


# A Closer Look at Verifying the Integrity of NAEP

Commissioner Jack Buckley  
National Assessment Governing Board Meeting  
August 5, 2011

# Overview



- Media speculation about cheating on NAEP
- Atlanta growth on NAEP
- Atlanta Public Schools (APS) cheating allegations
- Theories of ways to cheat on NAEP
- NAEP investigation of 2009 APS data collection



Media speculation about  
cheating on NAEP

# Media speculation of cheating on NAEP



- “The increasingly public use of NAEP scores raises the question whether ‘joking’ NAEP is next. In reality, it may already be happening.”  
- @ Alexander Russo 7/12/2011
- “It is possible for a school to shade the results by providing only a sample of their highest-performing students for the NAEP managers to pick from.”  
- Ed Week 7/11/2011

# Media speculation of cheating on NAEP (cont)



- “ ‘So, Atlanta Public Schools gives the NAEP folks the list of students from which the NAEP folks sample students,’ said Ben Scafidi, director of the nonprofit Center for an Educated Georgia in Norcross and a former education adviser to Gov. Sonny Perdue. “So, it is possible to cheat on NAEP by taking students likely to do poorly on the exams off the roster.’ ”
  - Whitney Tilson School Reform Blog  
8/18/2010



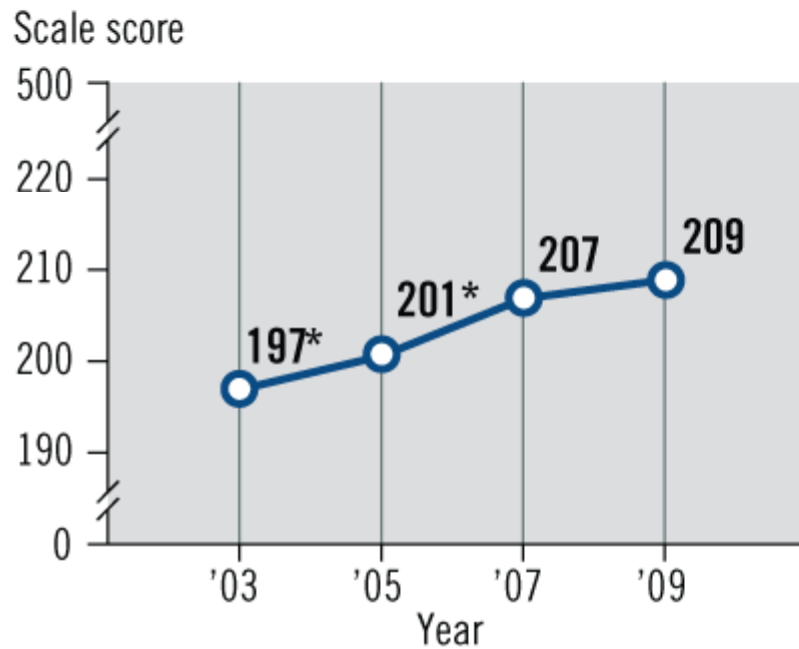
# Growth on NAEP for Atlanta

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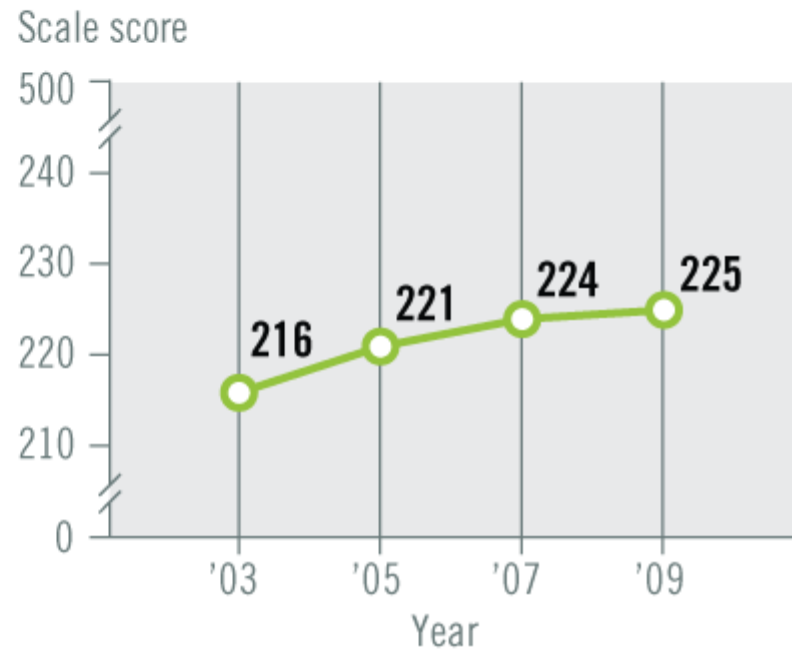


## Trend in fourth-grade NAEP reading and mathematics average scores

### Reading



### Mathematics



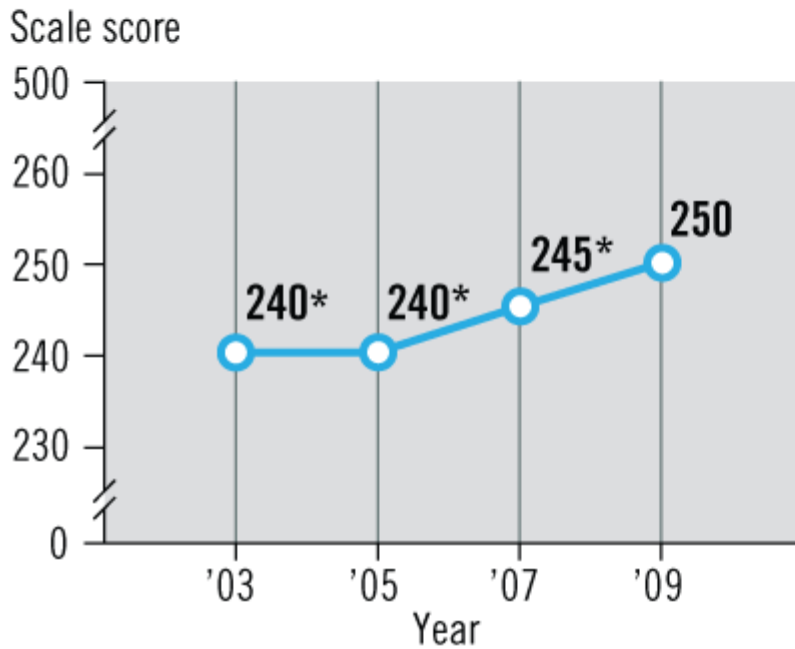
\* Significantly different ( $p < .05$ ) from 2009

# Growth on NAEP for Atlanta



## Trend in eighth-grade NAEP reading and mathematics average scores

### Reading



### Mathematics



\* Significantly different ( $p < .05$ ) from 2009





APS cheating  
allegations

# APS cheating allegations



## Allegations:

- Students allowed to change previous day's answer
- Teachers discussed next day's questions with students

## Standard practice in NAEP:

- NAEP employees handle all operations (printing, shipping, administration, scoring)
- NAEP is usually only in a school for one day (as the case with Atlanta)

# APS cheating allegations (cont.)



## Allegation:

- Arranged classrooms so lower performing students sat near higher performing students

## Standard practice in NAEP:

- Multiple subjects are tested in a session
- Even if students receive same subject, the odds are high that the questions are different

# APS cheating allegations (cont.)



## Allegation:

- Teachers used voice inflection to cue correct answer

## Standard practice in NAEP:

- NAEP field staff responsible for administering assessment
- Questions/answer options not read aloud unless it is for accommodated students
- Administration often monitored by outside observer (Westat, NCES, HumRRO, etc.)

# APS cheating allegations (cont.)



## Allegation:

- Teachers and administrators erased incorrect answers (alleged to occur at weekend gatherings)

## Standard practice in NAEP:

- Tests are never left alone with school personnel and are removed from school immediately after assessment
- Tests contain several constructed response questions; makes changing of answers difficult
- Low stakes for school, teachers & students



# Theories of ways to cheat on NAEP

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- High Exclusion/ Low Participation
  - If a jurisdiction keeps their low performing students from participating in NAEP, scores could show an artificial increase
- Standard practice in NAEP
  - All jurisdictions must follow NAEP guidelines when deciding which students will be excluded
  - APS exclusion and participation rates were among the best of the TUDAs

# Atlanta Exclusion Rates



Atlanta 2007,2009 Exclusion Rates by Subject and Grade

SUBJECT	Grade	2007	Large City average	2009	Large City average
MATH	4th	1.1%	4%	1.1%	3%
	8th	3.3%	4%	1.3%	3%
READING	4 <sup>th</sup>	6.6%	7%	2.5%	7%
	8 <sup>th</sup>	7.7%	6%	3.3%	5%



# Atlanta Participation Rates



Atlanta 2007,2009 Student Participation by Subject and Grade

SUBJECT	Grade	2007	Rank among TUDAs (11 TUDAs in 2007)	2009	Rank among TUDAs (18 TUDAs in 2007)
MATH	4th	95.2%	1 <sup>st</sup> (tied)	96.5%	4 <sup>th</sup> (tied)
	8th	90.8%	3 <sup>rd</sup> (tied)	92.7%	3 <sup>rd</sup> (tied)
READING	4 <sup>th</sup>	95.7%	1 <sup>st</sup> (tied)	94.9%	1 <sup>st</sup>
	8 <sup>th</sup>	90.1%	6 <sup>th</sup> (tied)	93.1%	3 <sup>rd</sup> (tied)

# Theories of ways to cheat on NAEP



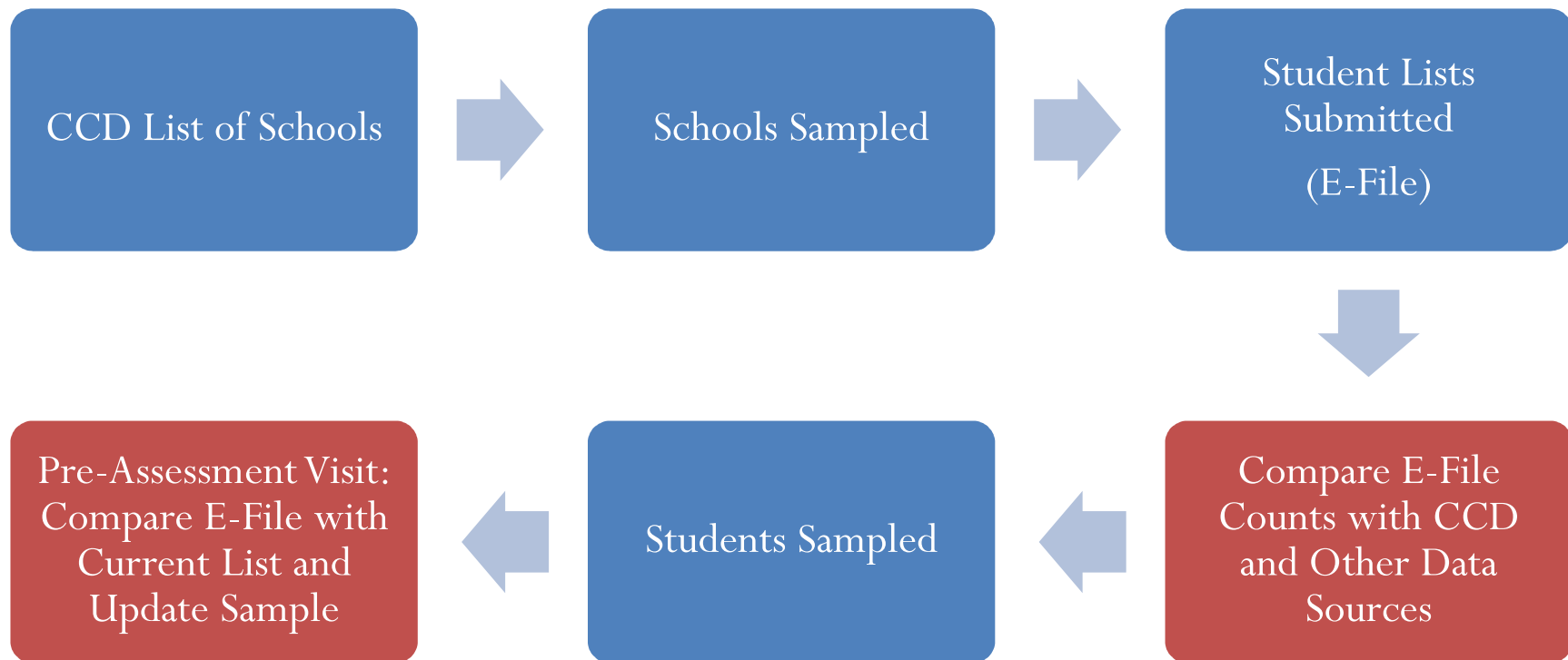
- Proctor theory
  - Proctors could be former APS staff and conspire with schools to cheat
    - Provide answers to students during test
- Mitigating Factors in NAEP
  - Proctors don't know what school they will be assigned until after training
  - Scoring contractor must receive booklets within 3 days of assessment; if not field staff receive notification from contractor
  - No evidence of differentially large gains on multiple choice items relative to constructed response

# Theories of ways to cheat on NAEP (cont.)



- Manipulation of Sampling Roster theory
  - Only supply NAEP with roster of high-performers
  - Schools only E-file their higher performing students
  - Schools have a book with high performing students and separate book for low performers
- Standard practice in NAEP:
  - Check student lists with E-file and CCD
  - Receive updated current list at PAV
  - Any disparities are followed up with school and other sources

# Sampling Process and QC Checks



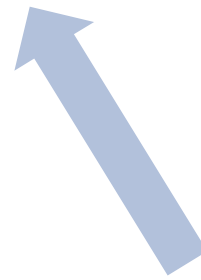
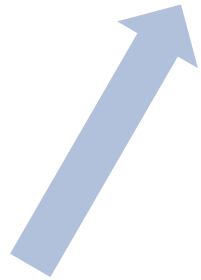


# NAEP investigation of 2009 APS data collection

# APS: Further Investigation



Current CCD



APS E-File Student  
Counts by School

APS Student  
Counts at PAV

# APS: Further Investigation: Findings



- 9 of 79 schools had CCD counts that were 10 or more students higher than the pre-assessment visit count
- Analyzed data from all 9 schools and identified reasons for count differences. They include:
  - Neighborhood make-up, school location changes, alternative schools
  - Several of these schools closed the following year

# Account from field



- Sampled an alternative middle school that had closed and changed name and location
- APS notified our sampling contractor of the change and the whole school was assessed
- This suggests that there wasn't a plot on behalf of APS to hide low performing students.



# Conclusion



- Methods of cheating alleged in APS unlikely to work on NAEP
- APS had relatively high participation (few absences)
- APS had low exclusion rates compared with other districts (lower than state of Georgia and most TUDAs).
- No evidence that APS distorted the list of students to be assessed/sampled: E-File and CCD matched closely
- No evidence of systematic sample distortion