

- Who is involved in your planning process for career and professional development activities?
- Who offers career and professional development programs?
- Who should be involved and who currently isn't?

The background of the slide is a photograph of a large, multi-story brick building with a prominent tower, likely a part of Michigan State University. The building is surrounded by green trees and a clear blue sky with some white clouds. In the foreground, there is a paved walkway and a green lamppost. The Michigan State University logo is overlaid in the top left corner.

**MICHIGAN STATE**  
**UNIVERSITY**

**The Graduate School**

**Fostering Career and Professional  
Development: Mentoring Across the  
Student, Faculty, and Institutional Divides**

**Judith Stoddart, Ph.D., Associate Dean**

**Henry Campa, III, Ph.D., Associate Dean**

## Debra Stewart, “Professional Development for Graduate Students: Reflections on the Demands, the Resources, and the Skills”



“For more than a decade graduate students have been telling us that . . . graduate schools should make available professional development opportunities for careers both inside and outside of academe. . . . we are also increasingly hearing that graduate schools are under considerable stress to reduce ‘nonessential’ activities in their offices. Juxtaposing these two realities leads me this year to think through the question of whether or not professional development, beyond core preparation in the discipline, is a wise expenditure of resources in times when all of our graduate schools are being asked to do more with less.”




# Mentoring across the divide

- Gaining credibility: **assessing the need**
- Creating partnerships: understanding people as valuable **resources**
- Creating a common understanding: defining some fundamental **skills** involved in career and professional development







## *Professional Socialization for the PhD: An Exploration of Career and Professional Development Preparedness and Readiness for PhD Candidates*

Students surveyed from 119 programs in 2006; 668 responded

- Career goals of graduate students change over time:

Questions	Enrolled 1-2 yrs vs. Enrolled >3 yrs	<i>P</i>
<i>Very interested</i> in career research in an academic setting		<i>P</i> = 0.015
<i>Very interested</i> in career teaching at a research university		<i>P</i> = 0.026
<i>Not interested at all</i> or <i>Somewhat interested</i> in careers working in govt.		<i>P</i> = 0.039

- Skill preparation for academic and non-academic careers was inadequate for many students:

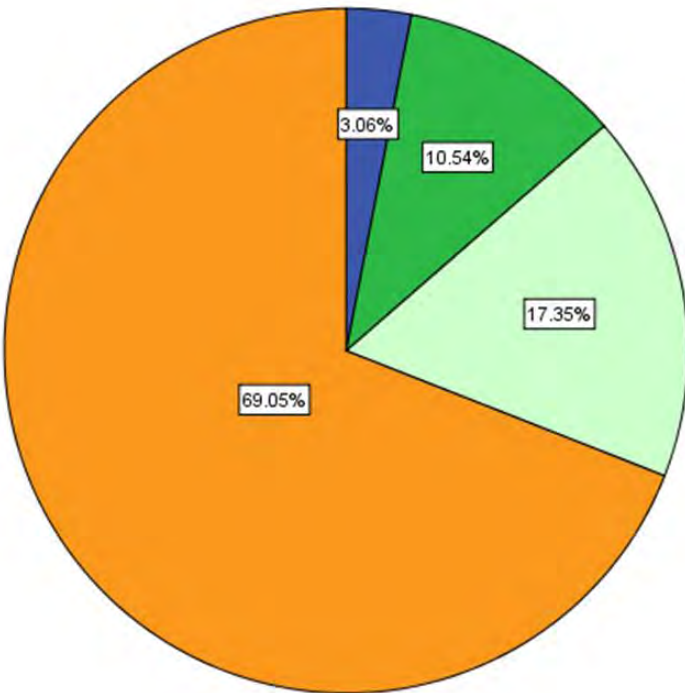
Types of skills (e.g)	% of respondents IMPORTANCE	% of respondents PREPARATION
Do independent research	95	95 
Publish and present research	95	93 
Lead a research project	93	85 
Collaborate in teams	94	77 
Teach a large lecture	80	60 
Teach a lab	58	50 

- M.S. and Ph.D. graduate students
- Surveyed – 2<sup>nd</sup> Semester (1<sup>st</sup> year) at MSU in 2007 & 2009; 2009 data reported
- 158 domestic, 127 international students responded
- students responded across 12 colleges

**Reflect: What are the implications of these data for student career and professional development or mentoring?**

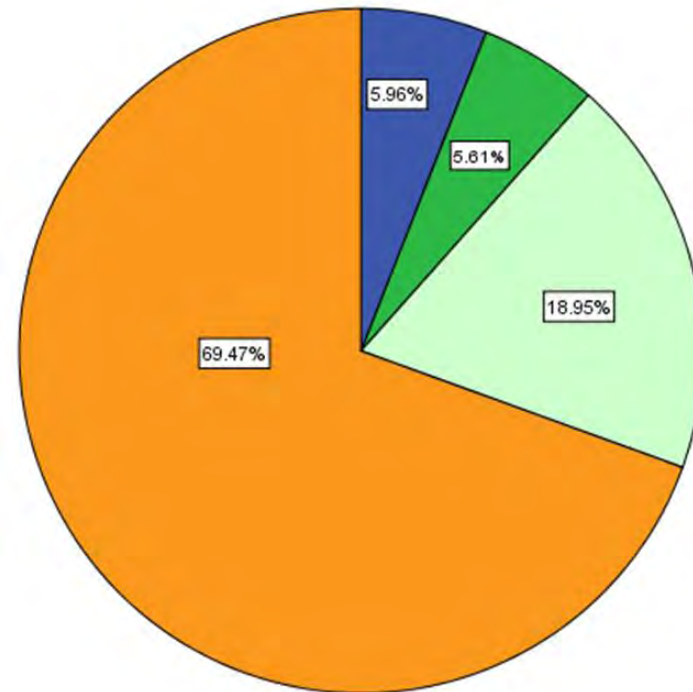
*Department orientation was adequate for my needs.*

2007



■ Not Applicable  
■ Strongly Disagree/  
Disagree  
■ Neutral  
■ Strongly Agree/ Agree

2009

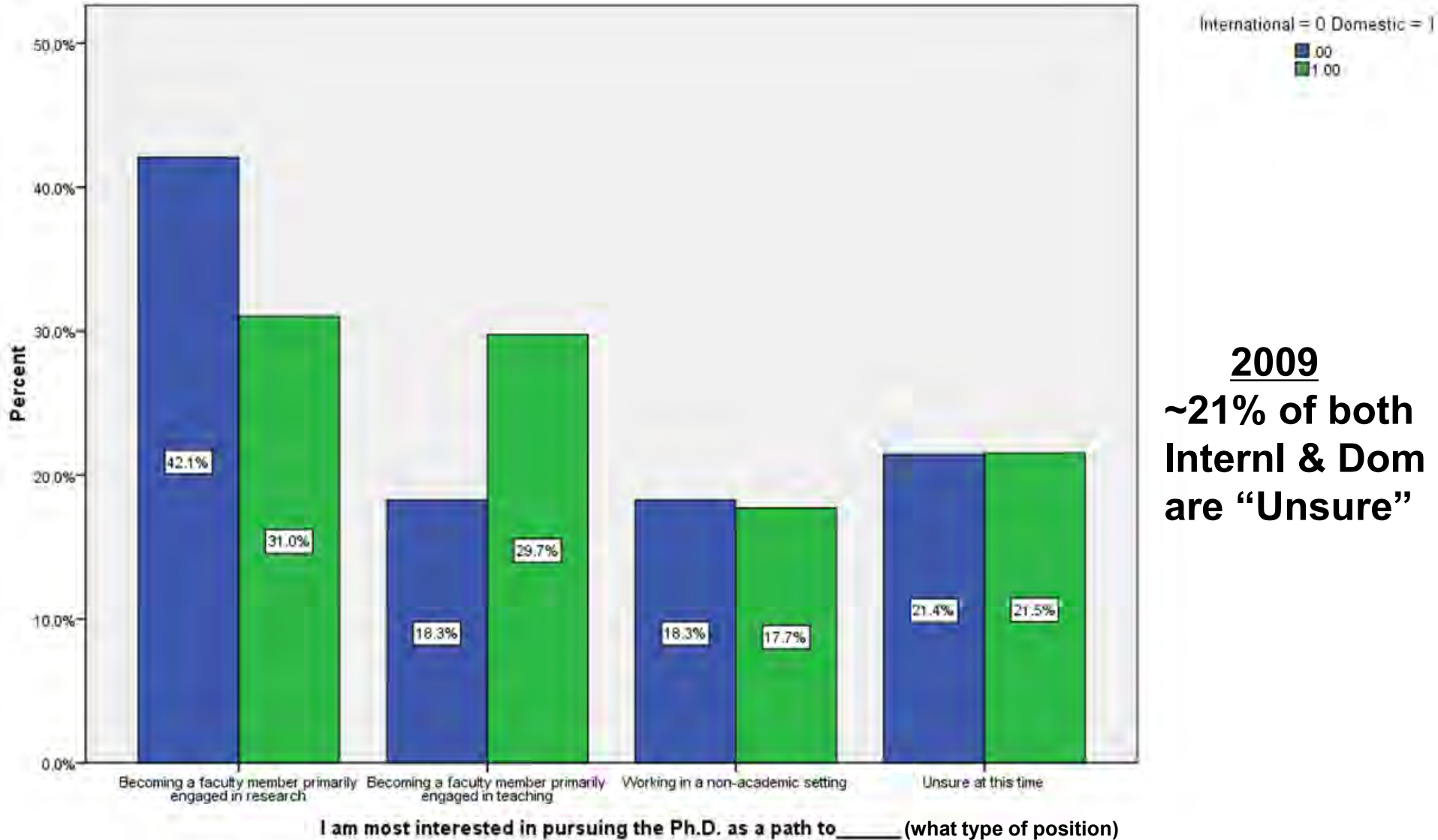


■ Not Applicable  
■ Strongly Disagree/  
Disagree  
■ Neutral  
■ Strongly Agree/ Agree

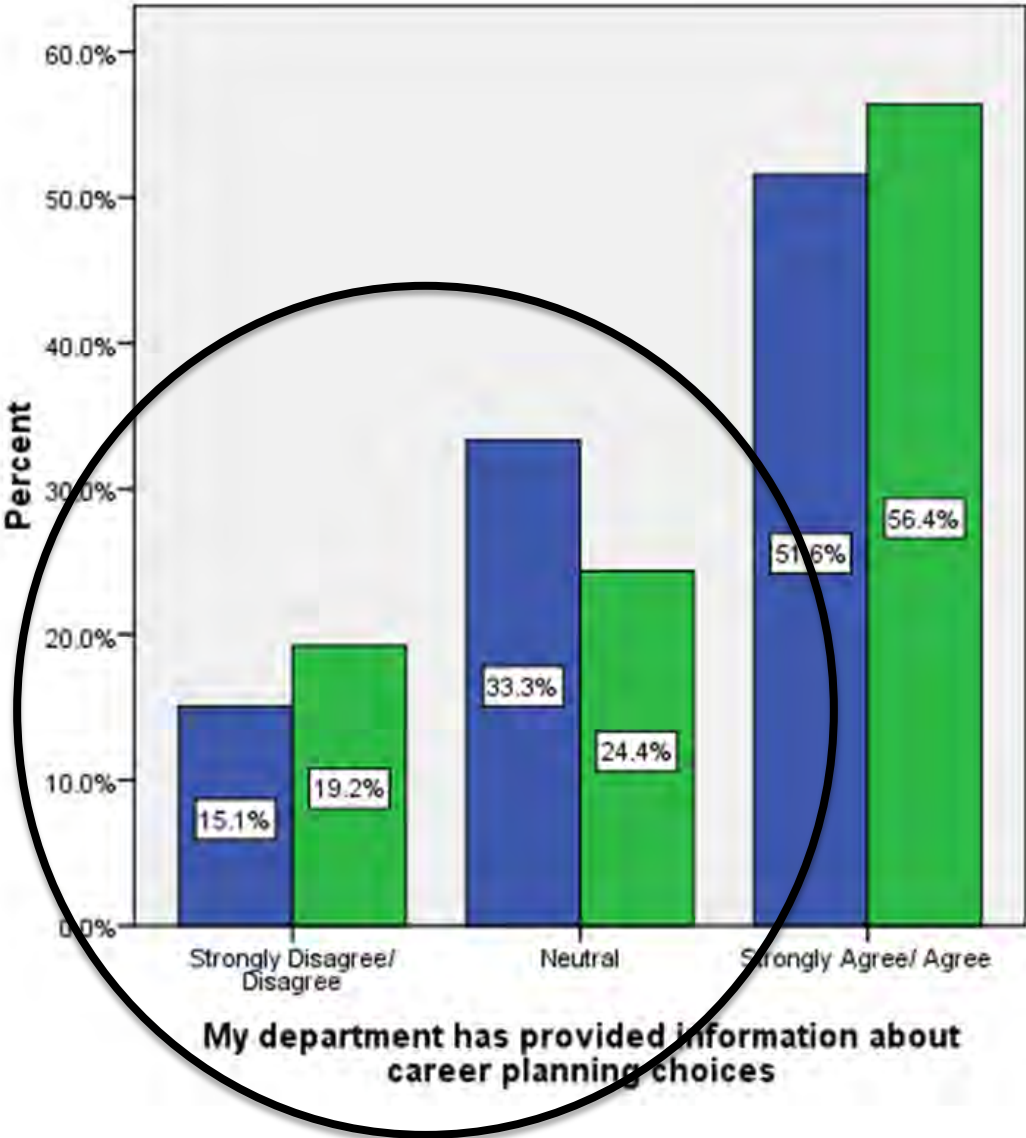
**Investments by depts.; Do students know what they don't know?**



# Incoming/first Year Graduate Students – Plans?



**2009**  
**~21% of both**  
**Internl & Dom**  
**are “Unsure”**

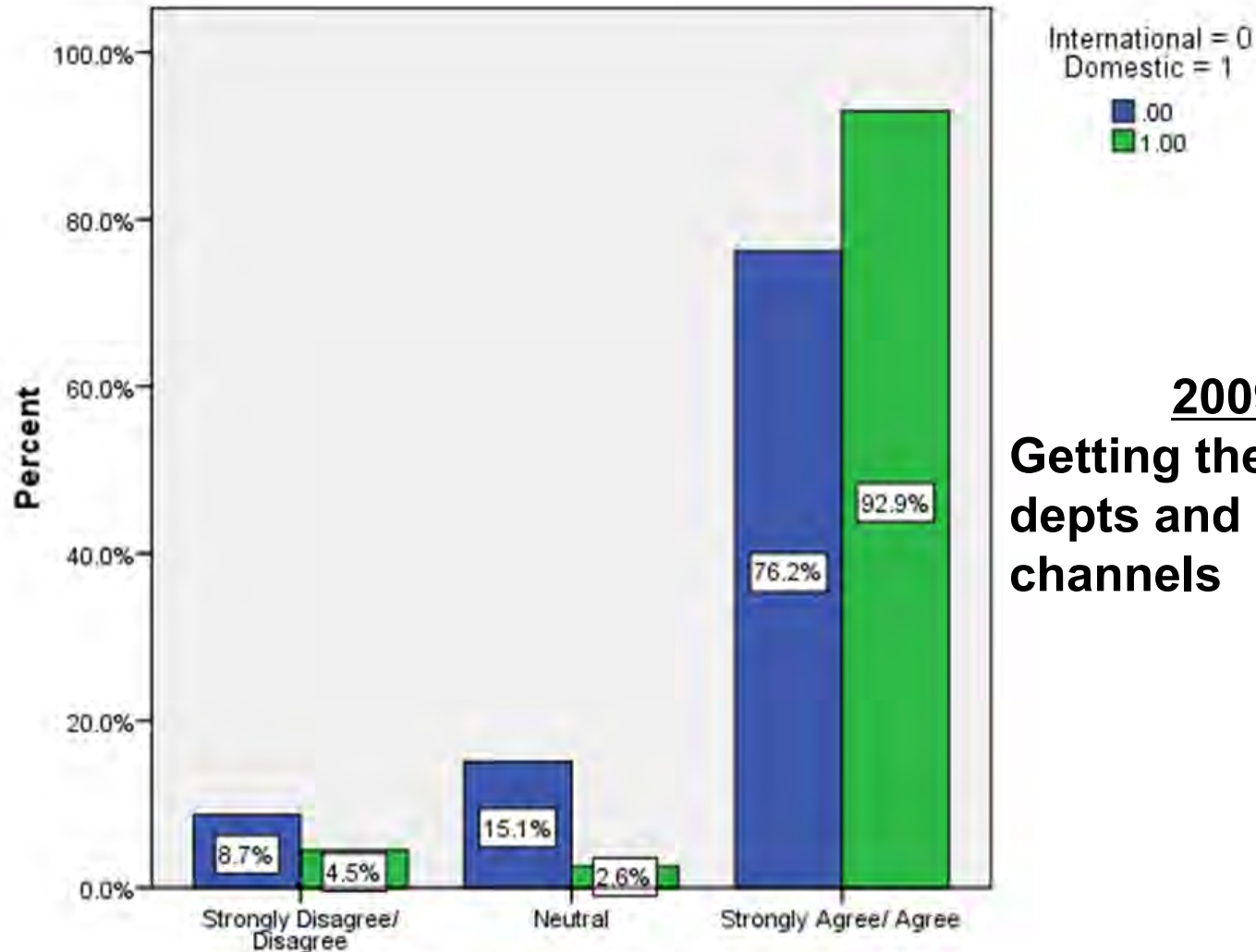


International = 0  
Domestic = 1

■ .00  
■ 1.00

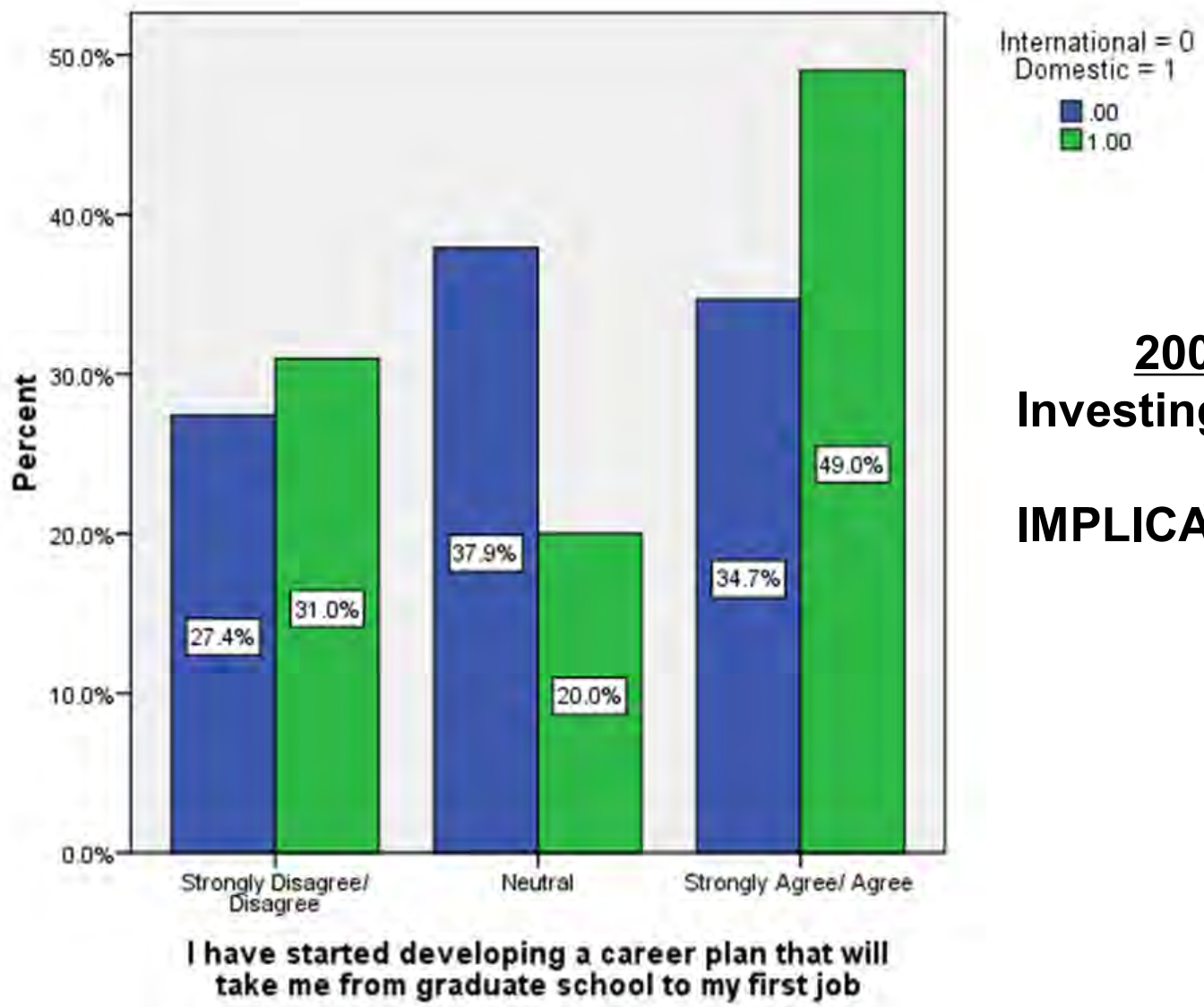
2009

Needs?



**2009**  
**Getting the word out,  
depts and other  
channels**

**I have seen announcements about career  
planning workshops from the Graduate School**



**2009**  
**Investing early!**  
**IMPLICATIONS?**



# PREP

**The Graduate School • Michigan State University**

*Making the most of your graduate school experience.*

## The Scholarship of PREP

- <50% of doctoral recipients will find employment as tenure-track faculty in a college or university. Most will work in institutions that do not grant Ph.Ds.
- Studies of doctoral education and early career faculty show that students need information about career choices, teaching, mentoring, and more congruence between doctoral education and the realities of faculty life
- ~ 75% of Ph.Ds will work in environments where other competencies are more important than research.
- Surveyed MSU doctoral students after 3 years in their programs do not feel well prepared in skills other than research.

# PREP

## MSU Career and Professional Development Programs (Planning, Resilience, Engagement, Professionalism)

### PREP Goals

- Broaden awareness of professional expectations in graduate education
- Prepare students to plan and manage their own careers
- Promote graduate student retention and completion
- Provide students with a competitive edge in securing professional positions

# PREP

## **Professional Development**

The process of socialization and integration into a professional context, and the continued process of learning and growth throughout a career

## **Transferable Skills**

Practical abilities that are fundamental to success in graduate school and in a range of professional contexts, from academia to industry, corporations, agencies, and government



**Research, Scholarship, and Creative Activities**

**Leadership**

**Ethics and Integrity**

**Collaboration**

**Communication**

**Balance and Resilience**

(Plan Your Work & Work Your Plan; Helm, Mason, Stoddart, and Campa, 2010)  
(<http://grad.msu.edu/prep/docs/planyourwork.pdf>)

# Graduate student tasks & responsibilities?

**P** PLANNING


**R** RESILIENCE

**E** ENGAGEMENT

**P** PROFESSIONALISM

	<b>P</b> PLANNING	<b>R</b> RESILIENCE	<b>E</b> ENGAGEMENT	<b>P</b> PROFESSIONALISM
<b>EARLY STAGE</b>	<ul style="list-style-type: none"> <li>Financial planning</li> <li>Setting expectations</li> <li>Identifying career goals</li> </ul>	<ul style="list-style-type: none"> <li>Developing support systems</li> <li>Creating a wellness plan</li> </ul>	<ul style="list-style-type: none"> <li>Professional networking</li> <li>Choosing an advisor</li> <li>Identifying transferable skills</li> </ul>	<ul style="list-style-type: none"> <li>Developing teaching skills</li> <li>Research ethics training</li> </ul>
<b>MID STAGE</b>	<ul style="list-style-type: none"> <li>Preparing for comprehensive exams</li> <li>Preparing for the job search or postdoc</li> <li>Developing professional standards for integrity in research</li> </ul>	<ul style="list-style-type: none"> <li>Conflict resolution</li> <li>Stress management</li> </ul>	<ul style="list-style-type: none"> <li>Funding your research</li> <li>Working with committees</li> <li>Acquiring transferable skills</li> </ul>	<ul style="list-style-type: none"> <li>Project planning</li> <li>Creating your teaching portfolio</li> </ul>
<b>LATE STAGE</b>	<ul style="list-style-type: none"> <li>Writing the dissertation</li> <li>Conducting the job search</li> <li>Finding a postdoc position</li> </ul>	<ul style="list-style-type: none"> <li>Managing the research program</li> <li>Sustaining support networks</li> </ul>	<ul style="list-style-type: none"> <li>Choosing the academic path</li> <li>Choosing the nonacademic path</li> <li>Writing a postdoc grant</li> </ul>	<ul style="list-style-type: none"> <li>Negotiating the job search</li> <li>Translating transferable skills for the next career stage</li> </ul>

**PREP Professional Development Matrix**

	<b>P</b> LANNING	<b>R</b> ESILIENCE	<b>E</b> NGAGEMENT	<b>P</b> ROFESSIONALISM
EARLY STAGE				
MID STAGE				
LATE STAGE				

# Assessing the needs: graduate programs

- Surveys not necessarily the best measure
  - Do know they what resources are available?
  - Do they know what their students need?
- Do we know what programs need?

**Bridging potential gaps is our responsibility**

## We found---Faculty and administrators love data!

### What our data tell us about professional development:

How often do you:

**Attend professional conferences**

	CANR	CAL	CAS	CED	EGR	CNS	SSC
never/seldom	18.8	25.0	33.3	15.0	25.0	16.7	11.8
sometimes	18.8	37.5	0	35.0	62.5	50.0	35.3
always/often	62.5	37.5	66.7	50.0	12.5	33.0	52.9

**Network with professionals outside your department**

	CANR	CAL	CAS	CED	EGR	CNS	SSC
never/seldom	18.8	12.5	33.3	45.0	75.0	100	29.4
Sometimes	25.0	37.5	66.7	20.0	25.0	0	29.4
always/often	50.0	50.0	0	35.0	0	0	41.2

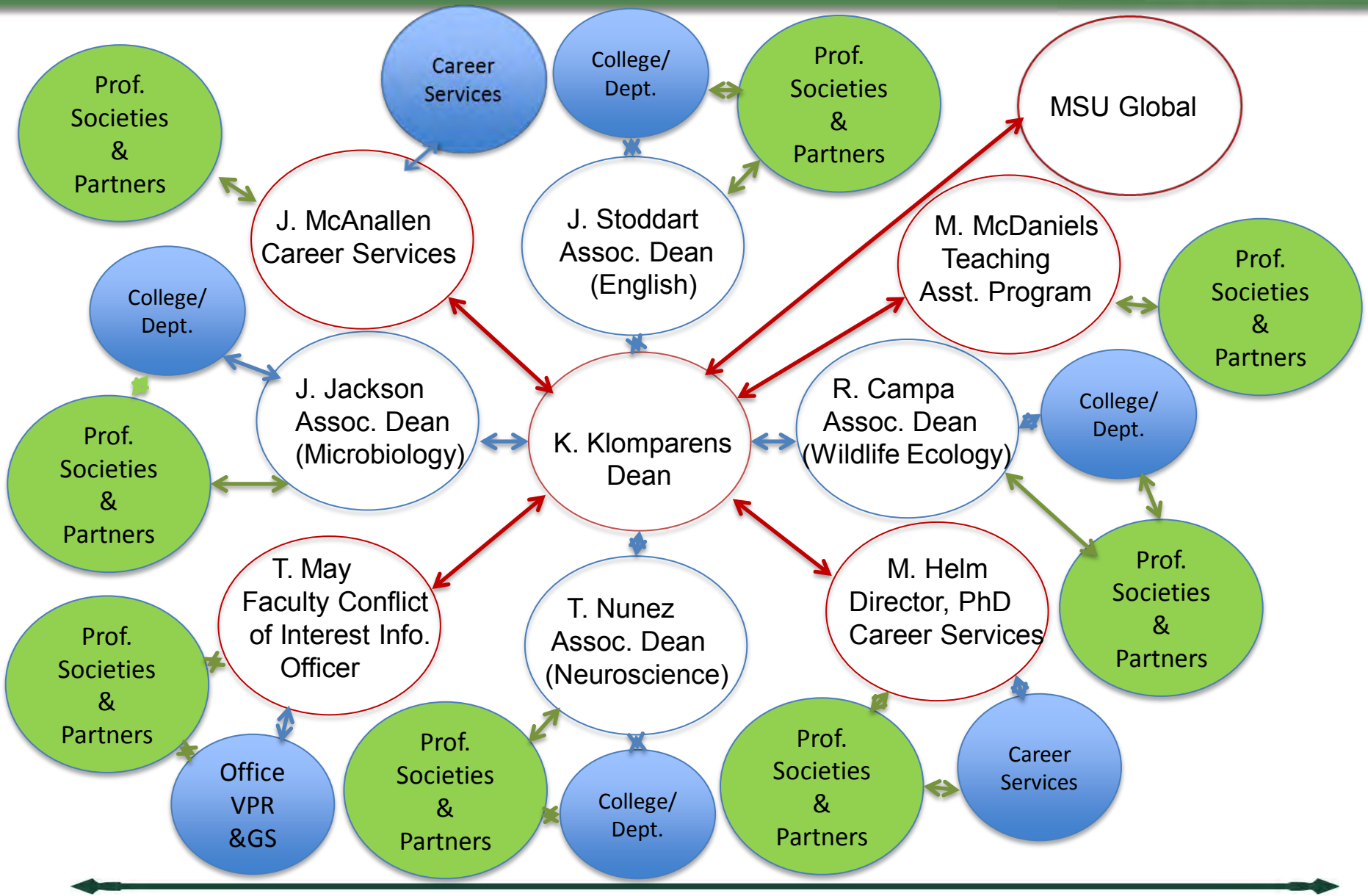
**Talk to your advisor about expectations for promotion and tenure**

	CANR	CAL	CAS	CED	EGR	CNS	SSC
never/seldom	43.8	50.0	50.0	75.0	100	83.3	76.5
Sometimes	18.8	25.0	33.3	15.0	0	0	17.6
always/often	37.5	25.0	16.7	10.0	0	16.7	5.9

# Mentoring across the divide

- Gaining credibility: assessing the **need**
- Creating partnerships: people are your greatest **resources**

# Graduate School Staff Composition & Network





# New Graduate School /Chittenden Hall



Includes offices for:

- Grad Dean and staff
- Council of Graduate Students
- Postdoc Association
- Ph.D. Career Services
- Grad Life and Wellness

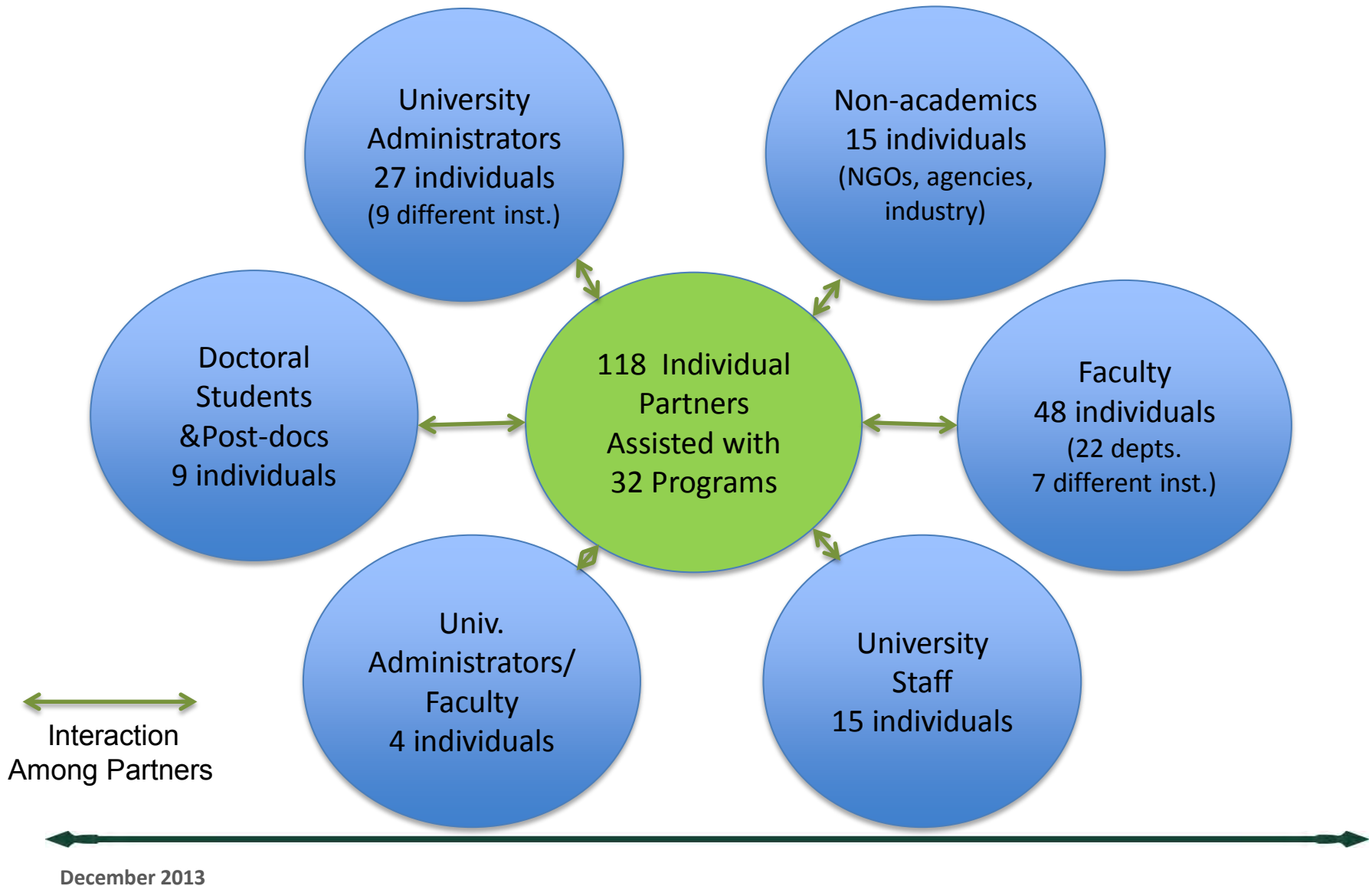
# Discussion

- Who *should* be involved in career and professional development activities and programs on your campus and isn't?
- What are the barriers to involving those groups?
- What are some strategies for overcoming the barriers?

Budget Items?	Estimated costs?
Room rental	\$ X
AV equipment	\$ X
Food	\$ X
Resources (e.g., copies)	\$ X
Personnel	\$ 0

**People/partners are a MAJOR resource for career and professional development!**

32 full-day or evening programs from Sept 2004 to December 2013



# Mentoring across the divide

- Gaining credibility: **assessing the need**
- Creating partnerships: understanding people as valuable **resources**
- Creating a common understanding: defining some fundamental **skills** involved in career and professional development

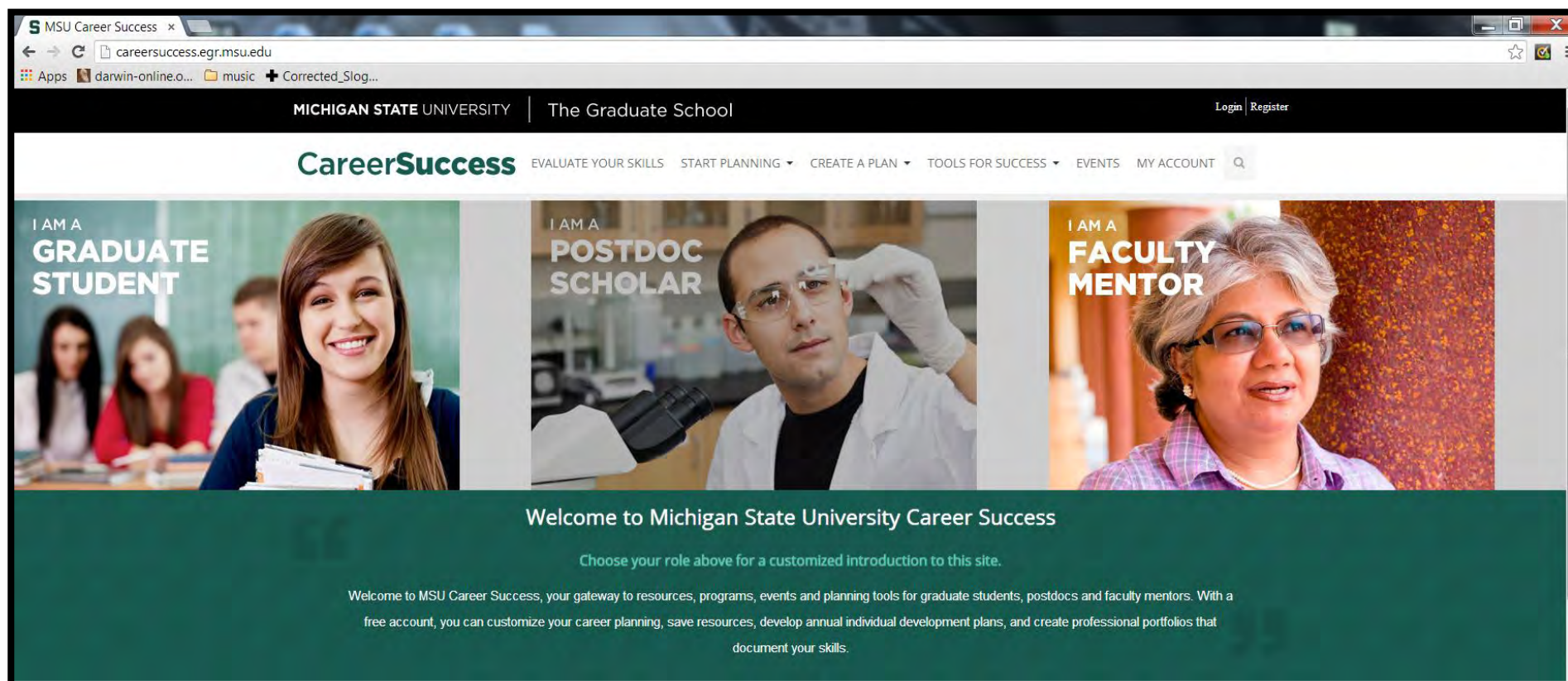
EXPLORE professional development resources

ASSESS your professional skills

CREATE your career and professional development plan

USE professional development tools

BUILD professional portfolios



The screenshot shows the MSU Career Success website. The browser address bar displays [careersuccess.egr.msu.edu](https://careersuccess.egr.msu.edu). The page header includes "MICHIGAN STATE UNIVERSITY | The Graduate School" and "Login | Register". The main navigation bar features "CareerSuccess" and several menu items: "EVALUATE YOUR SKILLS", "START PLANNING", "CREATE A PLAN", "TOOLS FOR SUCCESS", "EVENTS", and "MY ACCOUNT". Below the navigation is a row of three large images with text overlays: "I AM A GRADUATE STUDENT" (with a smiling woman), "I AM A POSTDOC SCHOLAR" (with a man in a lab coat), and "I AM A FACULTY MENTOR" (with an older woman). A dark green banner at the bottom contains the text: "Welcome to Michigan State University Career Success", "Choose your role above for a customized introduction to this site.", and "Welcome to MSU Career Success, your gateway to resources, programs, events and planning tools for graduate students, postdocs and faculty mentors. With a free account, you can customize your career planning, save resources, develop annual individual development plans, and create professional portfolios that document your skills."

# Transferable Skills-What do students need? What do employers want?



## introduction

### research, scholarship & creative activities

**O**riginal research, scholarship, and creative activities are the core components of a doctoral program, they distinguish the Ph.D. from all other higher education degrees. A dissertation does more than demonstrate specialized expertise; it also shows that its author acquired skills that are highly valued in academia, government and private agencies, and corporations. Designing and successfully carrying to completion a research or creative project requires:

- Mastering research methodologies and creative techniques, and recognizing how they are used both within and outside your discipline
- Knowing how to synthesize the work of others and integrate it with your own, giving credit where credit is due
- Approaching your field creatively in order to expand or explore new avenues in research, scholarship, or performance
- Defining a problem, and identifying and effectively using relevant resources to address it
- Practicing independent, critical thinking, problem-solving, data analysis and synthesis
- Managing a project to completion, including defining the parameters, prioritizing a range of tasks, and effectively partnering with researchers and staff
- Writing clearly, developing your original ideas within an existing community of scholarship, and defending those ideas to peers
- Sustaining passion for your area of expertise, and communicating that passion to others



#### thinking application

**Nalliah Orr** (Ph.D. Zoology/Neuroscience) received a BSc degree from the University of Western Ontario (Canada) and an MSc from the University of Waterloo (Canada) after which she came to MSU for a Ph.D. Subsequently, she held two doctorates at MSU. In 1999, she was hired as an insect flightless researcher with DOW AgroSciences, where she became a Senior Scientist. At DOW she was involved in various aspects of the biology, biochemistry and molecular biology genetics of a number of dipteran-based insecticide resistance mechanisms. Dr. Orr is currently the CEO of Yousang, an LLC, a consulting group in Indiana. She served as a director for numerous of university, non-profit organizations and life-science based companies and has been active in helping them acquire strategic partnerships and acquire funding. Recently, Dr. Orr was asked to participate in a panel titled "How do we develop the science curriculum for the twenty-first century are middle schools in the Central-Ohio district for the next 10 years."

things may this particular set of techniques (the learning to be used for? You are asking very important questions about the applications of your research."

Maintaining a high level of curiosity about other disciplines in the university is another way of making connections between your specialty and other domains. A good way to make connections, says Dr. Orr, is to take the time to attend lectures, presentations, or symposiums in other disciplines. She also suggests taking an on-campus class that has been limited, who are experts in that field take the initiative to find that topic even remotely interesting, to read about them a little bit, maybe even contact them if you have a question or idea. "The key is to constantly seek out new ways to expand your knowledge base in order to develop breadth as well as depth. Developing an understanding of the application of your research is a fruitful starting point. "When you start thinking application, it opens up all sorts of other avenues for you."

Being a researcher outside the academy involves engaging the passion and knowledge you have developed in your area of expertise and applying them to new problems. For Dr. Orr, making the transition from working in an academic lab to using her science at Dow Chemical meant discovering how techniques or methodologies she already knew could be applied in very different areas of research. "Applied in very different areas of research," says Dr. Orr, "is a key differentiator in industry, because in industry everything really boils down not to the actual thing you are doing or the technique or the skill, but its



#### thinking creatively

**Marilyn Frye** (Ph.D. Philosophy) received the BA with honors in philosophy from Stanford University in 1965 and her doctoral degree in Philosophy at Cornell University in 1968. She is a University Distinguished Professor in Philosophy at MSU. Before coming to MSU in 1974, she taught in the Philosophy Department at the University of Pittsburgh. In 2008 she was the Phi Beta Kappa Romanov Lecturer. She has also served as Associate Dean for Graduate Studies in the College of Arts and Letters. Dr. Frye is the author of two books of essays in feminist theory: *The Politics of Reality* (1983) and *Wishy Wasn't* (2004), as well as numerous essays in major collections and journals in the field. Her research focuses on understanding social categories.

"Academics," notes Dr. Frye, "are always engaged in some kind of creative reconstruction of information. For instance, a literature major is always thinking as she or he reads, 'But what about this?' or 'What if we see this same idea from a different perspective?' or 'No one has approached this topic from this position before.'" For Dr. Frye, creative engagement

and perspective taking are not just productive habits of mind; they are core research practices. Dr. Frye has used these approaches to reshape the field of philosophy, interrogating categories and terminology from unexpected points of view. Her foundational work in feminist philosophy starts from what we assume we know about categories of everyday life, and employs position taking to reformulate those assumptions.

Academic research, Dr. Frye explains, is about pushing yourself and your own hat is familiar, and coming up with creative solutions to address constantly changing fields. "Because of our training," she observes, "we academics tend to enjoy those situations when our way of thinking about something is called into question. So, we respond to problems with an element, rather than disconcert." Reacting constructively with an element, rather than disconcert, can lead to unanticipated directions in research and creative performance. Leaders in their fields have the passion to argue for "the productivity and merit of another approach," and communicate that passion to colleagues and students.

### PREP Spotlight

Leadership means doing more than just the work. Seek out opportunities to take your own initiative in your department, your institution, your discipline, and your community. To find leadership opportunities, look both inside and outside your program. You can be a leader without a title.

- Are there opportunities to serve on committees in your department, college, or university? Which ones does look best and outside your program.
- If you are working a part of an research team, are there parts of the project to which you can take additional responsibility?
- How can you serve as a mentor for incoming students, either within your program or elsewhere in the university?
- Are there ways you can be involved in cultural or international disciplinary societies?

PLANNING	REALIZING	SHAREING	REFLECTING
<ul style="list-style-type: none"> <li>Identify appropriate research methods for your objectives</li> </ul>	<ul style="list-style-type: none"> <li>Create a timeline for the stages of your project</li> <li>Create a network of professional mentors in your program</li> <li>Identify a professional network outside MSU</li> <li>Learn how research or creative works are peer-reviewed</li> <li>Work with mentors to understand and incorporate feedback</li> </ul>	<ul style="list-style-type: none"> <li>Apply for necessary approvals and human or animal subject permits</li> <li>Apply for funding</li> <li>Share research findings or creative works with peers</li> </ul>	<ul style="list-style-type: none"> <li>Engage in research ethics training</li> <li>Identify standards in your discipline for preparing your work</li> <li>Create clear evaluation standards for learning</li> <li>Assist in mentoring undergraduate research in your field</li> </ul>
<ul style="list-style-type: none"> <li>Identify resources and potential publication outlets</li> </ul>	<ul style="list-style-type: none"> <li>Know deadlines for submitting your dissertation or research results</li> </ul>		

### Putting it to Work

"The PREP might include at the least: a Big game lecture and not only a career planning tool but also to plan the stages of your scholarship and research."

Some sample activities are included in the calls below. Take the time to plan your own projects.

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**AUTHORS**  
Mark Helm, Ph.D. | Laura

**ACKNOWLEDGMENTS**  
We are grateful to many people over the interview material was... they years, have asked for this... agreed to be interviewed: Dr. Mr. Kevin Johnson, and Mr. Ms.

Laura J. Deane Sharp, Designer

## PREP Professional Themes

## Transferable Skills

## How to: Affiliated Partners

**Planning**

Communication  
Job Search Strategies

Office of Career Services  
AGEP Grant  
NSF I-cubed Grant  
Local colleges and universities

**Resilience**

Balance and Resilience

Writing Center  
Olin Health Center  
The Counseling Center  
Employee Assistance Program

**Engagement**

Collaboration  
Leadership

CIRTL NSF Grant  
COGS/Grad. Student Org.  
Grad Employees Union  
University Outreach  
&Engagement

**Professionalism**

Research, Scholarship, &  
Creative Activity  
Ethics and Integrity

Vice President for Research  
Teaching Assistant Program  
Faculty Development Office  
PFF Grant-ASL Grant





## Offices and Policies at MSU organized by Matrix categories

### Early (Planning)

#### Financial Planning:

Benefits - [www.hr.msu.edu/benefits/index.htm](http://www.hr.msu.edu/benefits/index.htm)

Controller's Office - [www.ctrl.msu.edu/](http://www.ctrl.msu.edu/)

Controller's Office eForms - [log.in.msu.edu/?App=CTRL\\_JVE](http://log.in.msu.edu/?App=CTRL_JVE)

Credit Union - [www.msufcu.org/](http://www.msufcu.org/)

Electronic Payroll Forms - [epayroll.msu.edu](http://epayroll.msu.edu)

Financial Aid - [www.finaid.msu.edu/](http://www.finaid.msu.edu/)

Payroll Office - [www.ctrl.msu.edu/copayroll/](http://www.ctrl.msu.edu/copayroll/)

Volunteer Income Tax Assistance - [www.vita.msu.edu/](http://www.vita.msu.edu/)

Graduate Assistants, Professorial Assistants, and Undergraduate Assistants -

[www.hr.msu.edu/hiring/studentemployment/gradasst/](http://www.hr.msu.edu/hiring/studentemployment/gradasst/)

Human Resources - [www.hr.msu.edu/](http://www.hr.msu.edu/)

#### Setting Expectations:

Academic Policies and Procedures (Office of the Registrar) - [www.reg.msu.edu/UCC/policies.asp](http://www.reg.msu.edu/UCC/policies.asp)

Bylaws (University Bylaws) - [trustees.msu.edu/bylaws/](http://trustees.msu.edu/bylaws/)

Bylaws for Academic Governance - [acadgov.msu.edu/bylaws/index-1.html](http://acadgov.msu.edu/bylaws/index-1.html)

Calendars - [www.msu.edu/calendars.htm](http://www.msu.edu/calendars.htm)

Boldness by Design - [boldnessbydesign.msu.edu/](http://boldnessbydesign.msu.edu/)

University Committee on Academic Policy - [ucap.msu.edu](http://ucap.msu.edu)

ID Office - [idoffice.msu.edu/](http://idoffice.msu.edu/)

Academic Bylaws - [acadgov.msu.edu/bylaws/index-1.html](http://acadgov.msu.edu/bylaws/index-1.html)

Academic Calendar - [www.reg.msu.edu/ROInfo/Calendar/Academic.asp](http://www.reg.msu.edu/ROInfo/Calendar/Academic.asp)

Academic Governance - [acadgov.msu.edu/](http://acadgov.msu.edu/)

Computer Training - [train.msu.edu](http://train.msu.edu)

#### Identifying Career Goals:

Ph.D. Career Services [careersuccess.msu.edu/phdcareers](http://careersuccess.msu.edu/phdcareers)

### Early (Resilience)

#### Developing support systems:

Associations (Student) - [studentlife.msu.edu/current\\_students/rso/orgs.htm](http://studentlife.msu.edu/current_students/rso/orgs.htm)

CATA Bus Services - [www.cata.org/](http://www.cata.org/)

Diversity and Inclusion at MSU - [inclusivity.msu.edu/](http://inclusivity.msu.edu/)

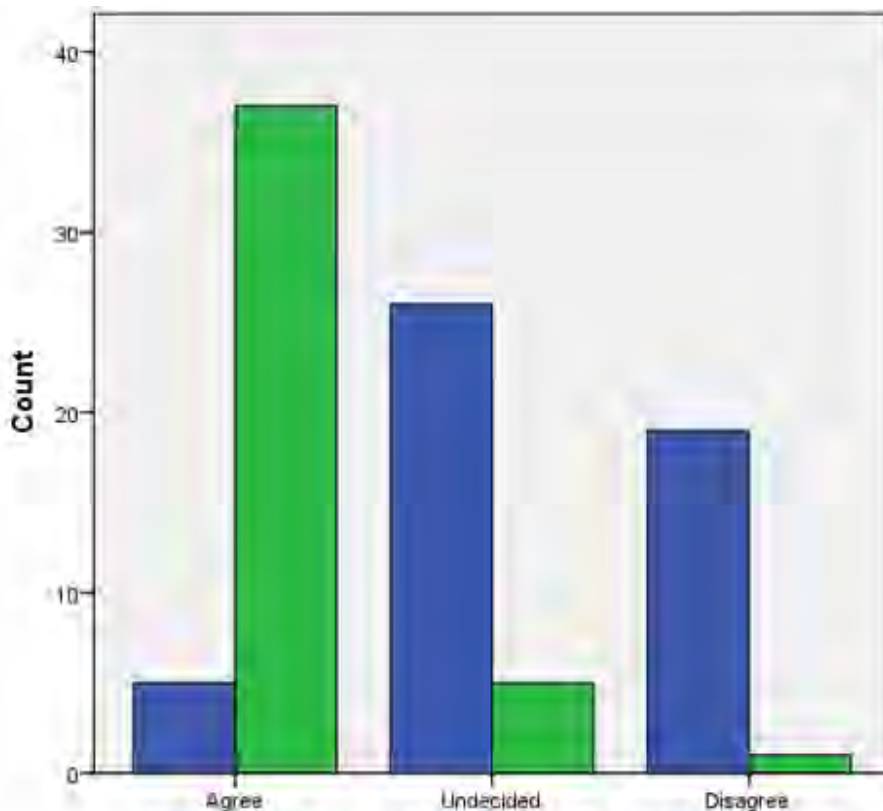
Family Resource Center - [www.frc.msu.edu](http://www.frc.msu.edu)

Women's Resource Center - [wrc.msu.edu/](http://wrc.msu.edu/)

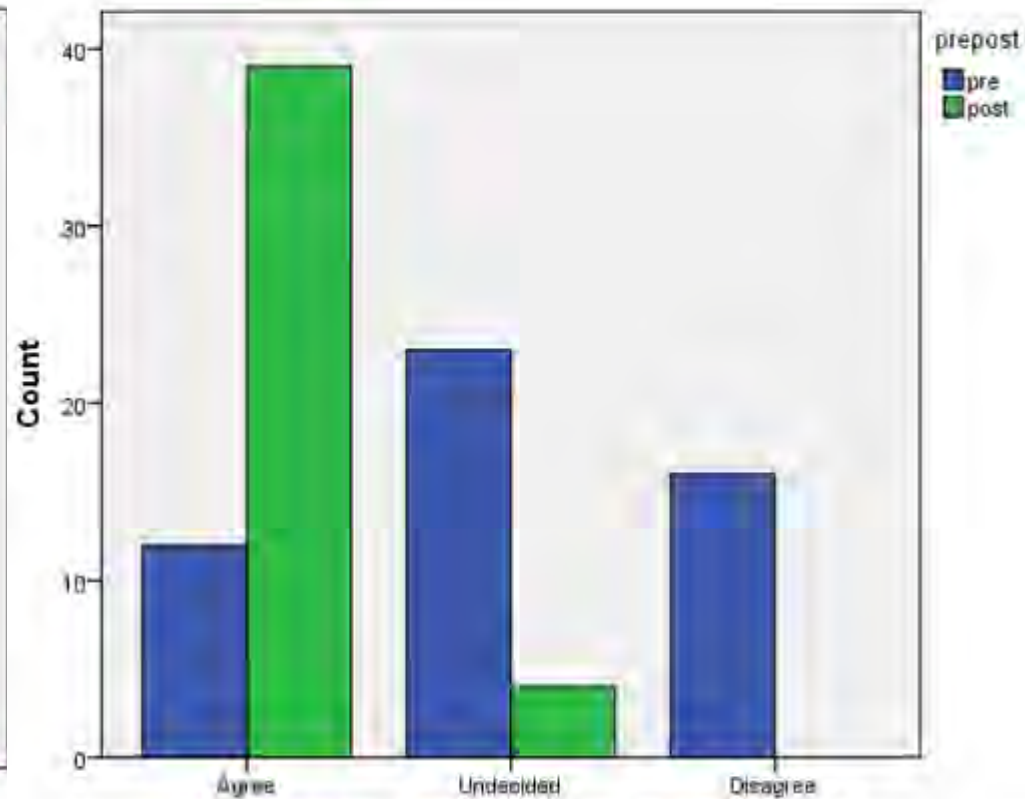
Sexual Assault and Relationship Violence Prevention Program -

[www.studentlife.msu.edu/current\\_students/sarv/sarv.htm](http://www.studentlife.msu.edu/current_students/sarv/sarv.htm)

## Securing Academic Positions at 2- and 4-Year Institutions (September, 2013, participants were from 8 colleges)



**I understand the academic interview process and the possible challenges that may occur during interviews.**



**I understand the differences in expectations for faculty members at different types of academic institutions (e.g., research intensive vs. liberal arts vs. community college).**

## University Graduate Certification in College Teaching Program

years	participants
1998 - 2008	42
2009 (pilot)	20
2010 - 2013 (institute)	335

Improved visibility and coordination of program

# Outcomes: web resources

## Results: Career Success google analytics

August 1, 2011 through May 12, 2013

- 8700 unique visitors (65% first time)
- over 700 saved accounts
- avg. visit 5:48 minutes

September 1, 2013 through September 30, 2013

- 776 unique visitors (55% first time)
- 1254 visits with 4810 page views
- avg. visit 3:38 minutes

# Lessons learned

- Needs
  - quantitative *and* qualitative
  - analyze and plan
- Resources
  - create partnerships
  - share mentoring responsibilities
- Skills
  - create common language
  - campus-wide framework

# Final workshop discussion and reflection

What might be useful on your campus?

What might be different?

**MICHIGAN STATE**  

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**UNIVERSITY**

The Graduate School

**Questions?**

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**Rique Campa: [campa@msu.edu](mailto:campa@msu.edu)**