

Summit on Improving Geoscience Graduate Student Preparedness for the Future Workforce

Summary & Next Steps

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National Science Foundation
WHERE DISCOVERIES BEGIN

Jackson School of Geosciences

University of Texas at Austin

May 11-13, 2019

Where we started on Saturday

- **Summary on**

- Future of Undergraduate Geoscience Education
- Council of Graduate Schools & National Academy of Sciences STEM reports

- **Geoscience Employers Workshop**

- ~52 participants representing broad spectrum of geoscience employers of PhD & MS students in Earth, Ocean & Atmospheric Sciences
 - Industries, Non-profits, other organizations: Weather/climate, Energy/natural resources, Oceans/fisheries, Environment, Reinsurance/hazards
 - Government agencies – NASA, NOAA
 - Research labs & universities
 - Professional societies

Resulted in:

General consensus on skills and competencies needed for STEM & Geoscience (Earth, Ocean & Atmospheric Sciences) graduate students

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Goals:

- **Heads, chairs & graduate program administrator discussion**
 - skills & competencies that should be part of graduate geoscience education
 - best means of developing these skills & competencies
 - implementation strategies for graduate geoscience programs nationally

- **Implementation of departmental or program plans**
 - Barriers, solutions, incentives, rewards
 - Develop plans for action
 - Implementation into own department curriculum, courses, programs

Time frame to report on progress???

Heads/Chairs/Graduate Program Directors as leaders for change

You can stimulate & shape change:

- **Educate your faculty on the skills & competencies graduate students need to be successful in future careers**
 - Information from Geoscience Employers Workshop & Summit
- **Empower faculty to make curriculum/course/program changes**
- **Establish academic cultures that**
 - reward innovative teaching, mentoring
 - development of professional technical & non-technical skills & competencies
 - are inclusive, equitable and diverse
 - recognize the need for positive mental health
 - provide a holistic education

Future of Graduate Geoscience Education

- **Sustained change in geoscience graduate education** - *Culture change*
 - combined efforts of departments and programs
 - administrators, individual faculty
 - future workforce employers
 - geoscience professional societies

Next Steps

- External help needed?
- Unresolved issues?
- What needs to be done next?

Information, talks, broadcasts will be posted:

- <http://www.jsg.utexas.edu/events/summit-on-improving-geoscience-graduate-student-preparedness-for-the-future-workforce/>

Invitation
Heads and Chairs Workshop on the
Future of Undergraduate Geoscience Education at the
Earth Educators Rendezvous 2019,
July 15-17; Nashville, TN

https://serc.carleton.edu/earth_rendezvous/2019/index.html

Thanks!

To Panelists!

Facilitators!

Working Group presenters!

All participants!

NSF!

... and Staff all volunteer help