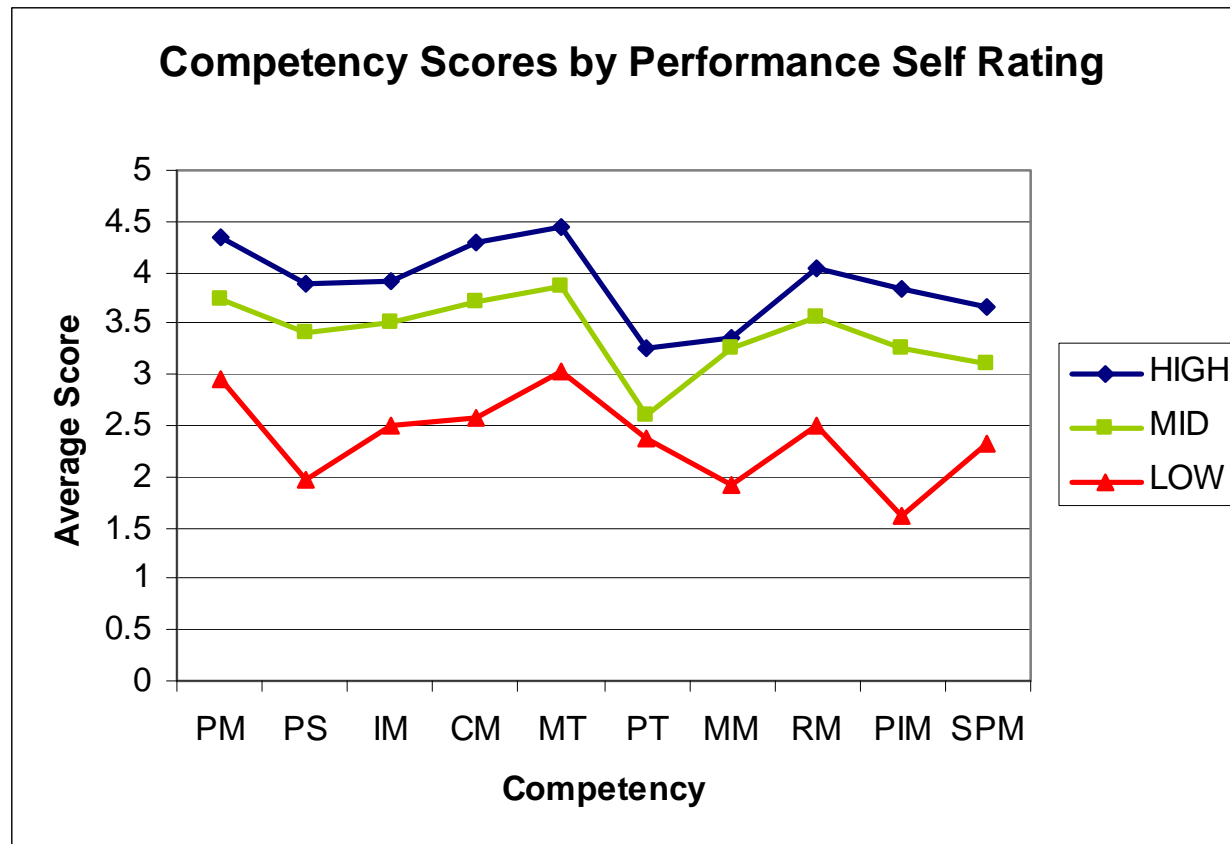
Competencies that matter most!

Competency Scores by Performance Self Rating

Performance Highlights

Performance Area	Self-reported Score (1 worst – 5 best)
Investment increased incident detection likelihood	3.95
Meet security expectations of customers	4.25
Meet security expectations of goverment	4.04
Improved risk profile	3.05
Decreased operating costs	2.50
Relative to competitors, decreased costs	2.70

Large vs. small carriers

# Drivers	Respondents	
< 25	27%	small
25 - 100	19%	
100 - 500	35%	
500 - 1000	11%	large
> 1000	8%	

Large carriers more competent?
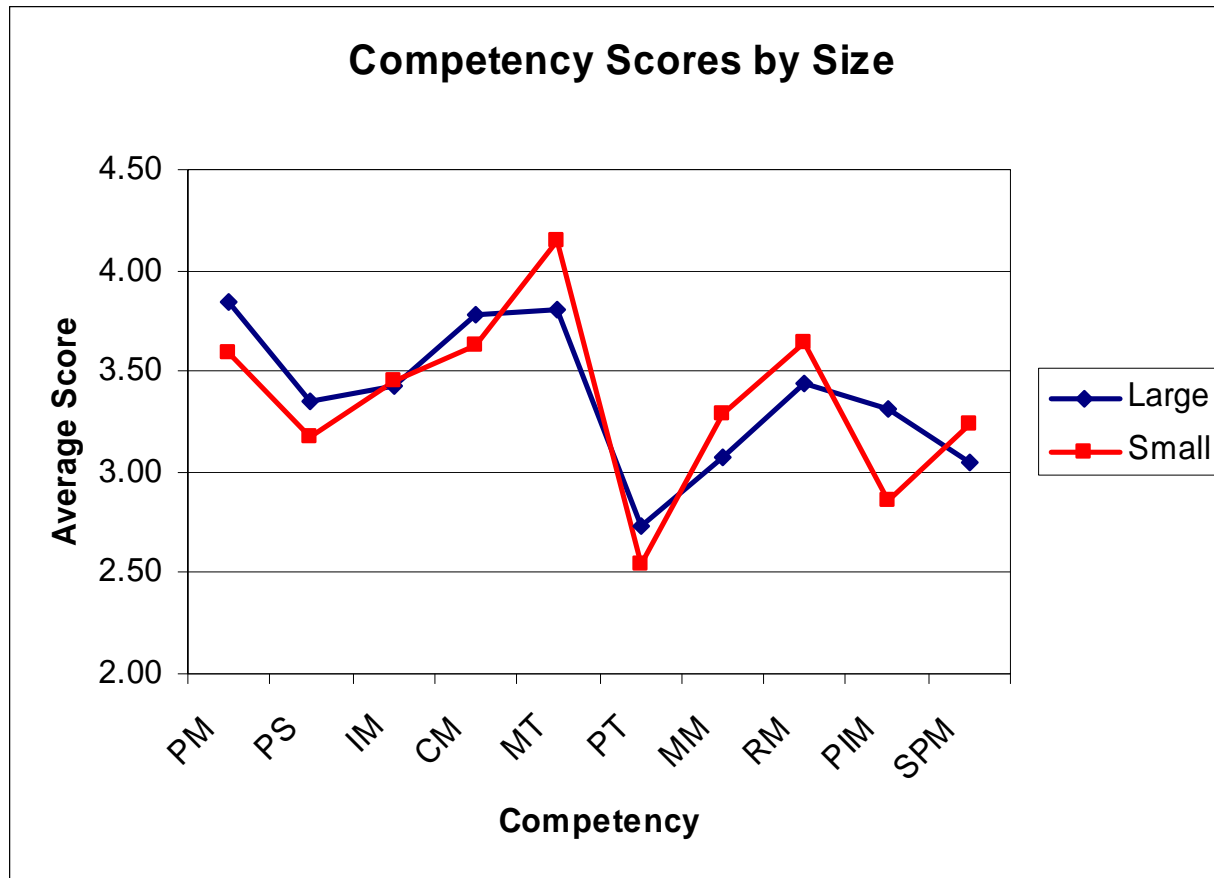
Competency Scores by Size

What about the smallest firms?

Competency Scores by Size

Tiny = fewer than 25 drivers

Statistical differences @ 80% confidence

Where is most competency?

Question	Score (1 worst – 5 best)
Loaded trailer inspections for tampering	4.08
Information systems for incident response	4.00
Information systems secure	4.00
Incident response plans established	4.00
Driver credentialing/background checks before hiring	4.31
Record-keeping for FDA bioterrorism regulations	4.15

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What are carriers not yet doing?

Question	Score (1 worst – 5 best)
Automated intrusion detection technology (electronic seals)	1.69
Non-intrusive scanning technology	1.27
Use of RFID for product tracking/control within supply chain	1.96

Preliminary Conclusions:

- Most transporters report a high level of security performance

- Security/productivity "win-win" technologies or processes not yet identified by industry

- Large firms not always more competent with respect to security