

# Strategies for Increasing the Underrepresented Minority Pipeline: A Case Study of Latino Graduate Students in the Food and Agricultural Sciences

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Presented at:

We Are One Conference

University of Tennessee – Murfreesboro

September 7, 2017

# Promising Practices: Serving URM 1<sup>st</sup> Generation Students

- Navigating and thriving in the academy
- Developing a sense of identity
- Cultivating a nurturing mentoring relationship
- Providing professional success strategies all aimed at ensuring a climate of engagement and success

# GOALS

1. Reward young Hispanic (U.S. citizens or permanent residents) graduate students for their scholarly achievements.
2. Recruit them to pursue an advanced degree and a career in the disciplines related to the food and agricultural sciences to address the need of preparing the future workforce for positions within the United States Department of Agriculture and other related governmental agencies.

# Grant Activities

## Thesis Competition

- Monetary Award
- Plaque
- Funding to attend Institute/Conference
- Public Recognition

## Career Preparation Institute

- Similar Minds Personality Test
- Résumé Review
- USDA Internship Application
- Facebook Group Page
- Pre-Institute Assignments

# Institute Agenda

- Communicating Science
- From Fellow to Professional
- Tips for Navigating the PhD
- Thriving in the Academy
- Thriving in the USDA Agency
- Visiting a USDA field-site
- Policy Formulation in Academe & Government
- Cultural Identity: Attending AAHHE Plenary Sessions
- Networking with AAHHE Fellows
- Dining with Mentors
- Completing a Development Plan



**NAME:** \_\_\_\_\_

**DATE:** \_\_\_\_\_

**CAREER DEVELOPMENT PLAN**

	GOALS	IMPLEMENTATION STRATEGIES	ASSESSMENT
<b>EDUCATION</b>			
<b>CAREER</b>			
<b>PAYING FORWARD</b>			
<b>NETWORKING</b>			

# Outcomes

- ✓ Served 5 cohorts (2012-2016) totaling 80 graduate students for \$337,000.
- ✓ A total of 79 (99%) completed their master's degree; one dropped out.
- ✓ 24 (30%) fellows enrolled in doctoral programs and two have graduated.
- ✓ 18 fellows completed internships.
- ✓ 16 were actually hired by USDA.

# Lessons Learned

- Professional Development to Complement Degree Requirements:
  - Generations in the Workplace
  - Intrapersonal/Interpersonal skill development
  - Communicating science
  - Policy development
  - Cultural competency



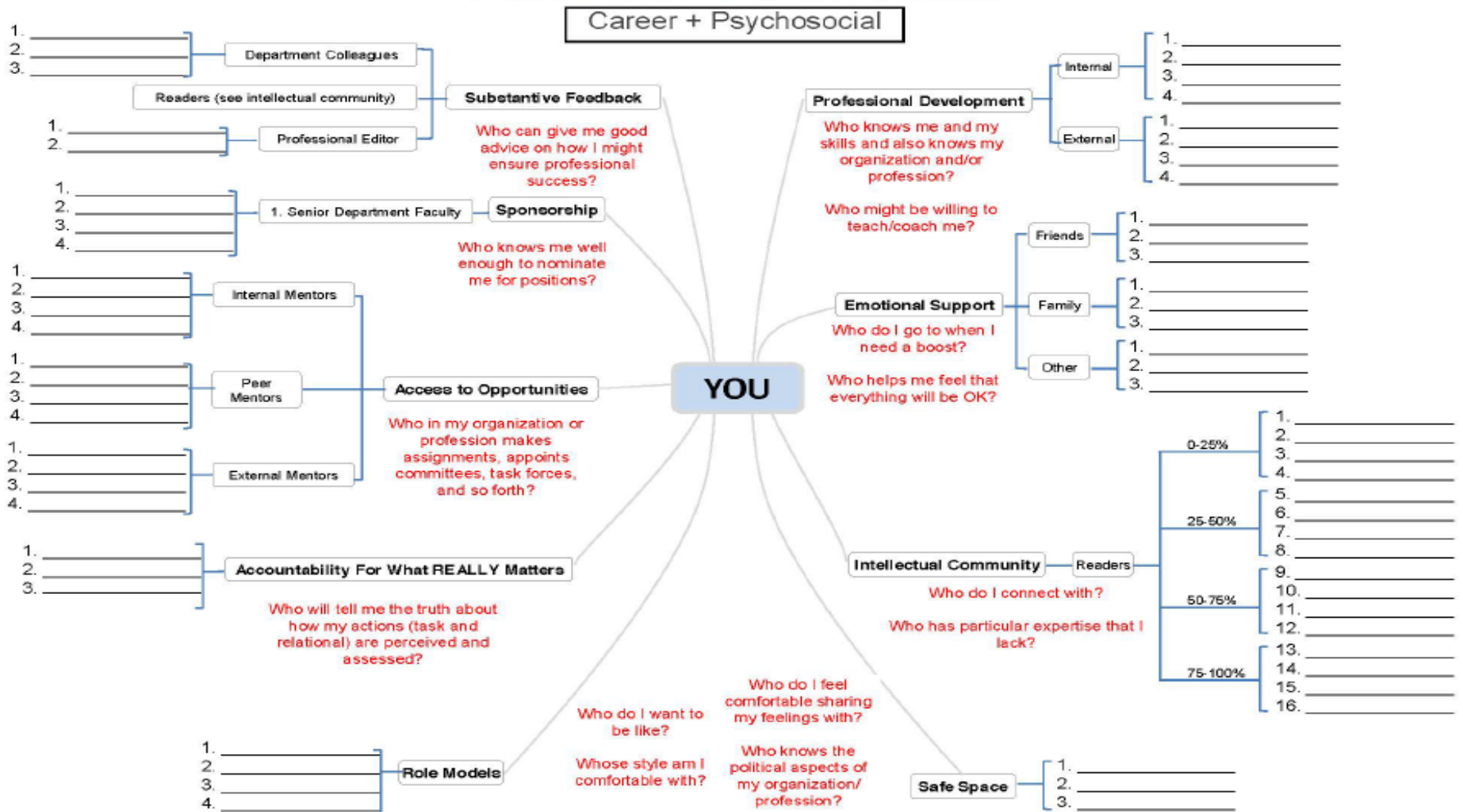
## Lessons Learned (Cont):

- Professional Development to Complement Degree Requirements (Cont:)
  - Emotional intelligence
  - Research writing/publishing in the sciences
  - Doctoral education pursuit, e.g., navigating the PhD, reasons to get a PhD, knocking down barriers, career opportunities outside of the academy, mental preparation for leaving home to pursue an advanced degree
  - Global opportunities in STEM- Costa Rica/Mexico/ USAid/Fulbright/USDA
  - Seeking Funding for Fellowships/Intentionality  
<https://www.profellow.com/>

# Lessons Learned (Cont)

- ❑ Effective written and verbal skill development, e.g.,
  - Sending emails
  - Developing email addresses
  - Writing bios [providing a template to include name, discipline, institution, date of graduation, accomplishments, and aspirations]
  - Building résumés
  - Interviewing skills
  
- ❑ Professional headshot
  
- ❑ Importance of conversations regarding ‘presence’ [Amy Cuddy], fixed/growth mindset [Dweck], the imposter syndrome, mentorship development, etc.

## NCFDD MENTORING MAP



# Challenges

- Finding Latinos in the program
- Finding Latinos who meet the criteria
- Getting them to apply and follow-through
- Getting faculty/sponsors to push the identification and participation of students in their program

## **Strategies for Finding Students to Participate**

- Identify criteria for grant awarded (or grant proposal)
- Request - By level currently enrolled – [freshmen, sophomore, junior, senior, 1st year (newly enrolled) master's; master's students from fall 2015 forward]
- Contact info – email and phone number
- Residency
- GPA (whatever it is)
- Race/ethnicity
- Majors:
  - Atmospheric Science (BS)
  - Chemistry (BS)
  - Environmental Science (MS)
  - Geospatial Info Sciences (BS)
  - Marine Biology (MS)
  - Biology (BS & MS)
  - Computer Science (BS & MS)
  - Fisheries & Mariculture (MS)
  - Geospatial Engineering (MS)

## **Strategies for Finding Students to Participate**

- Filter data to view only the following:
  - Only Sophomores – master level students (excluded certificate, non-degreed and freshman)
  - All but foreign students
  - Black, Hispanic, multi-racial (Native American/Asian/White)
- Sort each level of student by GPA (highest to lowest)
- Narrowed prospects from 2689 to 137 prospects to 28 eligible: 6 sophomores, 8 juniors, 9 seniors, 5 grad. [Note: a very telling outcome regarding the number of URMs enrolled in the sciences.]

## **Effective URM Strategic Plan: Key components**

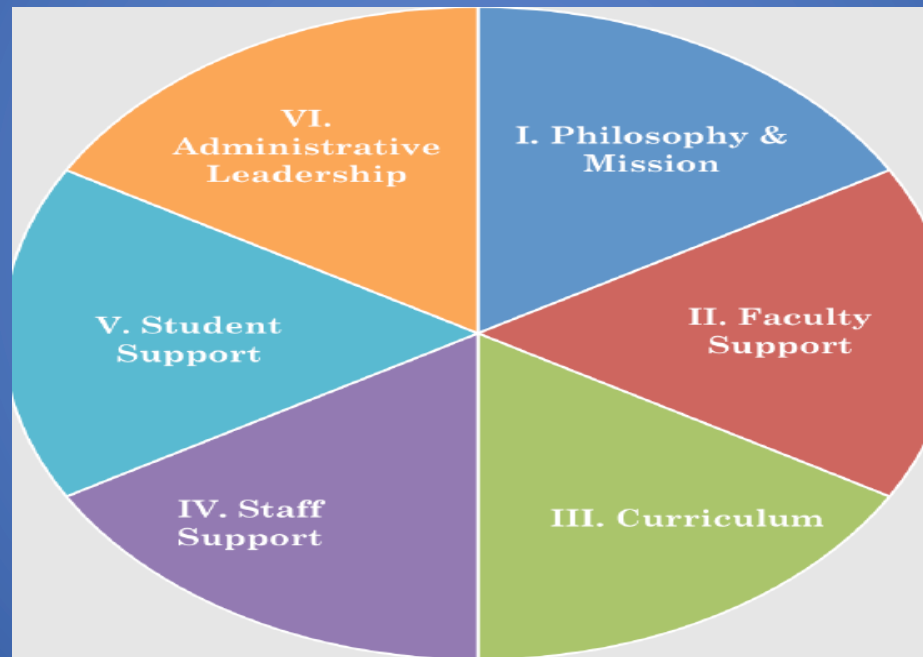
- Early start: An orientation/pre-term course start to get students oriented/situated/networked. Assess their foundational knowledge/create an IEP.**
- Intrusive mentoring.**
- Frequent meeting of faculty to discuss student progress.**
- Committed Faculty/Staff – incentivize via reward structure.**

# Effective URM Strategic Plan: Key components

- ❑ Networked inter-institutional programs:
  - To feed students to your programs from UG programs in other institutions
  - To feed your students to supportive sponsors at other institutions. [Need institutional commitment so that students have access to resources, e.g., library, career/counseling services, etc.]
  
- ❑ Financial support
  
- ❑ Professional development to complement degree requirements



## NERCHE Self-Assessment Rubric for the Institutionalization of Diversity, Equity, and Inclusion in Higher Education



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“Any diversity planning and implementation effort will be successful only if it focuses on:

- building capacity;
- cultivating vision and buy-in;
- establishing accountability processes; and
- providing an adequate level of financial, human, and technical resources by senior leadership to lead change over time—

or diversity plans will fail.”

Guy, Reiff, and Oliver 1998; Williams, Berger, and McClendon 2005; Williams and Clowney 2007

Effective Stewardship of Place –  
creating and sustaining an inclusive  
and inviting campus climate – takes  
work, intentionality, and overt  
initiatives.

