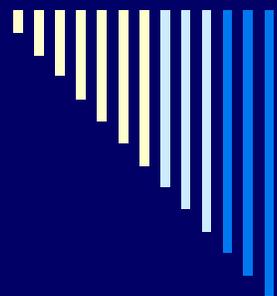


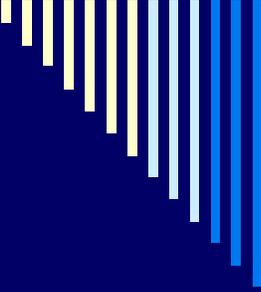
# Getting Your First Job

**And what to do once you're there**



# Outline

- Education process
  - Undergraduate school
  - Graduate school
  - Residency program
- Job search
- Interviews
- Arrival
- The first years
- Board certification



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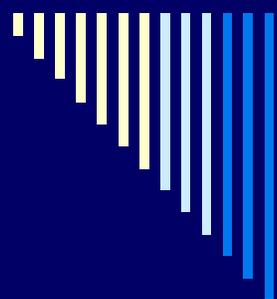
# Undergraduate School

## □ Traditional

- Physics BS
- Supporting concentration in math, computer science, electrical engineering, chemistry

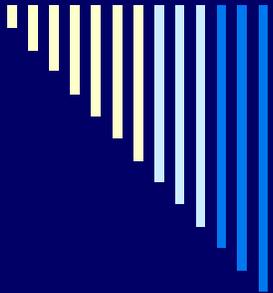
## □ Recent trend

- Physics BS
  - Supporting concentration in biomedical engineering or other biological science
  - Summer internship
-



# Graduate School

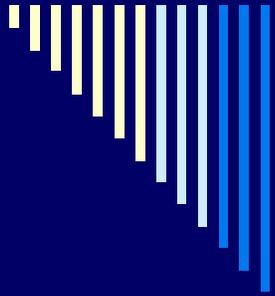
- CAMPEP, CAMPEP, CAMPEP
- Therapy or diagnostic concentration
- Clinical rotations
- Thesis or non-thesis
- Previously weighted MS to PhD
- Currently weighted PhD to MS
- DMP programs now coming online



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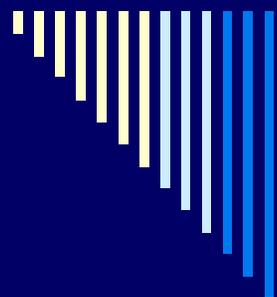
# Residency Program

- ❑ Required in 2014 for ABR certification
  - ❑ Considerable competition for slots
  - ❑ Therapy outlook is better than diagnostic
  - ❑ In theory, prepared for independent work
  - ❑ In practice, should still be mentored
-



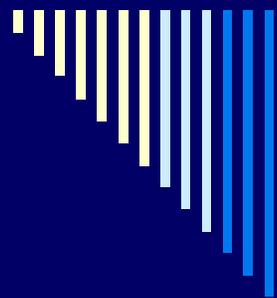
# Job Search

- Five types of positions
  - Clinical
  - Research
  - Academic
    - Mix of clinical, research, teaching
  - Regulatory
  - Industry



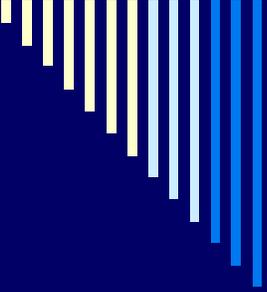
# Job Search

- Sources of job openings
  - Blue book
  - MedPhys listserv (Wayne State)
  - Recruiters
  - MD Physics website
  - Word of mouth
  - Networking
  - Local program
  - Job boards.... Monster, etc



# Job Search

- Cold Calling is acceptable if done correctly
  - Do not mass mail the AAPM membership roster with a generic “I’m graduating and need a job, do you have one?”
  - Include your background, credentials, desires, availability, contact information, and express your willingness to discuss any opportunities they may have



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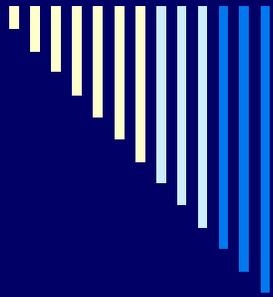
# Job Search... What To Look For

## □ Group size

- I recommend joining a physics group of 3-5  
This size is large enough to be diversified,  
yet small enough that you'll be exposed to  
the full spectrum of physics duties

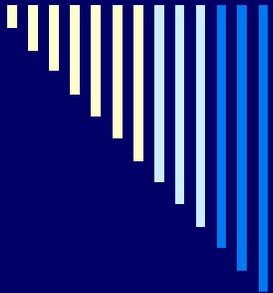
## □ Program

- Avoid specialized programs, e.g.  
standalone stereotactic, brachytherapy,  
etc., unless that is your long term desire.
-



## Job Search... What To Look For

- ❑ If English is not your first language, do not let pride stop you from having your resume and letters reviewed by another
- ❑ Consider your potential mentors carefully, as they will be the ones preparing you for your board certification



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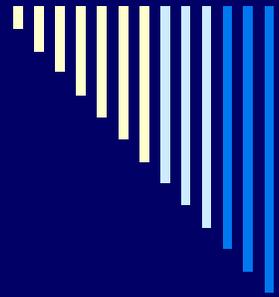
# Job Search... What To Look For

## □ Location

- Location is less important than experience for your first job unless you know you'll be staying put for awhile (statistically unlikely, but possible)

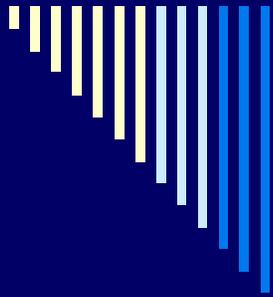
## □ Salary

- It's a buyer's market and new graduates are the commodity
  - AAPM salary survey is a good gauge for first time salary
  - A salary near the median of the 0-4 yr experience level is a reasonable starting point for negotiation
-



# Interview

- This is your one chance to make a first impression... and like sky-diving, you rarely get a do-over
- Training aside, most employers are looking for an individual that:
  - Is intelligent, well mannered and well spoken
  - Can communicate, work well with others and fulfill the job requirements



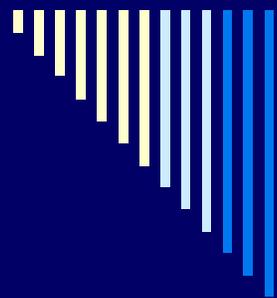
# Interview

## □ Do

- Dress well
- Arrive timely
- Be attentive
- Be prepared to answer questions
- Fully answer questions
- Ask questions
- Respect the interviewer(s)
- Be completely honest
- Follow up with email

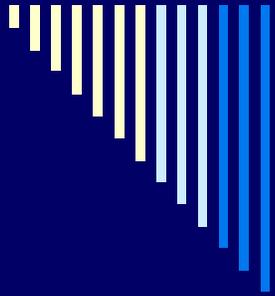
## □ Don't

- Discuss personal life
- Critique the site
- Imply you could do a better job
- Embellish to hide deficiencies
- Claim experience you don't have
- Be evasive or misleading with any answers
- Assume the job is yours



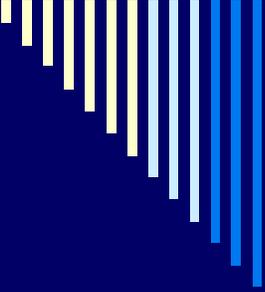
# Interview

- If asked, it's OK to admit:
    - You are interviewing several employers
    - You lack a particular experience
    - You would like to be involved in...
    - Salary requirements, but only to your potential boss or human resources
  
  - If asked, it's not OK to admit:
    - You'd really prefer a 20hr work week
    - You're not excited about doing a particular job
    - You dislike your current advisor or boss
-



# Follow Up

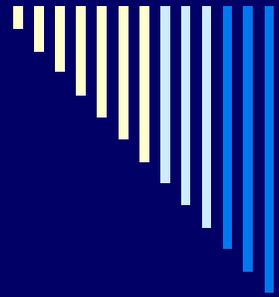
- Email is a perfectly acceptable method of following up on a recent interview
- Be sure to:
  - Thank the interviewer(s) for the opportunity and their time
  - Compliment the department and program
  - Express your continued interest in employment with them



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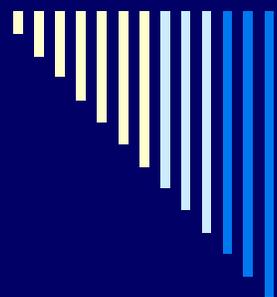
# Accepting a Position

- ❑ Before accepting, make sure there is a clear understanding of what both parties expectations are, i.e. a job description
  - ❑ Respond via mail or email, and also accept in person; make a phone call to the appropriate individual
  - ❑ Be realistic with your availability date; if that date must change, notify your employer as soon as possible and explain why
  - ❑ Assume you will be there at least two years... choose real estate wisely
-



# Arrival

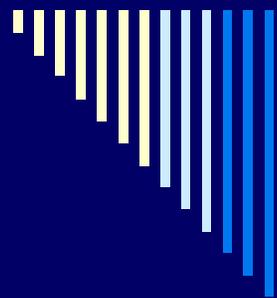
- Upon arrival, an optimistic attitude will pay many dividends down the road
- Keep punctual arrival hours and be willing to help with any task
- Many departments are very close-knit and alienating one person may have an effect on others



# Your First Years

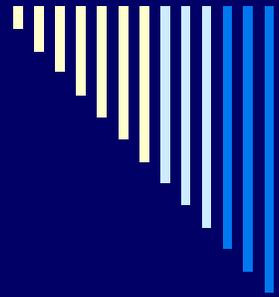


This is you!!!



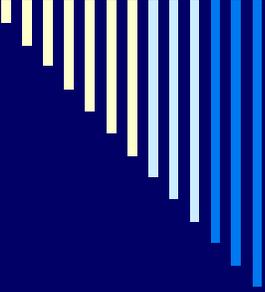
# Your First Years

- With respect to non-physics staff members:
  - Make it a point to meet them all
  - Learn what each of them is responsible for
  - Understand how their job affects yours and visa versa
  - Be willing to help them if requested
  - Keep a professional relationship both up and down the reporting ladder



# Your First Years

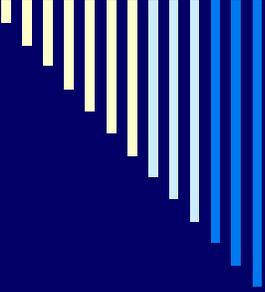
- With respect to physics staff members:
  - Respect their seniority
  - Learn from their experiences, but do not depend upon them for your learning process
  - Interact with them and discuss your technical and clinical questions
  - Accept that there may be different approaches to the same problem



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# Your First Years

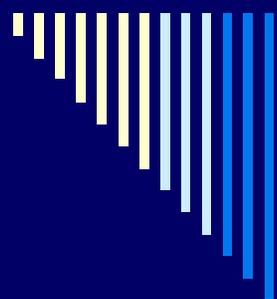
- Your mentors will be instrumental in preparing you for board certification
    - Be sure to extract as much information as possible; this is best done by reviewing the subject matter first and then discussing it with them
    - Don't expect them to sit you down weekly and pour all the required knowledge into your cranium... it's painful, messy, and usually doesn't work
-



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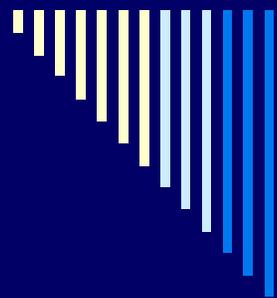
# Your First Years... Therapy

- Review your data books and/or second check programs
    - Understand where the data comes from or how it's calculated
  - Spend time in Dosimetry, whether it's necessary or not
    - You will be responsible for oversight of their work
  - Spend time in Simulation
    - You must understand the process and how patients are setup
-



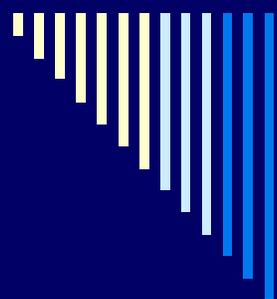
# Your First Years... Therapy

- Try to spend some time with the individual(s) responsible for the calculation models in the primary treatment planning system
- At a minimum, understand what data is required for the model, and how the data is collected
- Try to understand the strengths and weaknesses of the system
- If time permits, attempt modeling on your own and compare to the existing model



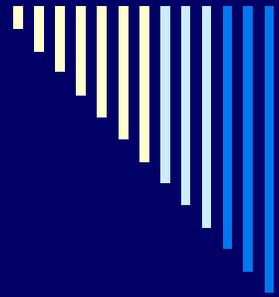
# Board Certification

- Be aware of the current requirements since they can change
- Never underestimate the time it takes to study and prepare
  - You now have a full time job and potentially a family life you've neglected for the past several years while in school
- Review courses are highly recommended and are available for the oral and written tests



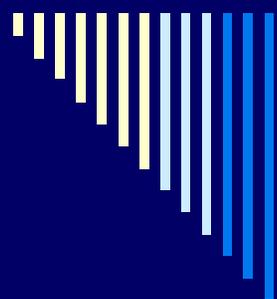
# Professional Involvement

- Look for committees that you can contribute to
- Participating in a committee is a great way to meet other physicists, contribute to the profession, and broaden your skill set
- Don't forget about the other societies; ASTRO, ACMP, ACR, ABR, SNM, etc.



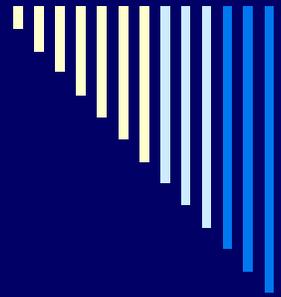
## In Summary

- ❑ Be thorough in your job search
- ❑ Be engaged in the interview process
- ❑ Be respectful upon arrival
- ❑ Don't assume that landing a job is the end of the process
- ❑ Your job is only the beginning of your independent work towards certification



## In Summary

- Interact with your colleagues at work; physics and non-physics
- Start preparing for board certification early
- Don't limit your duties to only those assigned to you
  - If your routine duties don't include some aspects of physics, ask to be involved enough to gain an understanding



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## In Summary

Have fun... If it's fun, it's not work

Right?

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