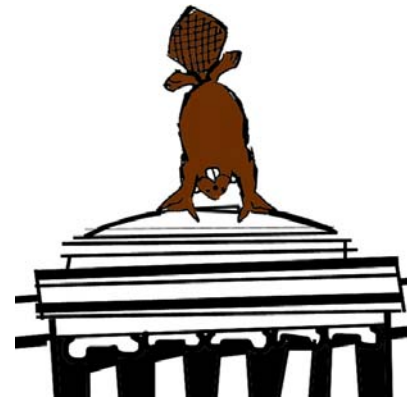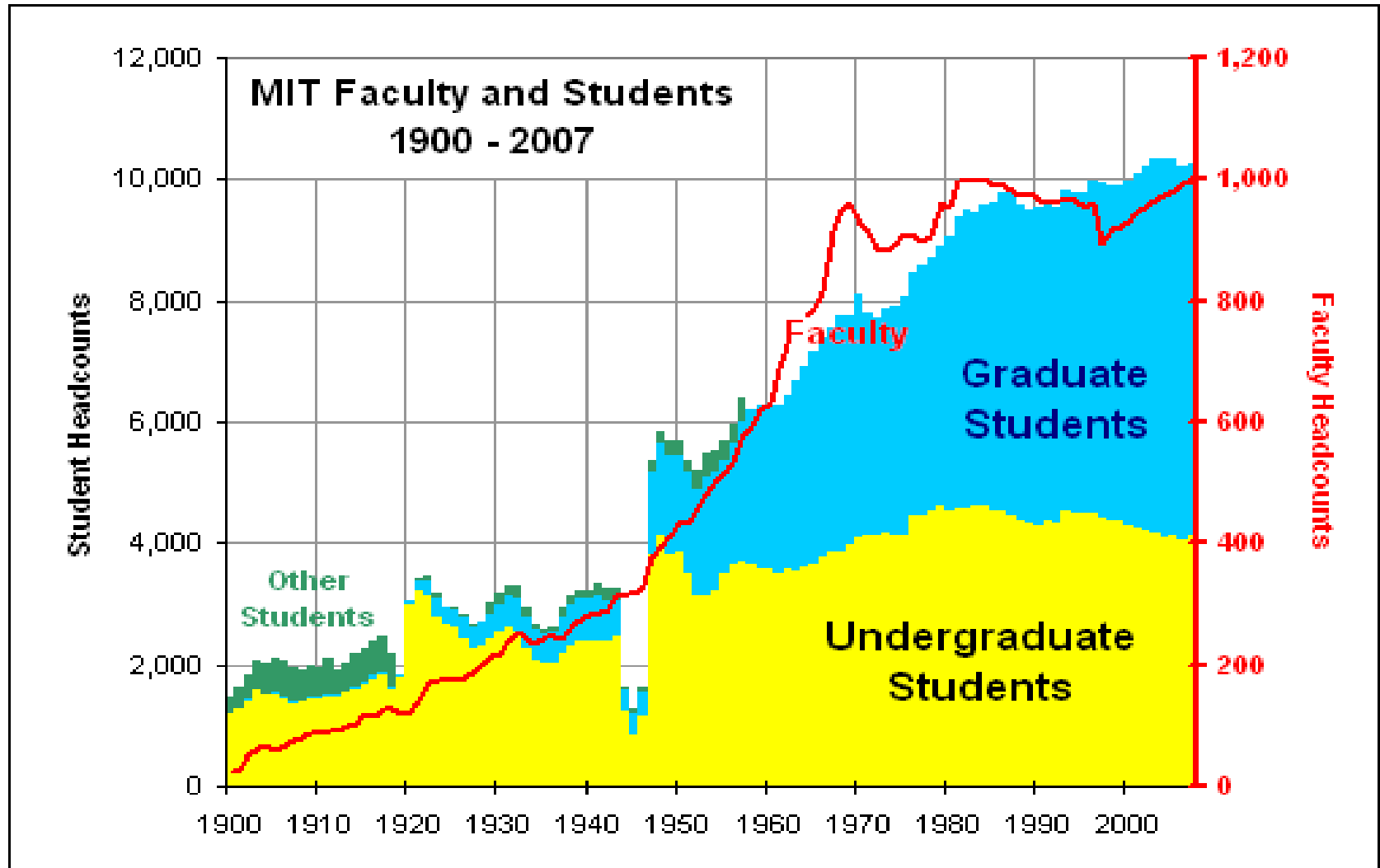# A Model for Graduate Student Development

MIT Graduate Student Perspectives
New Graduate Student Orientation 2007

MIT Graduate Student Population

MIT Faculty and Students
1900 - 2007

Graduate Students

Faculty

Other Students

Undergraduate Students

Student Headcounts

Faculty Headcounts

MIT Student Body Profile
(2006-2007)

Undergraduate 4,127
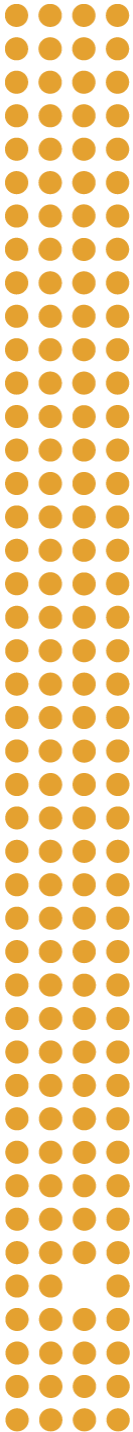
Graduate   6,126

Total   10,253

Undergraduate 44% female, 56% male

Graduate 30% female, 70% male, 35% International, 15%-40% married or partnered, 7-8 % have children

Percentage of students rating their ability in the top 10%

(compared to the average entering graduate student nationwide and at MIT)

Legend: Average graduate student nationwide · Average graduate student at MIT
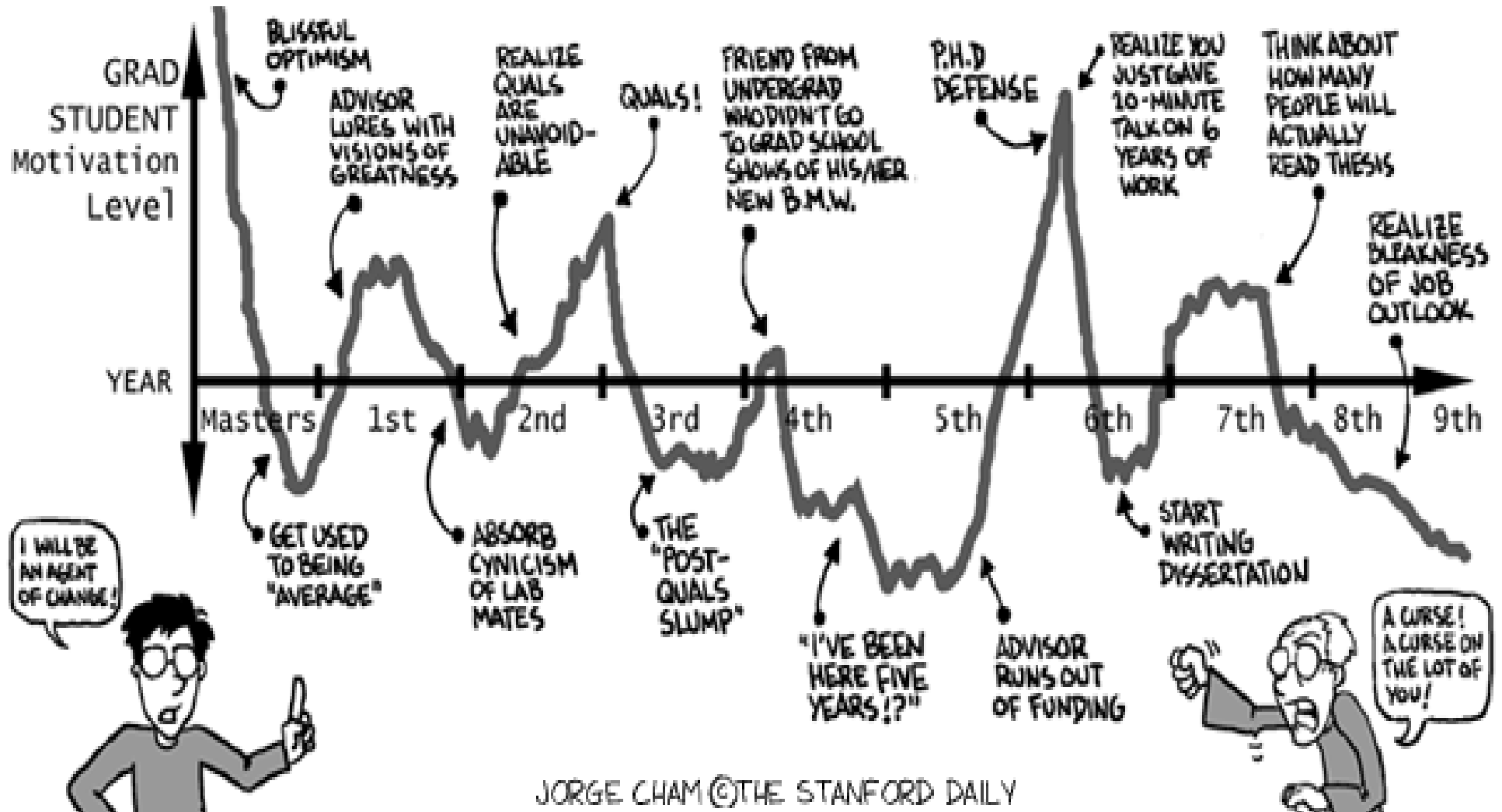
MIT CAREERS OFFICE
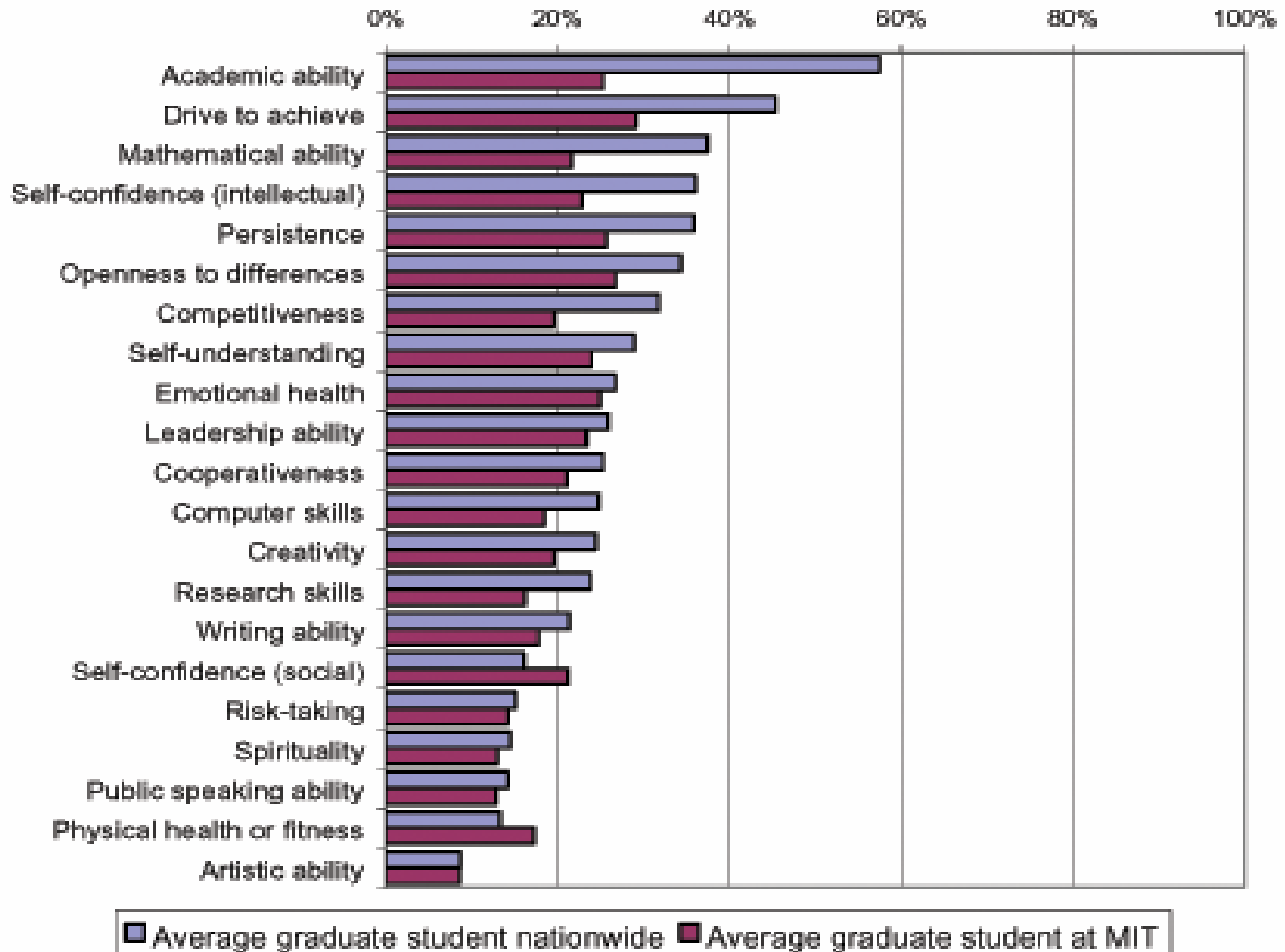
Goals for this Presentation

- Present a brief overview of a model for graduate student development.

- Discuss how this model informs the development of career development services and programs.

Graduate Student Motivational Level

JORGE CHAM ©THE STANFORD DAILY

Three Stage Model of Graduate Student Development*

1. Entry Stage

2. Engagement Stage

3. Exit Stage

This model illustrates some of the commonly encountered challenges facing graduate students.

* Adapted from Stewart, Donald W. (1995). Developmental Considerations in Counselling Graduate Students. *Guidance & Counseling*, 10, 3, 21-24.

Entry Stage (1st year, up to qualifying exams & thesis proposal)

Three Main Goals

1. Maintain motivation

2. Manage academic demands

3. Develop a clear sense of purpose & direction

"Is this what I really want to do & why am I doing this? Is this going to help me graduate?"

Entry Stage

Challenges (Characteristic Observations)

- Initial lack of direction. What courses to take?

- Increased isolation & decreased independence.

- Sense of inferiority & self doubt for the first time (everyone here is smarter than me).

- Intense scrutiny & competition.

- Decrease in personal autonomy due to increase in responsibilities and expectations.

- Financial dependence on advisors & feelings of being duty bound.

- What if I can't find an advisor?

- What if I am already committed to an advisor?

Entry Stage (continued)

- Need to balance work with increased social demands

- Feeling that others came in with more real world experience and skills.

- Loss of pre-graduate school professional self-esteem.

- Failure of qualifying exams viewed as an escape pod.

- Can't pull all-nighters like when you were an undergrad.

Additional Entry Stage Challenges for International Students

- **Culture Adjustment** (4 Common Adjustment Phases)
  - Euphoria
  - Culture Shock
  - Recovery
  - Autonomy

Quals
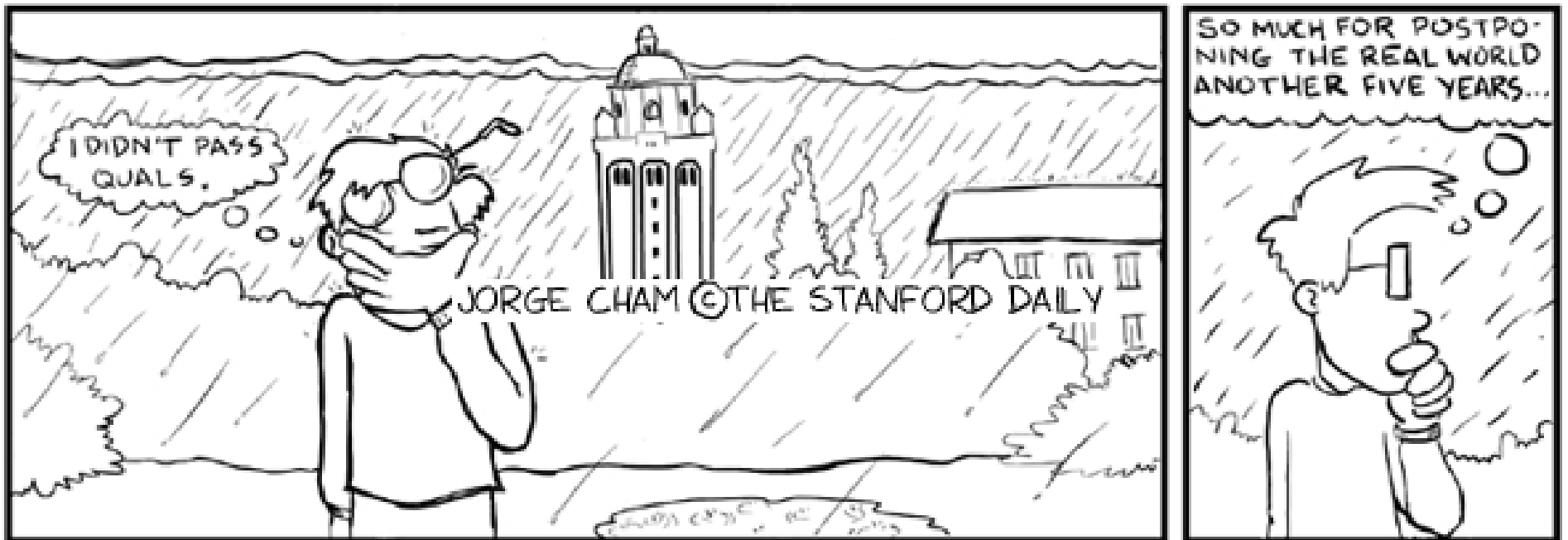
Engagement Stage (year 2-5)

Two Main Goals

1. Self preservation (primary focus)
2. Achievement (secondary focus)

Roles are established, responsibilities routinized, confidence restored.

"I'm in this for the long-haul."

Engagement Stage

Challenges (Characteristic Observations)

- Comfort can turn into complacency.
- Procrastination may emerge as a way of dealing with fear of failure (Imposter Complex).
- Sense that you are in a holding pattern.
- After passing qualifying exams you realize that you are in it for the long haul but still don't know why. Find peers who feel the same way.
- May discover new career goals, more options to think about.
- May become more involved in academic discipline through publishing, professional organizations, conferences, etc.
- May get more involved in extra-curriculars.
- Balancing outside life & faculty expectations.
- Faculty focus shifts to new advisees.
- No mentors.

Engagement Stage (continued)

- Need to transition into role of independent scholar/researcher. From consumer of knowledge to producer of knowledge.

- Need to manage parental/spousal expectations (when are you graduating?)

- Sense of self-preservation, managing advisor's expectations (publishing).

- Lack of milestones familiar to those not in the academy.

- Distrust among colleagues working on similar projects.

- Sense of being in a tunnel or box but with no light apparent at the end.

- Unhealthy patterns for survival in graduate school may become guiding principles in your life (i.e. poor sleeping or eating habits, mistrust of colleagues, etc.) affecting the student and their significant others.

Exit Stage

Two Main Goals

1. Disengagement

2. Reintegration

"I'm in the home stretch . . . . .I think."

Grad Student Etiquette
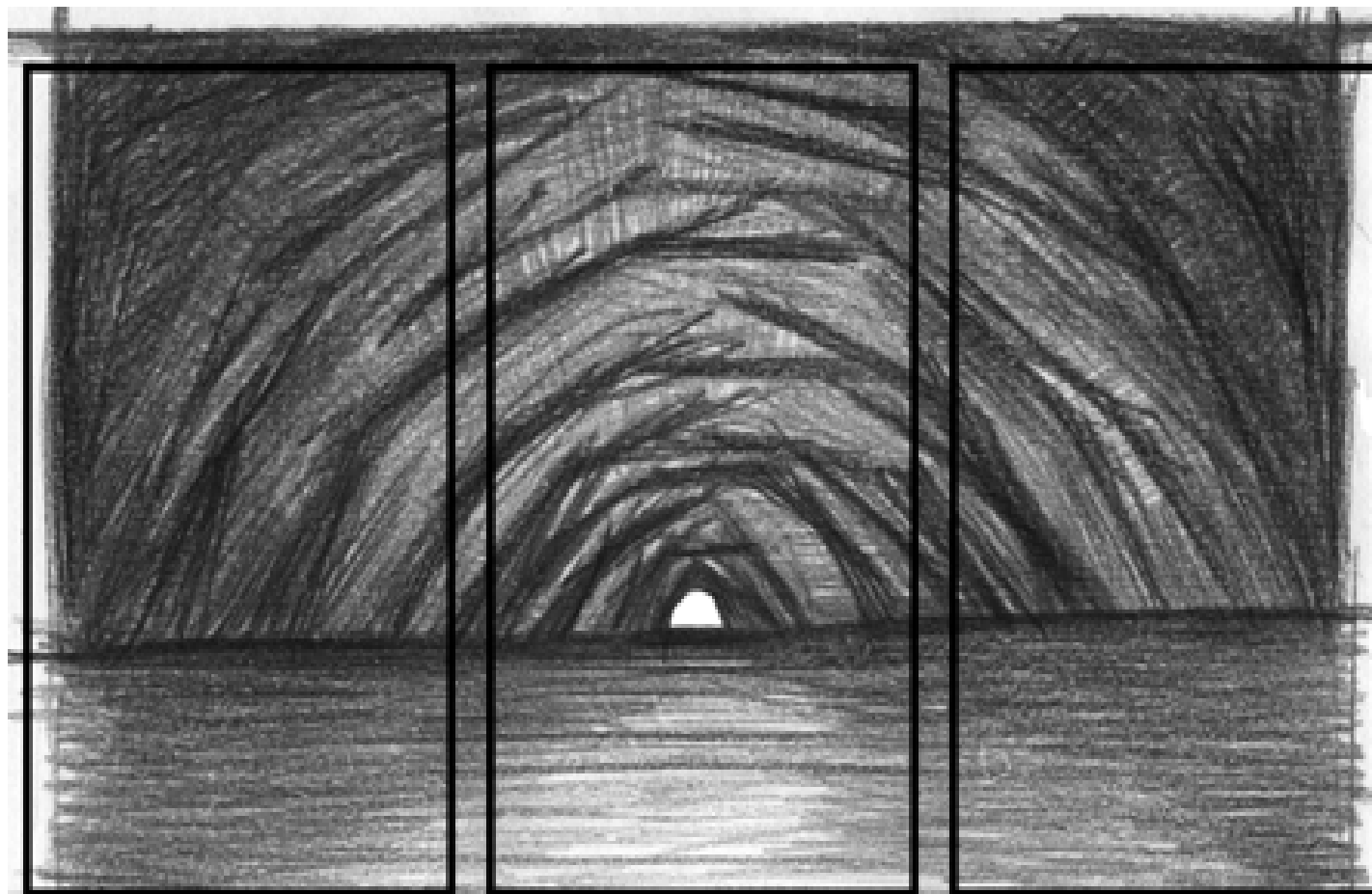

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Exit Stage

Challenges (Characteristic Observations)

- Begin to protect your time, pull back from extra-curriculars.

- Don't know how to respond to, "What year are you in?" (lack of control of timeline).

- Search for balance (2 career couples, families).

- Manage other's expectations (advisor (s), parents).

- Search for all career alternatives (academic/non-academic). Goals may have changed.

- Reorientation to reality.

- Sense of Social Skill Atrophy.

Exit Stage (continued)

- Disillusionment with job market (the payoff doesn't exist).

- Pressure to make rapid progress on thesis.

- Imposter complex (Is this all there is? Is this the best I can do? I have no skills in the real world).

- Sense of reckoning (no time for major breakthroughs in your research).

- Sense of loss of being a student. No more "random electives."

- Sense of fear (There is no pause button anymore).

THE LIGHT AT THE END OF THE THESIS.

CAN YOU SEE IT?

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phd.stanford.edu/

ONE RING
TO RULE THEM ALL

THE TRILOGY BEGINS DECEMBER 2001

Graduate Student Development

Conclusions:

- This model suggests that there are inherent challenges associated with graduate study.

- These challenges coupled with cultural adjustment can be particularly daunting.

- It is helpful for students to realize they are not alone in dealing with these issues.

- This model may inform services and programs offered by offices who serve graduate students.
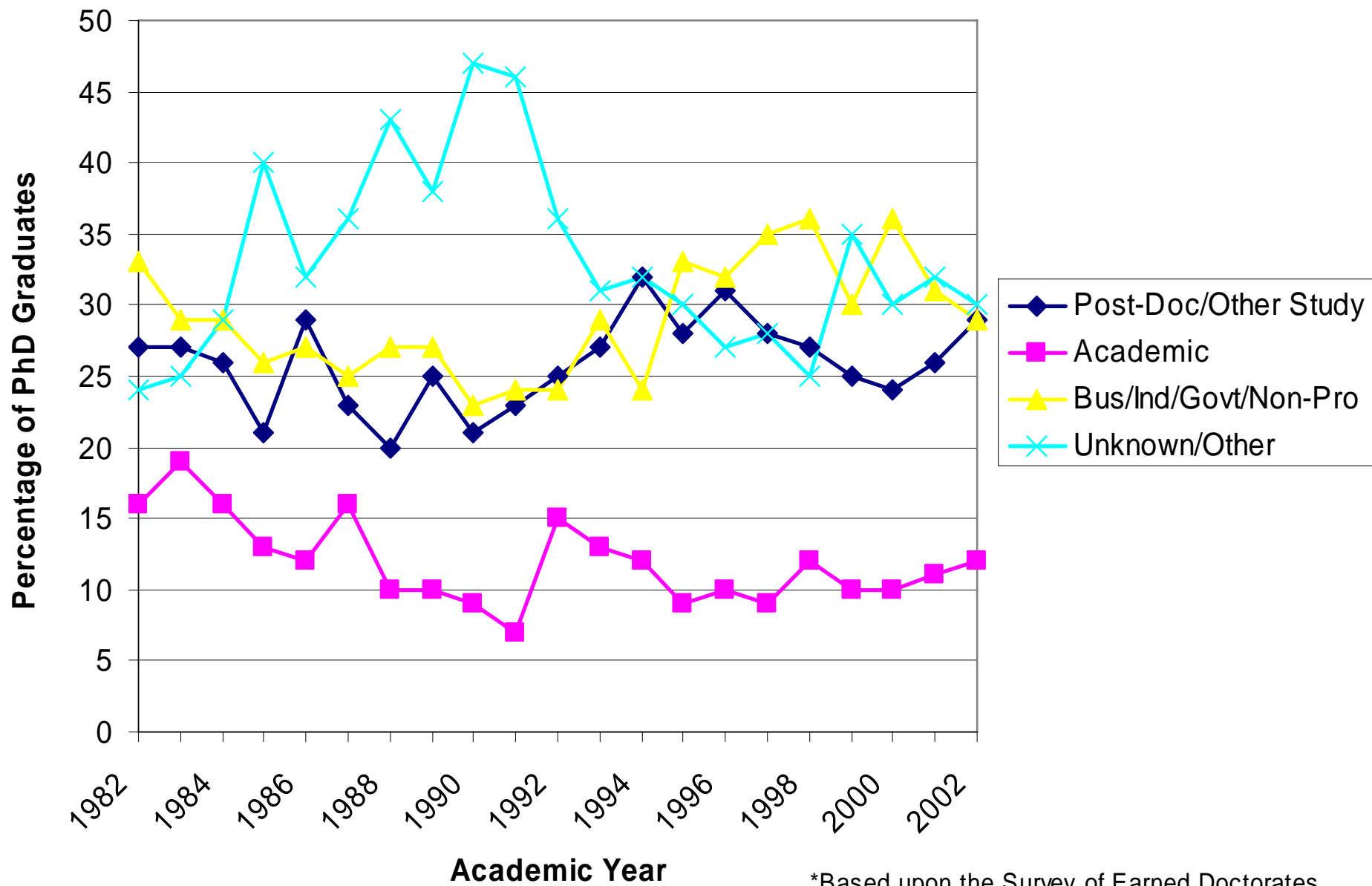
Advice From Current Students

• Know *why* you are in graduate school. If you don't know that you really want to finish it, then it's hard to push through the tough times.

• Perhaps, do summer internships or take a leave to go to industry in order to see how important the degree is in the field that the student is pursuing his/her PhD. This may also give a chance to "recharge" after going through undergraduate studies and the beginning of the PhD program (which is very similar in lifestyle to undergraduate...but without as much social support network that makes undergraduate easier to bear in some ways).

• Develop a support network within and outside of the department. There will always be hard times. It's helpful to have somebody who you know is there for you at those times and to know you're not alone.

• Don't put too much pressure on yourself. Success in the PhD isn't about being a genius ... it's about learning how to identify interesting questions, coming up with ways to address them, and then communicating the question and the results to other researchers.
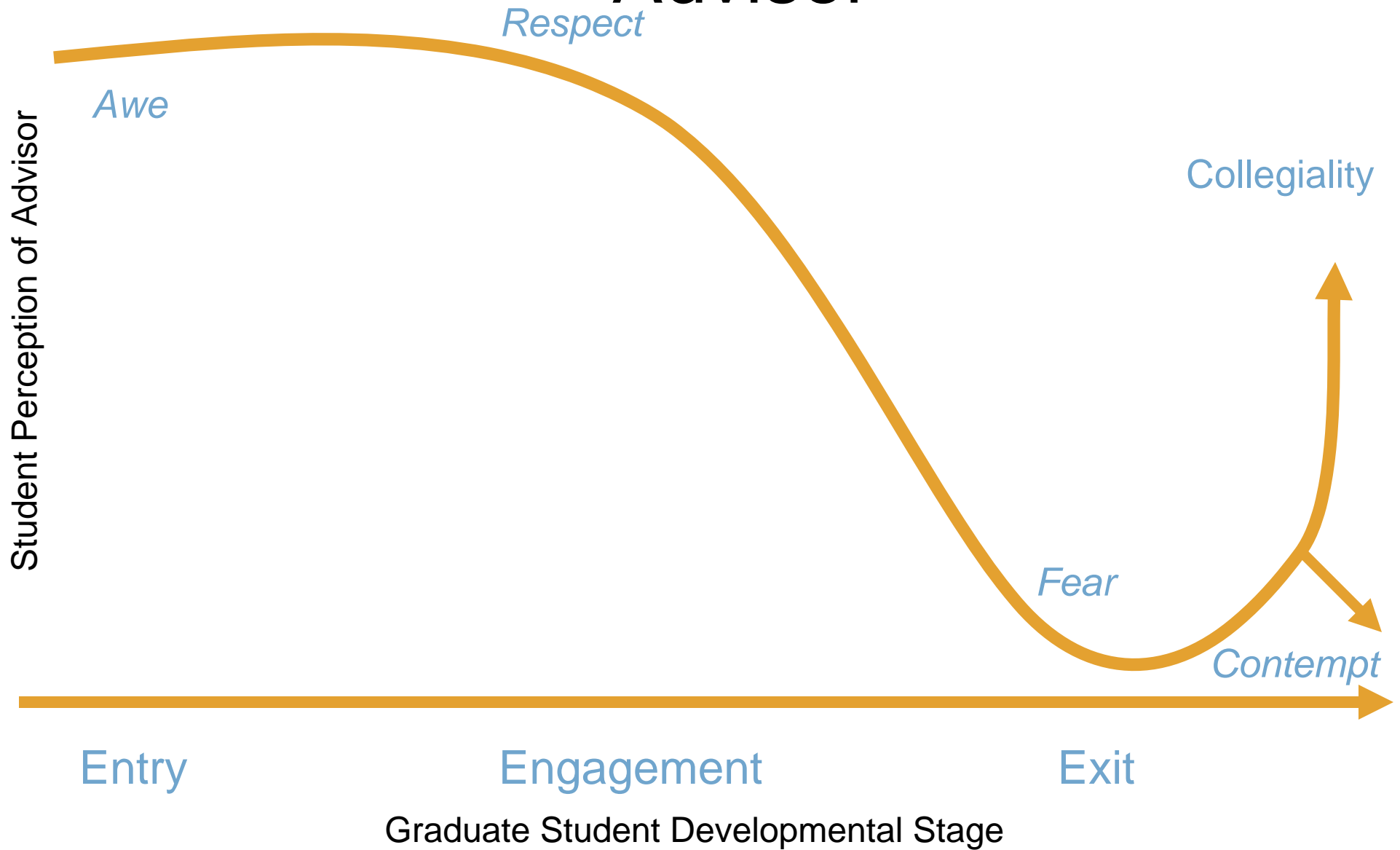
• Work together.
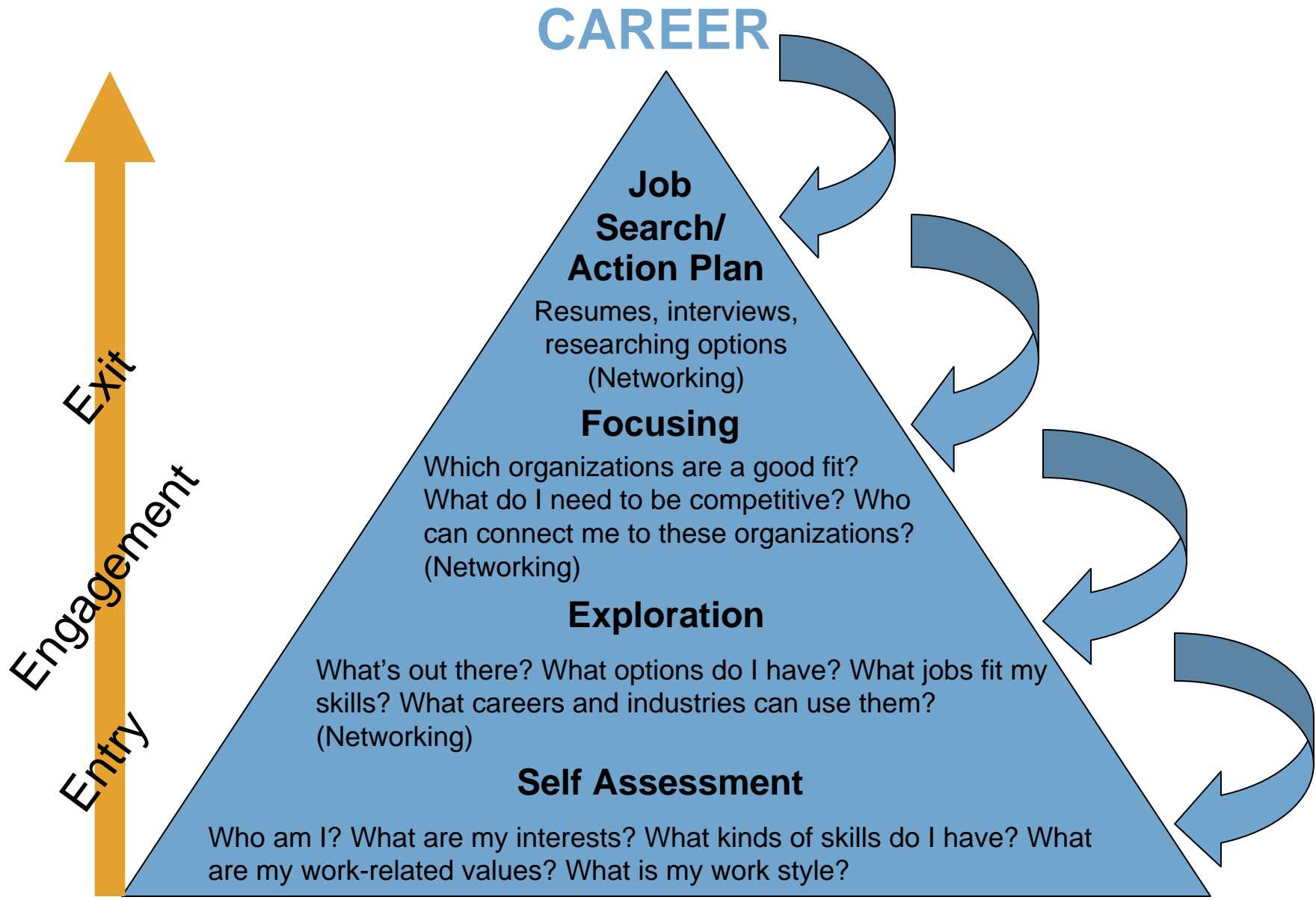
MIT PhD Immediate Post-graduation Plans 1982-2002 (%)*

Legend:
- Post-Doc/Other Study
- Academic
- Bus/Ind/Govt/Non-Pro
- Unknown/Other

X-axis: Academic Year (1982–2002)
Y-axis: Percentage of PhD Graduates

*Based upon the Survey of Earned Doctorates

Graduate Student Perception of Advisor

Student Perception of Advisor

Awe

Respect

Collegiality

Fear

Contempt

Entry

Engagement

Exit

Graduate Student Developmental Stage

Graduate Student Career Developmental Process

CAREER

Job Search/ Action Plan

Resumes, interviews, researching options (Networking)

Focusing

Which organizations are a good fit? What do I need to be competitive? Who can connect me to these organizations? (Networking)

Exploration

What's out there? What options do I have? What jobs fit my skills? What careers and industries can use them? (Networking)

Self Assessment

Who am I? What are my interests? What kinds of skills do I have? What are my work-related values? What is my work style?

Exit

Engagement

Entry

Adapted from Peter Fiske: To Boldly Go: Practical Career Advice for Scientists, Workshop at MIT, April 1998. Modified from Stanford University Career Development Office.
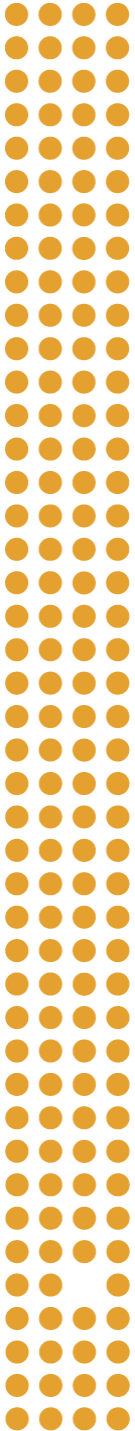
PhD Student Utilization of Institutional Career Related Services & Programs at 3 Developmental Stages
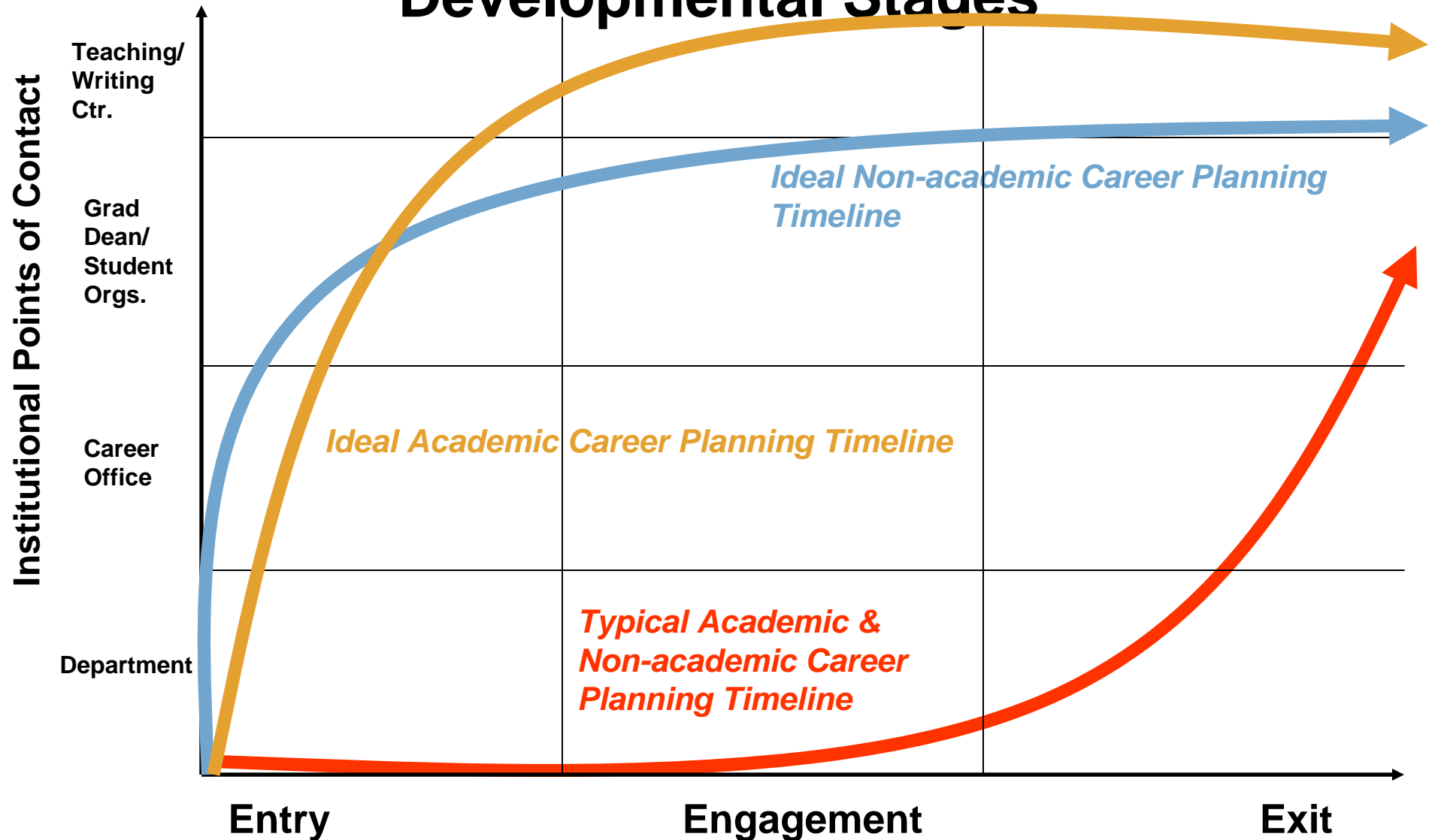
CAREER PLANNING TIMELINE FOR MIT DOCTORAL STUDENTS   updated 6/03

	Entry (Early Years)	Entry/Engagement (Qualifying Exams)	Engagement (Dissertation)	Exit (Final Stage Of Dissertation)
MIT Careers Office, 12-170, 617-253-4733	Self Assessment: Attend career workshops. Exploration: Get familiar with Careers Office resources, programs and services	ACADEMIC CAREER: Develop your CV. Attend a CV workshop. OTHER CAREER OPTIONS: Exploration: •Seek internships in industry. •Attend panels on career opportunities outside the lab. •Read about career options. •Take additional coursework in areas to expand your marketability and skills (finance, entrepreneurship, management).	Exploration: Attend career workshops on the job search process (resumes, interviews, negotiating offers). Attend presentations by employers Networking: Use alumni/ae networking to research career fields Career Counseling: Meet with a Careers Office Advisor to discuss your career plans	Interviews: •Arrange a mock interview to polish your interview skills •Use the InterviewTrak system to arrange on campus interviews.
Your Department	Mentoring: Plan your course of study with your advisor Exploration: Attend department orientations, training sessions	ACADEMIC CAREER: Exploration/ Networking: Attend conferences in your field (GSC provides travel funds). Exploration: •Gain experience as a teaching assistant •Seek experience overseeing undergraduate research. OTHER CAREER OPTIONS: Networking: If you are doing research that has industry applications, build industry contacts. Gain experience presenting your work to people in industry. Exploration: Attend career presentations sponsored by your department. Learn about careers alumni/ae have pursued.	ACADEMIC CAREER: Exploration: •Begin researching postdoctoral options. Once accepted by a lab, consider funding sources (apply 6-10 mo. in advance). •Participate in the hiring process for any new candidates for faculty positions in your department. Attend their job talks. Mentoring: Ask your advisor for advice about pursuing an academic career. Discuss your career plans with your advisor. Writing: Develop your publications. OTHER CAREER OPTIONS: Networking: Seek faculty contacts who have connections with industry.	ACADEMIC CAREER: Mentoring: Seek faculty advice and support (recommendations). Interviews: Actively pursue first interviews for faculty positions at academic conferences (fall-winter of final year). OTHER CAREER OPTIONS: Exploration/ Networking: Attend industry seminars sponsored by your department. Interviews: Participate in any department recruiting activities (with industry employers).
Teaching and Learning Center		ACADEMIC CAREER: Teaching: Develop your teaching portfolio.	Interviews: Polish your job talk skills.	
MIT Writing Center			Writing: Seek advice on publications.	Writing: Ask for critique of cover letters for job search (academic or industry).
Student Groups (Graduate Student Council, Science & Engineering Business Club, Tech Link, etc.)	Exploration: Attend talks on various fields. Networking: Meet peers from many departments.	ACADEMIC CAREER: Exploration: Attend GSC presentations on academic careers. OTHER CAREER OPTIONS: Exploration: Attend events on many career topics.	Networking: •Develop your network of employer contacts by attending various events. •Network with students who have done internships and/or interviewed in various fields (e.g. learn about case interviews).	Exploration/Networking: Attend career fairs (sponsored by several student organizations).

Thank you for your thoughts, reactions, & suggestions

MIT Graduate Student Perspectives