



AMERICAN ACADEMY OF  
ORTHOPAEDIC SURGEONS

# **Orthopaedic In-Training Examination: Overview & Future Direction**

Norman Y. Otsuka, MD, FAAOS  
OITE Chairman

# Background

Since 1963, the American Academy of Orthopaedic Surgeons (AAOS) has developed the Orthopaedic In-Training Examination (OITE) to assess resident knowledge in eleven primary content domains as defined by the OITE blueprint.

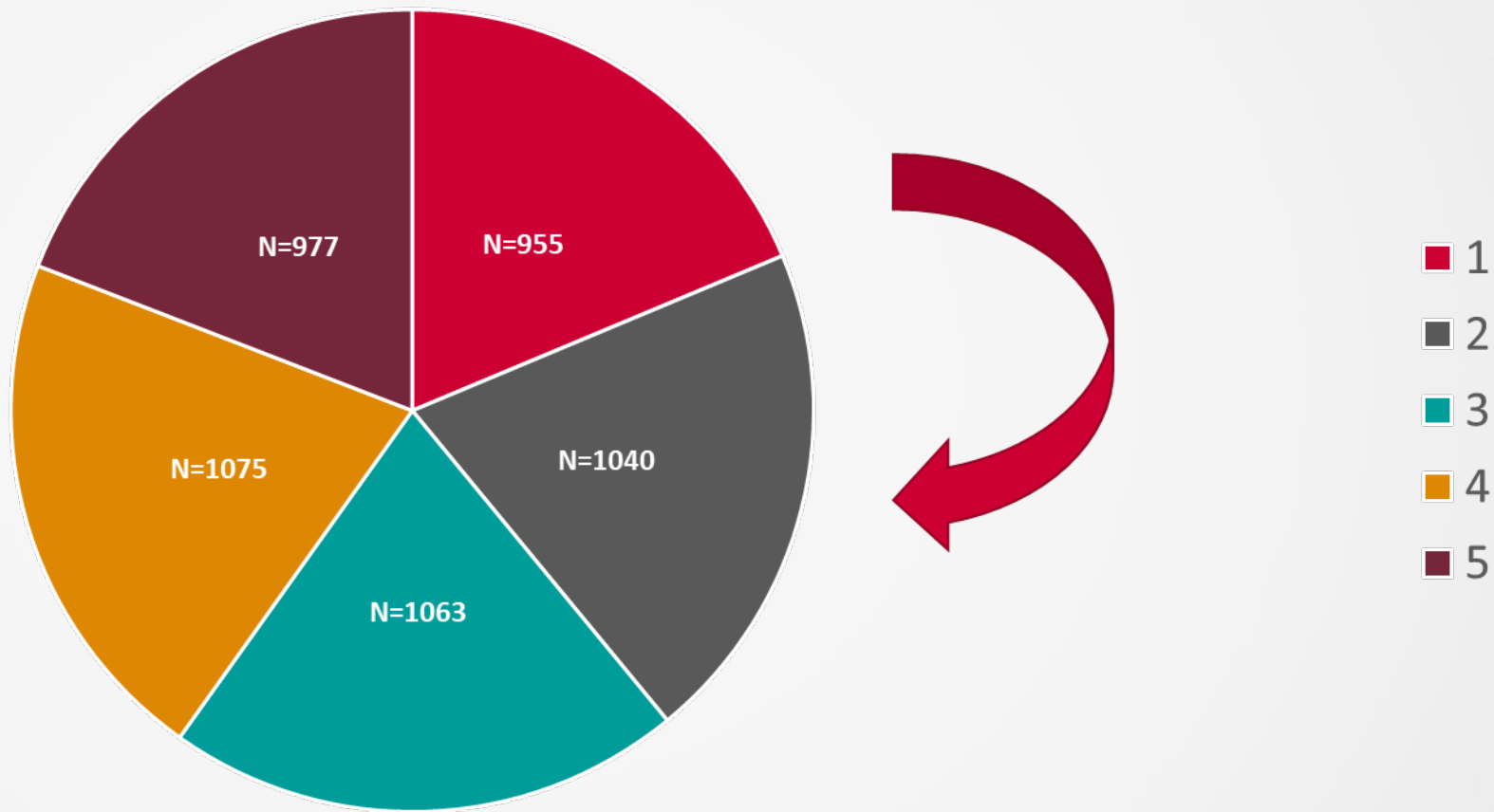
# Background

The OITE is a comprehensive examination designed to facilitate knowledge assessment in established principles and conventional procedures and treatment modalities in orthopaedic surgery.

# Background

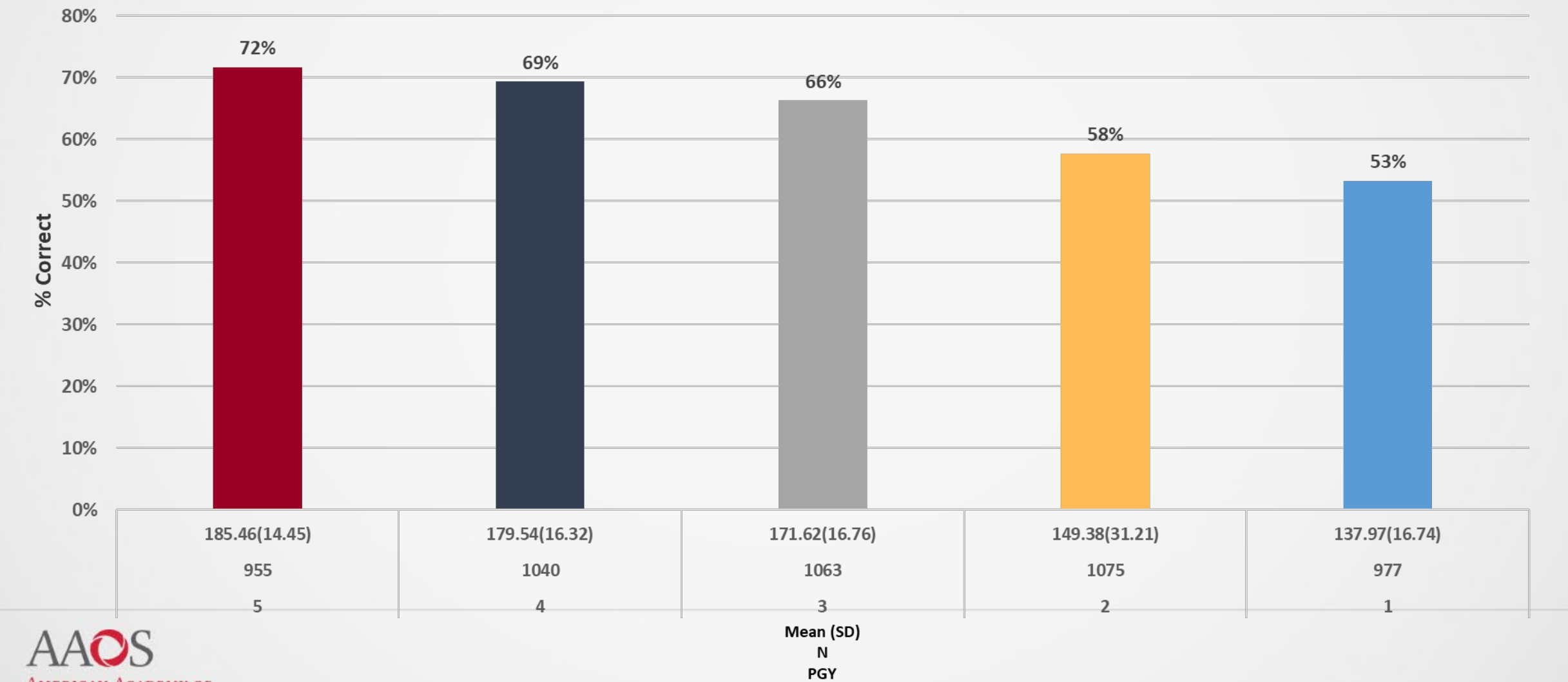
Orthopaedic residency programs use the OITE performance outcomes at the individual and programmatic levels to support orthopaedic resident education through study, research, discussion, review, and assessment.

2019 OITE Administrations by PGY



# Composite Score Results

OITE 2019 Overall Results by Program Year



## Overall Performance

### by Cohort

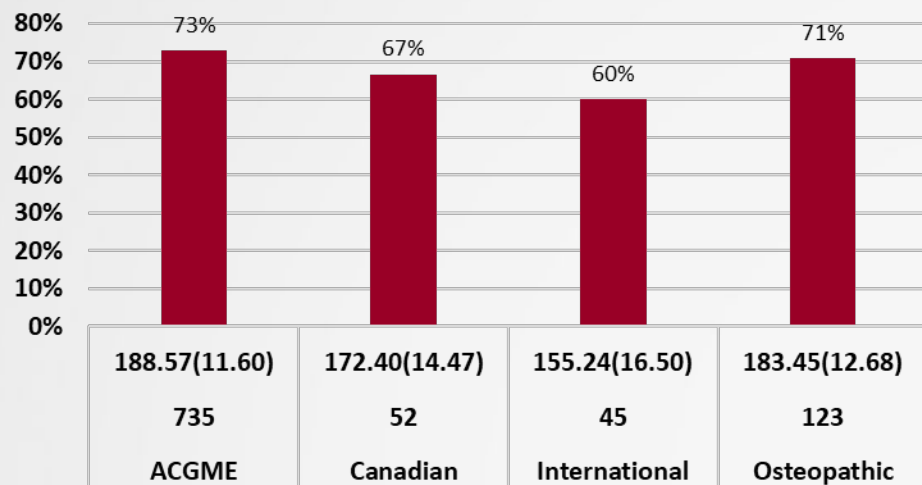
% correct

Mean (SD)

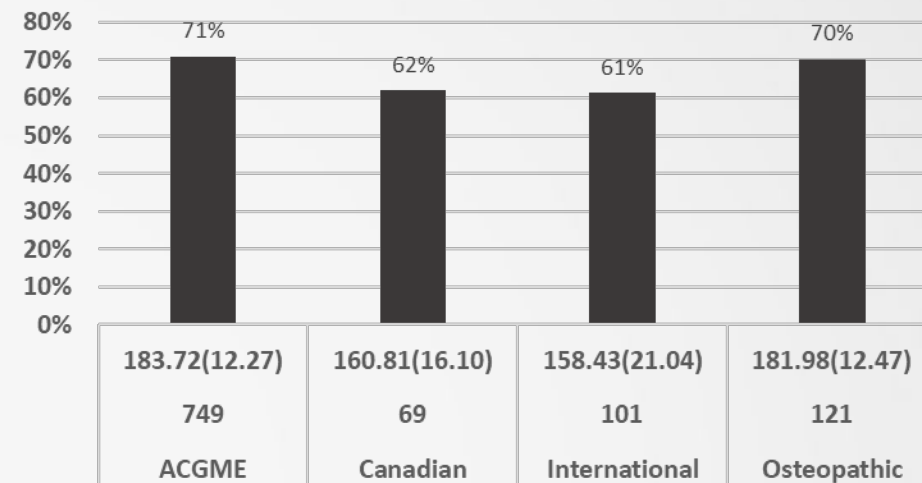
N

Cohort ID

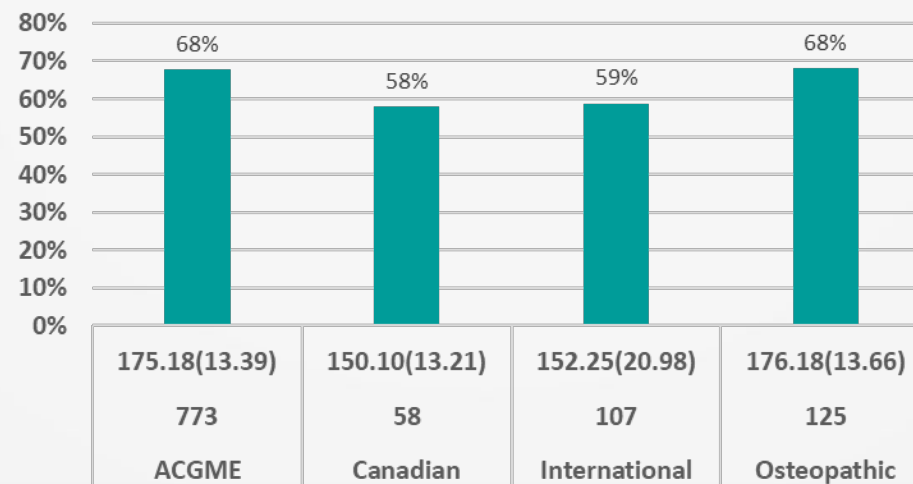
PGY 5



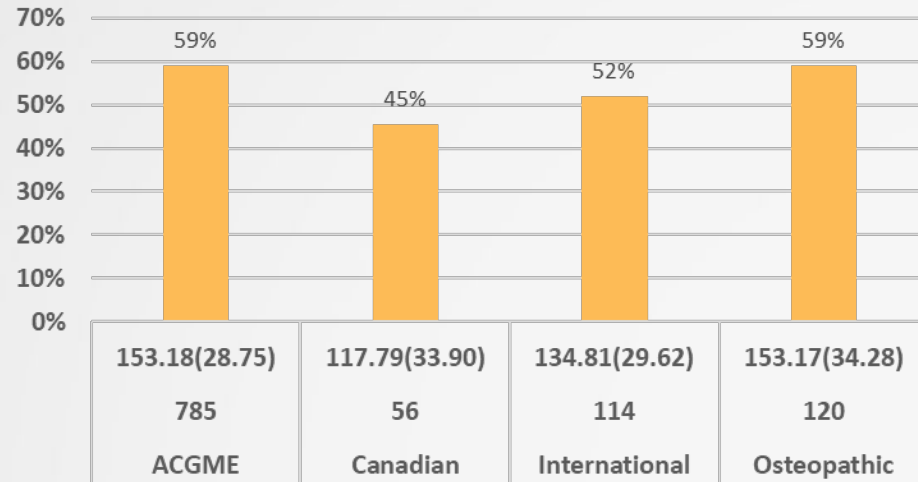
PGY 4



PGY 3



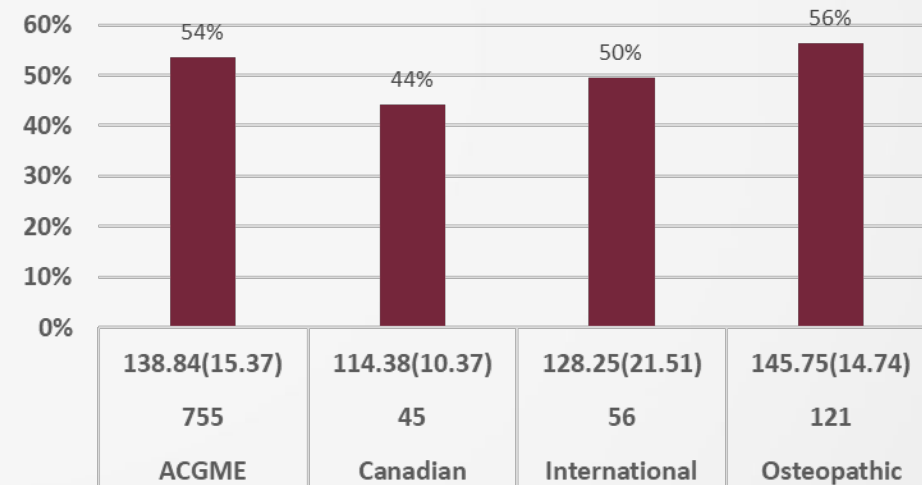
## PGY 2



## Overall Performance by Cohort

% correct  
Mean (SD)  
N  
Cohort ID

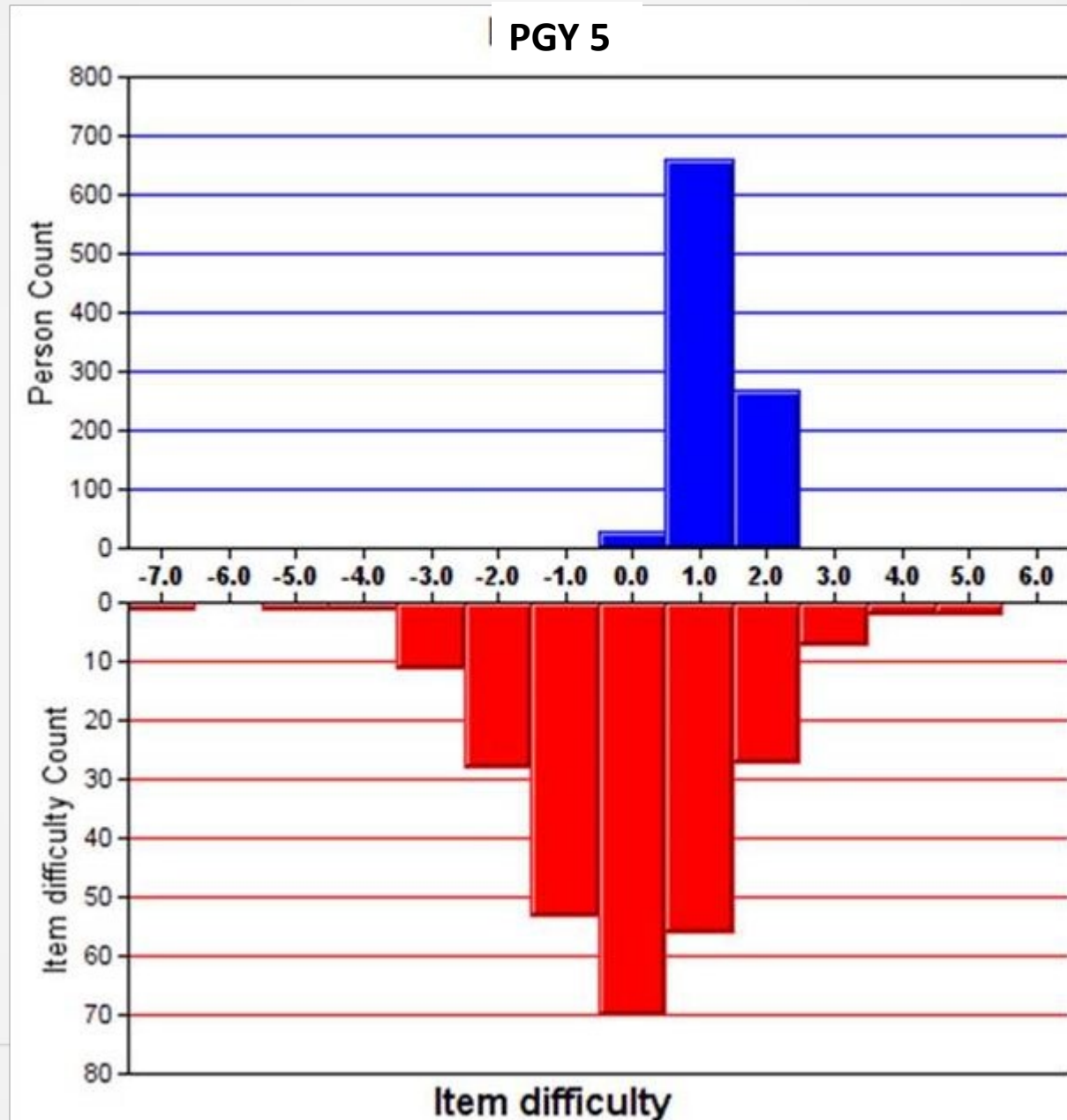
## PGY 1





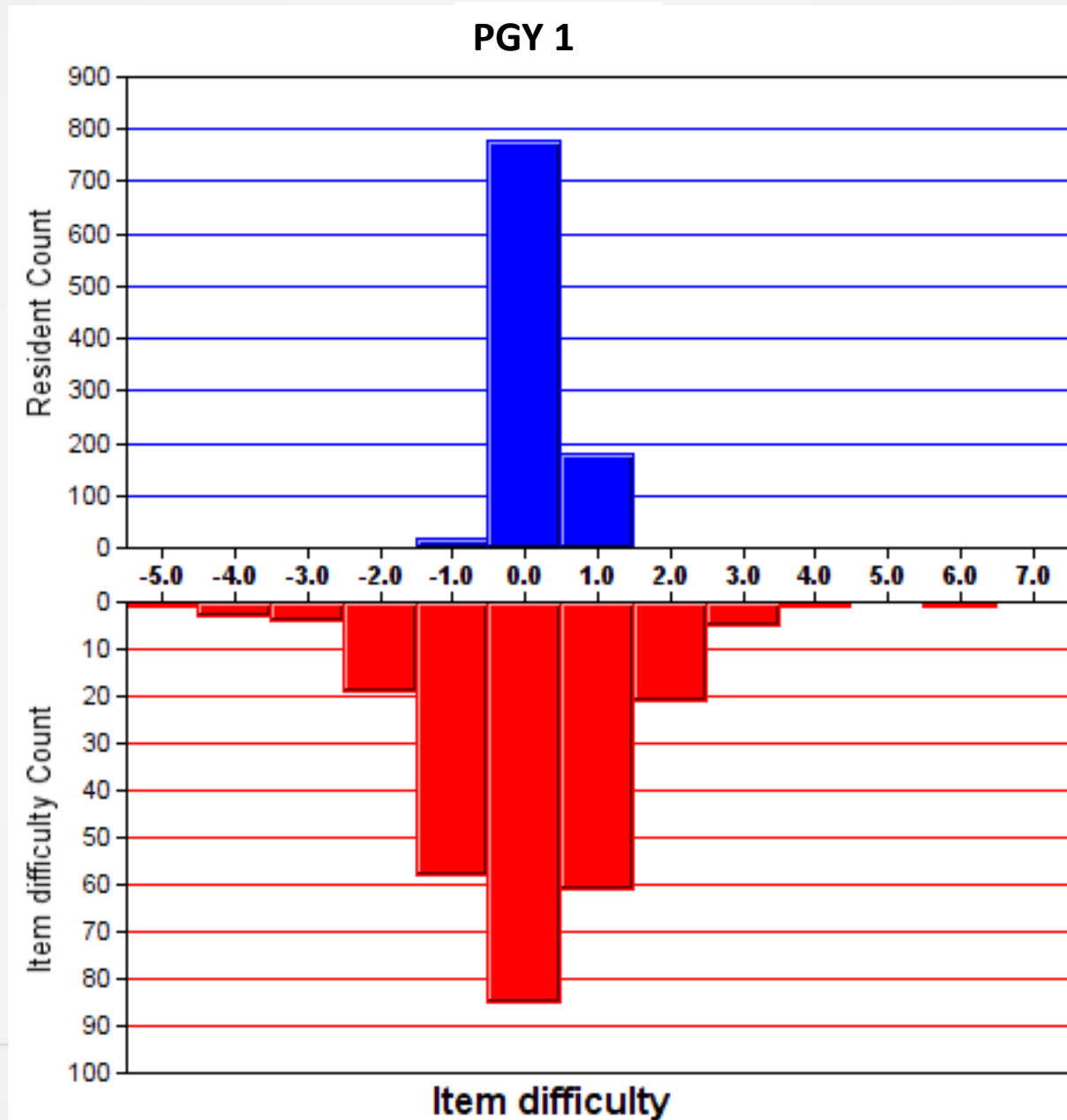
## Additional Information to Review Performance

- Item/Person Map for the PGY 5 2019 cohort
- No extreme measures observed among the resident group
- Item difficulty mean is set at 0



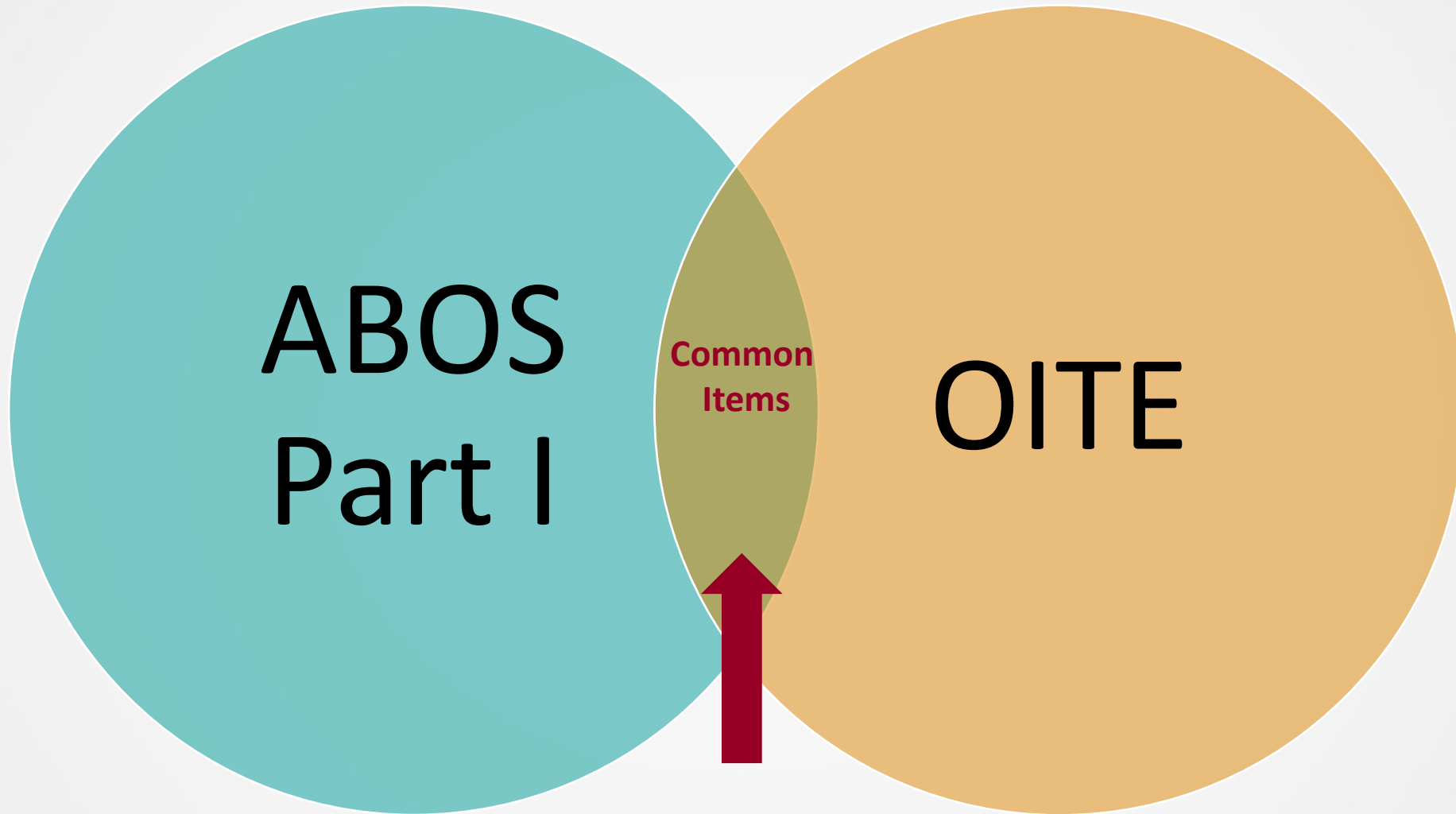
### Additional Information to review performance

- Item/person map for the PGY 1 2019 cohort
- By contrast to the PGY 5 group, ability measures are shifted left (lower measure of ability)
- No extreme measures or outliers observed

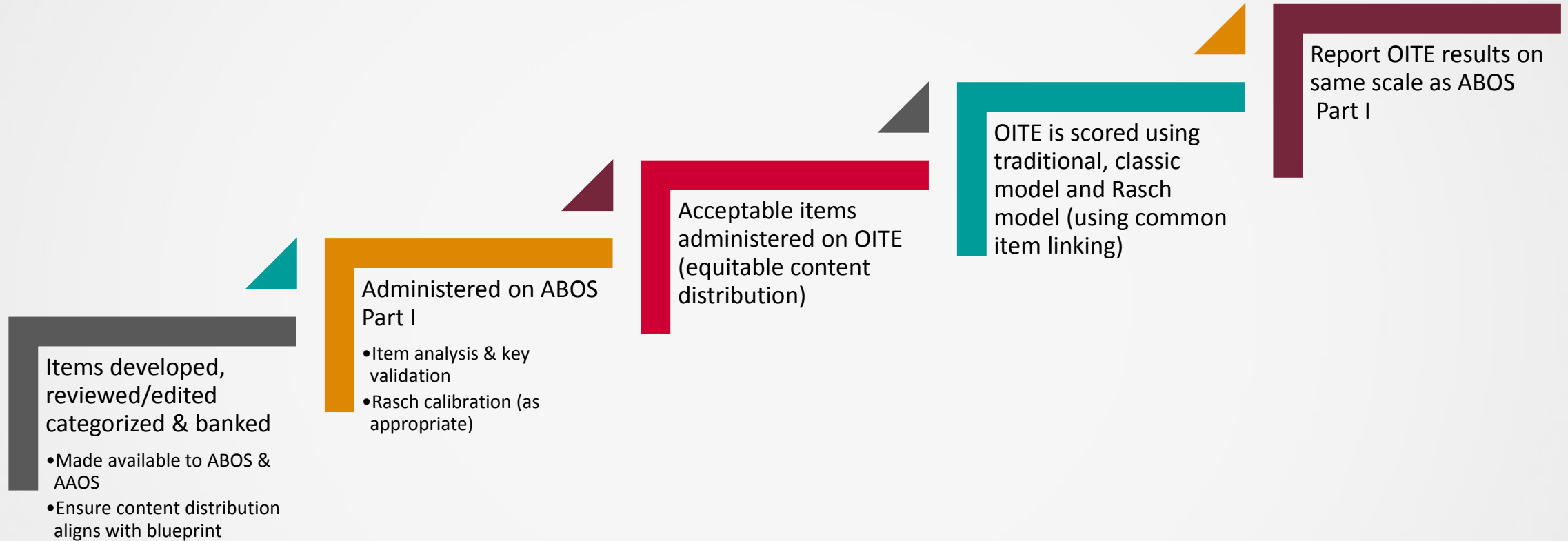


# ABOS/AAOS Collaboration

# Examination Linking With a Common Item Set



# Process Overview



# Information for Program Directors and Residents

- In addition to the customary composite and area/domain reporting, the scaled score transformation aligning with the AOBS Part I model will be calculated
- Guidance regarding the interpretation of overall scaled scores and area/domain scores shall be provided to Program Directors
  - Limitations
    - Exam purpose and design
    - # of items in areas/domains
    - Content distribution across exams
  - Inappropriate use of scores
    - i.e. retention/advancement decisions

# Feedback from CORD

- **Enhancements to OITE score reports**

- Format reports to separate residents (do not send one file so the programs have to separate)
- Provide composite summary to RDs (dashboard-like)
- Provide performance outcomes at secondary domain in lieu of disseminating questions (this can be implemented with adoption of common blueprint and additional requirements to code questions at the secondary domain)

- **Enriching OITE scoring analysis**

- Continue classical statistical analysis
- Implement item response theory model (such as scoring on ABOS board exams)

# 2020 OITE Administration Update: Remote Proctoring

- Health and safety of all individuals involved with the OITE administration is #1 priority
- Physician leadership approved remote proctoring for the 2020 OITE eliminating need for group testing
- Announcement recently communicated to RPs with more details (webinars and guides) to come





# Next Steps & Forthcoming Strategies

- Adoption of AOBS Part I blueprint
- Increase item development for OITE to ensure blueprint compliance
- Equate OITE across administrations to control for overall difficulty of the examination
- Formative/summative considerations (consider purpose of OITE)
- Continue linking Part I with OITE for at least 3 years
- Conduct predictive studies

# How I Use OITE Results

Tessa Balach, MD, The University of Chicago  
Kelly Homlar, MD, Medical College of Georgia



# MOTIVATION!

- Motivational tool to promote self-directed learning

# Correlation of OITE with ABOS Part 1

Clin Orthop Relat Res (2010) 468:2797–2802  
DOI 10.1007/s11999-010-1327-3

BASIC RESEARCH

## **Do Scores of the USMLE Step 1 and OITE Correlate with the ABOS Part I Certifying Examination?**

### **A Multicenter Study**

**Paul J. Dougherty MD, Norman Walter MD,  
Peter Schilling MD, Soheil Najibi MD, PhD,  
Harry Herkowitz MD**

- 4 programs, 202 resident files, 1996-2008
- Averaged percentile rank (over PGYs 2-5)
  - $\leq 27^{\text{th}}$  = 57% chance failing ABOS Part 1
  - 37<sup>th</sup> percentile = 37% failed ABOS Part 1
- OITE score as PGY-5:
  - $\leq 22^{\text{nd}}$  percentile = 54% failed Part 1
  - $\geq 71^{\text{st}}$  percentile passed

# Correlation of OITE with ABOS Part 1

## Utility of AAOS OITE Scores in Predicting ABOS Part I Outcomes

AAOS Exhibit Selection

David Swanson, PhD, J. Lawrence Marsh, MD, Shepard Hurwitz, MD, G. Paul DeRosa, MD, Kathleen Holtzman, BS,  
S. Deniz Bucak, BA, Amy Baker, MA, and Carol Morrison, PhD

*Investigation performed at the National Board of Medical Examiners, Philadelphia, Pennsylvania*

- OITE from 1997-2006, ABOS from 2002 - 2006
- Part 1 pass rate overall 93% (88% 2002, 97% 2004)
- Highly variable performance, and poor performance  
PGY3/4 = increased risk of failure

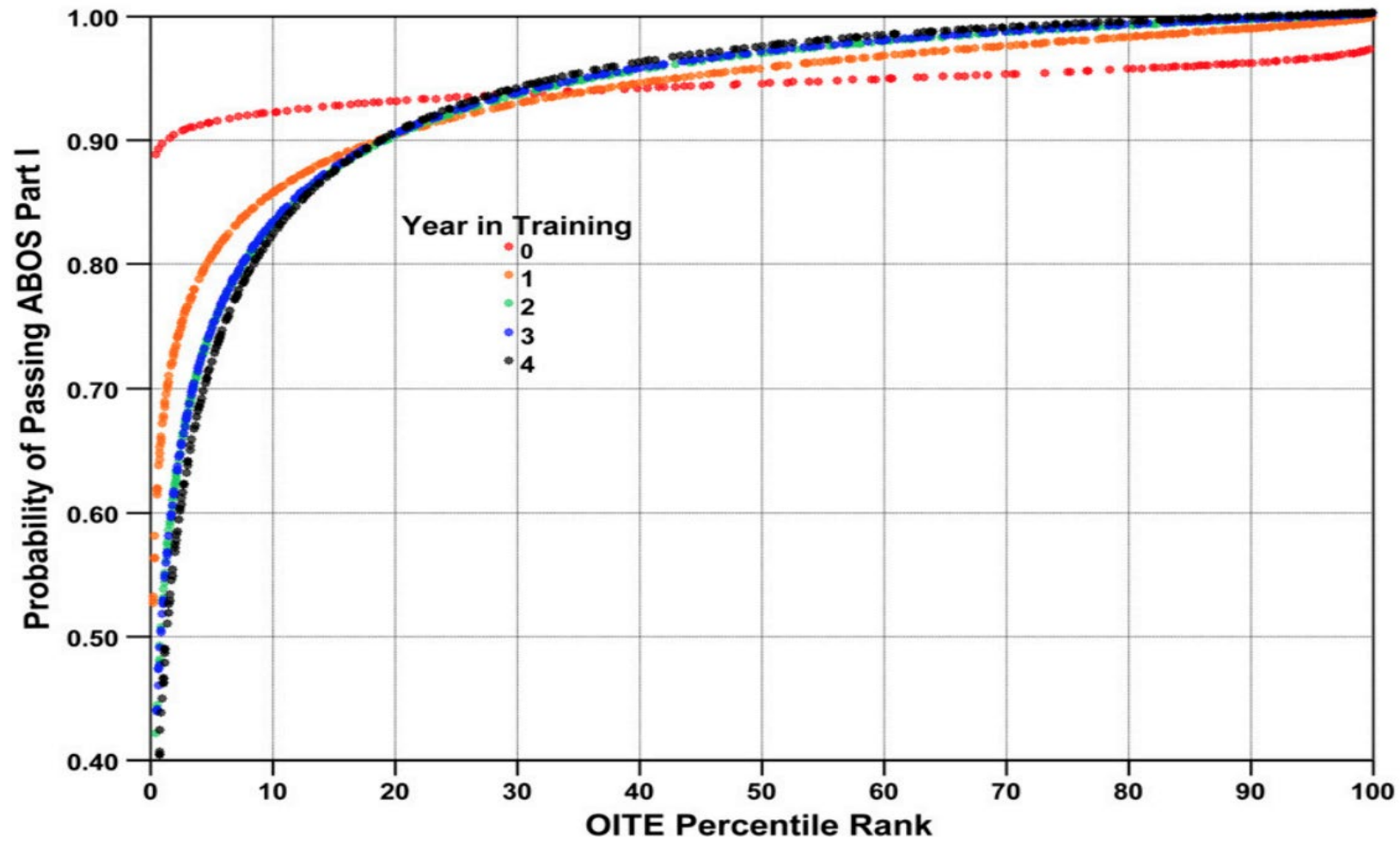


Fig. 3

Probability of passing ABOS Part I as a function of OITE percentile rank for each year in training.



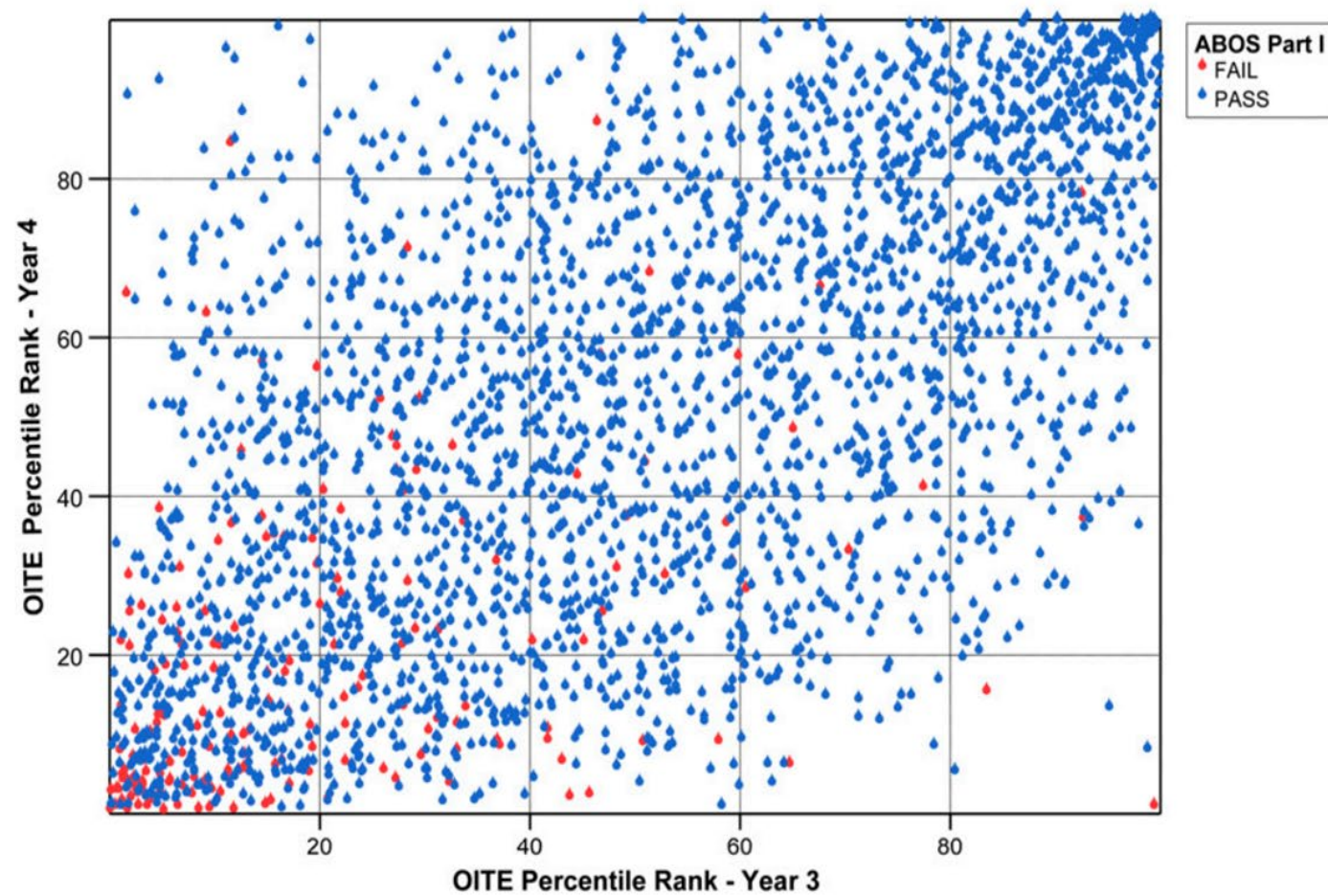
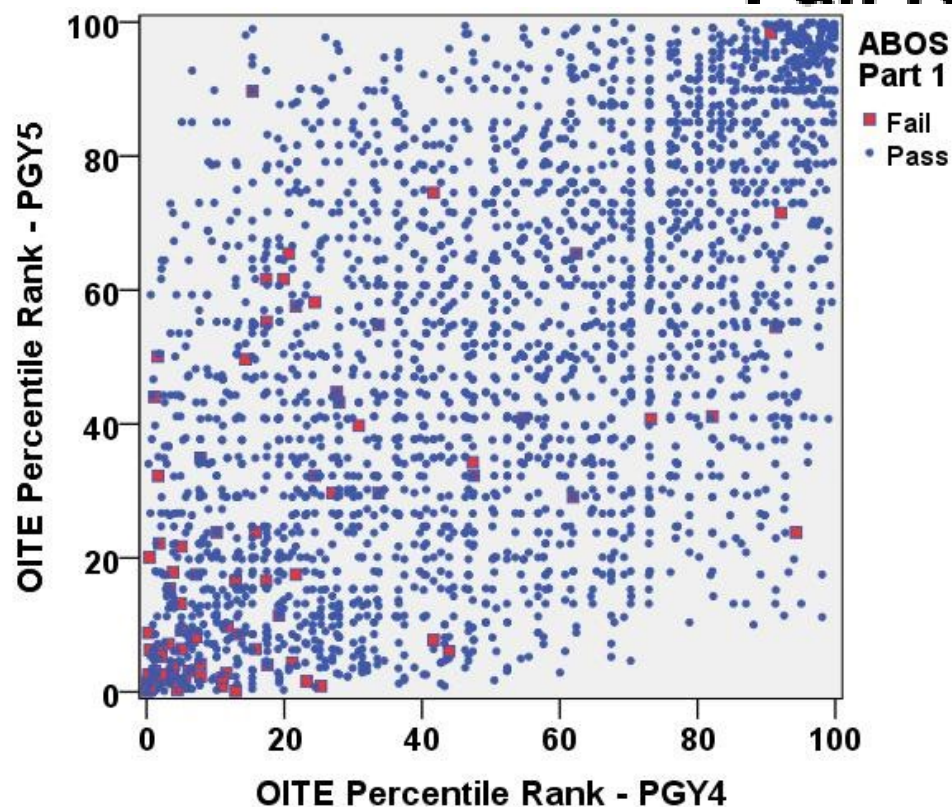


Fig. 4

ABOS Part I pass/fail results in relation to OITE percentile rank for years 3 and 4 in training.

# Updated 2013-2017

## OITE Percentile Rank on PGY5 as a Function of PGY4 with ABOS Part I Pass/Fail Results



- **Methods:** The American Academy of Orthopaedic Surgeons (AAOS) provided results for each resident taking the OITE from 2013-2017. The ABOS provided results for each resident taking the Part I examination from 2014-2018. These two datasets were matched at the individual level and analyzed.
- **Results:** Between 2014 and 2018, there were 3,502 first-time test-takers for the ABOS Part I Exam. There was a 96.6% pass rate (3383 out of 3502). Predictive value of OITE scores for identifying trainees likely to fail Part I is moderate.

Unpublished data (submitted for publication) with permission from Dr. Van Heest



# Poor Performers

- ***Look for trends***
  - One bad year vs consistently poor performances
  - History of poor test taking
  - Specific subject areas
- ***Discussion about study habits***
  - Test Prep
  - General studying

# OITE Subject Breakdowns

## **Orthopedic In-Training Examination: An Analysis of the Sports Medicine Section—An Update**



*John Synovec, MD, MBA,<sup>\*</sup> Leah Plumblee, MD, MS,<sup>†</sup> William Barfield, PhD,<sup>†</sup> and Harris Slone, MD<sup>†</sup>*

*<sup>\*</sup>Dwight D. Eisenhower Army Medical Center, Fort Gordon, Georgia; and <sup>†</sup>Medical University of South Carolina, Charleston, South Carolina*

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### ORIGINAL ARTICLE

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## **Analysis of the Pediatric Orthopedic Surgery Questions on the Orthopaedic In-Training Examination, 2002 through 2006**

*Derek F. Papp, MD, Beverlie L. Ting, AB,  
M. Catherine Sargent, MD, and Frank J. Frassica, MD*

**TABLE 2.** Most Commonly Tested Pediatric Topics on the OITE

Topic	No. Questions
Pediatric elbow fractures	13
Osteomyelitis	12
Scoliosis (Congenital, Idiopathic)	12
Clubfoot	9
Developmental dysplasia of the hip	9
Limb-length inequality and treatment	9
Septic arthritis	8
Slipped capital femoral epiphysis	8
Legg-Calvé-Perthes	5
Spondylolysis/spondylolisthesis	5
Arthrogryposis	4
Child abuse	4
Compartment syndrome	4
Osteogenesis imperfecta	4
Charcot-Marie-Tooth	3
Congenital tibial deformity/bowing	3
Distal femoral fracture	3
Femoral shaft fracture	3

**TABLE 4.** Textbooks Referenced for Pediatric Questions in the OITE Answer Packet, 2002 through 2006

Textbook	No. Times Referenced (%)
Lovell and Winter's Pediatric Orthopaedics	50 (31)
Tachdjian's Pediatric Orthopaedics	25 (16)
OKU (general)	23 (14)
OKU: Pediatrics 2	17 (11)
Other	45 (< 1 each)
Total no. of textbook references	160

**TABLE 5.** Journals Referenced for Pediatric Questions in the OITE Answer Packet, 2002 through 2006

Journal	No. Times Referenced (%)
Journal of Pediatric Orthopaedics (American)	88 (29)
Journal of Bone and Joint Surgery (American)	57 (19)
Journal of the AAOS	38 (12)
Journal of Bone and Joint Surgery (British)	17 (1)
Other	105 (< 1 each)
Total no. of article references	305

# Programmatic Improvements

- Trends as a guide for subspecialty teachings
  - Core didactics
  - Rotations

# Thank you!



Topic #2: Should the RRC consider ABOS part 2 results in residency program assessment? Should this data be used for fellowship assessment?

Ginger E Holt, MD

Professor and Vice Chair Orthopaedic Surgery

Orthopaedic Surgery Residency program director

MSK oncology Fellowship director

Vanderbilt Medical center


Nashville, TN

- 90% of current Orthopaedic surgery residents will pursue fellowship training

THE ORTHOPAEDIC FORUM

## An AOA Critical Issue

### Future Physician Workforce Requirements: Implications for Orthopaedic Surgery Education\*

Salsberg, Edward S., MPA<sup>1</sup>; Grover, Atul, MD, PhD<sup>1</sup>; Simon, Michael A., MD<sup>2</sup>; Frick, Steven L., MD<sup>3</sup>; Kuremsky, Marshall A., MD<sup>3</sup>; Goodman, David C., MD, MS<sup>4</sup> [Author Information](#) 

JBS: May 01, 2008 - Volume 90 - Issue 5 - p 1143-1159

doi: 10.2106/JBS.G.01305

- ABOS part II
- Early career practice patterns don't always reflect fellowship training

# TOPICS IN TRAINING

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## Graduates of Orthopaedic Residency Training Are Increasingly Subspecialized

A Review of the American Board of Orthopaedic Surgery Part II Database

Patrick K. Horst, MD, Kevin Choo, MD, Neil Bharucha, MD, and Thomas P. Vail, MD

*Investigation performed at the Department of Orthopaedic Surgery, University of California at San Francisco, San Francisco, California*



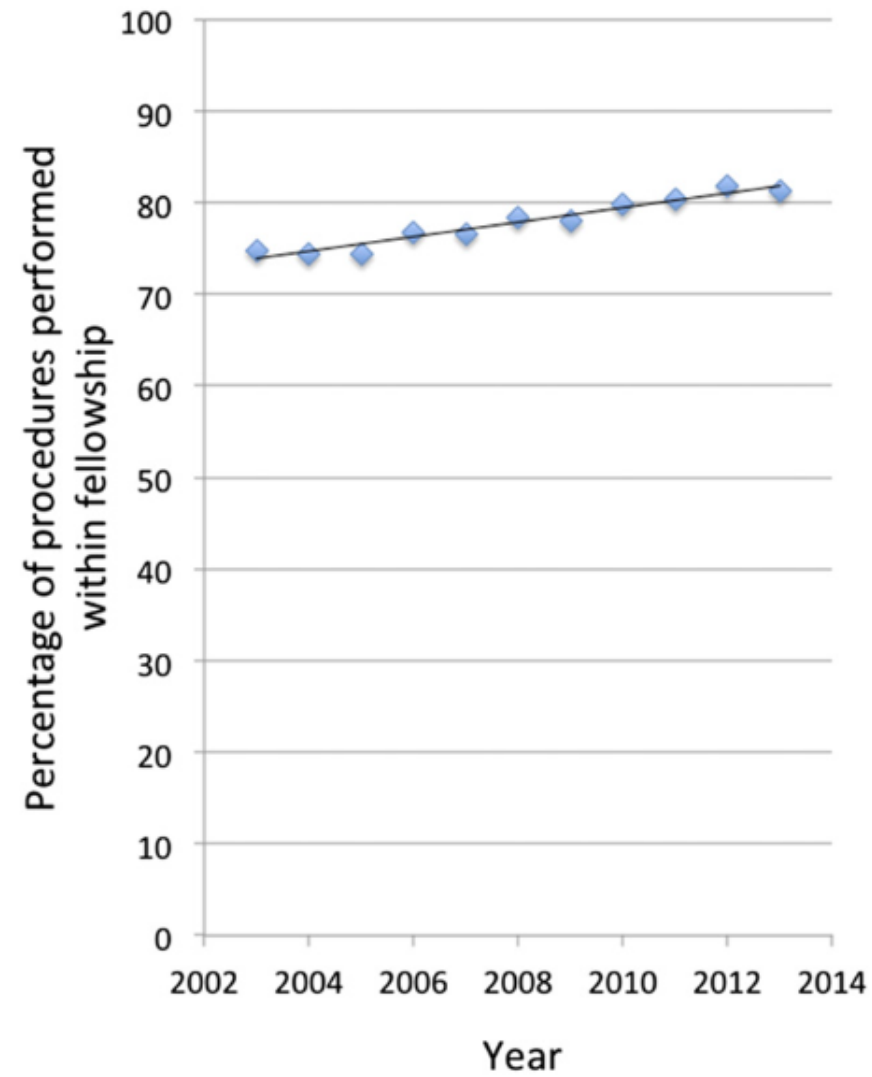
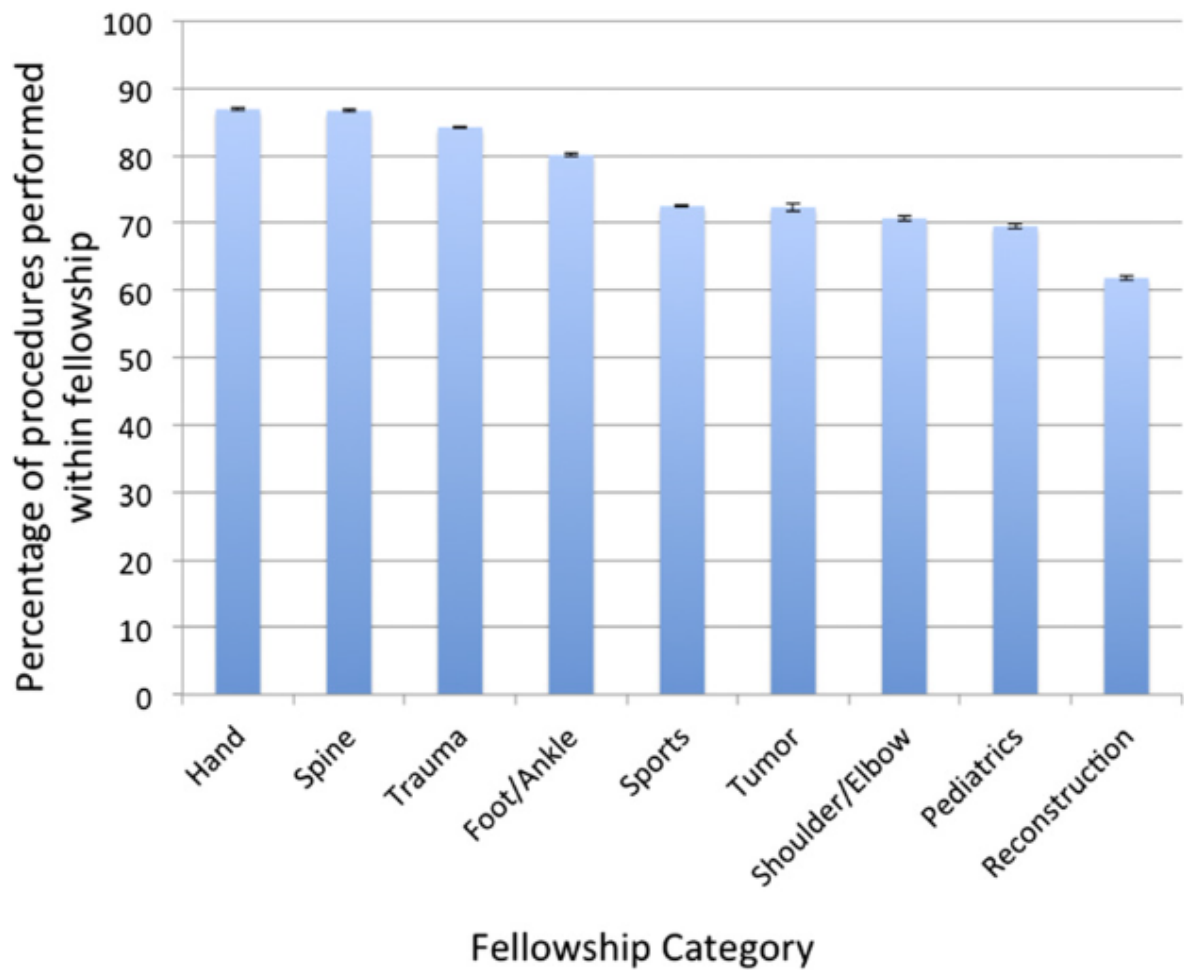


Fig. 3

The percentage of procedures performed within one's area of fellowship training, with all fellowship designations combined, along with the corresponding linear regression trend line.



Adult Recon 60%

Fig. 4

The percentage of procedures performed within one's area of fellowship training for each specific fellowship group. The error bars indicate 95% confidence intervals.

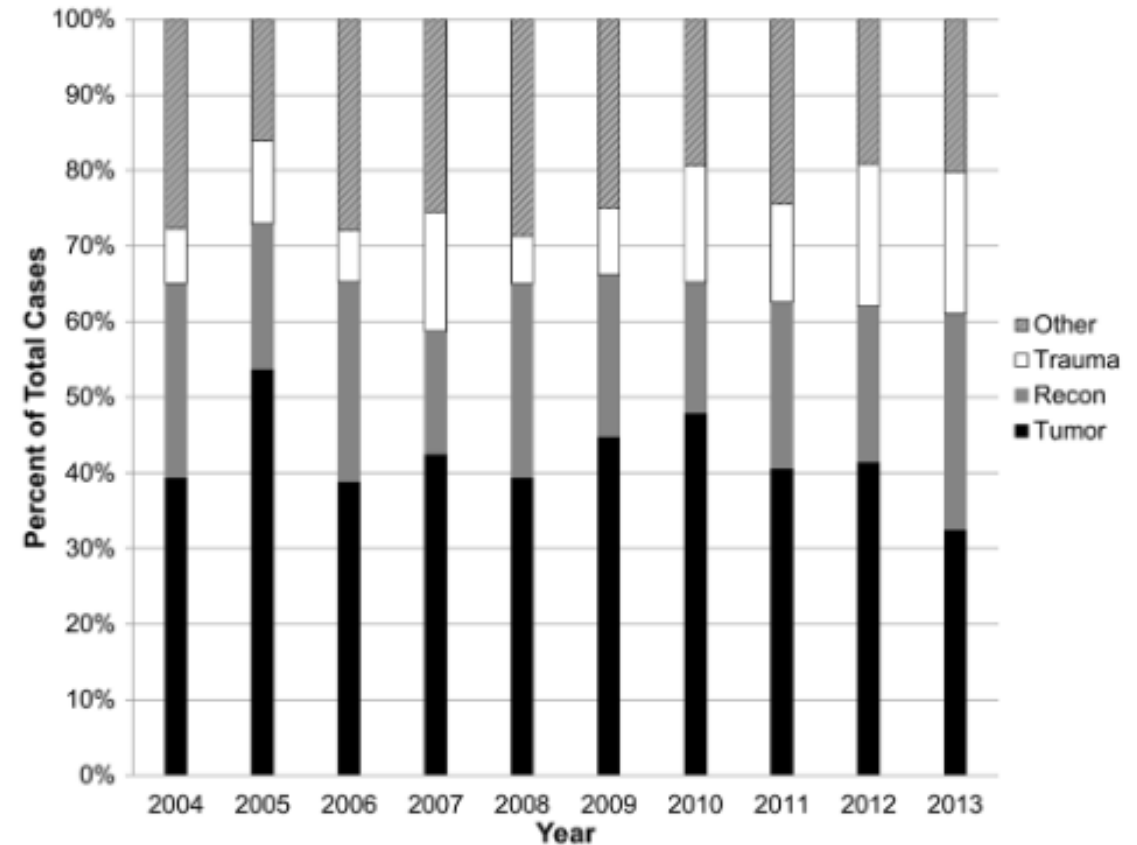


CLINICAL RESEARCH

## Are Recently Trained Tumor Fellows Performing Less Tumor Surgery? An Analysis of 10 Years of the ABOS Part II Database

Kyle R. Duchman MD, Benjamin J. Miller MD, MS

2004 - 2013, only  $\frac{1}{3}$  of recently trained tumor fellows had practices with tumor procedures accounting for greater than 50% of their total case volume.



**Fig. 2** This graph shows the proportion of tumor, adult reconstruction (recon), trauma, and other procedures performed by examinees who reported a history of orthopaedic oncology fellowship training between 2004 and 2013.

## HEALTH SERVICES RESEARCH

## Changes in Pediatric Spine Surgery Patterns Over the Last 10 Years Among ABOS Part II Candidates

Ena Nielsen, BA,\* Lindsay M. Andras, MD,\* Pooya Hosseinzadeh, MD,<sup>†</sup> Megan Mignemi, MD,<sup>‡</sup> Jeffrey R. Sawyer, MD,<sup>§</sup> John M. Flynn, MD,<sup>¶</sup> Stephen Albanese, MD,<sup>||</sup> and David L. Skaggs, MD, MMM\*

Pediatric spine cases done by peds/spine increased from 47% to 83%

Dual fellowship peds-sports fellows did 37 % peds sports vs 6% 'other'

**e** ORIGINAL ARTICLE

J Pediatr Orthop, vol 39, No 1, Jan 2019

Pediatric Sports Medicine, A New Subspeciality in Orthopedics: An Analysis of the Surgical Volume of Candidates for the American Board of Orthopaedic Surgery Part II Certification Exam Over the Past Decade

Mitchel R. Obey, MD,\* Joseph Lamplot, MD,\* Ena D. Nielsen, MD,<sup>†</sup> Lindsay M. Andras, MD,<sup>‡</sup> Megan Mignemi, MD,<sup>‡</sup> Jeffrey Sawyer, MD,<sup>§</sup> John M. Flynn, MD,<sup>||</sup> Stephen A. Albanese, MD,<sup>¶</sup> and Pooya Hosseinzadeh, MD\*

# Not everybody does a fellowship

**TABLE I Number of Applicants in Each Fellowship Training Category by Year, Including the Non-Fellowship Group**

Year	Fellowship Group										Non-Fellowship Group
	Sports	Hand	Reconstruction	Trauma	Spine	Foot and Ankle	Shoulder and Elbow	Tumor	Pediatrics	Total	
2003	182	66	49	32	75	40	15	9	26	494	153
2004	177	80	62	44	102	40	14	8	40	567	177
2005	181	72	78	29	112	44	16	12	25	569	155
2006	150	72	82	46	97	47	14	10	35	553	139
2007	179	94	66	40	119	42	20	7	17	584	123
2008	161	68	74	41	85	37	18	13	30	527	150
2009	178	86	68	43	86	51	20	9	25	566	120
2010	189	91	66	45	96	43	26	9	22	587	88
2011	205	77	66	41	92	38	23	15	30	587	78
2012	203	106	75	65	88	47	26	15	34	659	91
2013	181	91	81	76	76	49	35	12	48	649	69
Total	1986	903	767	502	1028	478	227	119	332	6342	1343



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[www.clinorthop.org](http://www.clinorthop.org)

[Clin Orthop Relat Res](#). 2018 Jun; 476(6): 1159–1161.

PMCID: PMC6263572

Published online 2018 Apr 26. doi: [10.1097/CORR.0000000000000333](https://doi.org/10.1097/CORR.0000000000000333)

PMID: [29698297](https://pubmed.ncbi.nlm.nih.gov/29698297/)

*CORR*® Curriculum — Orthopaedic Education: Do We Need General  
Orthopaedic Surgeons?

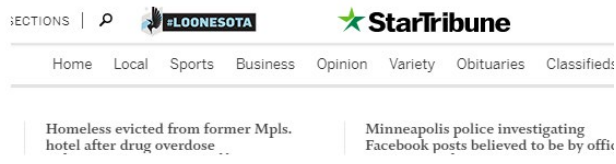
[Paul J. Dougherty](#), MD 

- In 2016, the American Academy of Orthopaedic Surgeons (AAOS), in its biannual survey of practicing surgeons, found that :
- 58% of Orthopaedic surgeons identified themselves as subspecialists
- 25% identified themselves as generalists with a subspecialty interest
- 17% identified themselves as general Orthopaedic surgeons

- Although the number of residents doing fellowships is 90%, practice/cases evaluated by the ABOS II exam don't always represent fellowship subspecialty training
- Not everybody does a fellowship
- Fellowship accountability is variable, residency is not
- Conclusion: Residency and fellowship programs share the accountability of the ABOS II exam

# Although we both 'own it'

## Residency Program - MOM



### VARIETY

## Among parents, dads get all the fun and moms the stress and fatigue

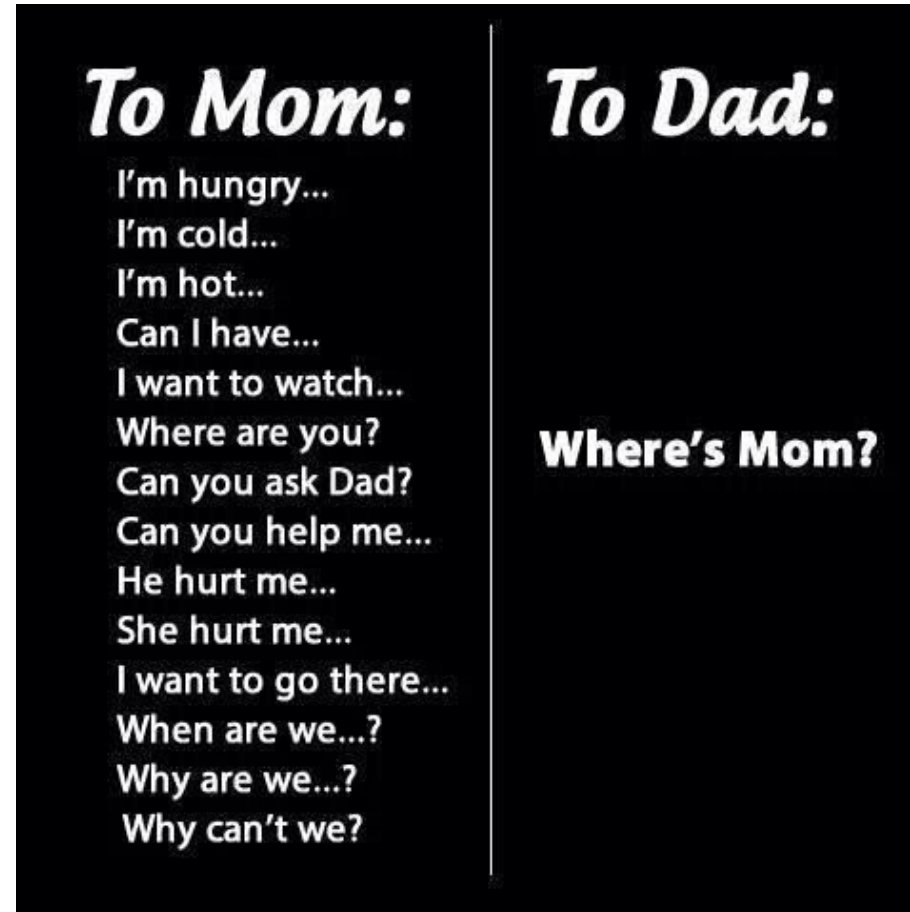
Mothers and fathers are both happier when they're with their children, but 1950s-era parenting roles persist. And it's taking a toll on mom.

By Adam Belz Star Tribune | OCTOBER 15, 2016 — 10:20PM



NEW YORK TIMES FILE

## Fellowship - DAD



### PARENTING

## If it seems like it's more fun being a dad than a mom, that's because it is

For starters there are more flexible and more realistic models of what it means to be "a good dad" as compared to "a good mom."

By Ann Douglas  
February 10, 2019



Photo iStock



# Should the RRC Consider Part 2 for Fellowship Assessment?

Brett Levine, MD, MS  
Associate Professor  
Rush University Medical Center  
Service Line Director  
Elmhurst Memorial Hospital  
Center

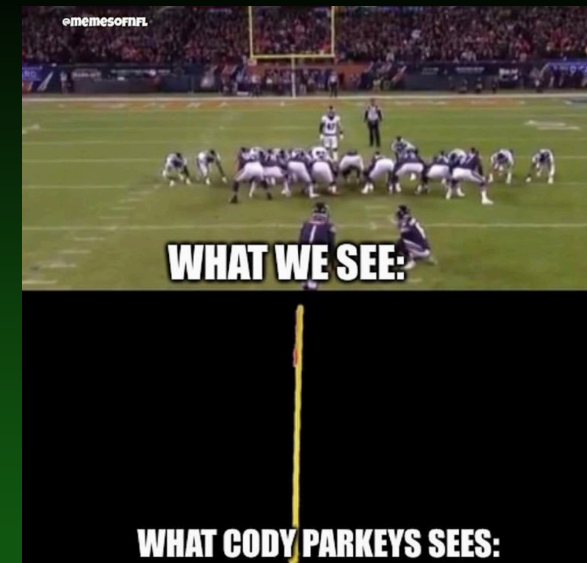


# Disclosures

- Paid Consultant
  - Link
  - Merete
  - Exactech
- Research Funding
  - Zimmer-Biomet
  - DJO
- Royalties
  - Human Kinetics
  - Slack Inc
- Committees
  - AAOS--Arthroplasty Evaluation Com.
  - AAHKS--Patient Education and Research Committees
  - MAOA—Education Committee

# Outline

- Scoring of Part 2
- Accountability
- Current Practices
- Personal Beliefs



# Scoring

## Case Evaluations

	3 Above Expected Level	2 Expected Level	1 Below Expected Level	0 Unacceptable
<b>Data Gathering</b>	Records all pertinent history. Records a complete physical examination. Uses and interprets basic and advanced imaging and other diagnostic studies appropriately. Records are complete and unique to the patient treated	Records adequate history. Records an adequate physical examination. Adequate use and interpretation of basic and advanced imaging and other diagnostic studies. Records are adequate and unique to the patient treated	Records cursory history. Records an insufficient physical examination. Insufficient use and interpretation of basic and advanced imaging and other diagnostic studies. Records are incomplete	Records insufficient history. Records an inaccurate and/or insufficient physical examination. Unacceptable use and interpretation of basic and advanced imaging and other diagnostic studies. Records are inaccurate and/or grossly deficient
<b>Diagnosis and Interpretive Skills</b>	Synthesis of information gathered is complete Formation of comprehensive differential diagnosis Adequate integration of information to form the correct diagnosis	Synthesis of information gathered is adequate Formation of adequate differential diagnosis Adequate integration of information to form the correct diagnosis	Synthesis of information gathered is sometimes insufficient Formation of differential diagnosis is incomplete but not incorrect Inadequate integration to form the correct and complete diagnosis	Synthesis of information gathered is unacceptable Formation of inaccurate differential diagnosis Poor integration of information and/or formation of incorrect diagnosis
<b>Treatment Plan</b>	Formation of appropriate non-surgical treatment plan Formation of appropriate surgical treatment plan Candidate obtains appropriate informed consent	Formation of adequate non-surgical treatment plan Formation of adequate surgical treatment plan Candidate obtains adequate informed consent	Formation of non surgical treatment plan is incomplete Formation of incomplete surgical treatment plan Candidate obtains incomplete informed consent	Formation of unacceptable non-surgical treatment plan Formation of unacceptable surgical treatment plan Candidate obtains inappropriate informed consent
<b>Technical Skill</b>	Pre-operative planning is comprehensive Execution of the procedure is thorough and appropriate Post-operative management is thorough and appropriate	Pre-operative planning is adequate Execution of the procedure is adequate Post-operative management is adequate	Pre-operative planning is incomplete but what is presented is appropriate Execution of the procedure is inadequate Post-operative management is inadequate	Pre-operative planning is unacceptable Execution of the procedure is unacceptable Post-operative management is unacceptable
<b>Outcomes</b>	Records appropriate patient satisfaction with care Records appropriate objective measures of patient recovery at follow-up Records appropriate attempt to maintain continuity of care	Mostly records appropriate patient satisfaction with care Mostly records appropriate objective measures of patient recovery at follow-up Records adequate attempt to maintain continuity of care	Records sub-optimal patient satisfaction with care Records sub-optimal objective measures of patient recovery at follow-up Continuity of care is incomplete	Records unacceptable patient satisfaction with care Records unacceptable objective measures of patient recovery at follow-up Does not attempt to maintain continuity of care
<b>Applied Knowledge</b>	The candidate has appropriate knowledge of best practices of orthopaedic conditions, diagnostic methods, treatment alternatives, outcomes, systems based practice and evidence based medicine	The candidate has generally adequate knowledge best practices of orthopaedic conditions, diagnostic methods, treatment alternatives, outcomes, systems based practice and evidence based medicine	The candidate has incomplete knowledge of best practices orthopaedic conditions, diagnostic methods, treatment alternatives, outcomes, systems based practice and evidence based medicine	The candidate has an unacceptable lack of knowledge concerning best practices orthopaedic conditions, diagnostic methods, treatment alternatives, outcomes, systems based practice and evidence based medicine

# Scoring

- Fellowship
  - Hone sense for surgical indications
  - Recognize and manage complications
  - Polish demeanor, ethical standards and professionalism

Global Evaluations				
	3 Above Expected Level	2 Expected Level	1 Below Expected Level	0 Unacceptable
Surgical Indications	Appropriate, consistent use of accepted non-surgical treatment alternatives. The rationales for the procedures are appropriately described. Procedures chosen are consistently optimal and well supported.	Mostly uses accepted non-surgical treatment alternatives The rationales for the procedures are usually appropriately described. Procedures chosen are generally well supported.	Inconsistent use of accepted non-surgical treatment alternatives Insufficient rationale for some of the procedures described. Procedures chosen are sometimes sub-optimal or not well supported.	Inappropriate use of non-surgical treatment alternatives. The rationales for the procedures are poorly described. Procedures chosen are sub-optimal and unsupported.
Surgical Complications	Prompt identification of complications. Nature and frequency of the complications described expected for procedures described. Appropriate management of complications.	Usually identifies complications in a timely manner. Nature and frequency of the complications described mostly expected. Mostly appropriate management of complications described.	Identification of complications is delayed Nature and frequency of the complications described are higher than expected Sometimes sub-optimal management of complications.	Identification of complications is delayed or overlooked. Nature and frequency of the complications are severe and avoidable. Inappropriate management of complications.
Ethics and Professionalism	The candidate uniformly provides safe, ethical, compassionate, confidential and professional care	The candidate mostly provides safe, ethical, compassionate, confidential and professional care	The candidate inconsistently provides safe, ethical, compassionate, confidential and professional care	The candidate does not provide safe, ethical, compassionate, confidential and professional care

# Accountability

- Where does the accountability fall?
- Part 2 is a critical aspect for one's career and job path
- Pass rates are high but...
- ... where do we find this data?



# Accountability

Table 2. Predictors of performance on ABOS Part I examination (data are for all residents, 1991–2000)

Performance measure	Control group (N passed = 138)	Failure group (N failed = 16)	p Value
OITE, mean percentile: Years 2–4	50 ± 25	32 ± 20	0.017*
OITE, percentile: Year 5	57 ± 25	30 ± 24	< 0.001 <sup>*,†</sup>
AOA, number (%)			0.041*
No		9 (18)	
Yes		1 (2)	
No chapter		6	
USMLE Part I (NBME Part I)			0.121
Above average, number (%)			
No		1 (6)	
Yes		1 (6)	
Data not available			
Honors, number			0.006 <sup>*,†</sup>
0		5 (31)	
1		2 (11)	
2	33 (94)	2 (6)	
3	25 (83)	5 (17)	
4	38 (100)	0 (0)	
Data not available	14	2	
Honors, median (range)	3 (0–4)	1 (0–3)	0.012*
Dean's letter—average score of three independent evaluators (1–3 scoring)	2.44 ± 0.58	1.94 ± 0.64	0.003 <sup>*,†</sup>

Plus-minus data are mean ± SD; \* statistically significant univariate predictor; <sup>†</sup>statistically significant multivariate predictor (stepwise logistic regression analysis); <sup>‡</sup>seven residents never passed American Board of Orthopaedic Surgery (ABOS) Part I and were thus excluded from this analysis; OITE = Orthopaedic In-Training Examination; AOA = Alpha Omega Alpha; USMLE = US Medical Licensing Examination; NBME = National Board of Medical Examiners; honors reflect clinical rotations (medicine, surgery, pediatrics, orthopaedics); Dean's letter: 1 = good, 2 = excellent, 3 = outstanding (letters were available on all residents except five in Control group).

There are some predictors for passing Part 2

However, many of the core skills to pass the test are honed during fellowship

# Current Practices

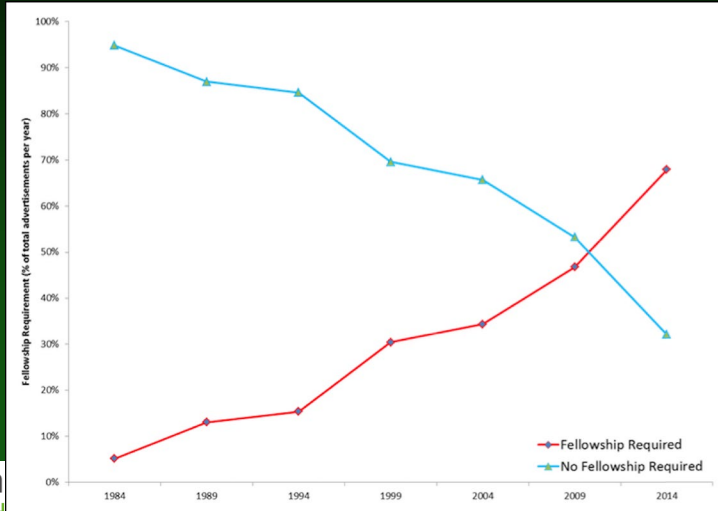
- More than 90% of residents pursue a fellowship
- ~15 years since last resident did not do a fellowship at Rush

Subspecialties	Participating Programs	Positions Offered	Positions Filled	Percent Filled	Vacancies
	2019	2019	2019	2019	2019
Hand	84	178	177	99	1
Adult Hip & Knee	90	183	177	97	6
Shoulder & Elbow	27	37	35	95	2
Trauma	59	89	80	90	9
Sports Medicine	89	228	203	89	25
Spine Surgery	60	126	110	87	16
Pediatric Orthopaedic	42	70	56	80	14
Foot & Ankle	43	71	52	73	19
Musculoskeletal Oncology	19	24	17	71	7
Percent Filled				92	



# Current Practices

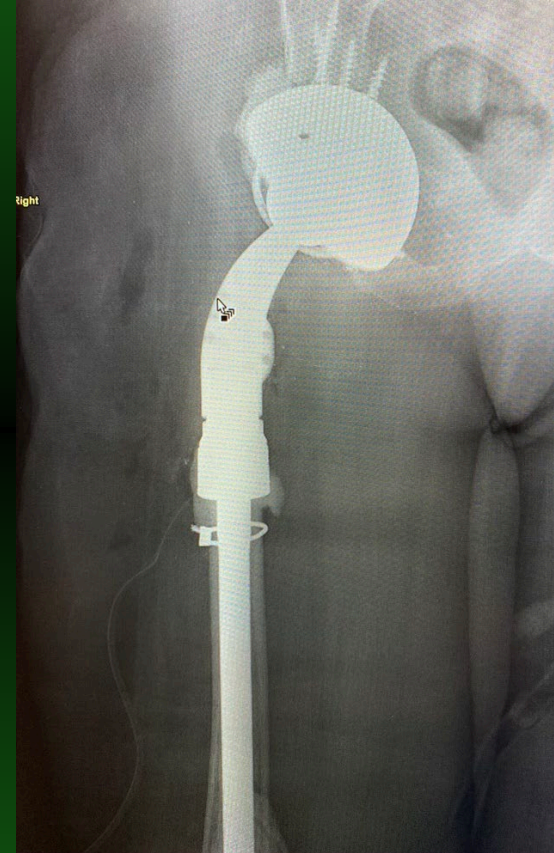
- New Grads are selective in practice type/ dynamics for first job
- Emphasis to specialize
  - Variable desire for call



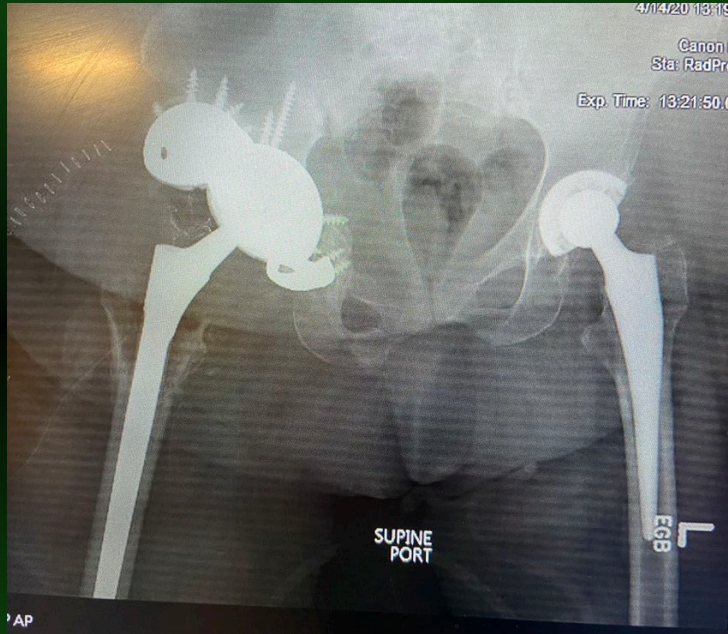
Single Combined Match Application Data*		2019
Total number of registered applicants		891
Total number of rank lists		787
Total number matched		730
• Total number of U.S. graduates		681
• Total number of Canadian graduates		10
• Total number of international medical graduates		39
Total number of applicants with no match		57
Average number of applications per applicant		31
Applicants matched first choice		326
Applicants matched first, second, third choice		539

# Personal Beliefs

- Fellowships should be accountable for Part 2 pass rates
  - Who prepares you for the test?
  - What are the bulk of your cases typically?
  - Does the pass/fail rate reflect on one's fellowship program or residency?



# Personal Beliefs



- Jobs are driving super-subspecialty focus
- Despite volume pressures many perform "fellowship-type" procedures

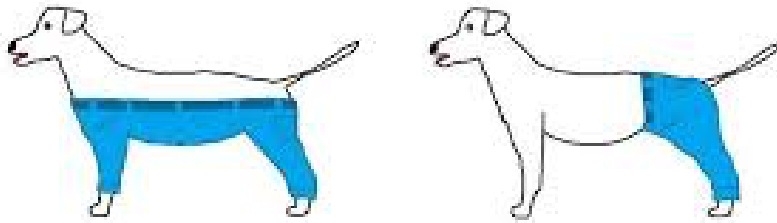
# Conclusions

- Fellowships should provide pass rates for Part 2
- Fellowship curriculums should consider Part 2 testing format/teaching
- RRC/Accreditation Groups should consider success of graduates passing Part 2

# Thank You For Your Attention

• Questions?????

If a dog wore pants would he wear them  
like this or like this?



**If Apple  
made a car...**

**would it have  
Windows!?**

# The Rise of E-learning And The Impact On Medical Knowledge

George S.M. Dyer, MD, FAOA



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HARVARD  
ORTHOPAEDIC SURGERY

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COLLABORATION

 Introduction to the Knee... (20 HR)

Files - Dropbox | orthopaedic question bank - Google

google.com/search?q=orthopaedic+question+bank&safe=active&xsrf=AleKk03apKIS66b-6RxJGR8SPfqsWGzwr:1591037597285&source=Inms&tbm=isch&sa=X&ved=2ahUKEwj32p0HhAhWSTt8KH8Bck4HhD8BSgCegQIDBAE&biw=1504&bi...

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ORTHOPAEDICS AND TRAUMATOLOGY

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A Question Bank of Multiple Choice Questions in Orthopaedics and Traumatology

A Question Bank of Multiple Choice Questions in Orthopaedics and Traumatology

OrthopaedicsOne Question Bank (QB)

OrthopaedicsOne Question Bank (QB)

PT Ortho Questions: Pass the test

PT Ortho Questions: Pass the test

100 TOP Orthopaedics MCQs

100 TOP Orthopaedics MCQs

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MS Orthopaedics Theory Question Bank

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PT Ortho Questions: Pass the test

PT Ortho Questions: Pass the test

Virtual Curriculum Questions

Virtual Curriculum Questions

ST3 Ortho Interview on Twitter: \*

ST3 Ortho Interview on Twitter: \*

A Question Bank of Multiple Choice Questions in Orthopaedics and Traumatology

A Question Bank of Multiple Choice Questions in Orthopaedics and Traumatology

PT Ortho Questions: Pass the test

PT Ortho Questions: Pass the test

Create Custom Test (Old version)

Create Custom Test (Old version)

AAOS SAE Questions - Anatomy - Orthobullets

AAOS SAE Questions - Anatomy - Orthobullets

NCLEX-RN Practice Quiz

NCLEX-RN Practice Quiz

Orthopaedics MCQs

Orthopaedics MCQs

Prevalence of Answers to Orthopaedic Review Questions

Prevalence of Answers to Orthopaedic Review Questions

Orthopaedic Surgery Practice Questions

Orthopaedic Surgery Practice Questions

Prevalence of Answers to Orthopaedic Review Questions

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PT Ortho Questions - Fast Twitch Pre

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Orthopaedic Surgery Practice Questions

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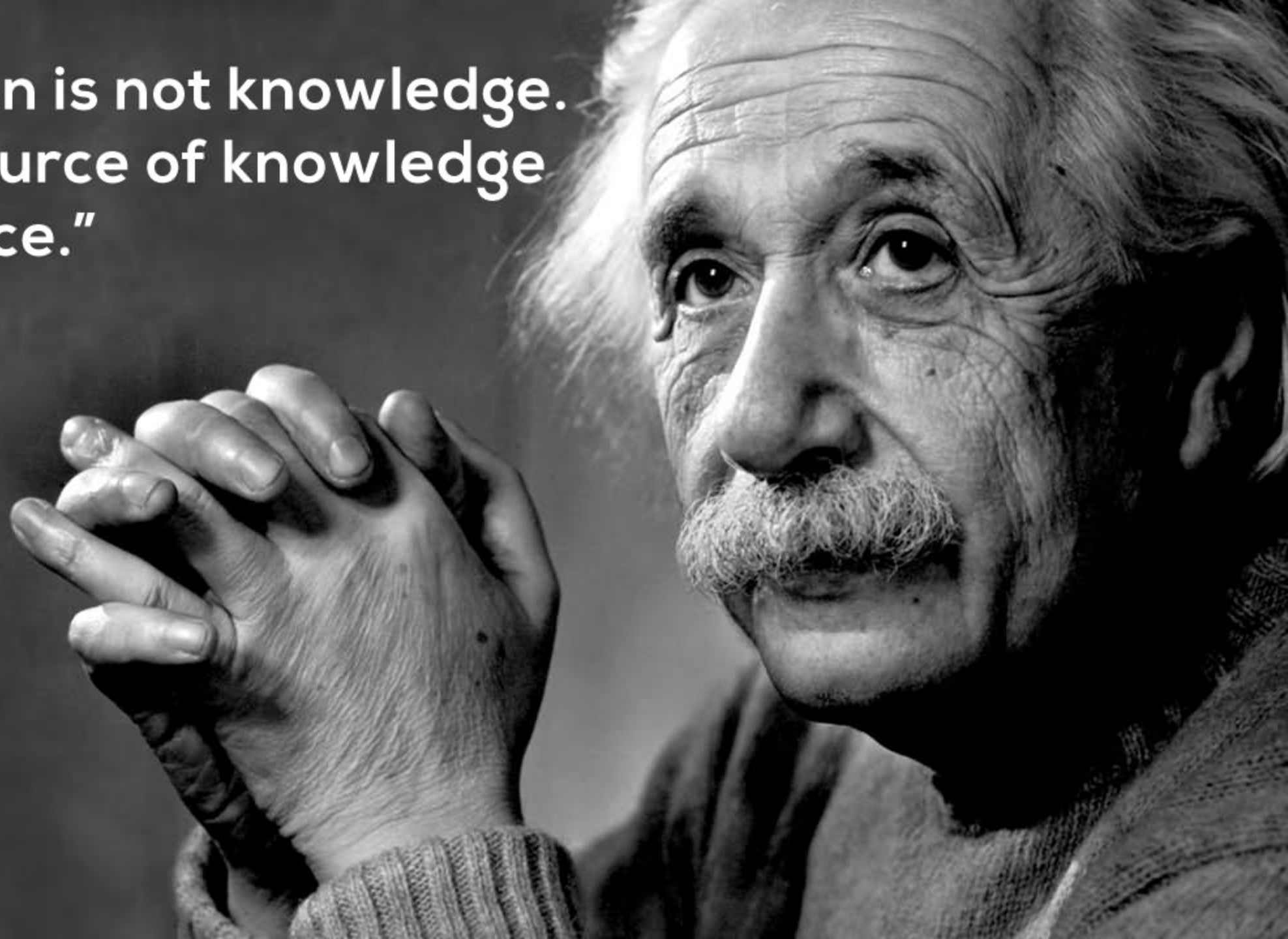
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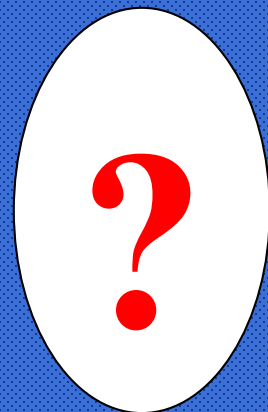
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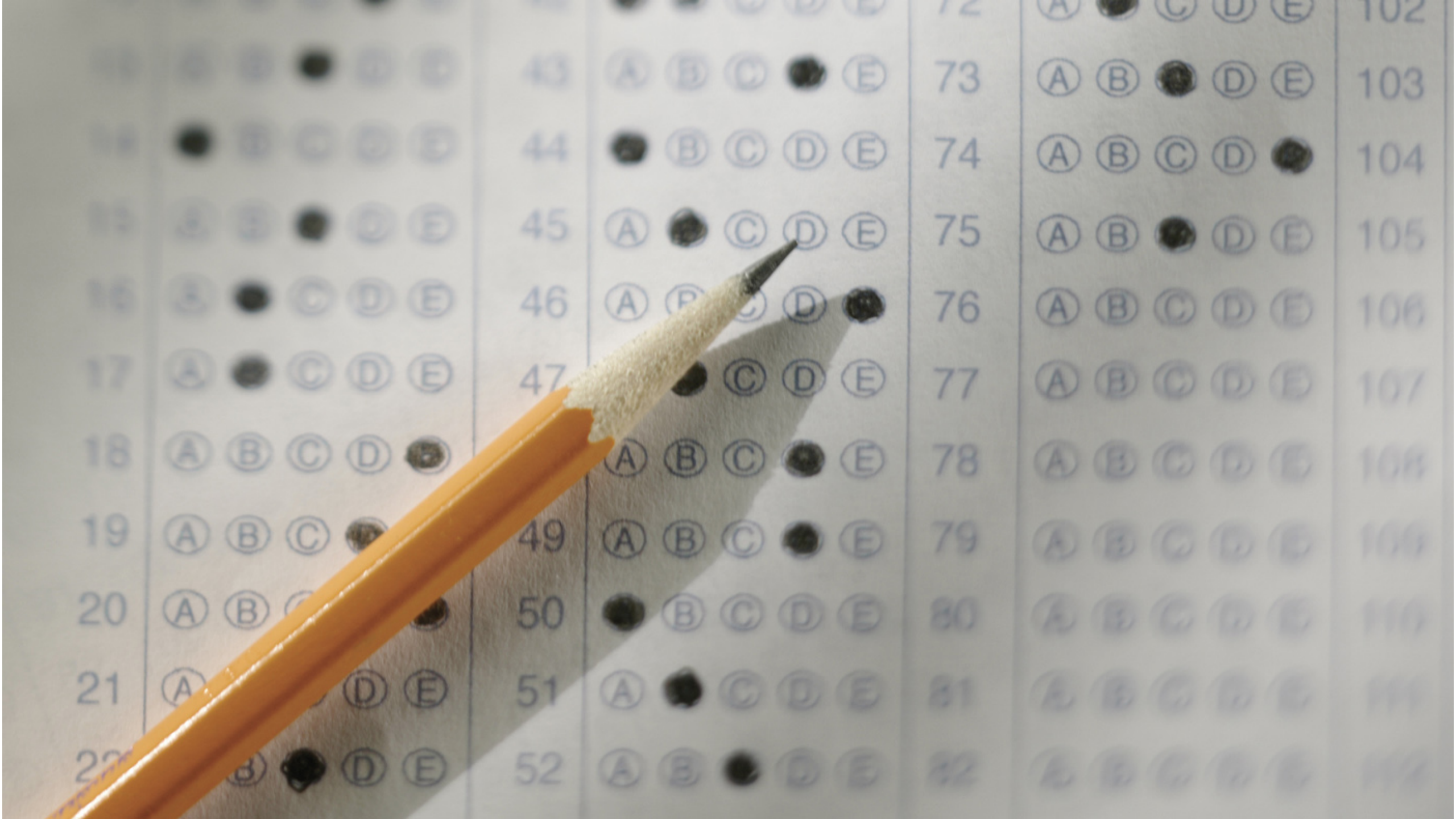


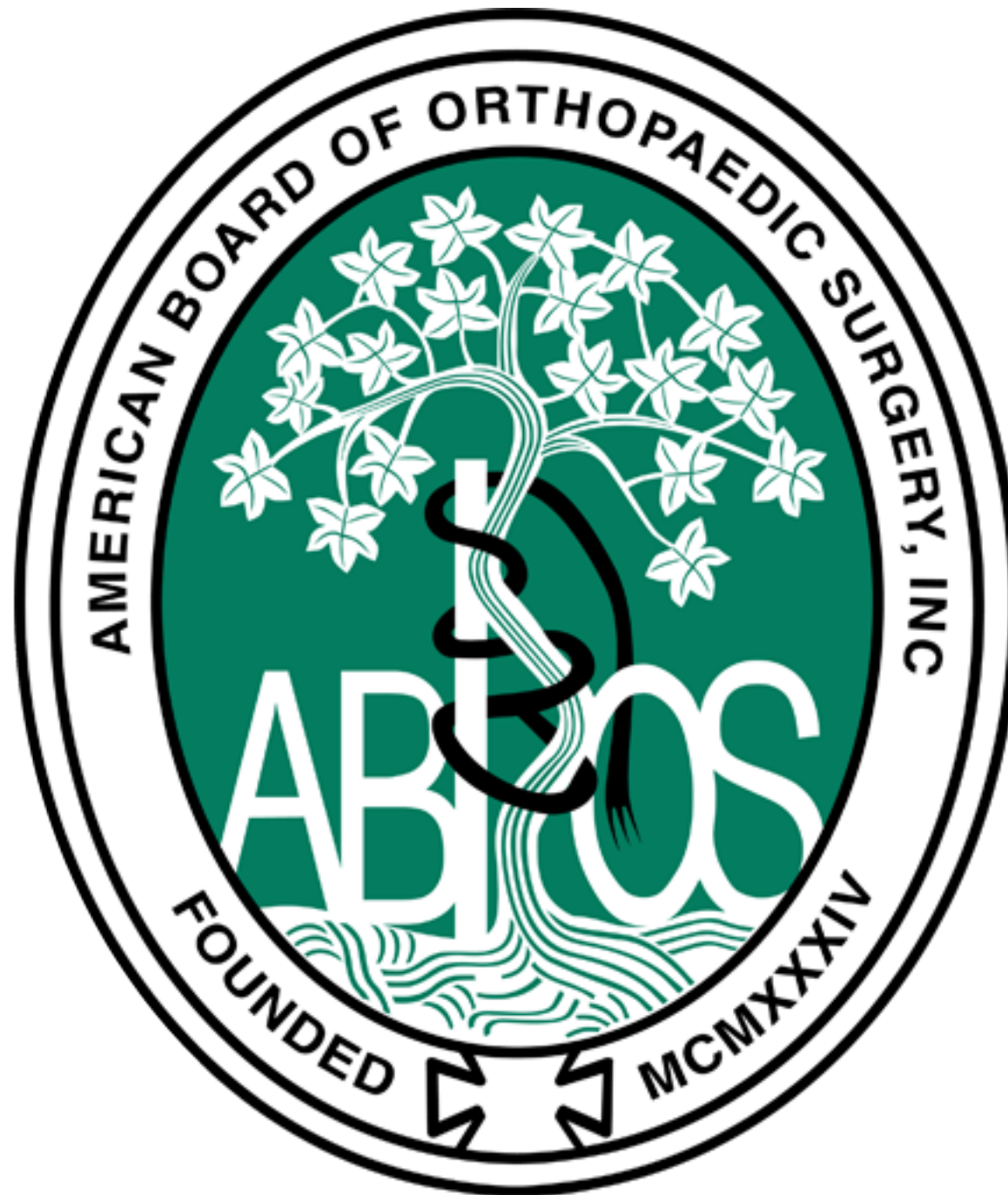
**"Information is not knowledge.  
The only source of knowledge  
is experience."**







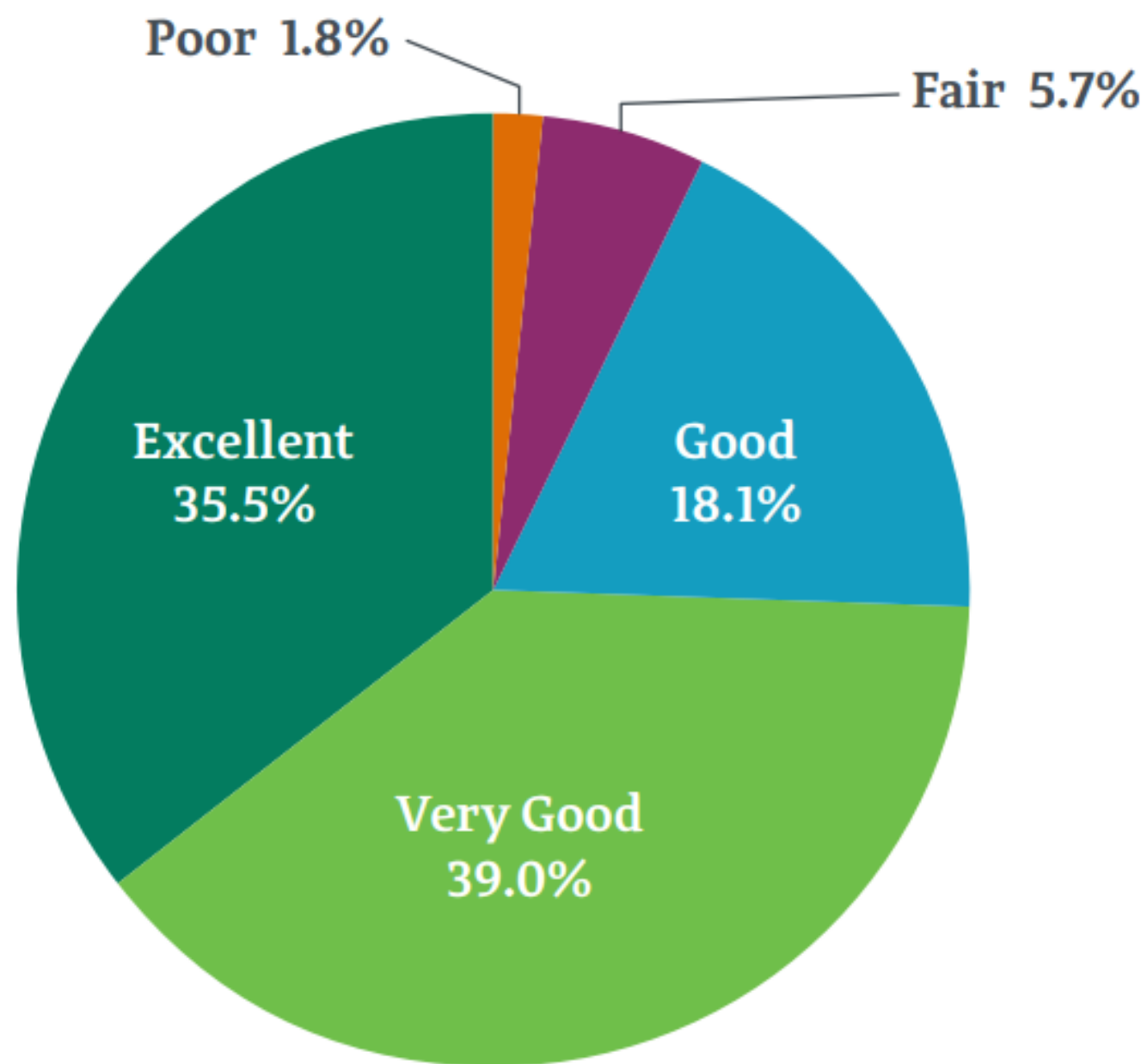




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Domain	Continuous Informal Evaluation	Continuous Formal Evaluation	Discrete Evaluation	Summative Evaluation	ACGME Core Competency Addressed	
<i>Fund of knowledge and life-long learning skills</i>	Rotations, Core, other exams	Clinical Classroom, ResStudy	OITE	Residency Oral Board	Medical knowledge, Practice-based learning	
<i>Diagnosis</i>	Rotations		Structured Assessment of Clinical Evaluation Report (STACER)	Residency Oral Board	Patient care, Medical knowledge, Practice-based learning	
<i>Treatment decision-making</i>	Rotations		Structured Assessment of Clinical Evaluation Report (STACER)	Residency Oral Board	Patient care, Medical knowledge, Practice-based learning	
<i>Technical execution</i>	Rotations	SIMPL, O-SCORE	Objective Structured Assessment of Technical Skills (OSATS)	Graded performance of a real surgery	Patient care, Medical knowledge, Practice-based learning	
<i>Interpersonal communication</i>	Rotations		360 Evaluation	Residency Oral Board ?	Interpersonal and communication skills, Professionalism	
<i>Postoperative care and complication management</i>	Rotations			Residency Oral Board	Systems based practice, Interpersonal and communication skills, Professionalism	
Legend :						
Already In Use						
Developed, not in use						
To be developed						

