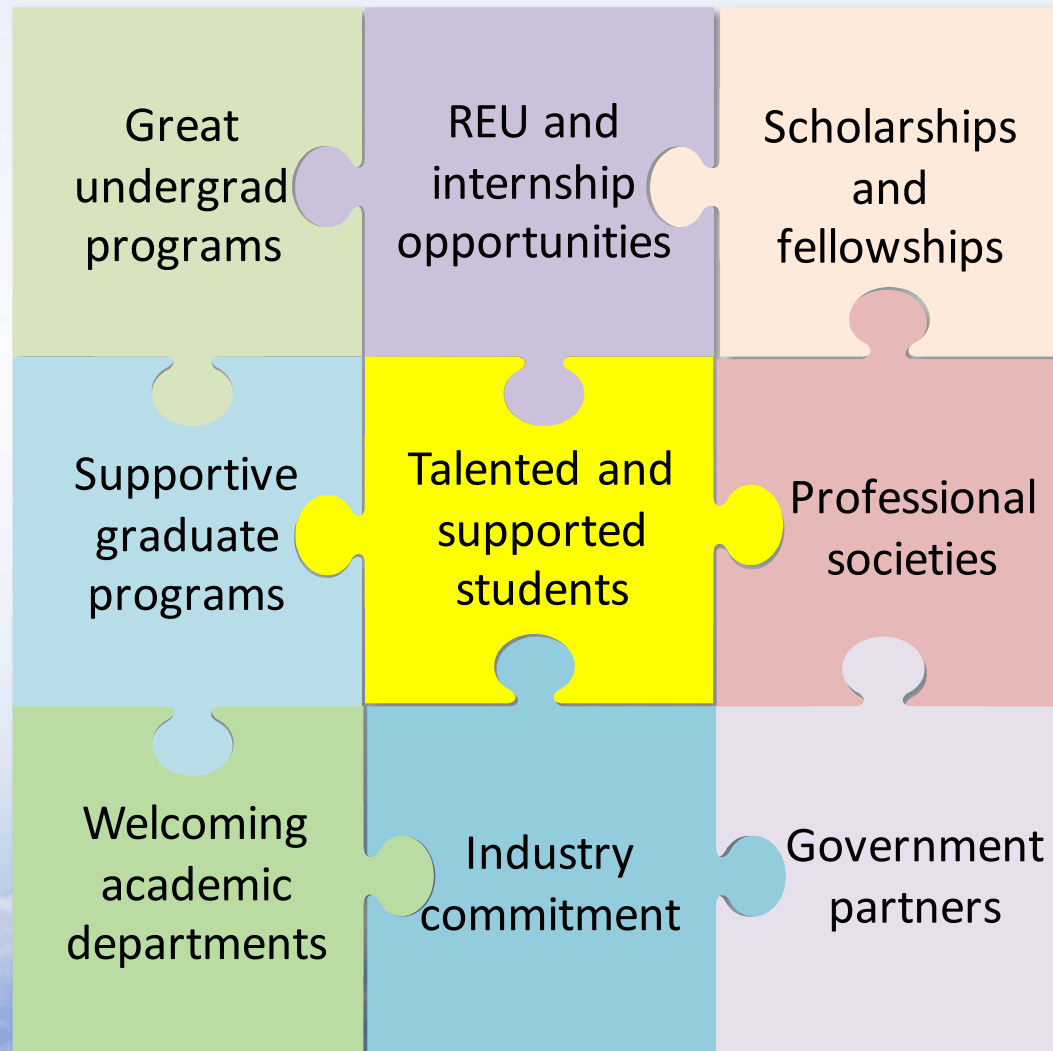


SOARS - 20 years of the atmospheric science community working to increase diversity

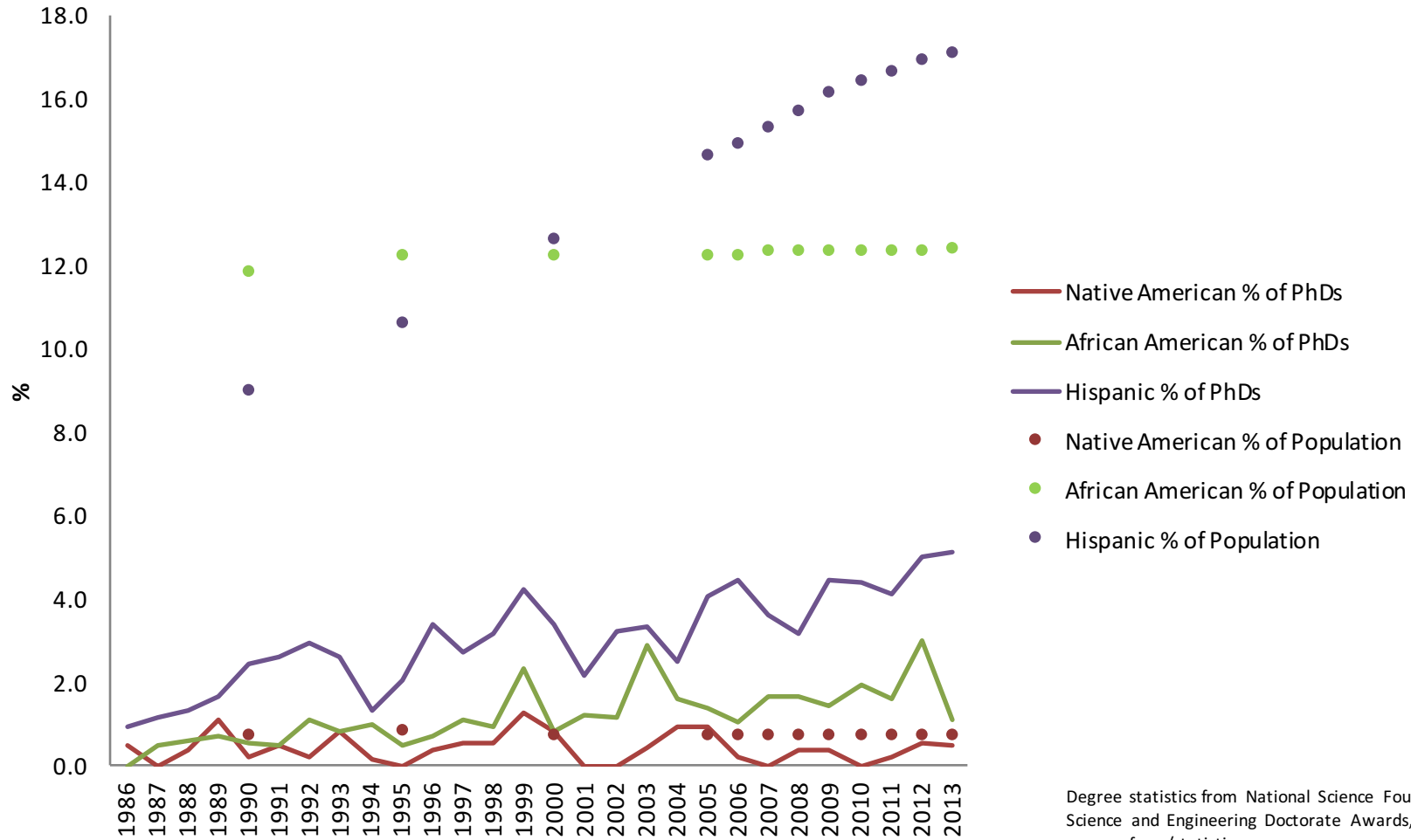


R. Haacker, R. Batchelor, T. Windham, R. Pandya
CMMAP Meeting 2016

What does it take to build a diverse atmospheric science workforce?



Atmospheric, Oceanic and Earth Science PhDs awarded to under-represented minorities vs % of US population



Degree statistics from National Science Foundation, Selected Data on Science and Engineering Doctorate Awards, 1995-2013, www.nsf.gov/statistics

Population Statistics from US Census Bureau, via the National Center for Education Statistics, available at https://nces.ed.gov/pr ograms/digest/d13/tables/dt13_101.20.asp

“SOARS - A partnership with the atmospheric science community for recruiting, supporting and retaining students from diverse backgrounds”

Research



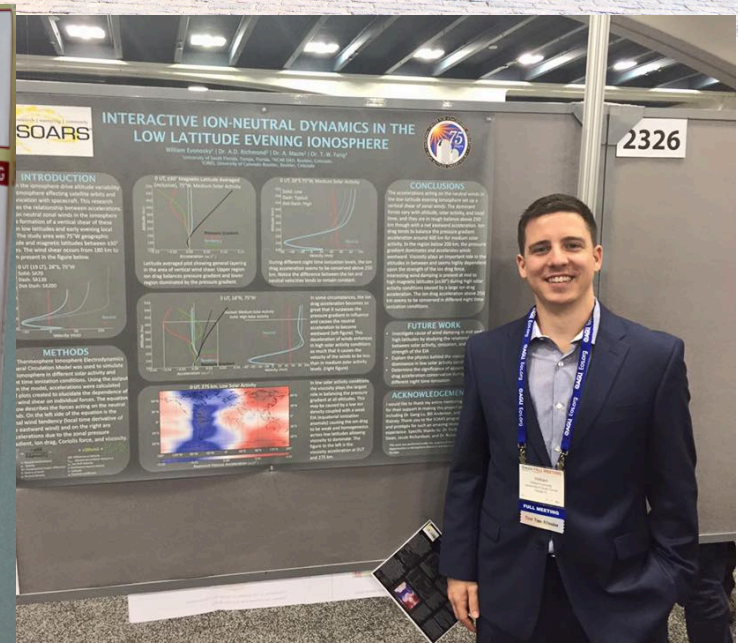
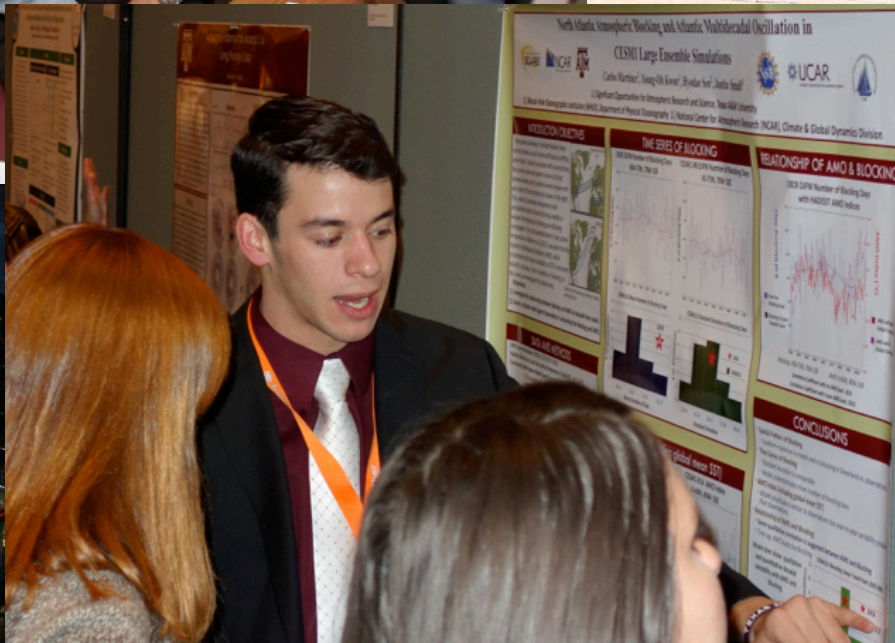
Mentoring



Community

Ongoing support

Genuine Research



NCAR
UCAR

SOARS Center for Higher Education

air • planet • people

SOARS at PECAN



Dougherty, E.: Precipitation characteristics of warm-season nocturnal convection in the Great Plains as determined by ground-based measurements during the PECAN field campaign.

Torres, A.: Comparison of ground and space based radar observations with distrometer measurements during the PECAN field campaign.



Juneau Icefield Research Program



Varuolu-Clarke, A.: Juneau Icefield Research program: Mass balance of Taku and Lemon Creek Glaciers



FOR PROTÉGÉS:

- Learning skills
- Building self efficacy
- Sense of belonging
- Preparation for graduate research
- Collaborations



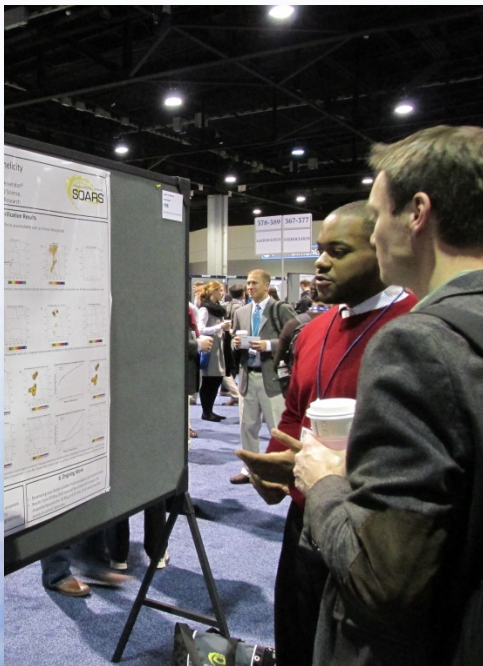
FOR MENTORS:

- Enthusiasm
- Research collaborations
- Innovation
- Giving back

Benefits of SOARS Research

FOR SCIENCE:

- 377 posters
- 138 presentations
- 25 peer-reviewed papers
- New ideas, new focus, new collaborations



Mentoring

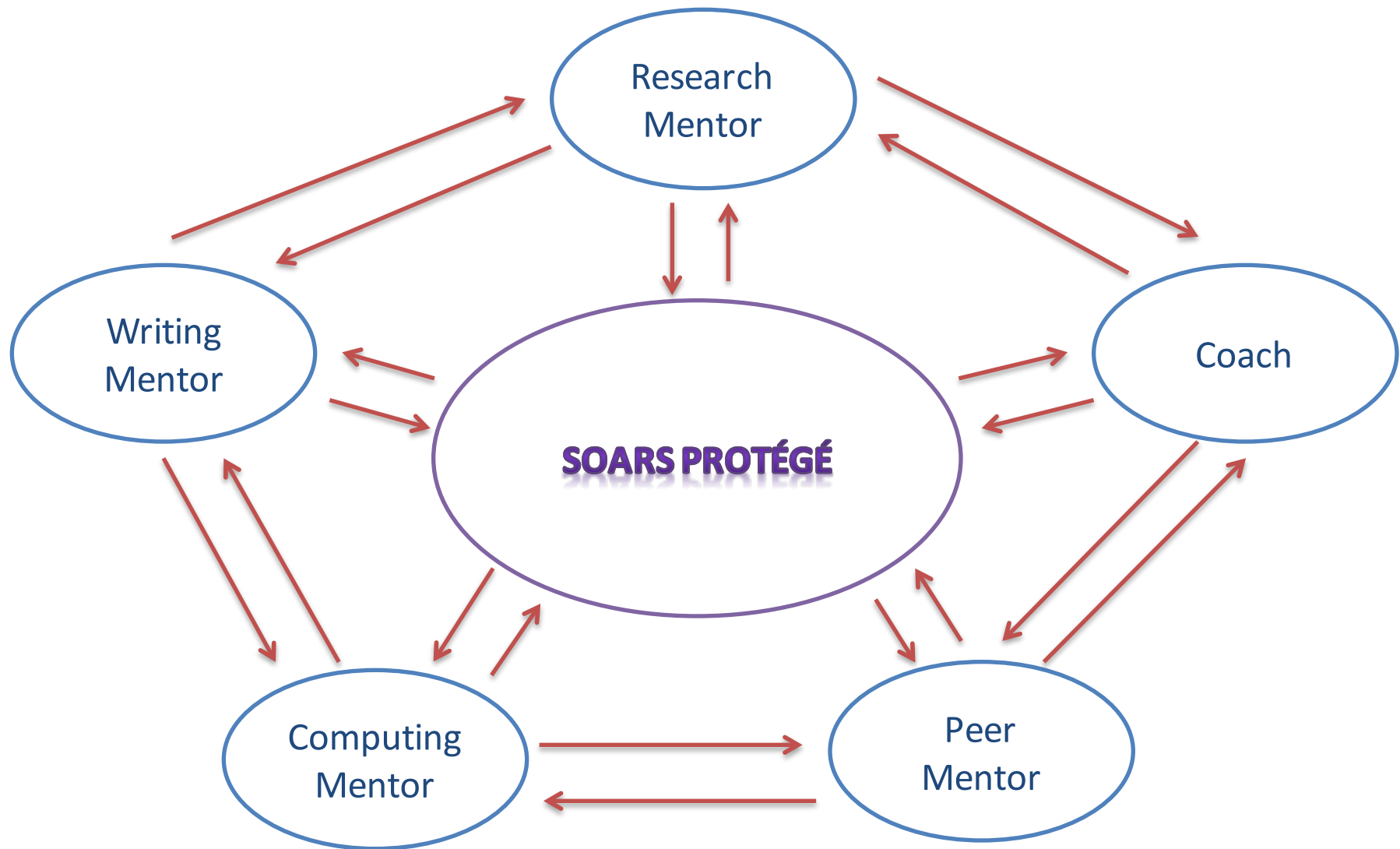


NCAR
UCAR

SOARS Center for Higher Education

air • planet • people

The SOARS mentoring model



Adapted from Thomas L. Windham, Amy J. Stevermer, and Richard A. Anthes, 2004: SOARS®: An Overview of the Program and Its First 8 Years. *Bull. Amer. Meteor. Soc.*, **85**, 42–47

Community



NCAR
UCAR

SOARS Center for Higher Education

air • planet • people



December 5 at 11:02pm · 🌐

I've never felt so alone in my life.... and I don't think anyone can change that. Have you ever felt like you don't belong here?

Share

👍 8 people like this.

👤 | Baby call me if u need to talk u are never alone I might not be in the same placr biut im always here
December 6 at 12:04am · 👍 1

👤 Sure have, and sometimes still do, but the feeling will pass. Just make sure to seek help/guidance and try not to isolate yourself. Don't give up and keep pushing forward, it'll get better.
December 6 at 4:32am · 👍 1

👤 re Keep pressing forward and take one day at a time. You know I relate to you but just keep in mind that love ones care and you have God with you at all times.
December 6 at 5:11am · 👍 1

👤 you are never alone! God is always with you and loves you right where you are!
December 6 at 6:35am · 👍 1

👤 I Love you and I am here for you Sweetheart. God Bless you.
December 6 at 7:13am · 👍 1

Ongoing support

Tuition

Conference travel

GRE training

Writing assistance

Career webinars

Career counselling

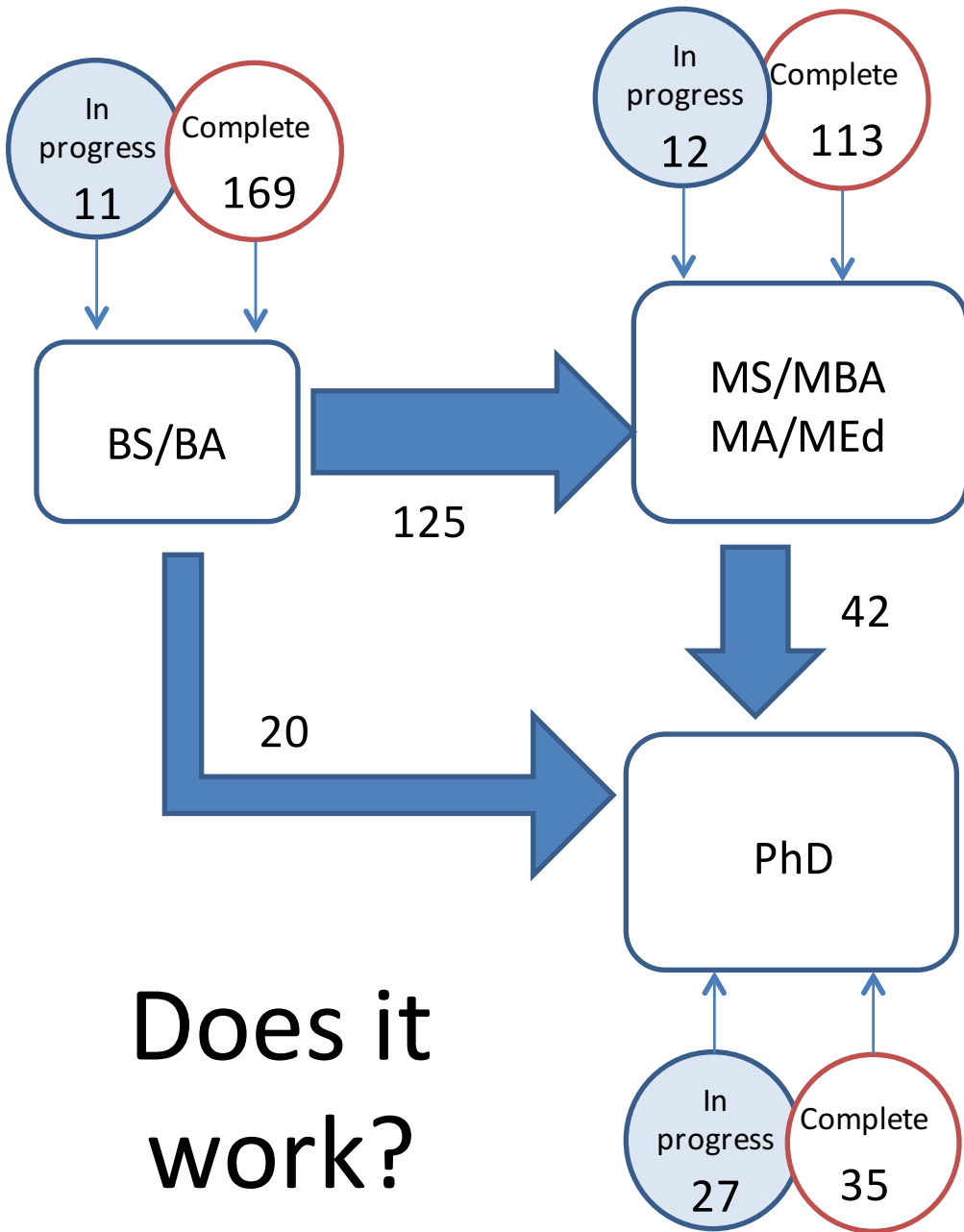


"I know that if I ever have a problem, really about anything, or need support of any form, I have people that I can call on to help."

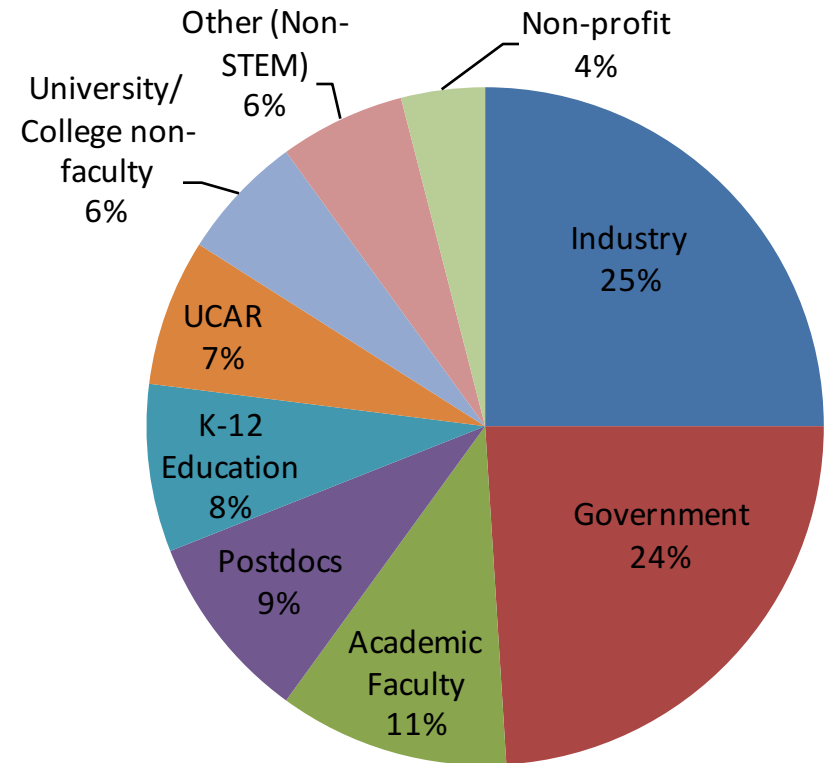
NCAR
UCAR

SOARS Center for Higher Education

air • planet • people



Does it work?

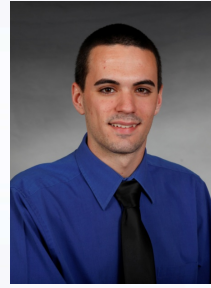
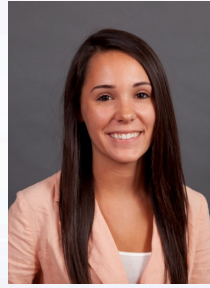


Snapshot of employment sector; includes 100 non-student alumni December 2015

CMMAP supported SOARS students



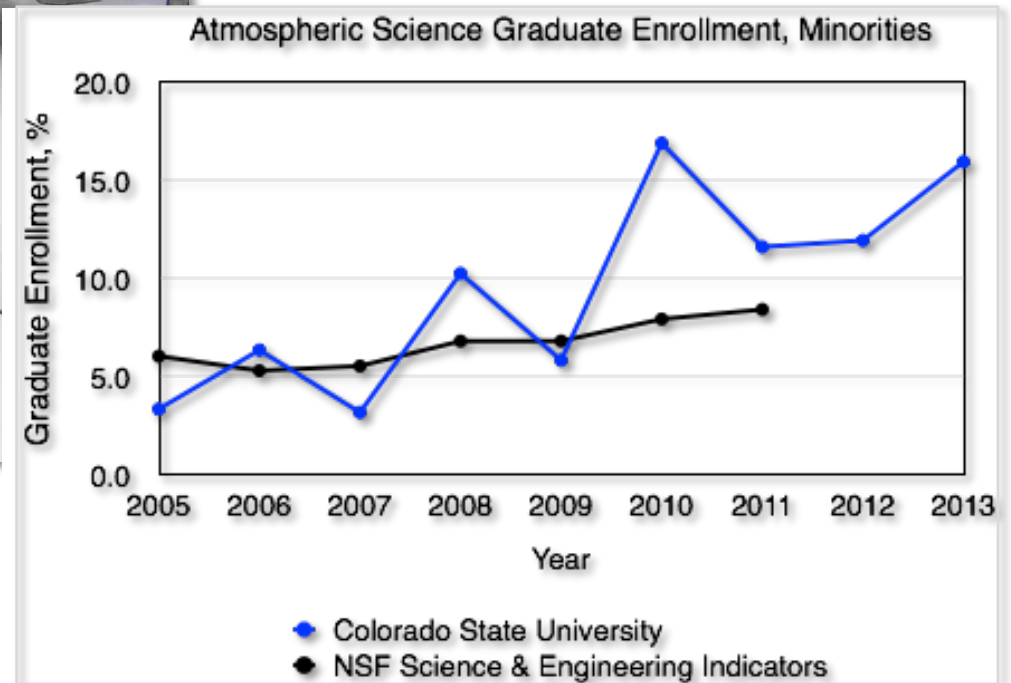
1 tenure track faculty
1 postdoc
9 current PhD students
4 in STEM positions with a MSc
2 in college
2 left STEM after earning a BS



The Multiplier Effect



Melissa Burt
SOARS 2003-2005



From Burt et al, "Increasing the Diversity of Your Graduate Program: Translating Best Practices into Success" Accepted for publication in BAMS

SOARS alum become faculty

Dr. Deanna Hence

Assistant Professor in Atmospheric Science
University of Illinois

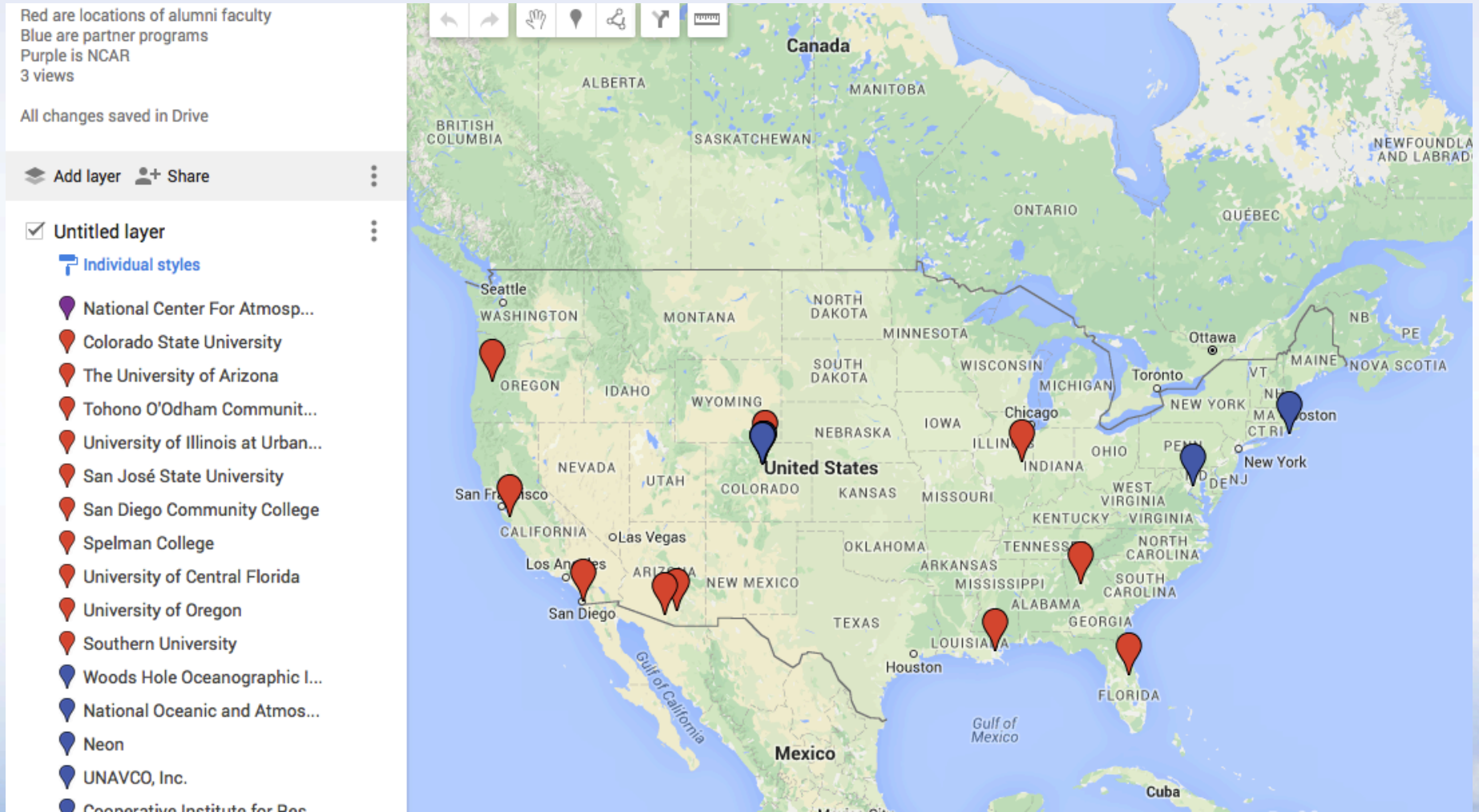
2012-14 Postdoc at NASA Goddard Space
Flight Center

2011 PhD, University of Washington

2003-2004 SOARS protégé



The next 5 Years





UBIMET

Industries Services Partners Technology Company International

SERVICES ► SEVERE WEATHER CENTER

MILLIONS OF CUSTOMERS
RELY ON UBIMET'S SEVERE
WEATHER WARNING SERVICE

WHOLE STORY

Ana Ortiz, SOARS 2012

B.S., University of Illinois Urbana-Champaign

M.P.S. University of Miami

Forecaster for UBIMET.

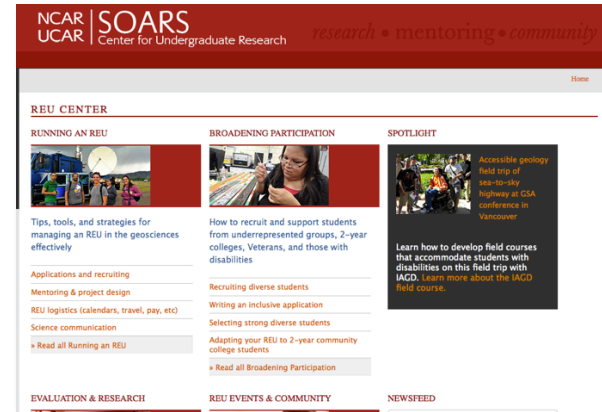
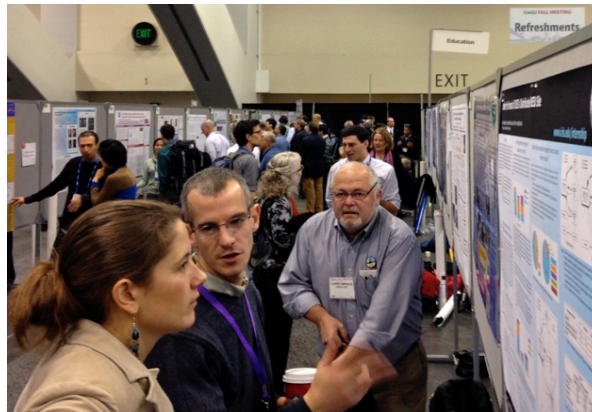
“Industry jobs focus on anything that has a major impact on the public. Most industry jobs allow you to communicate with clients and you get to make unique connections with people outside the meteorology field.”



NCAR
UCAR

SOARS Center for Higher Education

air • planet • people



Thank you for your support!

Atmospheric Science

3915A Laporte Avenue

Colorado
State
University

