

The changing landscape in medical physics education

Society of
Directors of
Academic
Medical
Physics
Programs

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Outline

- Number and type of MP programs
- ABR eligibility changes
- Doctor of Medical Physics degree
- Statistics report
- Calibration of students, residents, jobs
- Key deadlines

Number of graduate programs

(US/Canada)

	2008	2009	2010	2011
• CAMPEP-accredited:	17	20	27	31
• Non-CAMPEP:	34	32	26	22
	51	52	53	53

Unlikely to seek accred	
• no response	6
• not clinically oriented	8
• no univ support	1

MS/PhD	33
MS only	11
PhD only	4
Other	4
Unknown (new)	1

Number of residency programs

(US/Canada)

	<u>2009</u>	<u>2010</u>	<u>2011</u>
• CAMPEP-accredited:	32	43	50
• Non-CAMPEP:	<u>32</u>	<u>?</u>	<u>24?</u>
	64	?	74?

CAMPEP-accredited	
• Therapy	44
• Imaging	6

Preparing our students and programs
for changes in ABR Board eligibility
requirements

Changes in ABR board eligibility

- ABR mandated changes formulated in 2002
- Starting in 2012, persons taking Part 1 of the ABR board must have graduated from or be enrolled in a CAMPEP-accredited graduate program or residency
- AAPM Board voted to endorse a *requirement* for CAMPEP-accredited residency
- ABR extended deadline from 2012 to 2014
- Starting in 2014, persons taking Part 1 must complete a CAMPEP-accredited residency to be eligible for Part 2
- These deadlines apply to applicants for Part 1 of the exam. If you have completed Part 1 by these deadlines, you are OK.

The bottom line is ...

To prepare students for board eligibility:

- Graduate programs must become CAMPEP accredited *now*
- Residency programs must become CAMPEP accredited *soon*
- An adequate number of residency or residency-equivalent slots is needed *soon*
- How are we doing in preparing for these mandates?

Summary of AAPM Summit Meetings

(Chicago, 2008-2010)

- There are challenges in developing enough residency slots by the 2014 deadline
- Solutions under consideration
 - Encourage existing programs to develop new or additional traditional residency slots
 - Develop distributed, or “hub-and-spoke” residencies
 - Consider new professional Doctor of Medical Physics degree (students would pay tuition for 4 years)

Status of DMP degree programs

- One CAMPEP-accredited program has launched (Vanderbilt)
- Another program has started but is not yet CAMPEP-accredited (Texas Tech)
- Several other schools considering starting DMP degree

CAMPEP/SDAMPP Graduate Program Survey Results

(Jan 1 - Dec 31, 2009)

E. Jackson, PhD
Chair, CAMPEP GEPRC
Chair, SDAMPP Outcome & Statistics Committee

FINAL Version - 8/6/2010

Programs Responding

- 23 of 25 CAMPEP-accredited programs responded (18 US / 5 Canadian)
- 6 non-CAMPEP-accredited programs responded (all US)

- 28 programs offered MS degrees
- 21 programs offered PhD degrees
- 20 programs offered both degrees
- 8 offered only MS / 1 offered only PhD

FINAL - 8/6/2010

Enrollment / Graduates / Attrition

- Enrolled Students:
 - MS/MSc: 333
 - PhD: 345
 - Total: 678
- Graduates:
 - MS/MSc: 147
 - PhD: 63
 - Total: 210
- Average attrition rate: 3.7%

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Delay Before First Job

- MS/MSc: 4.3 months
- PhD: 1.2 months

- This does not include students who went on for additional degrees or a residency.

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MS/MSc Graduate Destination

- Entered RP residency: 15 (12.1%)
- Entered IP residency: 2 (1.6%)
- Junior med phys job: 62 (50.0%)
- Went on for another degree: 22 (17.7%)
- Took job in industry: 3 (2.4%)
- Other: 20 (16.1%)

FINAL - 8/6/2010

PhD Graduate Destination

- Entered RP residency: 10 (16.4%)
- Entered IP residency: 3 (4.9%)
- Junior med phys job: 18 (29.5%)
- Went on for another degree: 0 (0.0%)
- Took job in industry: 5 (8.2%)
- Post-doc position: 16 (26.2%)
- Other: 9 (14.8%)

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Students Who Entered Board Exam Process

- ABR: 104
- CCPM: 1
- ABMP: 0
- ABSNM: 0

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Plans for DMP

- Plans for a DMP?
 - No: 21
 - Under consideration: 1
 - In preparation: 3
 - Awaiting CAMPEP accreditation: 1

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Plans for Residencies

- Plans for a New or Additional Residencies?
 - No: 4
 - Under consideration: 7
 - In preparation: 2
 - Expect approval soon: 2
 - Awaiting CAMPEP accreditation: 5
 - Already accredited: 5
- How many new slots/yr?
 - Rad Phys: 27
 - Diag Phys: 6

FINAL - 8/6/2010

**SDAMPP Residency Program
Survey Results**
(Jan 1 - Dec 31, 2009)

E. Jackson, PhD
Chair, SDAMPP Outcome & Statistics
Committee

FINAL version - 8/6/2010

Programs Responding

- 35 programs responded
 - CAMPEP-accredited 23
 - not CAMPEP-accredited 12
- US programs 30
- Canadian programs 5
- 30 therapy physics / 5 imaging physics

FINAL - 8/6/2010

Applicants

- # applications received 1651
- # applicants offer admission 65 (3.9%)
- # applicants matriculated 60 (3.6%)

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Entering Class

- Backgrounds:
 - CAMPEP med phys program: 49.2%
 - non-CAMPEP med phys program: 23.1%
 - Non-med phys program: 24.6%
 - Other: 3.1%

- MS/MSc degree: 24.2%
- PhD degree: 75.8%

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Residency Slots

- # Slots/yr:
 - Rad phys: 47.5
 - Diag phys: 6.0
- Total # enrolled:
 - Rad phys: 88
 - Diag phys: 11
- # completed residency (3.0% attrition):
 - Rad phys: 36
 - Diag phys: 6

FINAL - 8/6/2010

Residents Who Entered Board Exam Process

- ABR: 48
- CCPM: 8
- ABMP: 0
- ABSNM: 0

FINAL - 8/6/2010

The big picture

(estimates, US/Canada)

Job demand per year (2010):	~200
Students graduating per year (2009):	~200-220
Estimated CAMPEP residency slots per year needed (2014):	~170-205
CAMPEP Residency slots per year available (2010):	~60-100

Projections from Center for Health Workforce Studies

(presented at AAPM, July 21, 2010)

- Slight oversupply of MP graduates 2010-2013
- Slight undersupply of MP residents available for job market 2015-2017
- Substantial shortage of MP residents available for job market >2017
- Lack of residencies will be the bottleneck, unless substantial number of residencies are created by 2014
- Impact of long-term substantial shortage may mean that associated fields will step in and take on tasks customarily done by MPs, resulting in long-term loss of MP jobs in the field

Reminder: ABR Deadlines

- Must have application accepting by Sept 30, 2010 in order to meet the 2012 ABR mandate if not in a CAMPEP accredited program
- Must have application accepted by Sept 30, 2012 in order to avoid the 2014 residency requirement mandate
- Can apply later in the year if graduation takes place between Sept 30 and Dec 31
- Late filing deadline of Oct 31 with a late fee
- PhD students must ensure they do not exceed the time limit between Part 1 and Part 2; may want to defer Part 1 until later in their graduate training
- MS students generally should sign up to take Part 1 by Sept 30 in the year they enter graduate school
- Important to confirm these deadlines directly with the ABR

Other items of note

- ABR will be turning over responsibility for determining Part 1 eligibility to CAMPEP through accreditation process
- Programs must have an approved mechanism for non-physics majors to meet eligibility requirements
- If you are a non-physics major, you **MUST** meet these eligibility requirement for undergraduate physics minor if you intend to take the ABR exam
- CAMPEP is now starting a registry for all board-eligible students in accredited programs; this will enable students not interested in taking the ABR exam to bypass the CAMPEP requirements

Thank you

For comments or questions:

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