
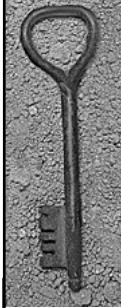


# Grad School Challenges Specific to Minorities

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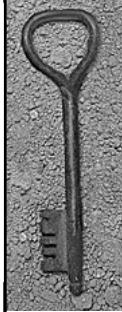
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## Graduate School

- ◆ It's unlike anything else; *unstructured*.
- ◆ Is not for everyone.
  - Independent work – Initiative!!!
  - Lots of reading
  - Commitment; (not finding a job is not a reason to go to grad school)

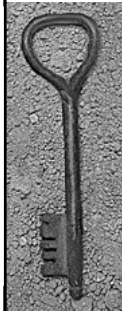
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## Goal and Objective

- ◆ Your goal is to graduate
- ◆ Need *unique* (interesting) *thesis topic*
- ◆ To graduate,
  - Choose the right advisor
  - Be a good researcher;
    - (READ, READ, READ!)<sup>7</sup>, understand.
    - Organized: keep journal, file of papers
  - Stay motivated
  - Show initiative in research ideas

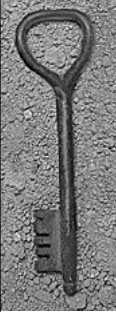
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## Choosing the *Right Advisor* \*

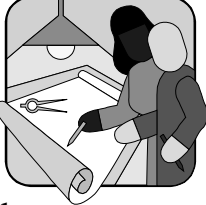
- ◆ **Advisor is the most important person for your MS or PhD!**
- ◆ Area of research, fame, good school?
- ◆ Interview advisor,
  - ask about average time to graduate, your special circumstances like family.
- ◆ Talk to his/her current grad students
  - Ask about failure rate, relations, support
- ◆ You should get along and trust advisor.

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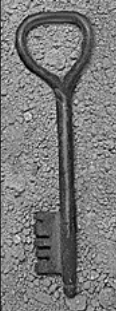


## Today's Situation in Grad School

- ◆ In Engineering Schools Hispanic graduates comprise *less than 10% of the students!*
  - Discrimination
  - Harassment
  - Isolation
  - Lack of support
- ◆ Yes, you'll be different, so?
  - *Con:* Have to work twice as good
  - *Pro:* Your face will be easy to remember





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## Discrimination: ...Breaking the stereotypes

- ◆ Both races are sometimes in fault.
- ◆ Create awareness, in a polite way (jokes?)
- ◆ Don't leave the Discrimination Radar *ON*
- ◆ Mingle; football, golf, parties ...
- ◆ Appearances **ARE** important
  - dress up appropriately for work and research


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**Modus Operandi + Intelligence = Ph.D.**

- ◆ People skills
- ◆ Networking is important
- ◆ Network with supporting societies
  - (e.g. SHPE)
- ◆ Get to work,
  - be disciplined , make a schedule
- ◆ Set time for recreation too!

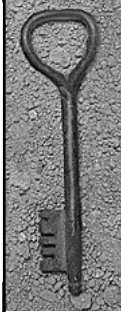
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**Family Priorities;  
for couples studying together**

- ◆ Make sure spouse understands children are responsibility of both, that your work should also be a priority for him.
- ◆ Two cases to avoid:
  - Non-cooperative husband
  - “Self-slaved” wife (yes, it happens)

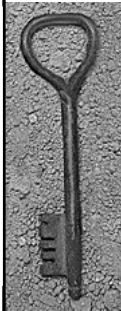
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## Grad school

- ◆ Don't give up!
  - At some point everybody thinks that “*they're not going to make it.*”
  - Keep the faith!
- ◆ In addition try to (specially in PhD),
  - Write journal papers
  - Attend conferences

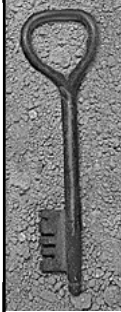
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## Thesis

- ◆ Start with the thesis proposal
  - This is required in many programs
  - Some also require candidacy and oral tests.
- ◆ Write a chapter at a time.
- ◆ Significant *content* is important.
- ◆ *Good writing* style is very important.

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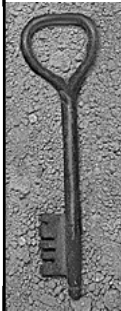


## Key factors for success

Success of underrepresented students in graduate school?

- ◆ Know how to play the game
- ◆ Integrate
- ◆ Married status helps
- ◆ Do a great job
- ◆ Be professional


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## Primary obstacles/challenges

- ◆ Segregation
- ◆ Hostility
- ◆ Unconscious stereotyping
- ◆ Harassment
- ◆ Having to show off
- ◆ & Work harder than anybody else

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## Elements to speed transition

What are the key elements that enhance their transition from graduate school into academia and/or industry ?

- ◆ Find mentor and role model
- ◆ Integrate to group
- ◆ Focus

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## What is the missing link?

Why aren't more underrepresented students pursuing and/or completing graduate degrees?

- Image
- Stereotypes of what an engineer should be or look like
- Hostility environment


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How do we work together to increase the numbers?

- ◆ Dissemination (talk at K-12 & Univ)
- ◆ Be a good role model
- ◆ Tell them "how to play the game"

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Summary

- ◆ Choose the Right Advisor.
- ◆ Keep a positive attitude. Make friends
  - (these will be your future collaborators)
- ◆ Be strong and don't let others bring you down with discrimination comments, etc.
  
- ◆ Work together with spouse to set goal straight.
- ◆ Be a leader, take Initiative to do good research
- ◆ Read a lot of papers (ask your advisor)
- ◆ Organize, work efficiently
  
- ◆ Set time to relief stress with entertainment
- ◆ Don't give up!

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