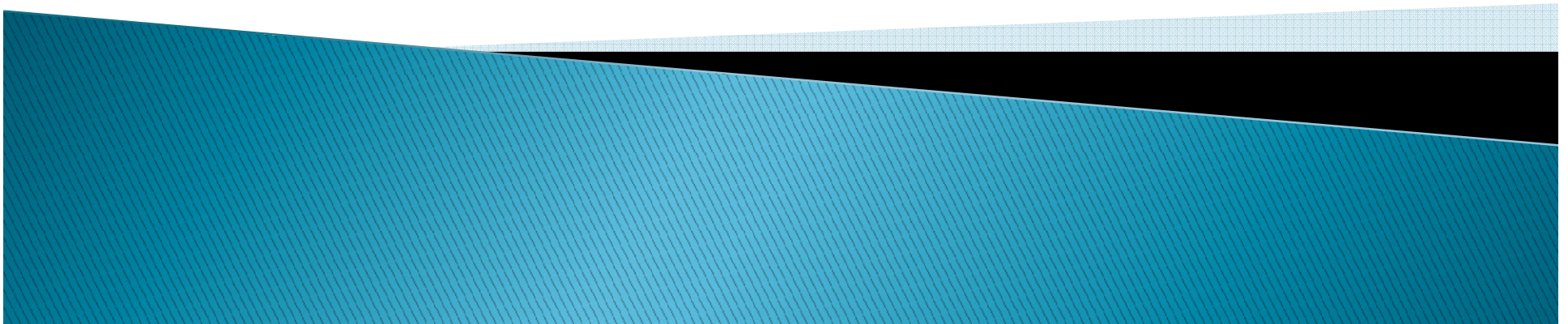


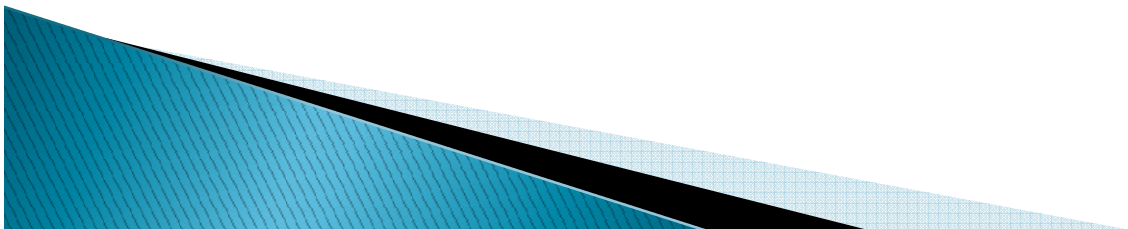
Graduate school for me?

Nayda G. Santiago, PhD, PE, Associate Professor
Electrical and Computer Engineering Department
University of Puerto Rico, Mayaguez Campus
Femprof Program, September 11, 2008



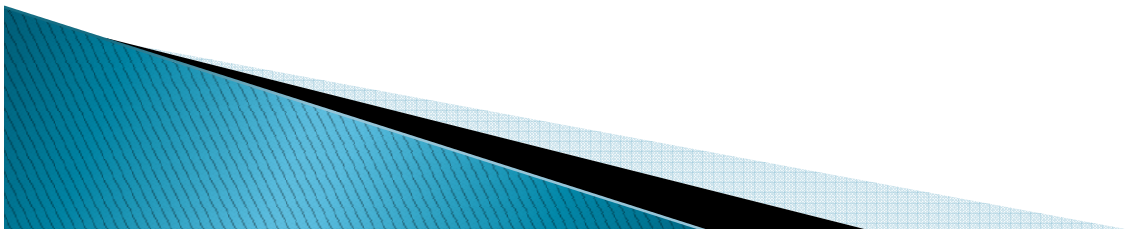
Objective

- ▶ Convince students that graduate school is a good option for their career
- ▶ Let them know there is funding
- ▶ Promote planning for a successful application
- ▶ Remove from their mind fallacies and misunderstandings about graduate school
- ▶ Understand the admission process to increase chances of getting into graduate school.



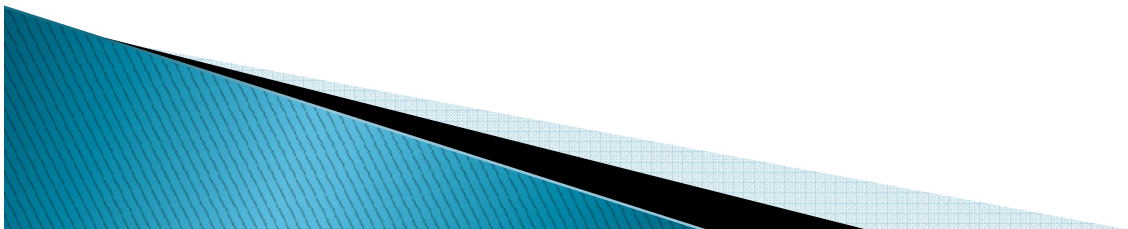
You should go to grad school if...

- ▶ If you find yourself thinking: “A bachelors degree just isn’t enough anymore;” then you might want to consider your options for graduate school.
- ▶ Grad school can enable you to get a job that utilizes the advanced skills that only a person with added years of expertise has.
- ▶ Salary.



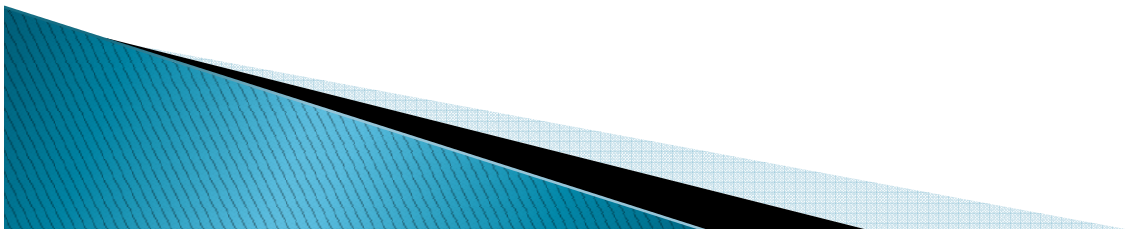
Advantages of Graduate School

- ▶ You expand your knowledge, acquire new skills, and round out your undergraduate education.
- ▶ You acquire an increased clarity in career direction.
- ▶ You will have more satisfaction with work and accomplishments because you get more interesting work to do.
- ▶ You will share an increased responsibility in job assignment.
- ▶ Graduate education will equip you to do a larger variety of jobs.



Things to consider first

- ▶ Do I really love the field enough to obtain an advanced degree?
- ▶ Is an advanced degree required to enter a particular profession or obtain a certain level within the field?
- ▶ Do I have the financial resources to cover the cost of graduate school?
- ▶ Am I burned out academically and do I need to take some time off?
- ▶ Am I postponing some tough decisions by going to graduate school?
- ▶ Do I have the personal qualities and skills that are needed to be successful in graduate school?



Do you have?

▶ Initiative

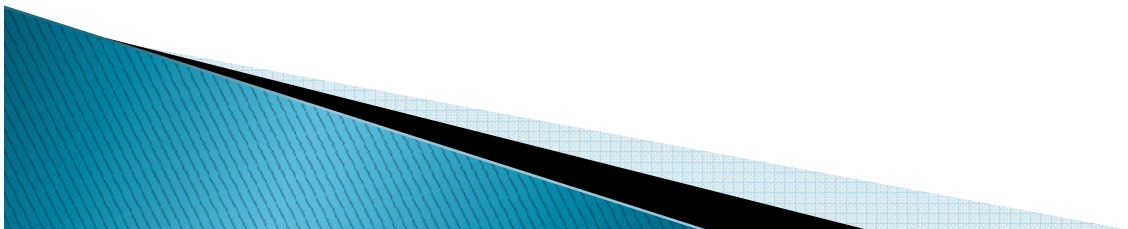
- *"The difference between people who exercise initiative and those who don't is literally the difference between night and day. I'm not talking about a 25 to 50 percent difference in effectiveness; I'm talking about a 5000-plus percent difference, particularly if they are smart, aware, and sensitive to others."*
– Stephen R. Covey, *The 7 Habits of Highly Effective People*

▶ Tenacity

- *"Let me tell you the secret that has led me to my goal. My strength lies solely in my tenacity."*
– Louis Pasteur

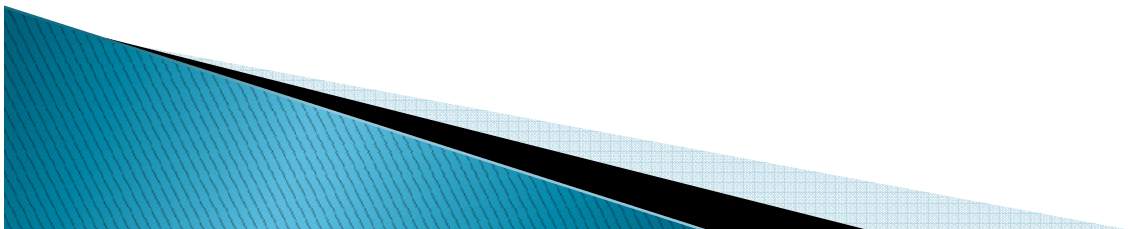
▶ Flexibility

- *"The Chinese call luck opportunity and they say it knocks every day on your door. Some people hear it; some do not. It's not enough to hear opportunity knock. You must let him in, greet him, make friends and work together."*
– Bernard Gittelson



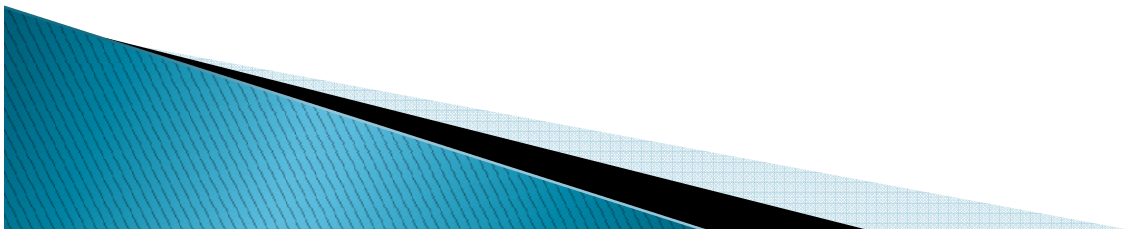
Do you have?

- ▶ Interpersonal Skills
 - *"I can calculate the motions of the heavenly bodies, but not the madness of people."*
– Isaac Newton
- ▶ Organizational Skills
 - *"Failing to plan is planning to fail."* – Alan Lakein
- ▶ Communication Skills
 - *"What is written without effort is, in general, read without pleasure."*
– Samuel Johnson
- ▶ Balance and perspective
 - *"Life goes by so fast, that if you don't stop and look around, you might miss it."*
– from the film *Ferris Bueller's Day Off*



Graduate Student Skills

- ▶ **WORK**
Develop a sense of urgency and the habit of working hard at solving problems. Execute a project, master the difficulties, debug your theory.
- ▶ **THINK**
Understand, explain, and interpret your results.
- ▶ **READ**
Investigate your area.
- ▶ **WRITE**
Write concise and focussed technical papers.



Graduate Students Skills

- ▶ **SPEAK**

Discuss your ongoing research with peers, and colleagues.

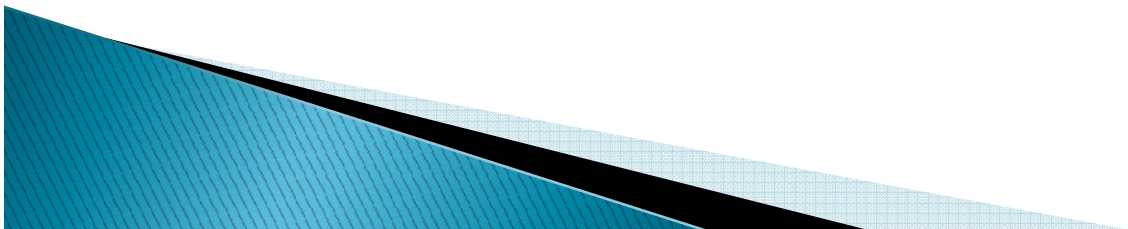
- ▶ **MANAGE**

Time: Develop a sense of how long any specific task will take you to execute.

People: Develop successful working relationships with the people you work with.

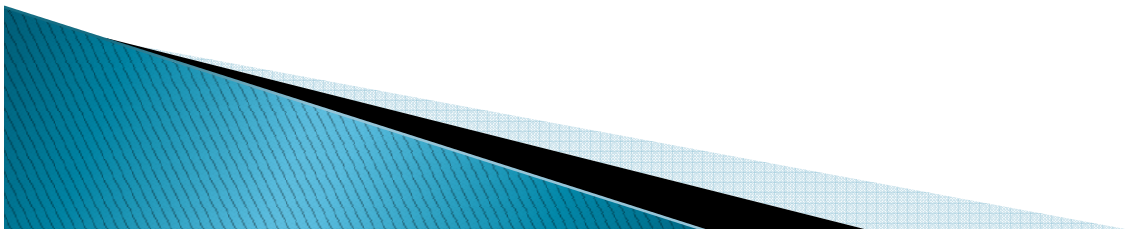
- ▶ **CONTEMPLATE**

Become a generator of research ideas.



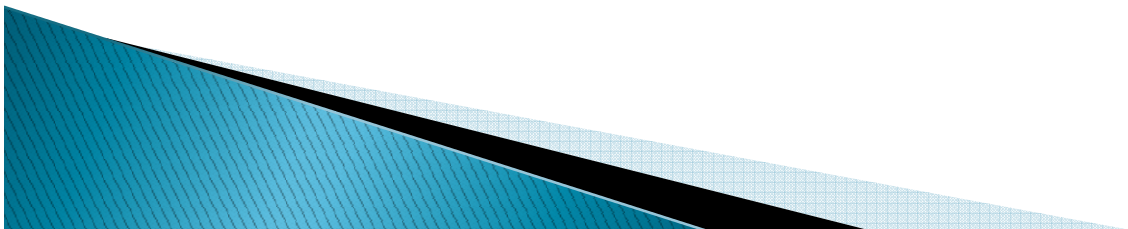
Master's or Doctorate?

- ▶ They are quite different. Which is the one for you?
- ▶ Most graduate students work toward a master's degree
- ▶ Many master's candidates are in professional programs, preparing for a special kind of work, such as the Master of Engineering. Master of Science?
 - ME – industry
 - MS – research
- ▶ Master's degrees generally take **much less time** than a Doctorate
- ▶ One benefit of a master's degree is that it can enable you to change directions completely. You can make a new start and begin a different career.



Doctoral degree

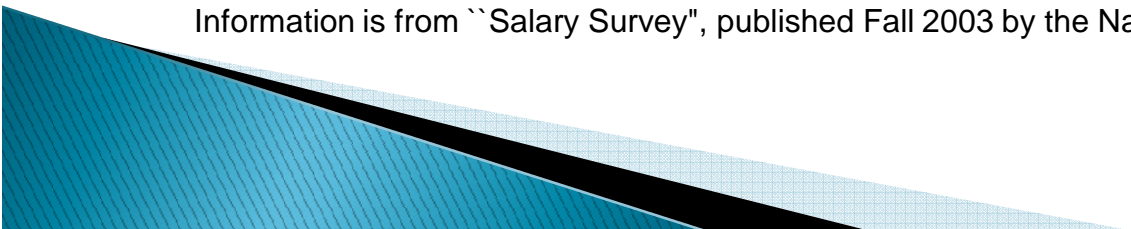
- ▶ Doctoral degrees are the **highest** degrees attainable.
- ▶ In some professions a Ph.D. or some other doctoral degree is your entry card. It is a requirement for almost every college professor. But keep in mind that **about half** the people who have doctoral degrees find interesting, well-paying work away from college teaching.
- ▶ For this degree you will need to work **independently** and to take the **initiative** for your research.
- ▶ The requirements for a doctorate are not as specific as for a master's. You have a much **wider choice** of course work.
- ▶ However, this degree takes much more time than a master's



Average Salaries

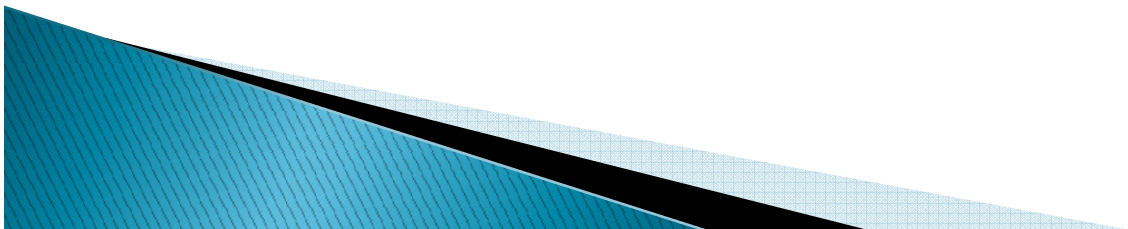
| | Bachelors | Masters | PhD |
|------------------------|-----------------|-----------------|-----------------|
| Computer Science/Eng | \$47,109 | \$61,905 | \$84,033 |
| Electrical Engineering | \$49,749 | \$64,188 | \$79,383 |

Information is from "Salary Survey", published Fall 2003 by the National Association of Colleges and Employers



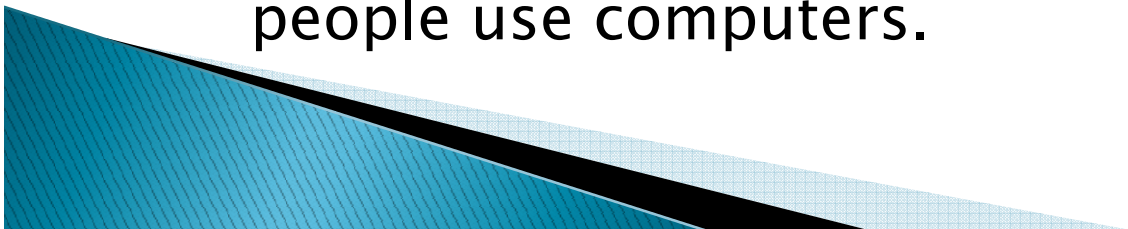
Before starting a PhD you must realize that a PhD is not:

- ▶ Prestigious in itself.
 - All my friends have a PhD.
- ▶ A goal in itself.
 - All that counts is amount of research done.
- ▶ A way to impress my friends and family.
 - If they love you they will be proud no matter what you do.
- ▶ Something to try out to test how smart you are.
 - No commitment → you will fail.
- ▶ The only research topic you will ever pursue.
 - New facts are discovered. Questions change.



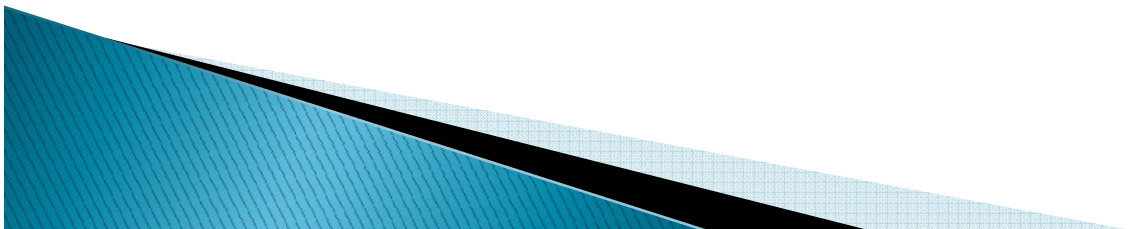
But...

- ▶ A research career can bring rewards unequaled in any other profession.
 - You will meet and work with some of the brightest people on the planet.
 - You will reach for ideas beyond your grasp, and in so doing extend your intellectual capabilities.
 - You will solve problems that have not been solved before.
 - You will explore concepts that have not been explored.
 - You will uncover principles that change the way people use computers.



The joy of research

- ▶ “A colleague summed up the way many researchers feel about their profession. When asked why he spent so many hours in the lab, he noted that the alternatives were to go home, where he would do the same things that millions of others were doing, or to work in his lab, where he could discover things that no other human had ever discovered. The smile on his face told the story: for him, working on research was sheer joy.”

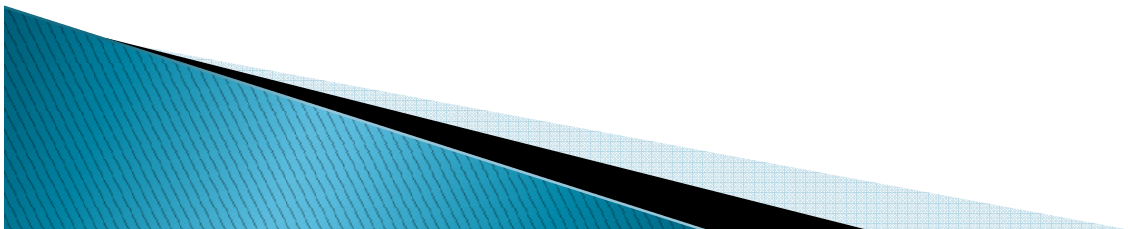


How do I get there?



Understand the Admissions Process

- ▶ Admissions processes vary by institution
- ▶ Admissions committees typically base their decisions on the following factors:
 - Statement of purpose
 - Letters of recommendation
 - Standardized Test Scores (GRE)
 - TOEFL (international students)
 - Grade Point Average (GPA)
 - Transcripts
 - Previous work experience
 - Research experience (REU & SRO)
 - Curricular activities
 - Resume/Curriculum Vitae (CV)

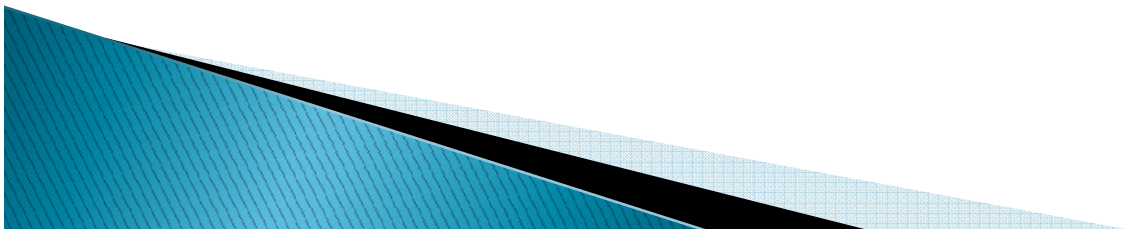
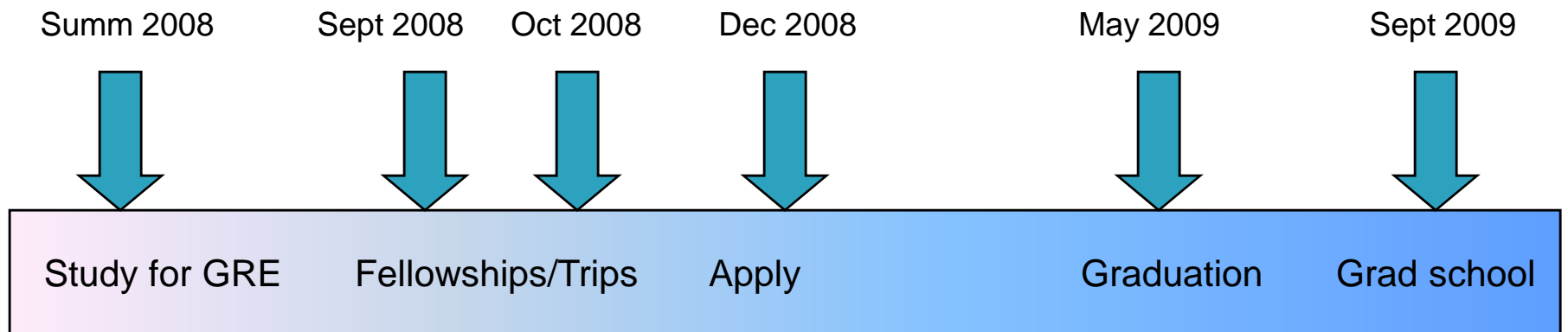


Application Process

- ▶ Begin your research on where you'd like to apply
- ▶ Take standardized tests
- ▶ Write and revise statement of purpose and applications
- ▶ Research financial aid sources, fellowships, and assistantships
- ▶ Request recommendations from faculty members
- ▶ Order official transcripts from Registrars Office
- ▶ Mail applications and apply for scholarships, grants, and assistantships
- ▶ Schedule interviews
- ▶ Discuss acceptances, rejections and other career options with a faculty member or a member of your college's career services office. Make the decision that's best for you.

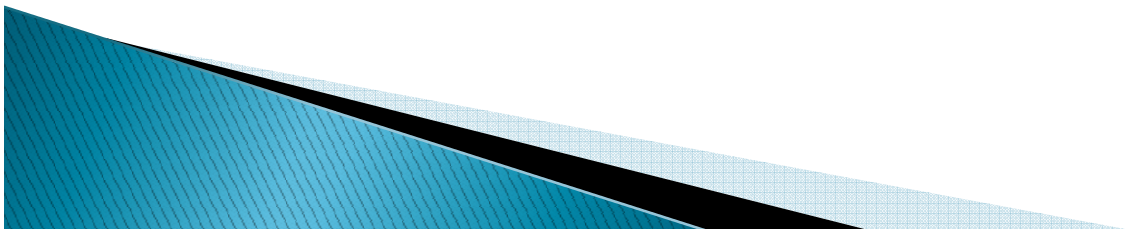


When?



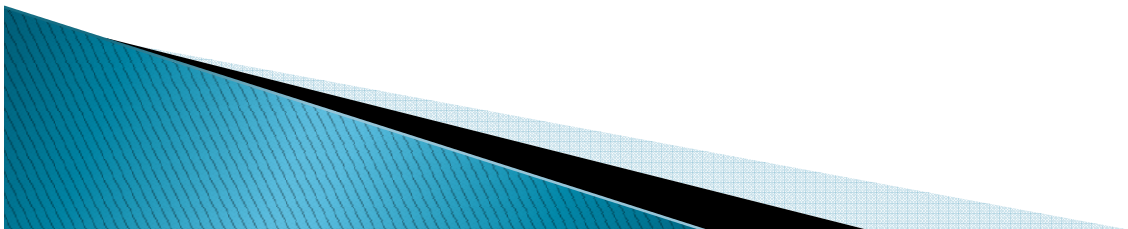
Common ?'s about Grad School

- ▶ What is GRE/TOEFL and who should take these exams?
 - These are entrance exams similar to the standardized tests, like the “College Board”, that you all took before coming to college.
 - Anyone considering attending Graduate School should take these exams.
 - Schedule the exam 12–18 months before you intend to start graduate school
 - www.gre.org, www.ets.org
- ▶ How can I get the application materials?
 - You can either send email or call the specific admission offices of the universities or the colleges that you are planning to apply to request application packages.
 - Online applications



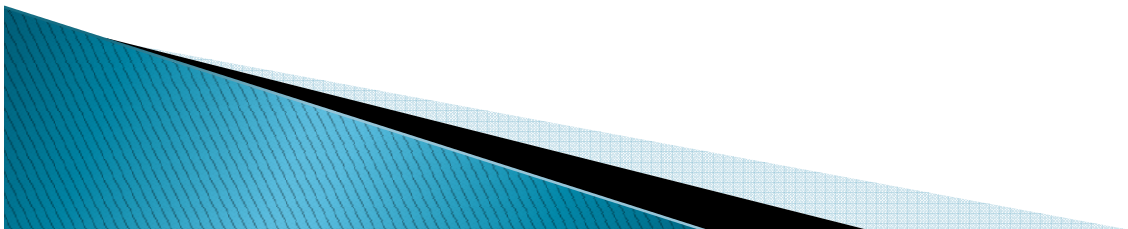
How can I set my application apart from the others?

- ▶ Your essay must express yourself in a way that will allow the Admission Committee to understand you better.
- ▶ Try to characterize yourself as someone special or unique.
- ▶ Convey interest in the college's academic programs.
- ▶ Let your parents, teacher or counselor critique your essays.
- ▶ Your final essay should convey your thoughts concisely, be neatly written or typed and be grammatically correct.



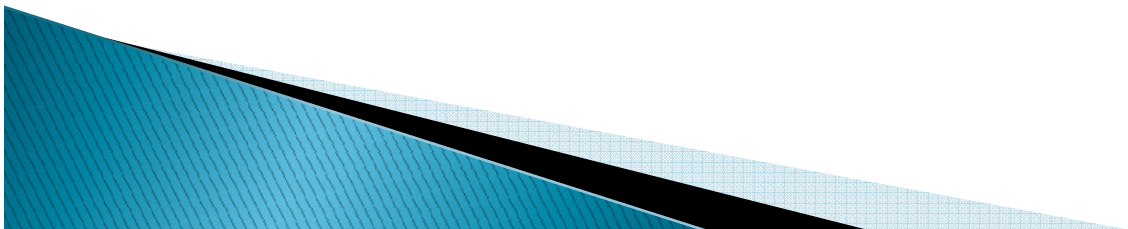
Write your Statement of Purpose

- ▶ Write a one or two page statement:
 - What are your specific goals for graduate study?
 - How have you been prepared academically?
 - What experience has helped you prepare?
 - What are your goals beyond graduate study?
 - Answer specific questions required by each school
- ▶ Tips:
 - Demonstrate your points by providing concrete examples
 - Be positive
 - Have your statement reviewed by faculty



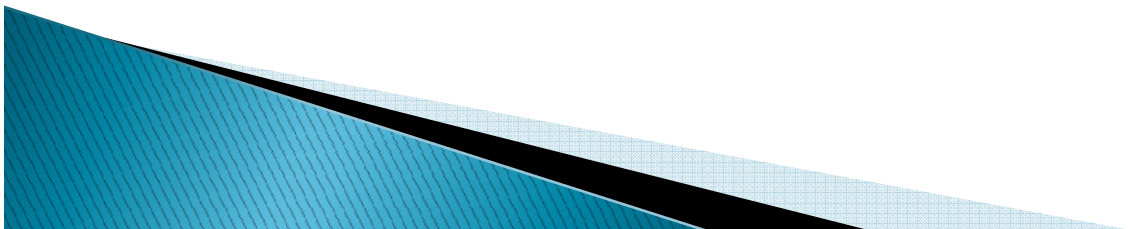
Do I need any recommendation letters?

- ▶ Yes, you usually need three.
- ▶ Make certain that the teachers from whom you requested letters have submitted these forms at least three weeks before the application deadline.
- ▶ Pick teachers who know you and will take the time to write a **meaningful assessment** of your performance.
- ▶ You should provide your teachers with an addressed and stamped envelope with the recommendation form.



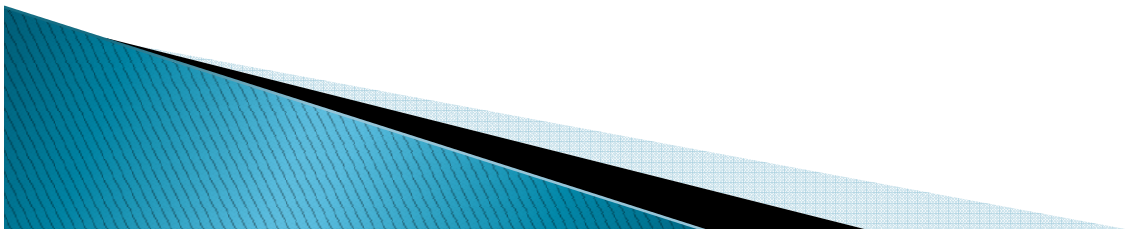
Order Transcripts & Test Scores

- ▶ Order transcripts from your current school early, so that they will be received near the same time as your application
- ▶ Check to see if transcripts can be mailed immediately after fall term grades are recorded
- ▶ Order test scores to be sent to each school (if you did not do so at the time of the exam)



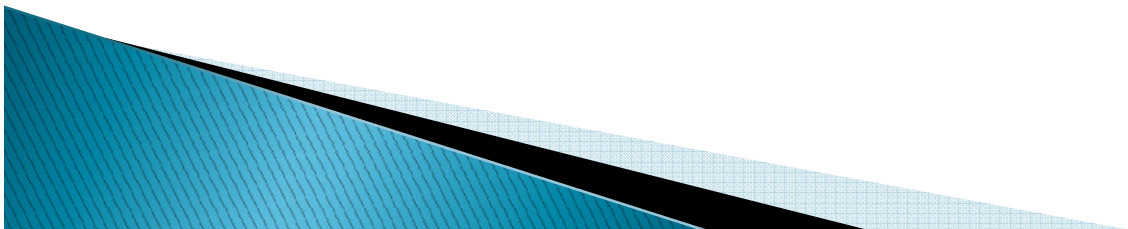
How to pay for Graduate School

- Acquire catalogs from each of the schools you are considering. Read each financial aid section, pay close attention to the financial aid forms needed, and underline important deadlines.
- Write to your prospective graduate department directly to inquire about the scholarships, fellowships, or assistantships they administer.
- Talk with career services staff on your campus or your department faculty to see if anyone from last year's class is attending the institution of your choice. Call or write those students and ask them how they are paying for school.
- Loans: **Subsidized(Recommended)** and **Un-Subsidized(Stay Away unless absolutely necessary)**.
- Work!



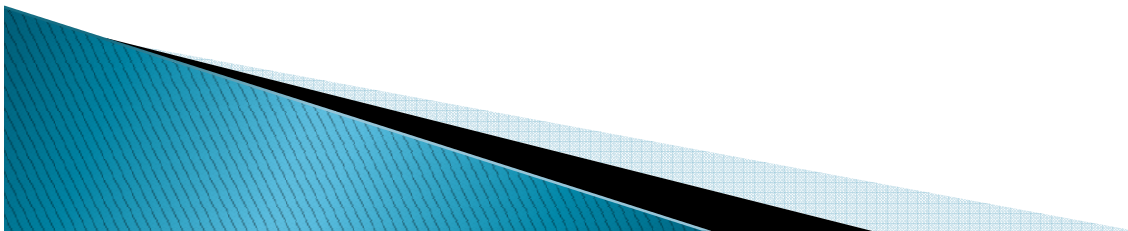
How to pay for graduate school (cont.)?

- ▶ Types of aid
 - Teaching assistantship
 - Teach a course
 - Grade for faculty
 - Research assistantship
 - Work on research
 - Usually pay tuition and a stipend



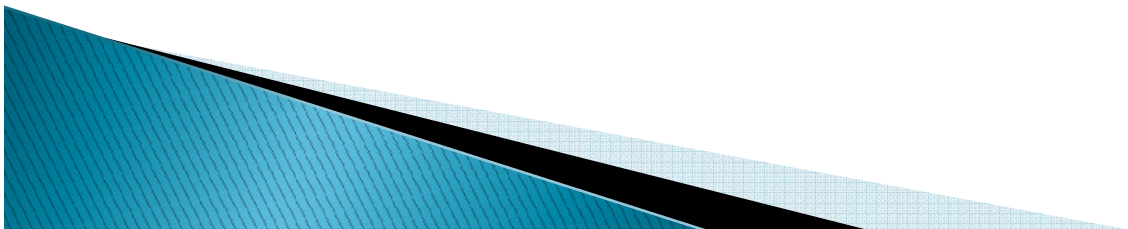
Evaluating Graduate Schools

- ▶ What to consider when applying:
 - Admission Requirements
 - Curriculum
 - Reputation/Quality of Program
 - Faculty
 - Location/Size
 - Cost/Financial Aid



Arrange Campus Visits

- ▶ Make appointments to meet with faculty and/or the admissions office
- ▶ Some schools may be able to pay your travel expenses
- ▶ Gather information about the community and housing options



Where Do I Apply (US News 2008 – Best grad schools CS)

- 1. Massachusetts Institute of Technology*
- 1. Stanford University*
- 1. U. of California–Berkeley*
- 4. Carnegie Mellon University*
- 5. U. of Illinois–Urbana–Champaign*
- 6. Cornell*
- 6. Princeton University*
- 6. U. of Washington*
- 9. Georgia Institute of Technology*
- 9. U. of Texas – Austin*
- 11. California Tech*
- 11. U. of Wisconsin – Madison*
- 13. University of California, Los Angeles*
- 13. University of Maryland, College Park*
- 14. University of Michigan, Ann Arbor*
- 16. Columbia University*
- 16. Harvard University*
- 16. University of California – San Diego*
19. Purdue University – West Lafayette
20. Brown University
20. Duke University
20. Rice University
20. University of Massachusetts – Amherst
20. University of North Carolina – Chapel Hill
20. University of Pennsylvania

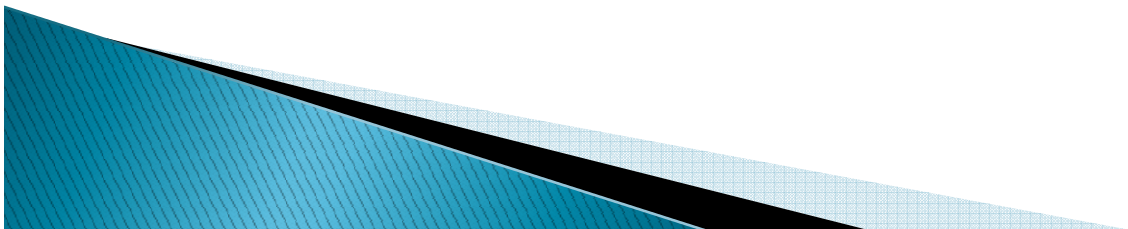
Useful Websites

- ▶ **www.gradschools.com**

- an excellent starting point for graduate school information on the Internet covering over **23,000 graduate programs** around the world

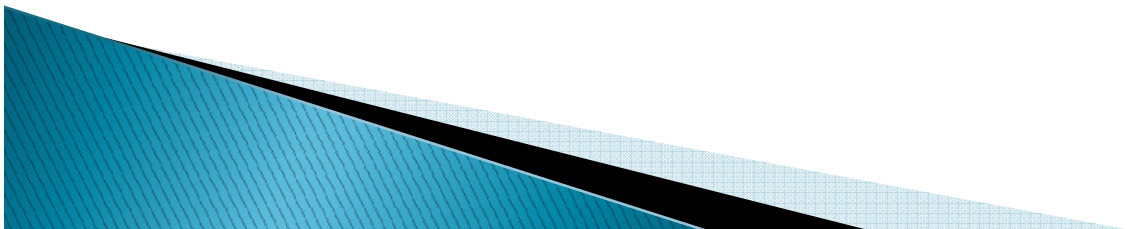
- ▶ **www.petersons.com**

- contains information on graduate school and other topics, including Careers and Jobs, Financial Aid, and Testing



Exercise

- ▶ Find a program to apply to
- ▶ Write Statement of Purpose
 - Describe yourself
- ▶ Fill application form



??????????

▶ QUESTIONS???????

