
2019
ICE
EXCHANGE
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2019 ICE EXCHANGE

Using Foil Tasks to Identify and Screen Careless Job Analysis Survey Respondents

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AHIMA

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Job Analysis Survey Data Screening

- Should we screen for careless responses?
  - Other survey contexts
  - Self-screening in credentialing
- If so, how?
  - Intrusive methods (foil tasks)
  - Non-intrusive methods
- Does screening have an impact on results?

Intrusive Methods - Foil Tasks

- Bogus tasks
  - Clearly outside scope of practice, but not absurd
  - If endorsed, possible indication of carelessness
  - Written by the SMEs on the job analysis panels
  - Expected response is “seldom or never” (frequency) and “no risk of a negative result” (criticality)
  - “Negotiate contracts with insurance payers.”

- Screening tasks
  - “Demonstrate careful reading of this task by selecting ‘always’ for the frequency rating and ‘no risk of a negative result’ for the criticality rating.”

Non-Intrusive Methods

- Response time
  - Start to end survey time recorded by the survey delivery engine
  - Flag the fastest 5% of respondents
- Response variability
  - Flag responses with no variability across frequency or criticality scales (excluding foil tasks)
- Person misfit
  - Flag Rasch outfit mean square > 1.4 for frequency or criticality scales (excluding foil tasks)

AHIMA Job Analysis Surveys

- Certified Coding Specialist (CCS)
  - 2,086 complete responses, 7.4% response rate, 20 job tasks
- Certified Coding Specialist-Physician based (CCS-P)
  - 462 complete responses, 9.7% response rate, 24 job tasks
- Registered Health Information Technician (RHIT)
  - 2,327 complete responses, 7.5% response rate, 21 job tasks
- Incentive –$250 gift card drawing entry for fully completing the survey

Face Validity

- Survey Disclaimer
  - “You may have noticed some tasks in this survey that did not appear appropriate to the role of a coding specialist. These were included for research purposes and are not intended for inclusion on the new CCS/CCS-P/RHIT exam.”

Face Validity

- Job Analysis Panel
  - Bogus task writing
  - Concerns expressed

- Other AHIMA stakeholders
  - Concerns expressed

Face Validity – Survey Comments

- CCS (2,086 total responses)
  - Bogus task – 22 mentions
  - Screening task – 19 mentions
- CCS-P (462 total responses)
  - Bogus task – 17 mentions
  - Screening task – 3 mentions
- RHIT (2,327 total responses)
  - Bogus task – 31 mentions
  - Screening task – 6 mentions

Face Validity – Survey Comments

- Bogus task typical comments
  - Generally emphasizing the task is not in scope
  - “It is not the role of an outpatient or CCS-P coder to negotiate contracts with insurance companies.”

- Screening task typical comments
  - Some positive (25%), mostly negative (75%)
  - “Love question 3, makes sure you are paying attention.”
  - “Don't understand 4.03 - is this a trick question??”

False Positive Careless Classification

- Bogus task
  - Misread, misunderstood, random error, different interpretation
- Screening task
  - Misread, misunderstood, random error
- Response time
  - Fast reader

False Positive Careless Classification

- Response variability
  - Genuinely believe all tasks are at the same level
- Person Misfit
  - Misfit due to a truly different perspective on the job tasks

Careless Classification Decisions

- Endorse the bogus task, really fast, and no response variability?
- Trip on the screening task, really fast, and misfit?
- No variability, misfit, and endorse bogus task?

Careless Classification Decisions

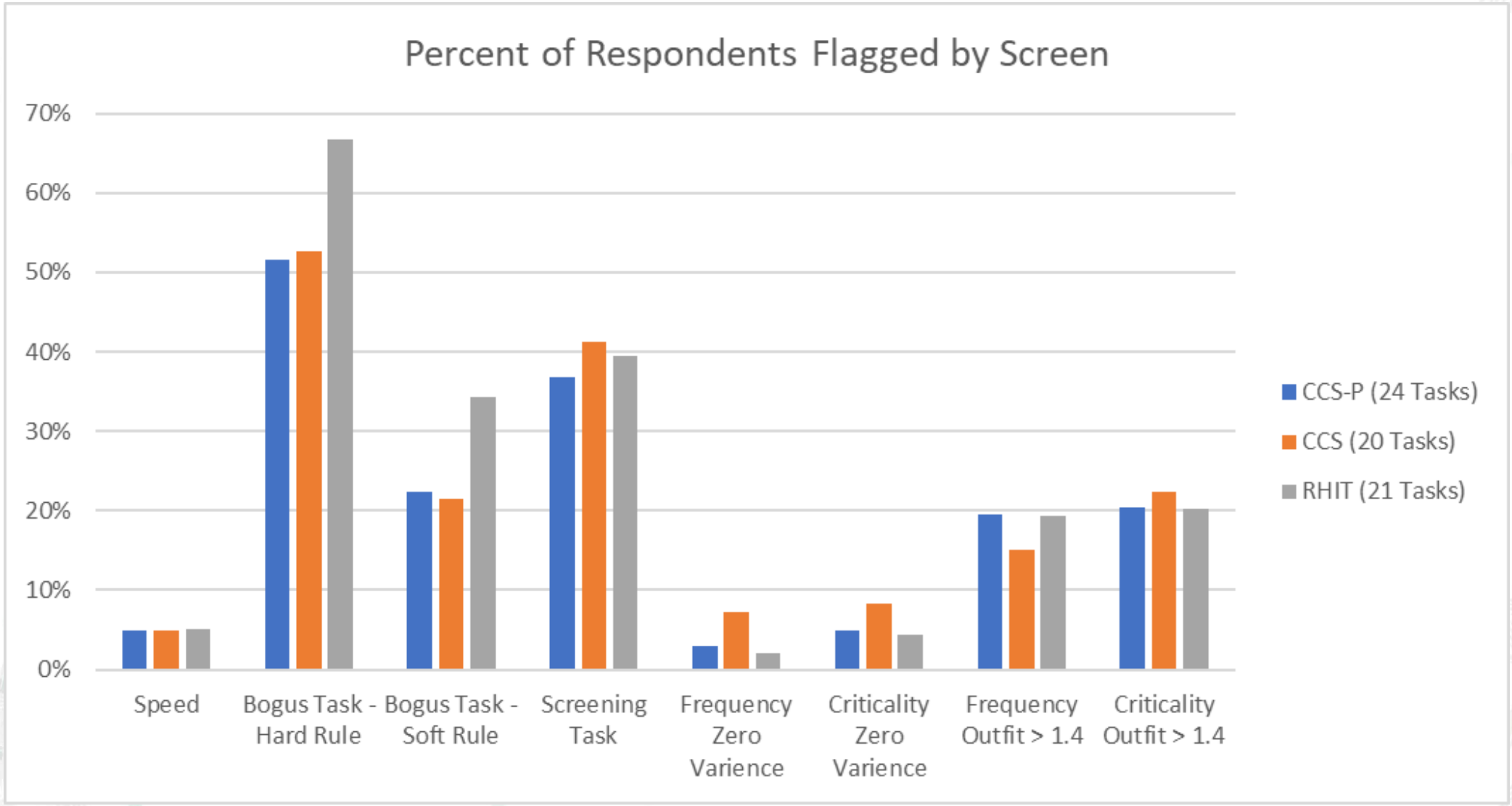
- Number of flags required?
  - Higher number – fewer false positives, more careless respondents included, larger survey sample
  - Lower number – more false positives, fewer careless respondents included, smaller survey sample
- 3 strikes!

- Experimental only. No respondents removed from actual job analysis studies.

Results

- Order effects
  - Randomly assigned both foil tasks early/late in the survey (RHIT)
  - Randomly assigned bogus/screening to early/late (CCS)
  - Negligible differences in failure rates

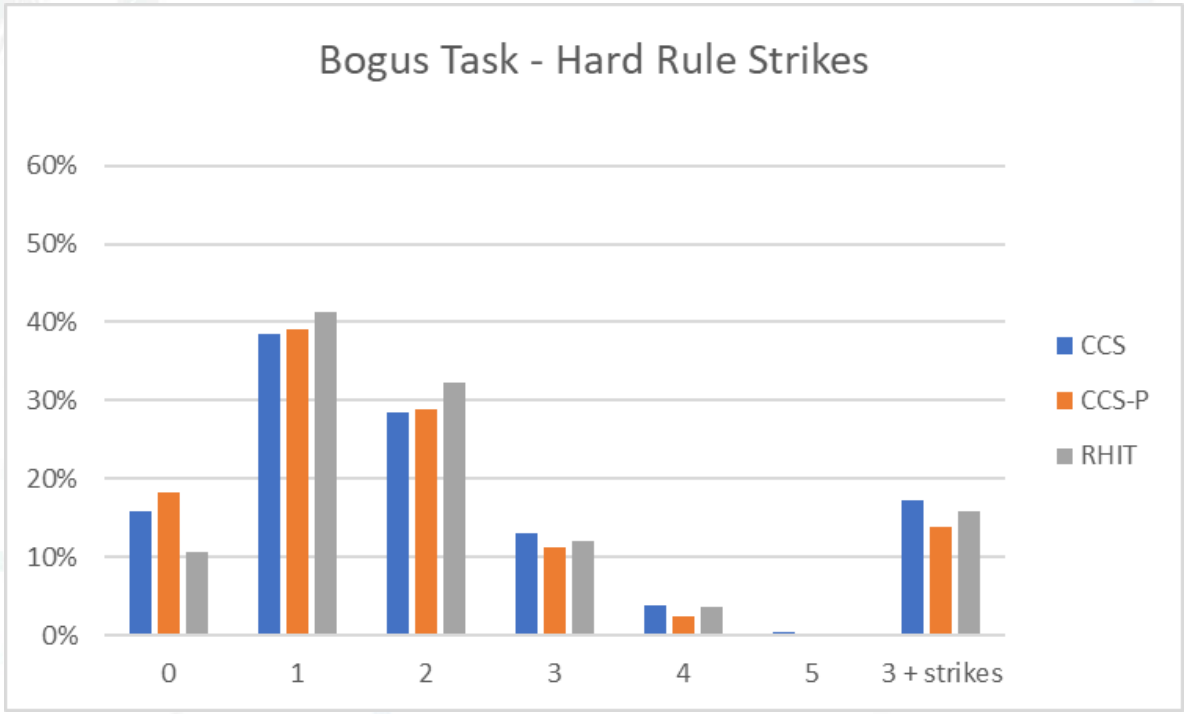
Results

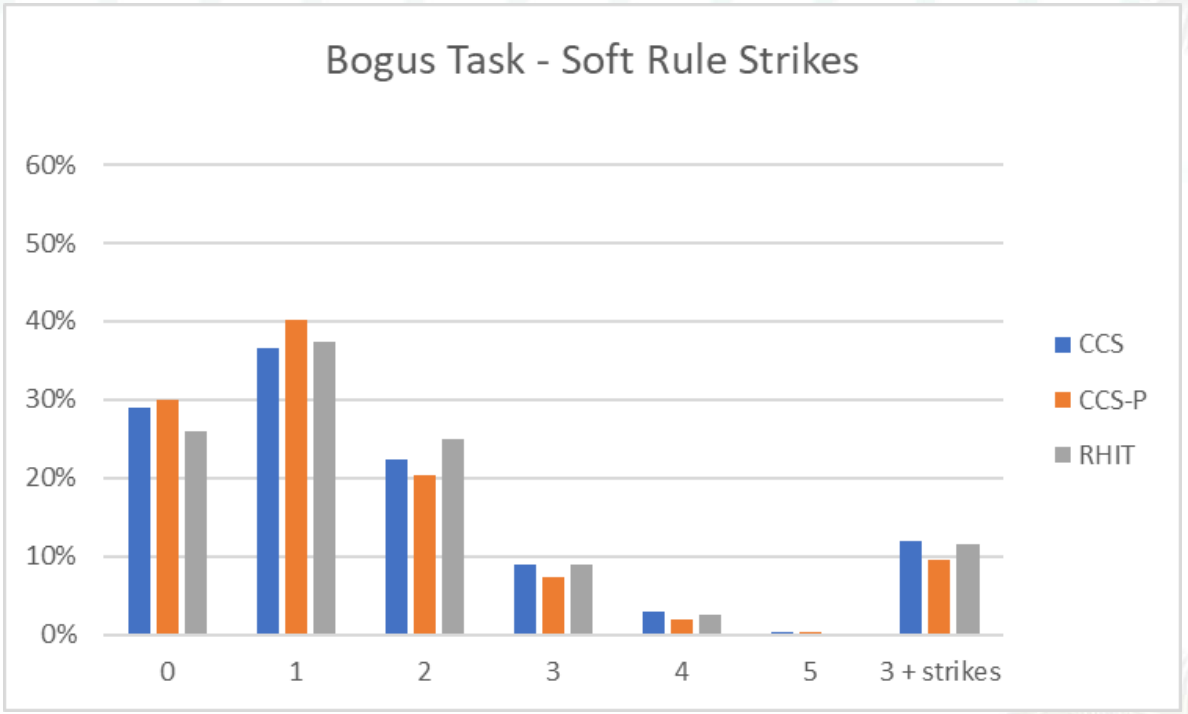

Percent of Respondents Flagged by Screen
70%
60%
50%
40%
30%
20%
10%
0%
Speed
Bogus Task - Hard Rule
Bogus Task - Soft Rule
Screening Task
Frequency Zero Varience
Criticality Zero Varience
Frequency Outfit > 1.4
Criticality Outfit > 1.4
CCS-P (24 Tasks)
CCS (20 Tasks)
RHIT (21 Tasks)

Results – Possible Strikes

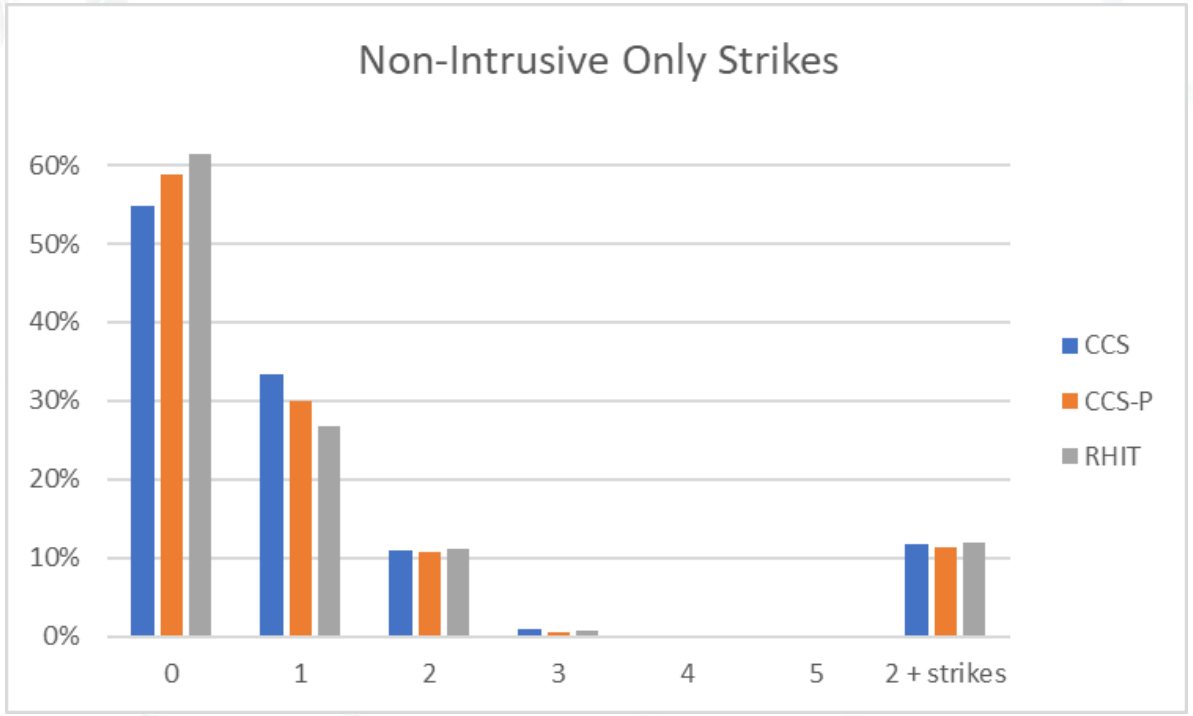
- Bogus task
  - Fail to select both “seldom or never” and “no risk” (hard rule)
  - Fail to select “seldom or never” (soft rule)
- Screening task
  - Fail to select “always” and “no risk”
- Response time
  - Fastest 5% of respondents
- Response variability
  - No variability across frequency or criticality scales (excluding foil tasks)
- Person misfit
  - Rasch outfit mean square > 1.4 for either scale (excluding foil tasks)

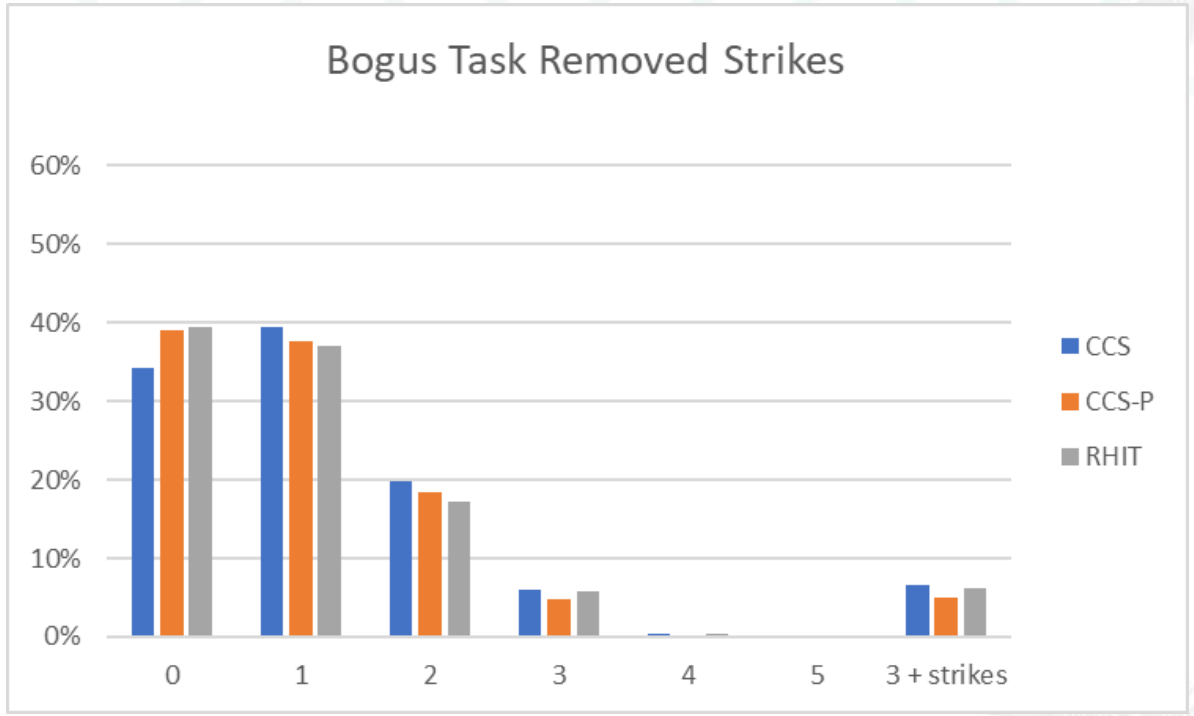
Results


Bogus Task - Hard Rule Strikes
60%
50%
40%
30%
20%
10%
0%
0
1
2
3
4
5
3 + strikes
CCS
CCS-P
RHIT


Bogus Task - Soft Rule Strikes
60%
50%
40%
30%
20%
10%
0%
0
1
2
3
4
5
3 + strikes
CCS
CCS-P
RHIT

Results


Non-Intrusive Only Strikes
60%
50%
40%
30%
20%
10%
0%
0
1
2
3
4
5
2 + strikes
CCS
CCS-P
RHIT


Bogus Task Removed Strikes
60%
50%
40%
30%
20%
10%
0%
0
1
2
3
4
5
3 + strikes
CCS
CCS-P
RHIT

Results – Average Classification Agreement

	CCS	CCS-P	RHIT
Speed	74%	75%	71%
Bogus Task Hard Rule	49%	49%	37%
Bogus Task Soft Rule	71%	70%	61%
Screening Task	58%	60%	58%
Frequency No Variance	74%	76%	72%
Criticality No Variance	74%	75%	71%
Frequency Misfit	69%	68%	63%
Criticality Misfit	62%	65%	63%

Impact – Task Weight and Mean Differences

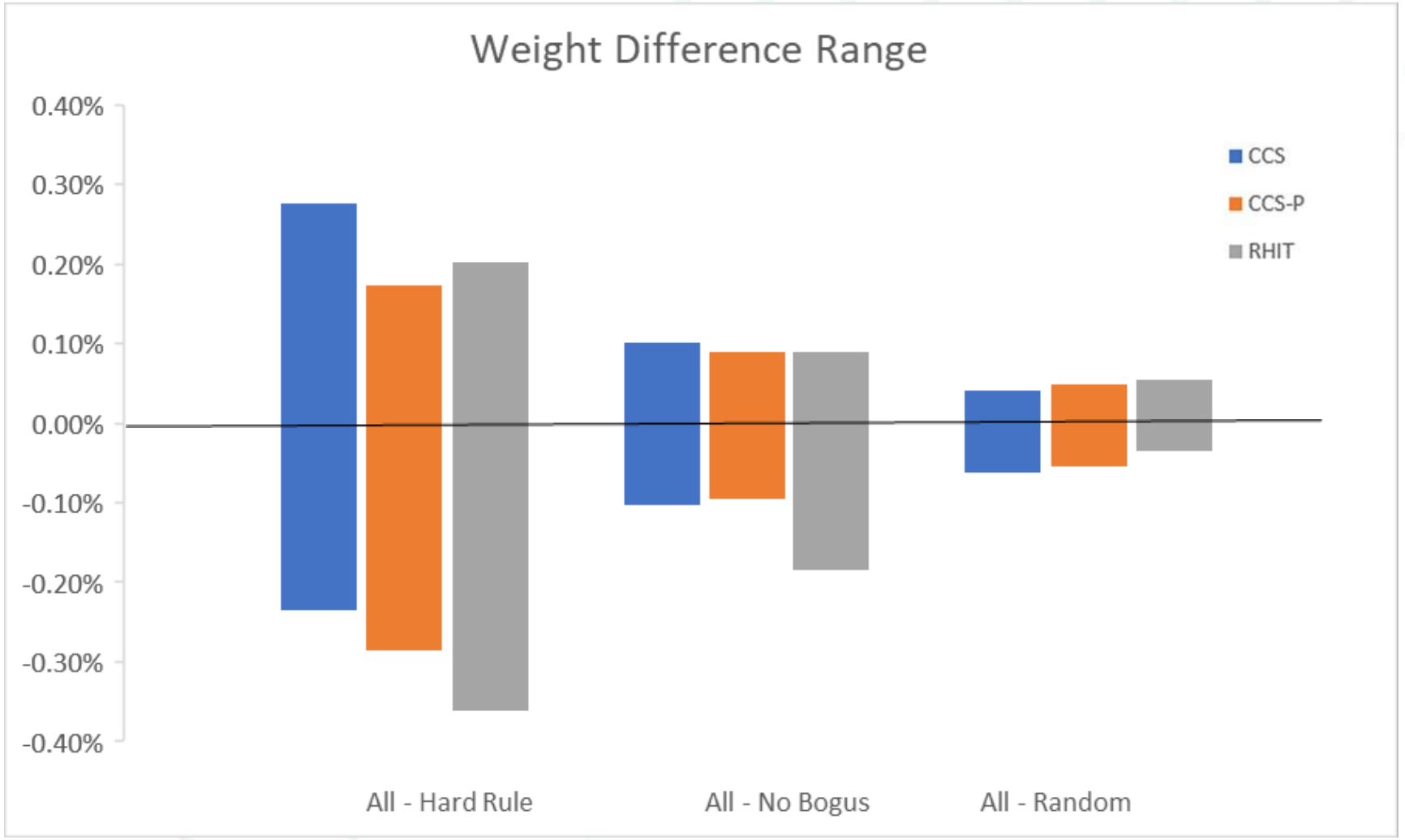
- Task weight/mean all respondents – Task weight/mean careless removed

- Task 1.01 weight difference
  - 5.57% using all respondents
  - 5.71% removing “careless” respondents
  - - 0.14% difference

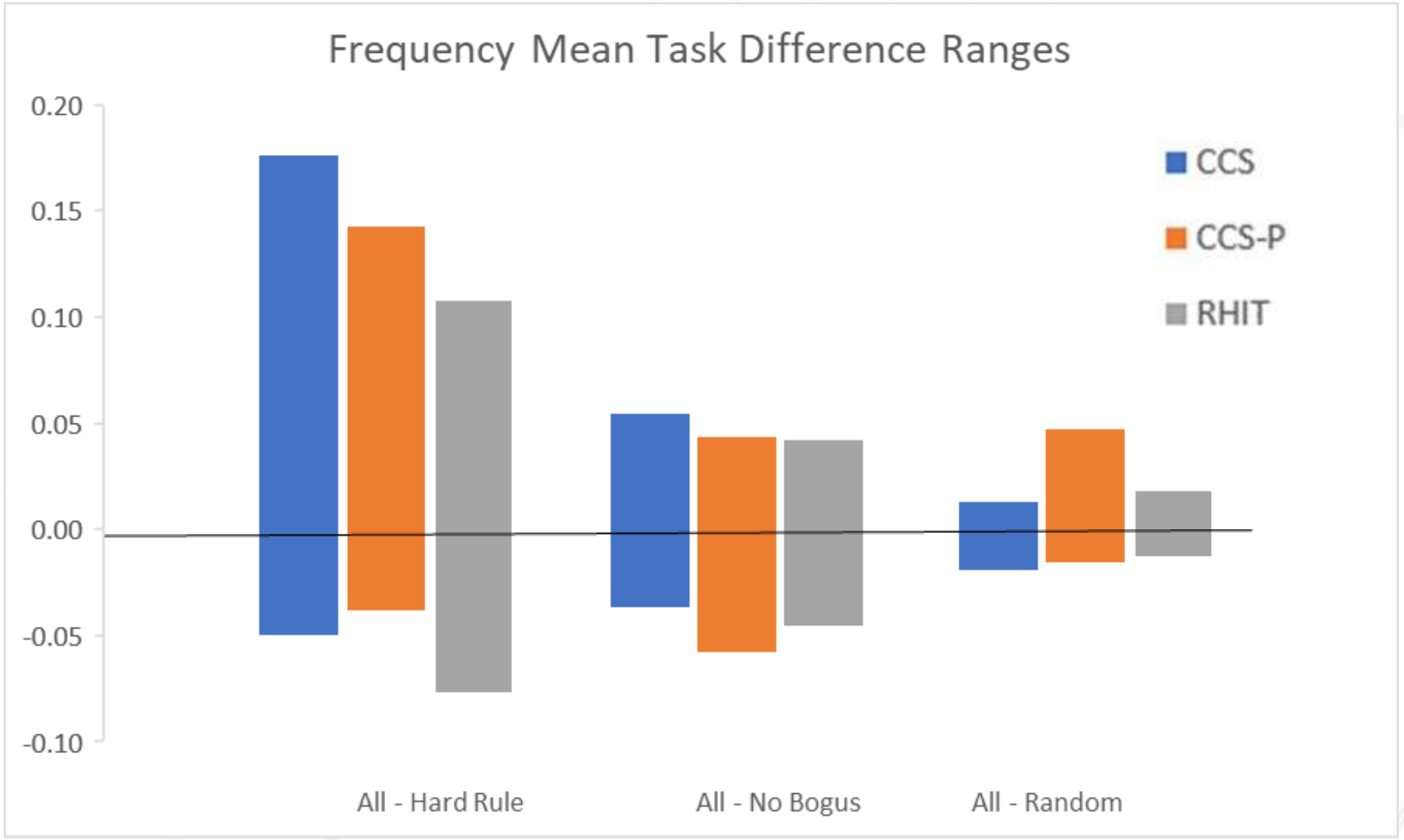
- Task 1.01 Criticality scale mean difference
  - 3.77 using all respondents
  - 3.78 removing “careless” respondents
  - - 0.01 difference

- Looked at range of differences across tasks
  - 3 strikes bogus task hard rule (maximum number removed)
  - 3 strikes no bogus task (minimum number removed)
  - Random sample equal to number removed under hard rule

Impact – Task Weight Differences



Impact – Task Mean Rating Differences



Further Investigation

- Task list length
- Better incentives
- Careless respondent demographics
- Disclaimer statement placement

Thoughts About Next Time

- Bogus tasks
- Screening tasks
- IRT person fit
- Response variability
- Response time