# *ABA/ASA JOINT COUNCIL ON IN-TRAINING EXAMINATIONS*

## 2008 REPORT TO SAAA

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# *2007 JOINT COUNCIL MEMBERS*

- **ABA representatives**
  - **Douglas Coursin**
  - **Glenn Gravlee**
  - **Jeff Andrews**
  - **Jim Di Nardo**
  - **Cynthia Lien**
  - **Steve Hall**
  - **John Emhardt**

- **ASA representatives**
  - **Jerry Klafta**
  - **John Rowlingson**
  - **Jeffrey Gross (V.C.)**
  - **Roger Mecca**
  - **Don Martin**
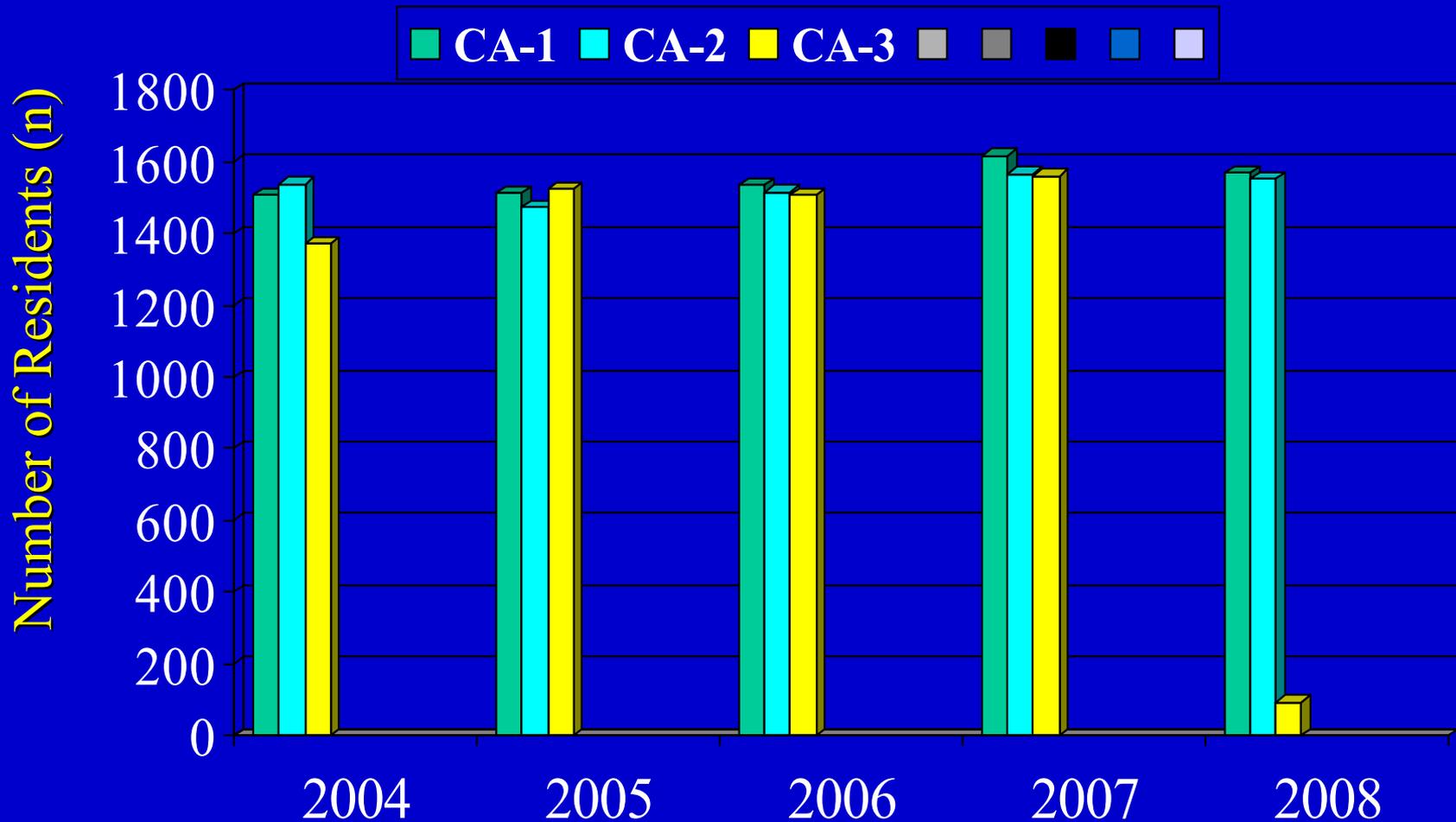  - **Patricia Petrozza**
  - **Robert Gaiser**

# *Joint Council: Invaluable Assistance*

- Approximately 40 Senior Editors
- Approximately 30 Junior Editors
- Special thanks: Joe McClintock in ABA office, Dick Stypula (Sr. Editor) for attending Joint Council meeting on short notice
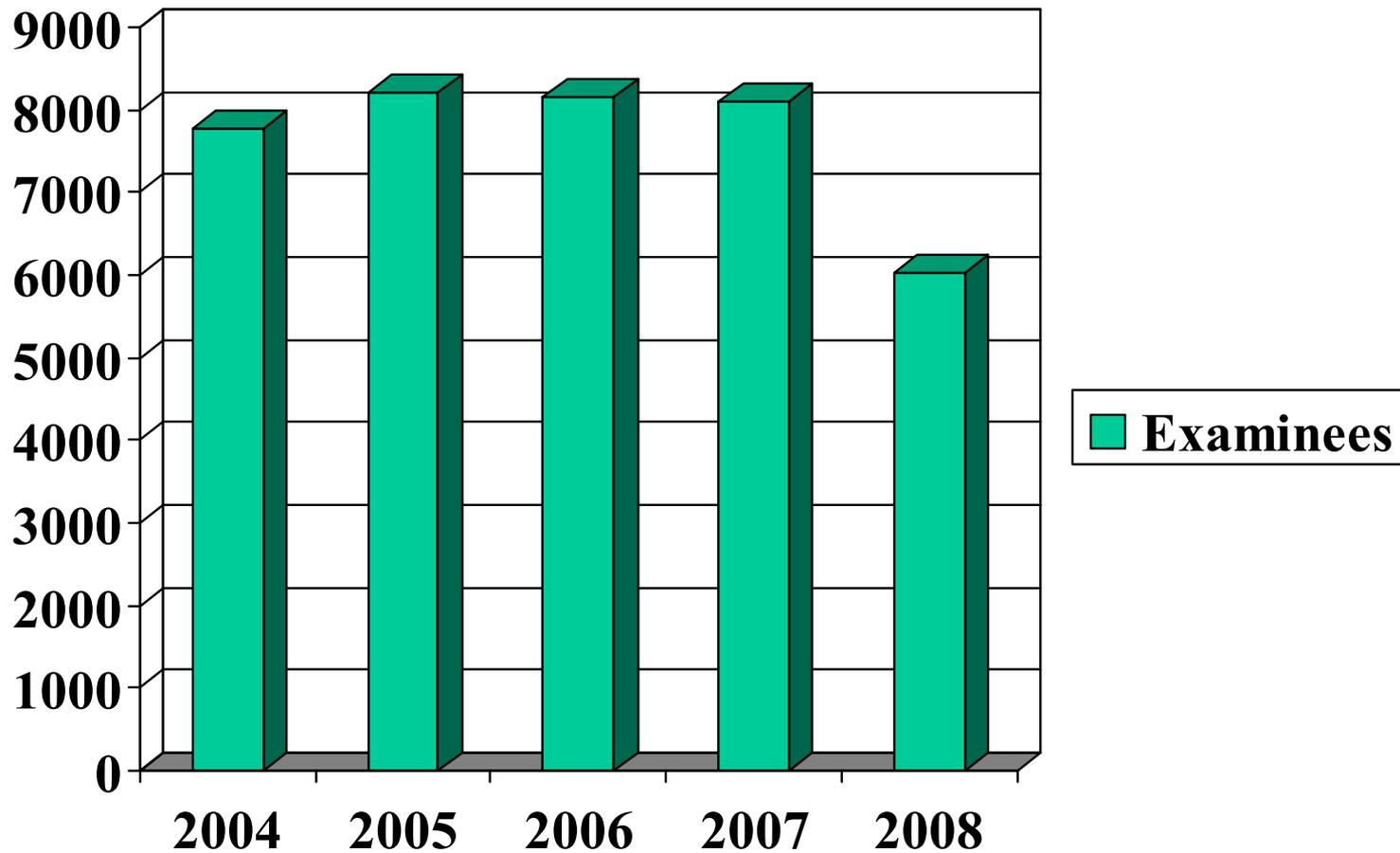
# DEMOGRAPHICS OF IN-TRAINING EXAMINATIONS

# *2008 CA3 Group for ITE*

- Much smaller than usual

- Not demographically comparable to usual CA3 group, as that group was taking ABA Part 1 in August rather than ITE in July

- So the examination calibration group becomes CA2 residents for the first time ever
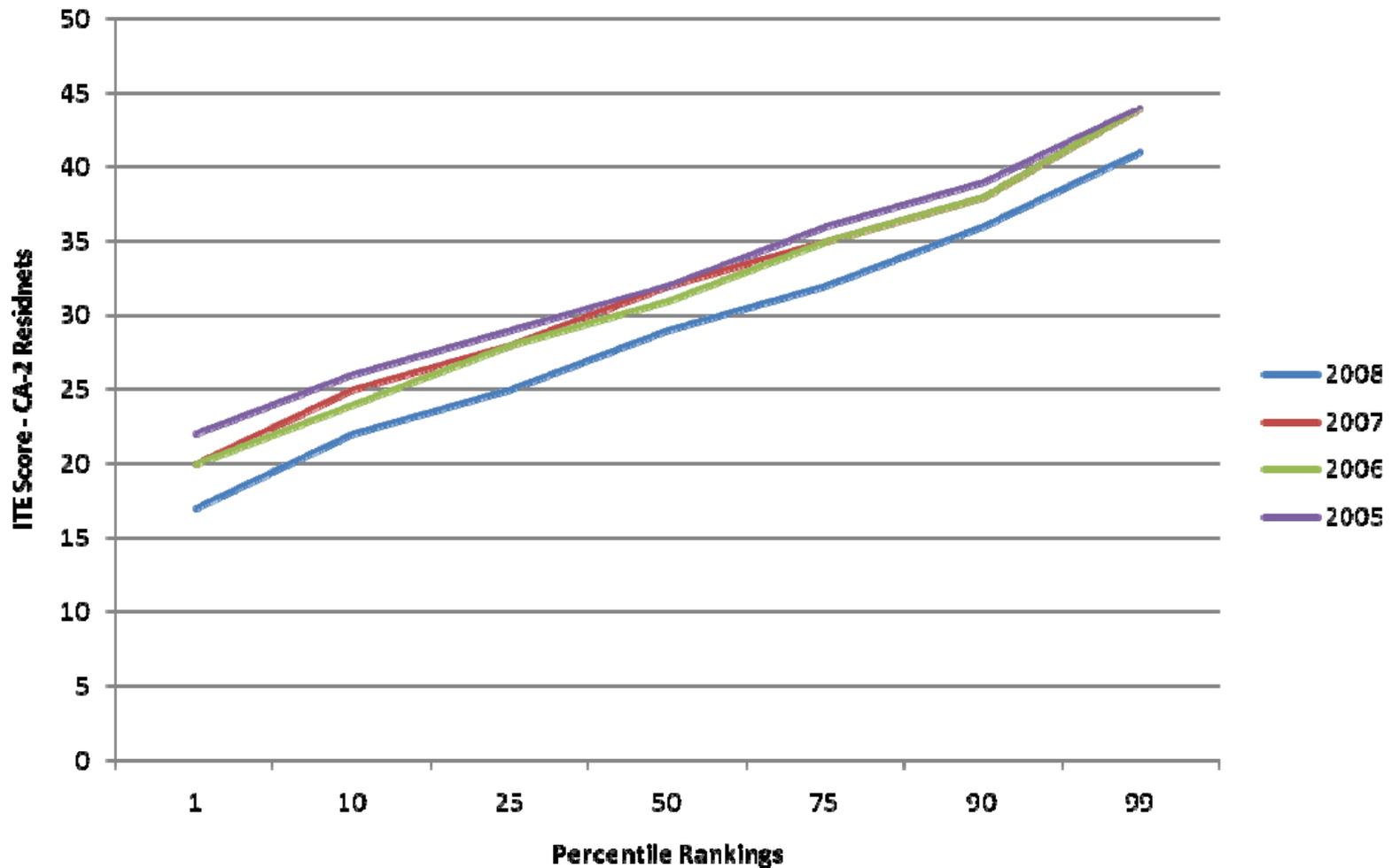
# *ITE: Growth in Knowledge by Year of Residency: 2008*



2008 ABA/ASA In-Training Examination
ITE Scores and Ranks by Level of Training
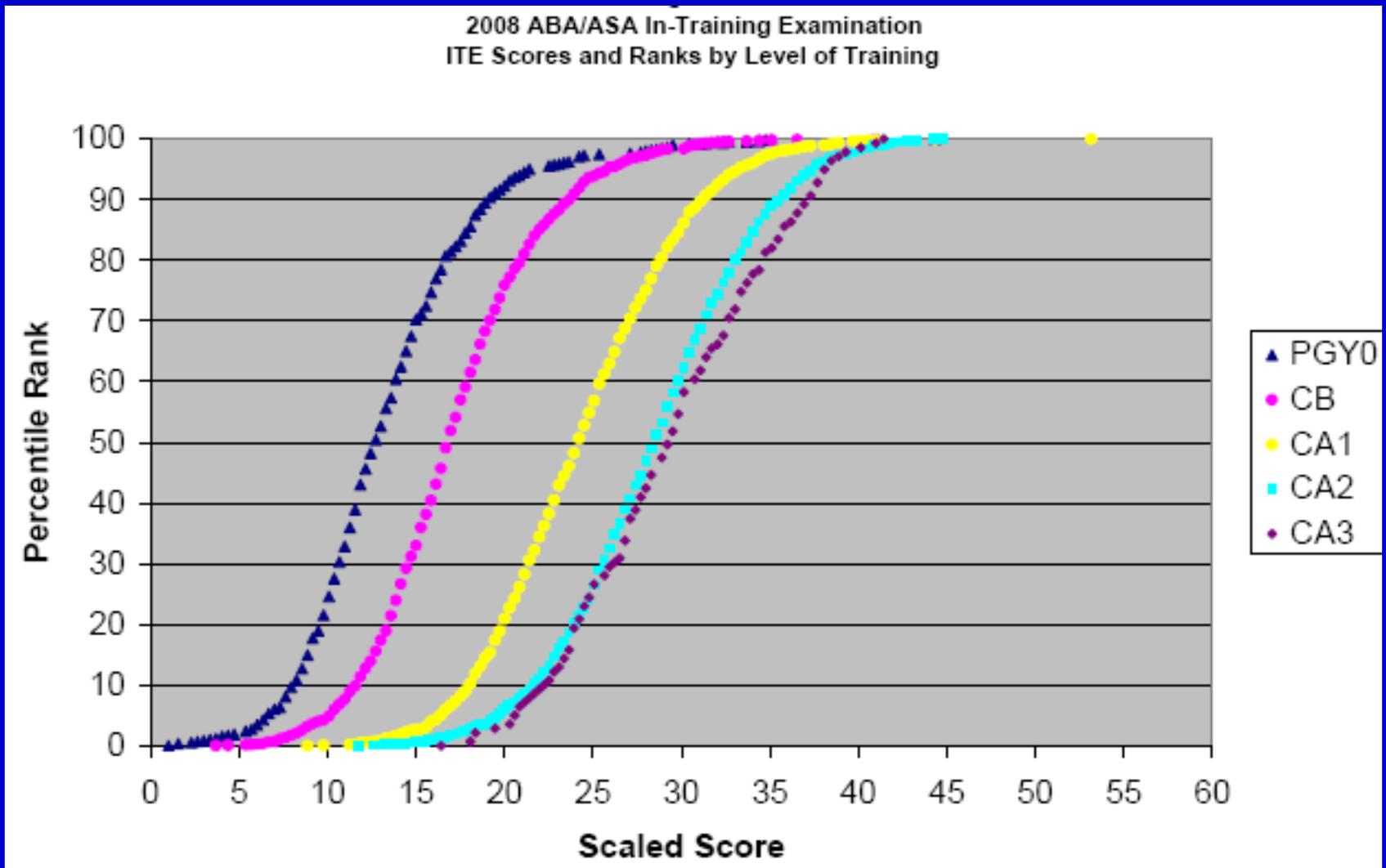
# *Performance by year: All residents (in logits)*
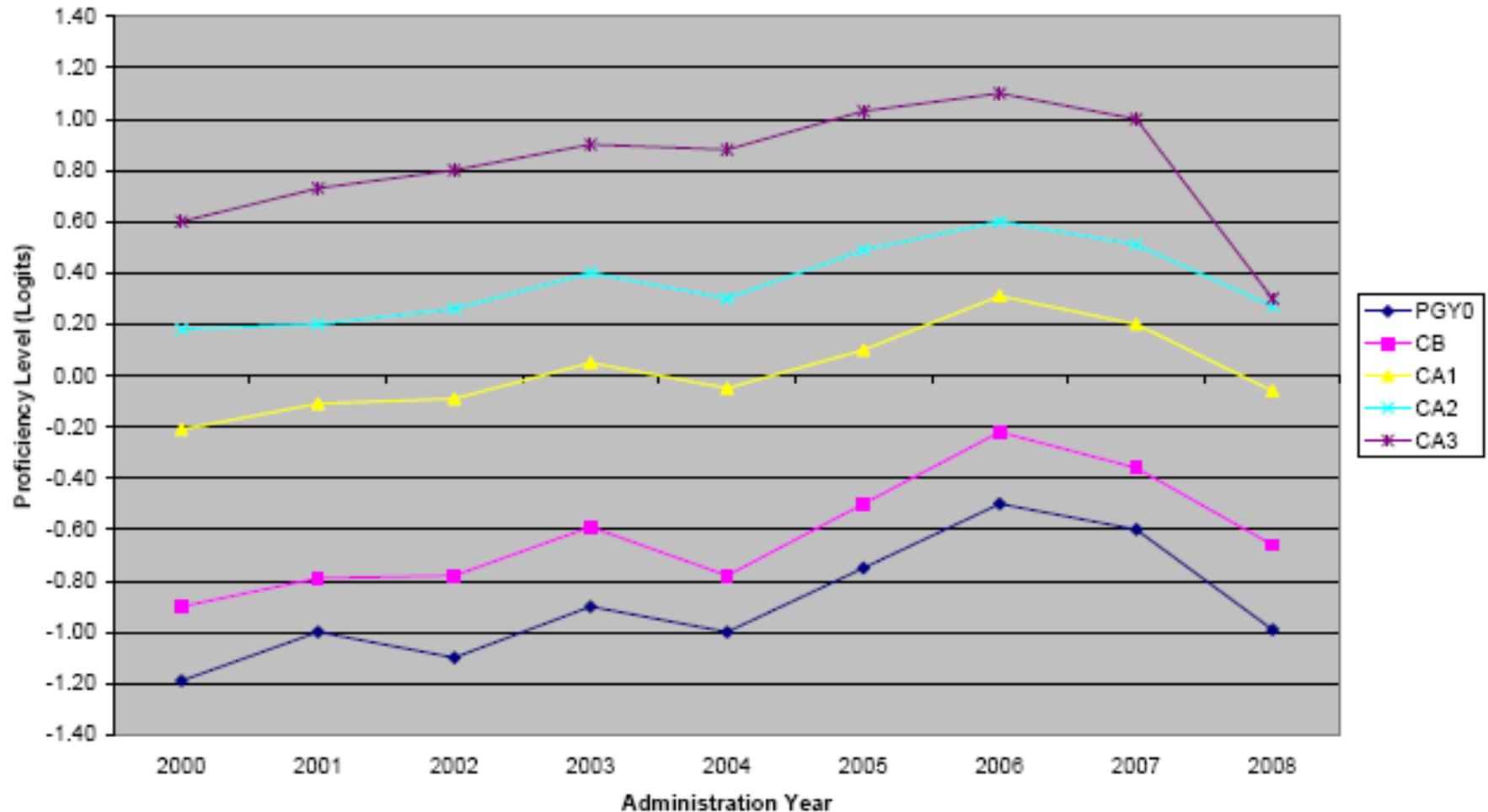
# CA2 Percentile Rank vs ITE Score: 2005-2008

# *2008 ITE Scores ~ 3 points lower at any given percentile ranking for CA1s and CA2s: Why?*

Possible explanations:

- 2008 residents' performances dropped that much across the board:  Unlikely

- Dropping from 350 to 225 questions compromises equating process: Probably minor effect

- Shift in exam equating process from NBME to Castle Worldwide
  - If so, why does 2008 ABA Part 1 Exam score distribution match 2005-7?  Also unlikely

- Change in calibration group from CA3s to CA2s: Most likely explanation

# *Examination Equating (Standardized Scoring)*

Depends to some degree on

- Consistency of calibration group
- Performance spread between lowest and highest performers
- Example of CA2-CA3 difference
  - 2008 ITE CA2s: 27% got $\geq$ 70% correct
  - 2008 ABA Part 1 CA3s: 79% got $\geq$ 70% correct
  - Appears that exams were comparable in difficulty

# *ITE Score Shift: What does it mean?*

- ABA Part 1 2008 scores and percentiles were very close to 2005-2007

- Percentile ranks should be consistent with previous years even though ITE scores have shifted downward for reasons that appear unavoidable with the 2008 ITE population sample

- With a representative CA3 group back in the ITE group next year, ITE scaled scores may shift back upward, i.e., this could be just a "blip"

- ABA Part 1 pass rate typically is about 80% for first-time takers of the exam

# *Subscore Contrast: 2008 vs 2007*

**2007**

- 350 question exam
- An actual score provided
- Large standard error
- Threshold for reporting was ~20 questions within a category

**2008**

- 225 question exam
- Same relative question distribution
- Harder to reach "critical threshold" for a reliable subscore
- Elected to keep the concept, but change the reporting

# *2008 Subscore Report*

So what you got was

- All categories reported regardless of N
  - N>12 desirable to increase reliability
- Performance relative to peer group for CA1s and CA2s
  - Total N vs Resident number correct
  - Number correct for national peer group at various percentile ranks: 50th, 75th, 90th

# SUBSCORE CATEGORIES
## with greatest N (highest reliability)

- Anatomy
- Anesthesia Procedures
- Cardiovascular
- Hematology
- Neuroanesthesia
- Obstetric Anesthesia
- Pain
- Neuromuscular Disease

- Pediatric Anesthesia
- Pharmacology
- Physics/Equipment
- Physiology
- Regional Anesthesia
- Respiratory
- Critical Care

# *Example of "Subscore" Reports*

| Category | # of Questions | # Answered Correctly | 50% | 75% | 90% |
|---|---|---|---|---|---|
| "Generic" Clinical Sciences: Anesthesia Procedures, Methods, Techniques | 37 | 24 | 23 | 25 | 27 |
| Anatomy | 13 | 8 | 7 | 8 | 10 |
| Mathematics, Statistics, Computers | 5 | 2 | 3 | 4 | 5 |
| Organ-based clinical: Hematologic | 12 | 5 | 6 | 7 | 8 |
| Organ-based clinical: Respiratory | 26 | 20 | 16 | 18 | 20 |
| Organ-based clinical: Cardiovascular | 18 | 11 | 10 | 12 | 13 |
| Organ-based clinical: Endocrine/metabolic | 8 | 5 | 5 | 6 | 7 |
| Organ-based clinical: Neuromuscular Diseases & Disorders | 14 | 10 | 8 | 9 | 11 |
| Organ-based clinical: Renal/Urinary/Electrolytes | 4 | 1 | 2 | 2 | 3 |
| Pharmacology | 54 | 36 | 32 | 36 | 39 |
| Physics, Monitoring, & Anesthesia Delivery Devices | 17 | 9 | 9 | 11 | 12 |
| Physiology | 20 | 11 | 11 | 13 | 14 |
| Regional | 17 | 15 | 9 | 11 | 12 |
| Subspecialties: Critical Care | 13 | 7 | 8 | 9 | 10 |
| Subspecialties: Obstetric | 15 | 11 | 10 | 11 | 12 |
| Subspecialties: Pain | 18 | 10 | 12 | 13 | 14 |
| Subspecialties: Pediatrics | 18 | 12 | 10 | 11 | 13 |

# *Gaps in Knowledge Report*

Remember – based on CA2s rather than CA3s, but still we might want to work on

- Epidural analgesia does not prolong Stage 1 of labor

- Calculation of liters remaining in an E cylinder vs tank pressure

- PEEP does not decrease extravascular lung water

# *Gaps in Knowledge Report*

Remember – based on CA2s rather than CA3s, but still we might want to work on

- Interpretation of Post-tetanic twitch count

- Liposuction: lidocaine administration and maximum dose

- Calculation of allowable blood loss in children

# *Computer-based ABA Part 1*

- A Big Success: Feedback was largely positive

- Lacked mechanism to mark the questions and come back to them: fixable for 2009

- One glitch in the 20-minute break cut into break time for about 30 out of 2500 examinees: also fixable

# *What about a computer-based ITE?*

- Target had been 2010, various options
- To be just like ABA Part 1, need to use Pearson VUE:
  - Seat cost goes up
  - Exam must be spread out over 8-9 days to accommodate 7-8,000 examinees
  - Max of 2 of the days are Saturdays, the rest are weekdays (Sundays not open)
  - Number of exam forms must go from 1 to 3+
  - Bottom line: doubles the cost, question development needs to increase substantially

# *Computer-based ITE - cont*

Other options:

1. Go downscale on the Examination Vendor

- Reduces cost per seat somewhat (~50% increase vs 100%)

- Still creates geographic distribution problems (traveling to take ITE)

- Still looking at a 7-day plus exam

# *Computer-based ITE – cont.*

Other options

2. Web-based secure downloadable examination

- Advantages: Can do it anywhere, cost increase 20-30% to Council, more to departments

- Disadvantages:  Still need to hire proctors, computer terminal specifications vs. site-specific limitations, most teaching centers still lack capacity to do this on a large scale in a single day (best for cost if proctors needed)

# *Computer-based ITE – cont.*

Other options

3. Offer 2 options: proctored local web-based (you hire the proctors to meet our specifications) or pay to go to a CBT exam center

- Council thought residents would pressure departments for the computer-based option (expense) and was concerned about scheduling and security for the local option

# *Council decision: Paper and Pencil ITE for the near future*

- Only aware of 2 boards that do computer-based ITE, both of which have a strong need for sophisticated graphics (Path, Derm)

- ABA candidates do not seem to need practice on a computer-based exam (USMLE helps)

- Will reconsider when ABA Part 1 starts using more graphics (video clips, etc.)

# *2009 ITE*

- Moves to March 7 (A Saturday)

- CA3s will have approximately 3 months to address gaps in knowledge identified by ITE

- Goal is to keep content of ITE and ABA Part 1 very similar

# *March ITE*

- Good for CA3s (PGY4), not so good for CBs (PGY1s)

- Please try to enroll PGY1s if you can

- We will help you find test centers if yours isn't convenient

# *Speaking of Graphics for a Computer-based Exam*

- Would love to recruit high-tech (volunteer) expertise to provide graphics that will take advantage of the capabilities of computer-based test
  - TEE clips (but keep it simple)
  - Ultrasound images (blocks, CVC, etc.)
  - Direct laryngoscopy, Fiberoptic laryngoscopic or Bronchoscopic views (still or moving)
  - Monitor screens: hemodynamic, respiratory, end-tidal agents, etc.

# *Thank you!*

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