On Tenure

Opening Thoughts

- **Not** about obtaining tenure
- It is about
  - Becoming a dynamic faculty member
  - Making a significant impact
- My advice
  - Focus on impact
  - Tenure will work itself out
  - Don't worry about it

Opening Thoughts

- Okay
- Enough of the platitudes
- Now I will tell you how to get tenure

Building a Research Program

- **Scholarship**
  - Find out what the requirements are and make sure you are within them
  - While there is **no substitute** for high quality scholarship, all of your publications will not be at the same level
  - Balance between *highly respected and second tier journals*
  - Stay away from journals that lack the respect of your colleagues

Building a Research Program

- **Scholarship**
  - Submit a list of suggested reviewers with every paper (reviewers that you know, and know you)
  - Use conferences and conference publications as a testing ground for new ideas
    - Use the preliminary program to determine what papers you will attend
    - Use the remaining time to network
    - Use the conference to generate new ideas for *your* own work
  - Learn to write and write well
    - You may need to *sit in* a writing course

Building a Research Program

- **Know the cognizant program managers in all agencies related to your success**
  - NSF hit rates are **below 10%**
    - If your research program **only** consists of NSF submittals, you are swimming up hill
  - Attend the pertinent conferences that these program managers attend, and let them know what you are doing
  - Be willing to *reinvent* yourself
    - Take what you *know* and apply it to other areas
    - Stay ahead of the curve
    - Investigate new areas
    - Talk to people outside of your research area

Building a Research Program

- **Future research will be *platform* or *application* specific**
  - Energy related research
    - environmental issues, resilience, sustainability
    - renewable energy, energy storage, smart grid
  - High Performance Computing
    - turbulence, combustion, astrophysics, geosciences
    - genomics, molecular dynamics, imaging, biomedicine
    - transportation, homeland security
  - Interdisciplinary Materials Research
    - biomaterials, photonic-based systems
    - materials exhibiting self-repair, diagnosis, and replication
  - Interdisciplinary Systems
    - biologically inspired systems, smart/intelligent systems
  - **Think about how to leverage industrial related work**

Building a Research Program

- **Building a strong reputation**
  - People **must** know you
  - No reputation is worse than a controversial one
    - The easiest way to become known is to work for it
      - Join a societal technical committee related to your research area and *volunteer* for something
      - Ask successful people if they need help and help them!
  - Spend at least **one** summer somewhere else (e.g., national labs, other universities, etc.)
  - Use your **local** network to give invited talks

Students

- **Students are extremely important to your success**
  - Interview potential students
    - Go beyond their undergrad university and GRE
    - Make sure their research interests truly fit your own
      - Ask questions
      - "What have you done that highlights your interests?"
  - Develop students from the undergrad level
  - Use faculty contacts at other universities
  - Look for the *fire in the belly*

Teaching

- Teaching is important but it is **binary**
  - Teaching is the **one** common thing
  - If you are exceptional in teaching, it helps
  - If you are a poor teacher, it hurts
  - Good teaching creates good students at all levels
  - Try to fuse your teaching and research
    - You learn best by teaching!
    - Develop or teach courses in your research area
    - Bring research examples into the class
    - Hire undergrads to build demonstrations or simulations for classes at all levels

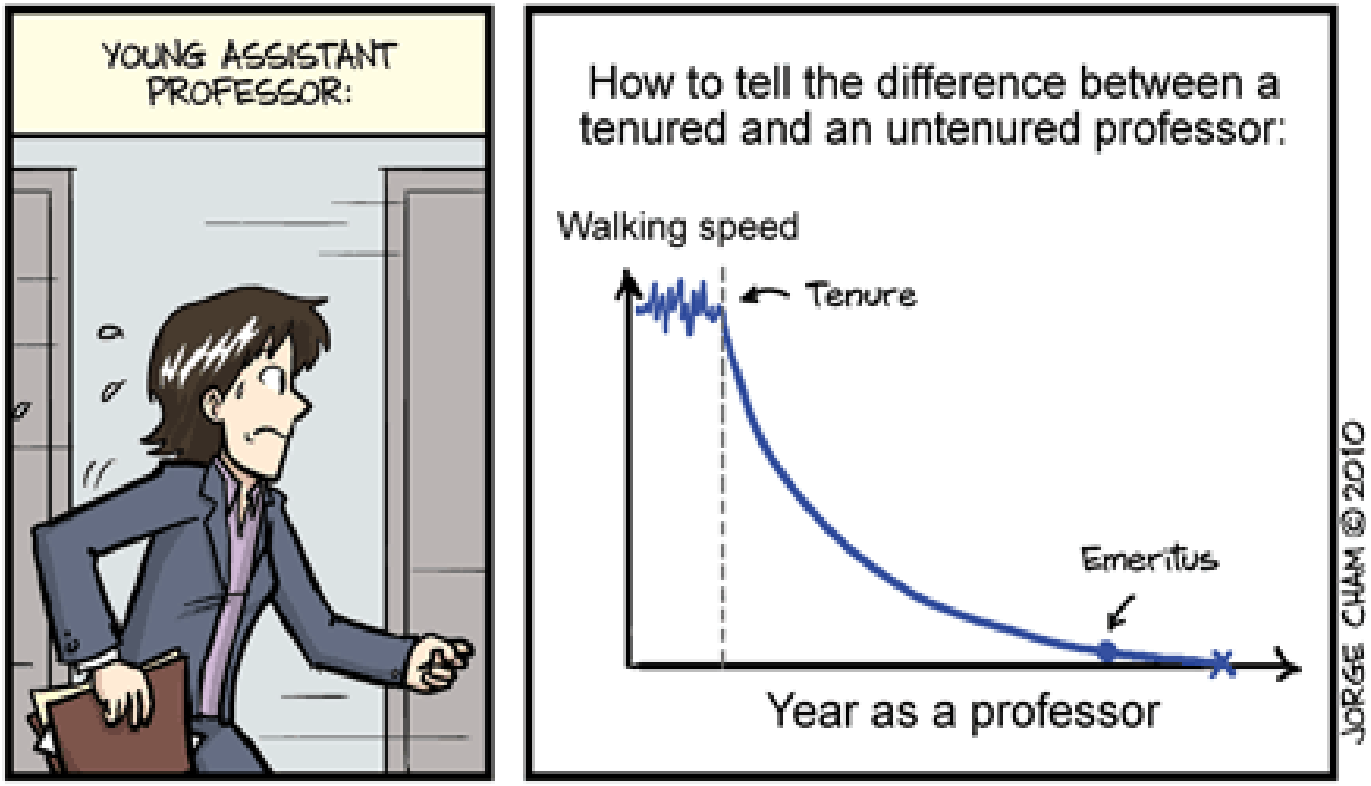
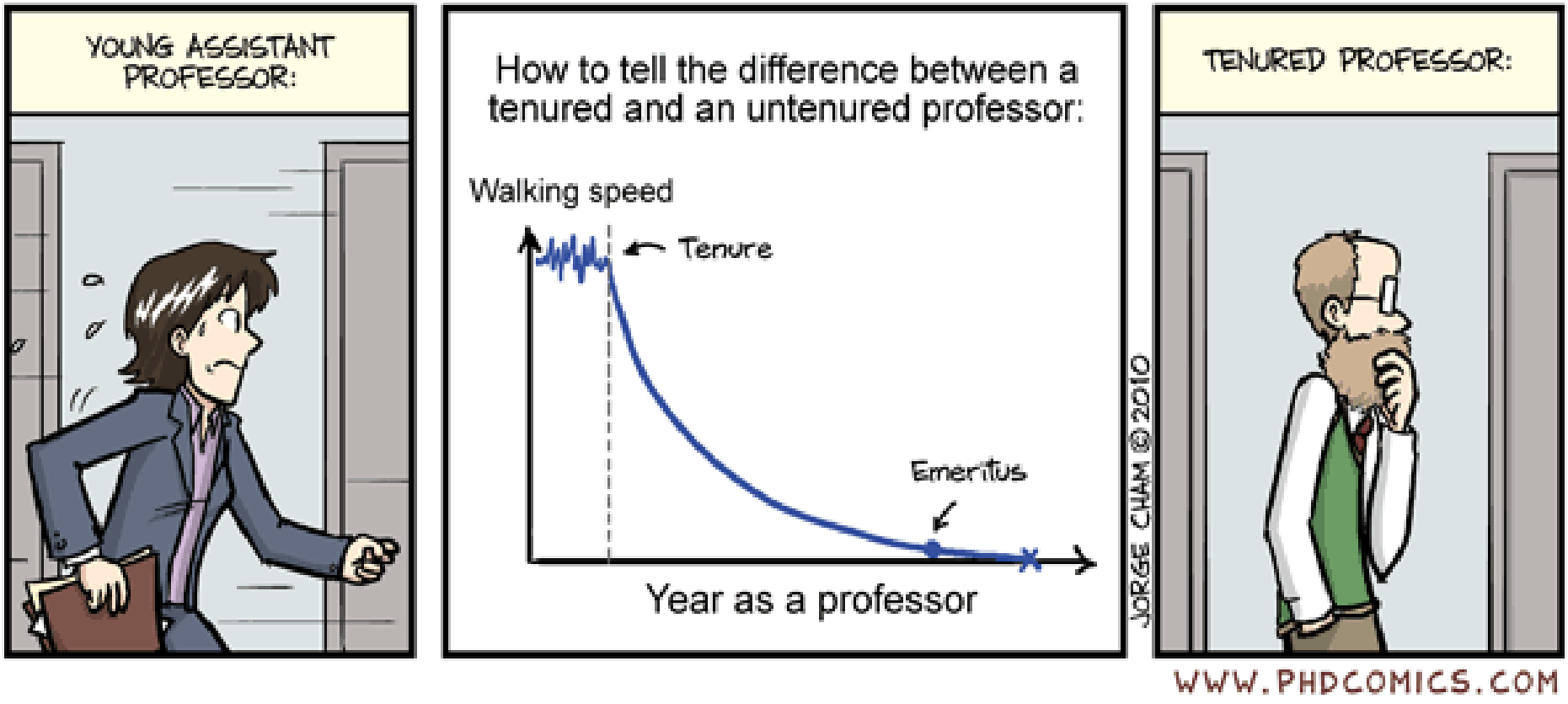
Final Thoughts

- Develop 5 ways to **respectfully** say NO
- If you are doing what you are supposed to do,
  - you are successful, and
  - you are having problems,
  - tell Noel - we will work on solutions
- Find good mentors and use them
  - Your best mentors are close by
  - **But** you should have mentors from all walks of life
- Utilize the wealth of the people that you have around you

Behind the Curtain: *A Typical TPR Discussion*

***Question**: Do untenured faculty walk faster than other faculty?*

Here Is What the Study Revealed



Later You Will Be Able to Relax & Walk More Slowly