



New Member Symposium

Michael D Mills, PhD

Meg Blackburn, PhD

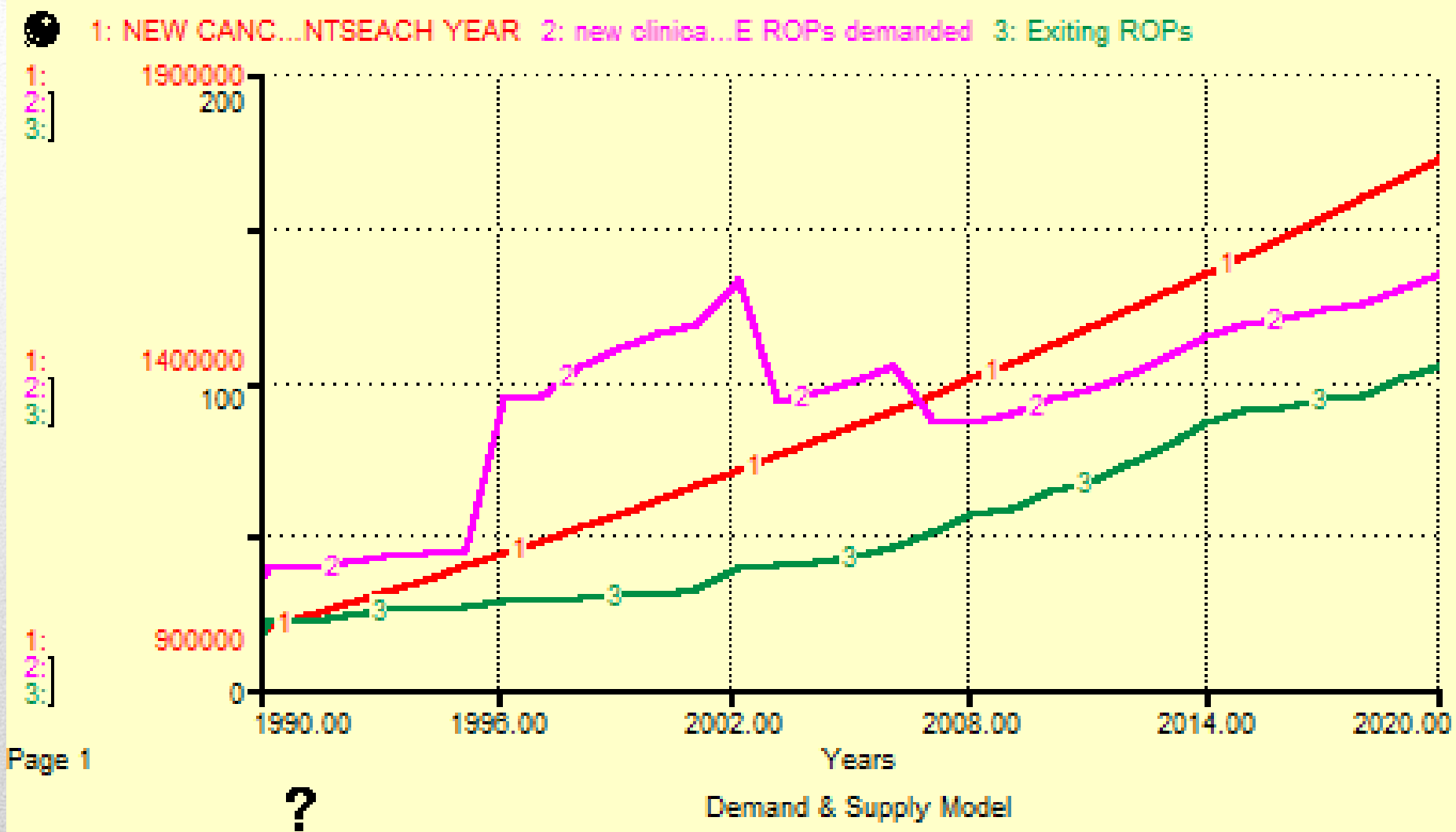
Christine Swanson, MS

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- It is hard to get into a graduate program!
 - It is even more difficult to get into a PhD program!!
 - It is almost impossible to get into a residency program!!!
 - And if you get that far, good jobs are really hard to find!!!!
 - And there seem to be so many certified physicists out there looking for jobs!!!!
 - What is HAPPENING?!!!!!!

Why is this profession so difficult?!



Due to his grammar mistake, Wilbur found a position. It just wasn't the one he wanted.

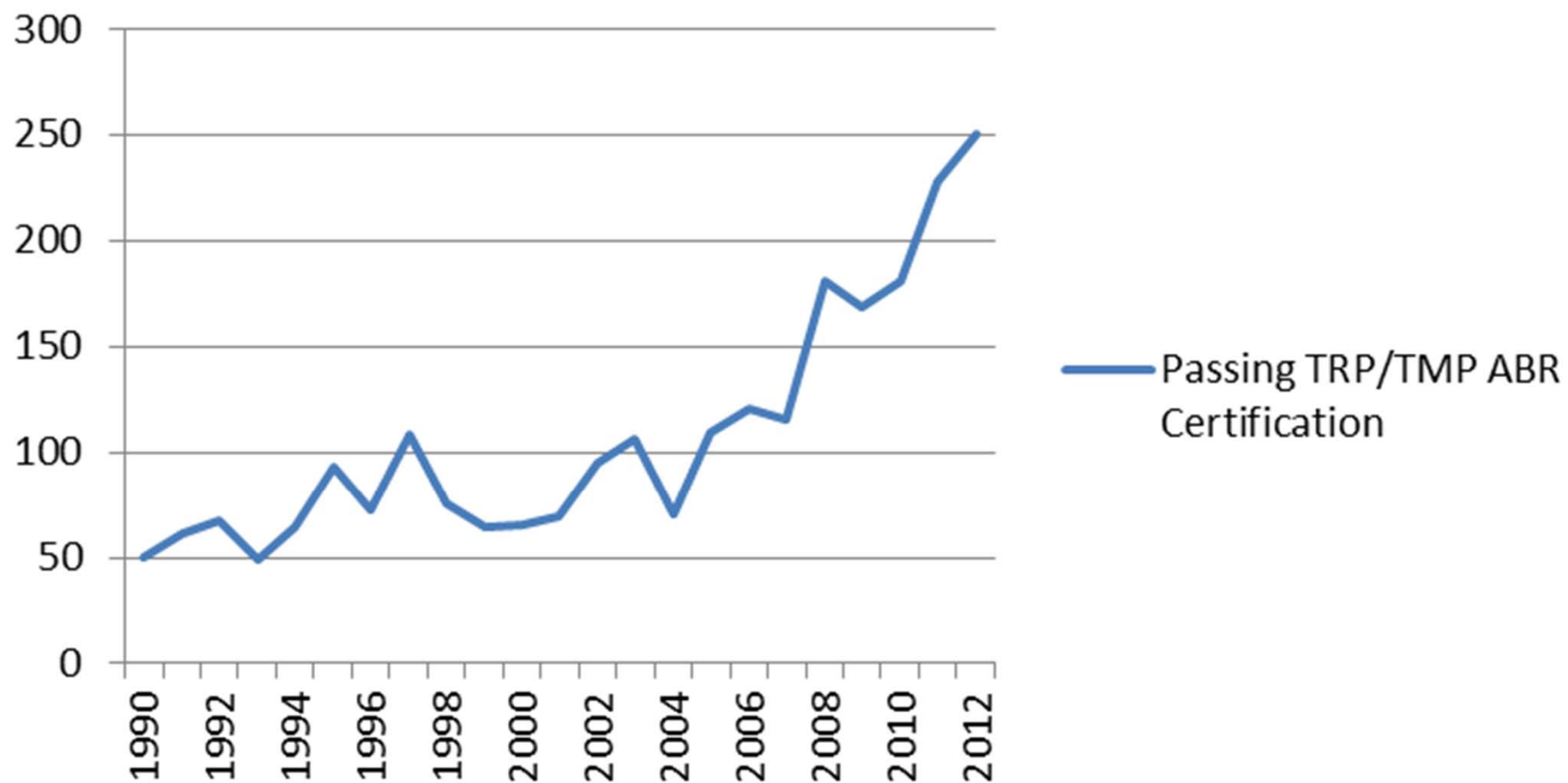


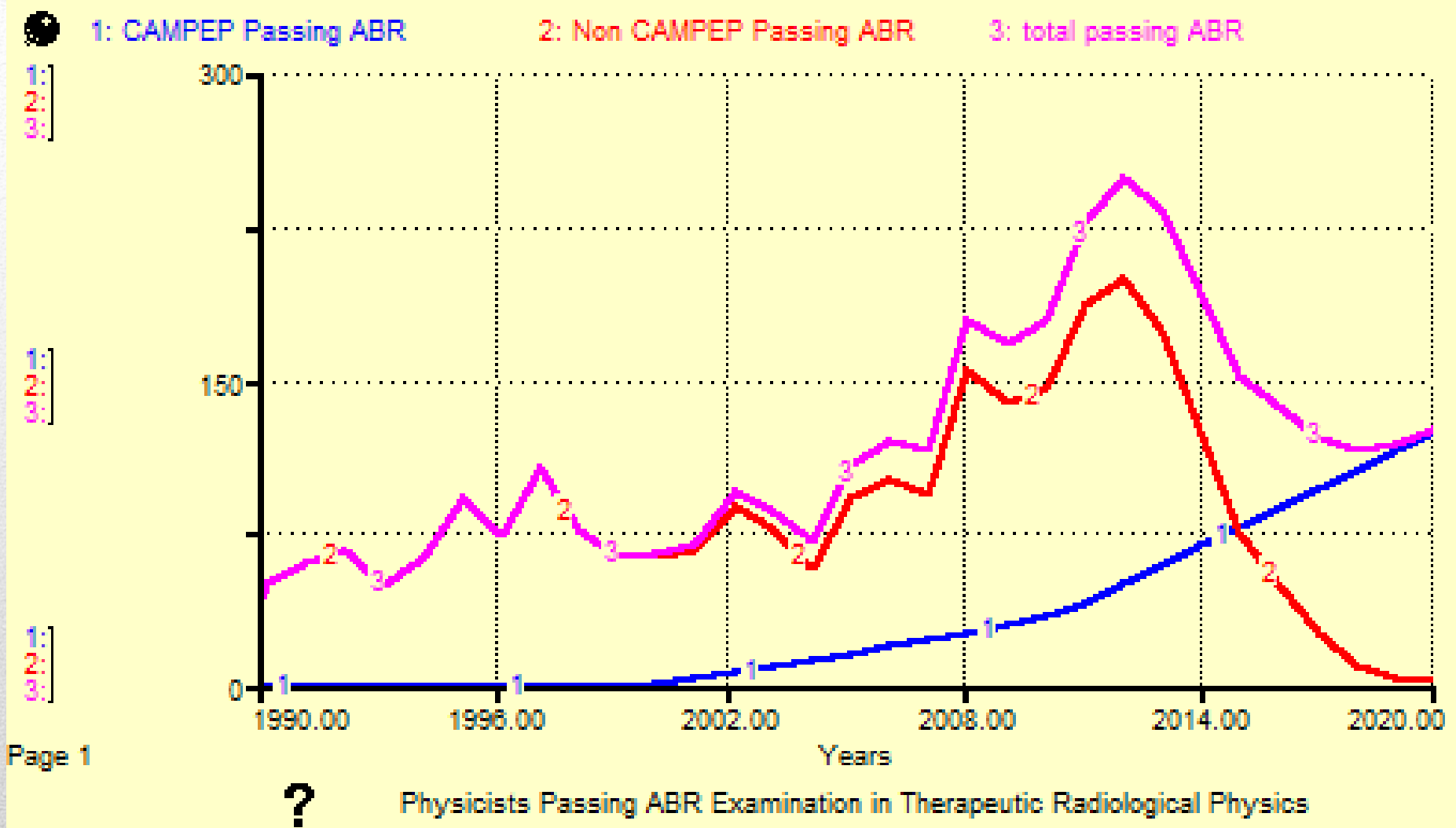
When was the big demand?

- Beginning in 2012, in order to take the ABR Part 1 Examination in Radiologic Physics, candidates must be enrolled in or have graduated from a CAMPEP accredited education program (MS, PhD, residency)
- Beginning in 2014, in order to take the ABR Part 1 Examination in Radiologic Physics, candidates must be enrolled in or have completed a CAMPEP accredited residency.
- Detailed requirements are found at: <http://theabr.org/ic-rp-req>

2012/2014 Initiatives

Passing TRP/TMP ABR Certification



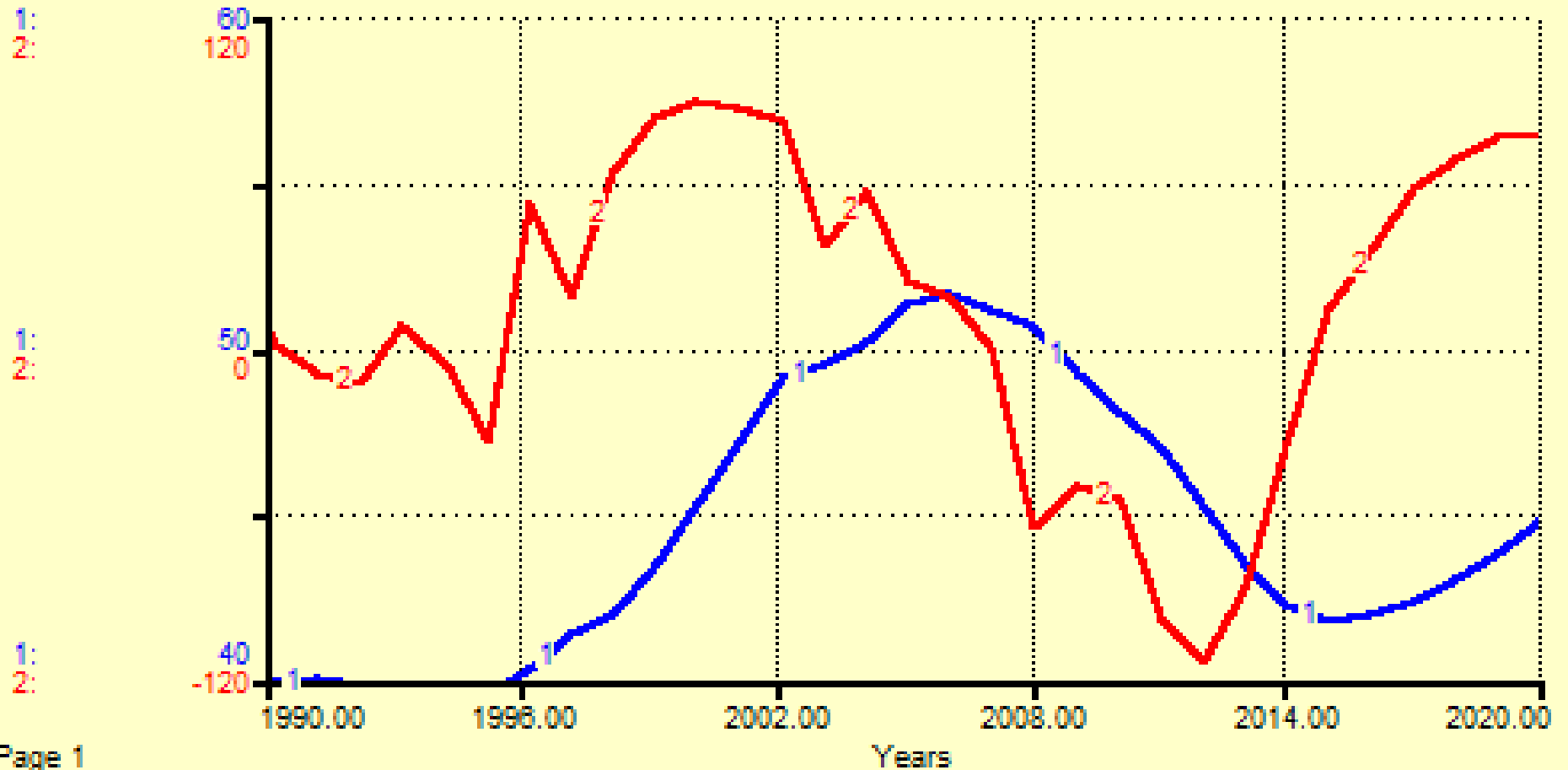


Projected ABR TMPs through 2020



1: average work hours per week

2: gap between demanded...nical practice and supply

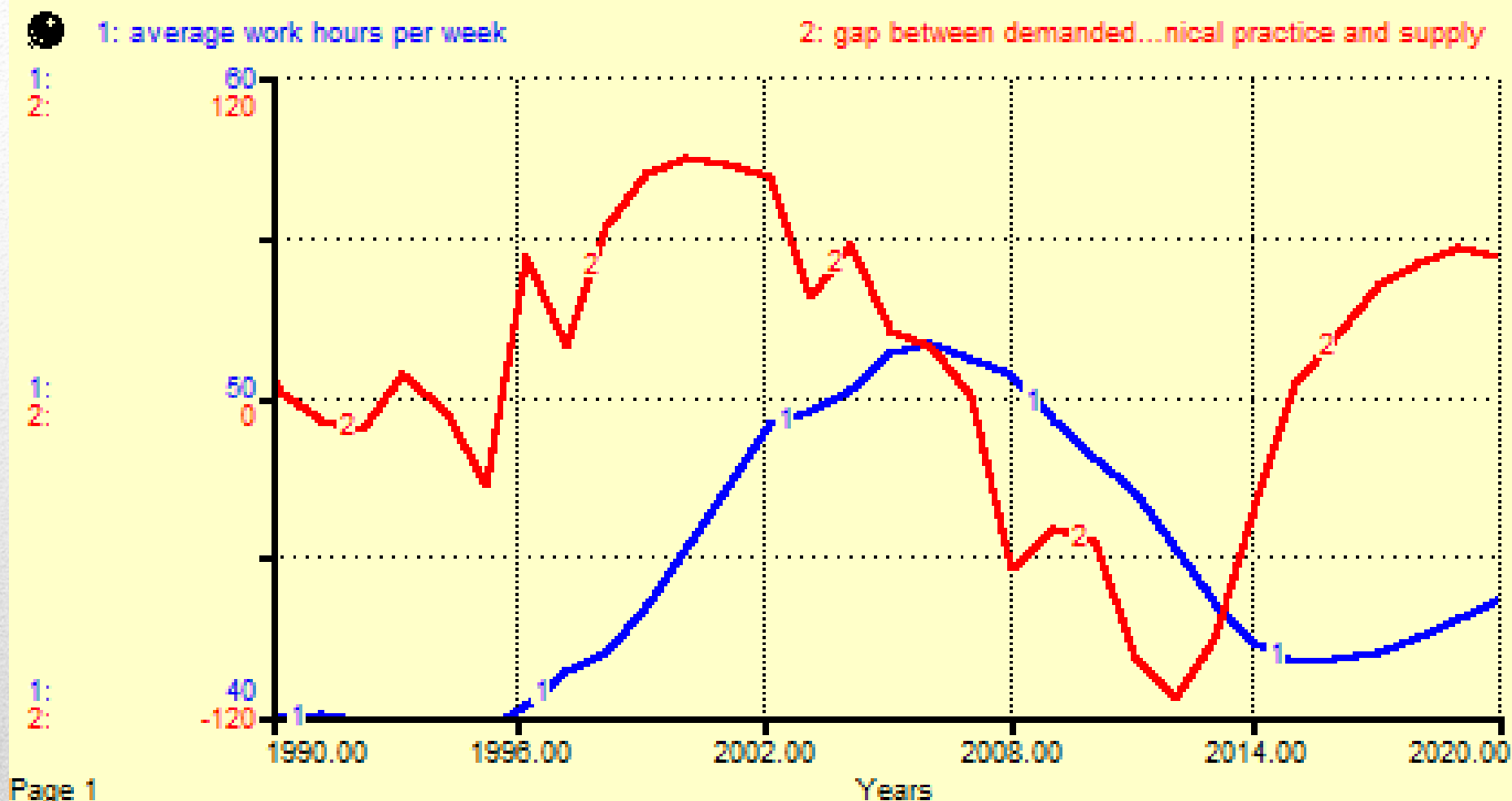


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Gap between Demand & Supply and Average ROP Work Hours Per Week

2020–If we graduate 100 TMPs

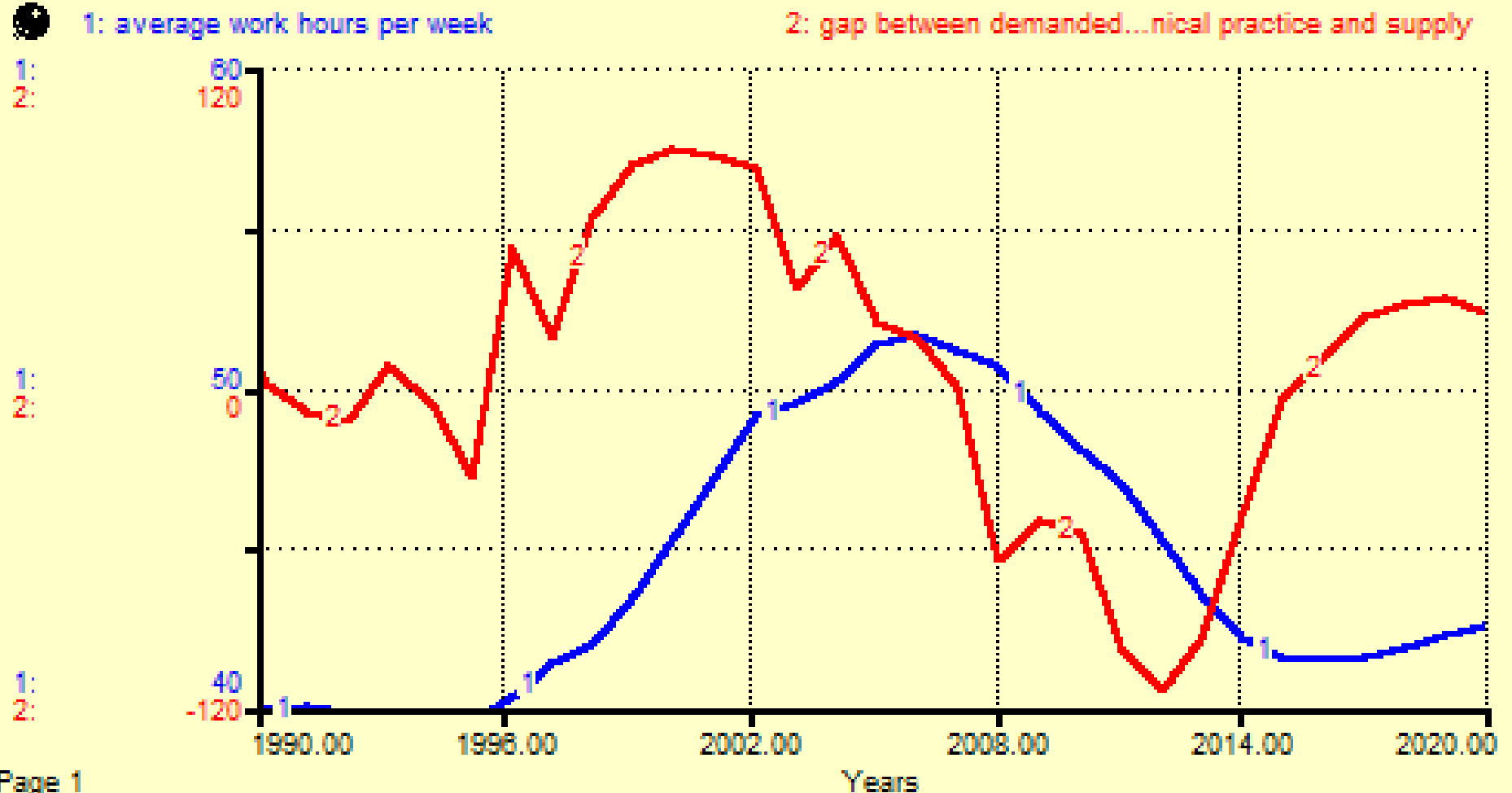


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Gap between Demand & Supply and Average ROP Work Hours Per Week

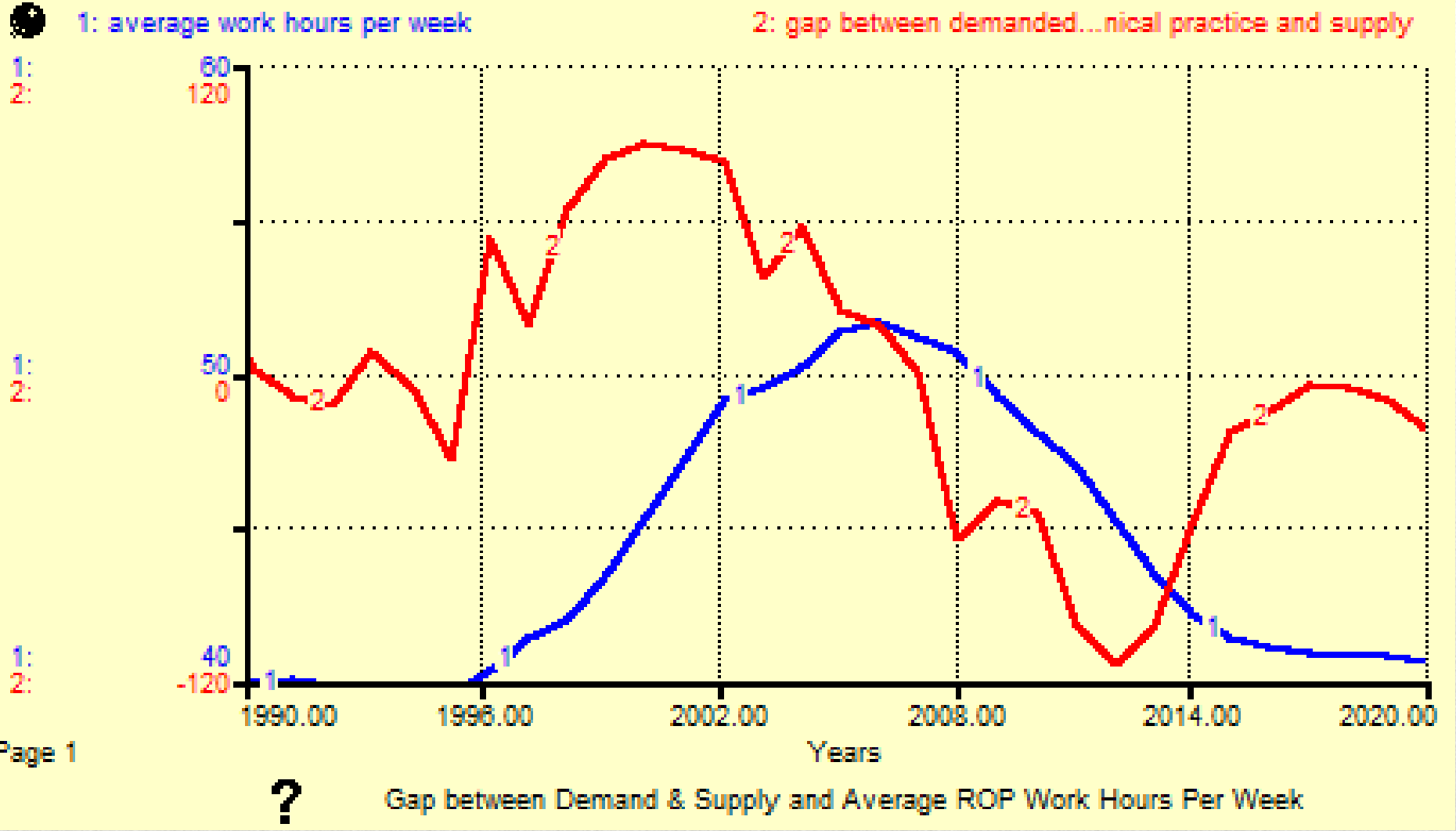
2020–If we graduate 125 TMPs



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Gap between Demand & Supply and Average ROP Work Hours Per Week

2020–If we graduate 150 TMPs



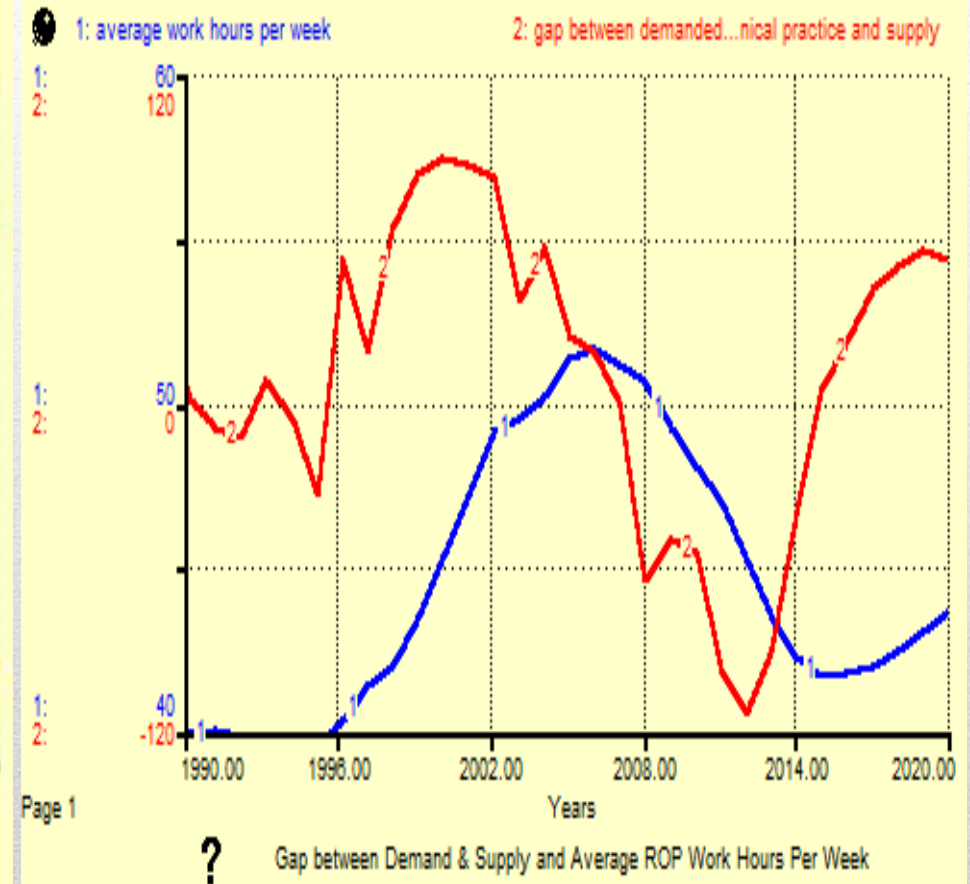
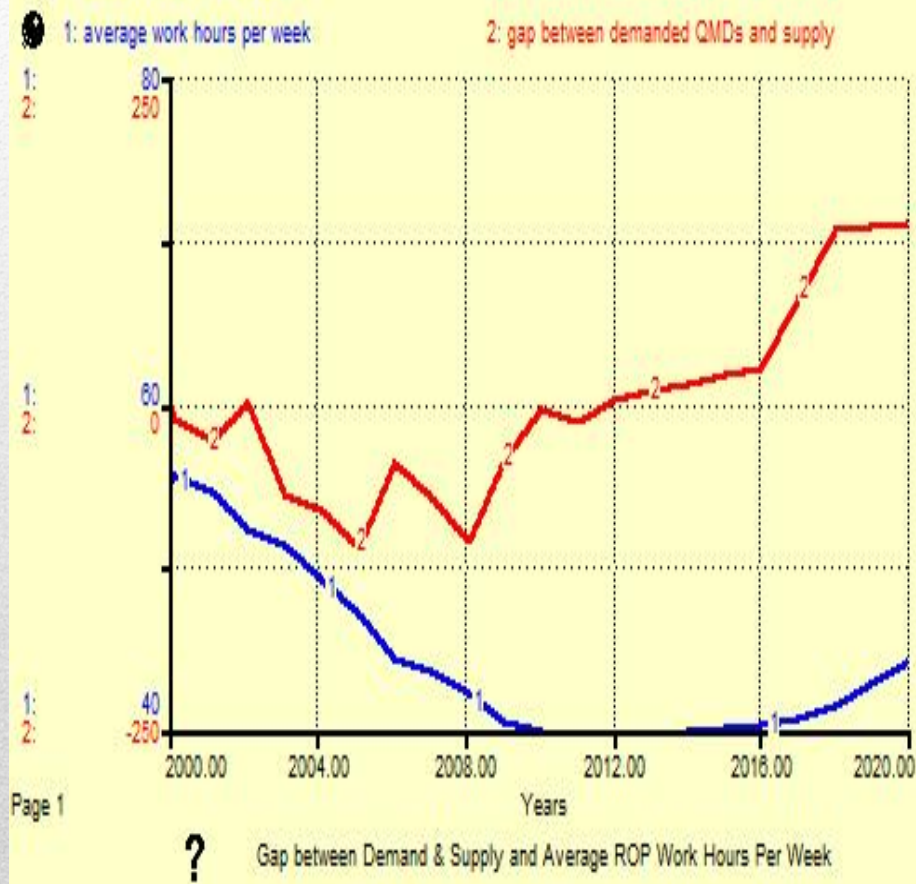
2020–If we graduate 200 TMPs



How many physicists must we train?

- Current number of CAMPEP Residents must increase from 60 to a minimum of 125 per year by 2020; 100 will not work!
 - A more comfortable number would be 150; 200 would balance supply and demand
 - If we are unable to make enough TMPs:
 - Will more medical physicists retire or leave the profession?
 - Will this impact safety and quality assurance?
 - Will this impact patient care negatively?
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Supply & Demand, QMD versus QMP



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- There is an oversupply of certified physicists looking for jobs
 - Many jobs are not being advertised
 - Many are being filled by networking and word of mouth
 - Many times the job posting is administratively required and those that control the position have already made a decision
 - People are not leaving their current positions for better ones because they cannot sell their houses
 - Profitable and growing centers with new positions are the only real growth in the industry

So why are good jobs so
hard to find?



"It's simple. My nurse blindfolds me, I spin around a few times, and then I try to reattach your tail."

• **Why and how is radiation oncology profitable?**

- The profitability of radiation oncology is largely based off of one, single procedure – the Medicare IMRT code 77418
 - In 2003, one fraction of IMRT was equal to 1/7th the reimbursement of a liver transplant and 1/3rd of an aortic valve replacement
 - One IMRT fraction was equivalent to a rib removal or bunion surgery
 - The beauty of IMRT is that while most people have only a finite number of livers, aortic valves, ribs, and bunions, each cancer patient treated with IMRT typically gets 30-40 treatments
 - So a course of IMRT cancer therapy costs the system as much as transplanting 5 livers, and removing 30 bunions
 - CMS made an attempt to cut IMRT by ~ 38% in 2009 as a result of a review of broader imaging codes – ASTRO stopped the cuts
 - This year, 2012, CMS is proposing to cut IMRT reimbursement to physician owned freestanding centers by ~ 40%
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- Accepted:

- *****

- Not Accepted:

- *****

MS Medical Physicists accepted
to CAMPEP Residency Programs

- Accepted

- *****

- Not Accepted

- *****

PhD Medical Physicists accepted to CAMPEP Residency Programs

- 1 Network – Get on Linked-In and Facebook
 - Actively seek to link to medical physicists that control positions
 - Let them know you are looking for a position
 - Set up a webpage with your CV information
 - Log how your job search is going
- 2 Seek experiences that are out of the ordinary
 - Protons
 - Cyberknife
 - TomoTherapy
 - GammaKnife
- 3 Apply to every position you would even remotely consider accepting
- 4 Make arrangements to shadow at an institution for a day or a week. Do this especially if they offer an experience you have not had.

Oh @\$% So what do I do?!?!



- Radiation oncology is not profitable because of physics procedures – these do well to break even
- Radiation oncology profits depend almost entirely on 77418 – IMRT treatment delivery; this code is under attack
- If radiation oncology fails to remain profitable, all the supply and demand models and all the workforce assessments may be meaningless because no one will want to provide the services
- It is not ethical for highly successful MS students to be denied the opportunity to take the ABR Certification examinations because we mismanaged the educational process
- We must make residency opportunities available for our MS students now

Summary and Conclusions

