

**Report on Results from the Annual Geo-Engineering
Graduate Programs Survey**
Academic Year 2018-2019

Prepared by the USUCGER Board

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Introduction

The U. S. Universities Council on Geotechnical Education and Research (USUCGER) Board prepared and conducted a survey with the goal of collecting information on Geo-Engineering focused Graduate Programs in U.S. Universities, and specifically the number of graduate degrees (both PhD and MS/MEng) that Geo-Engineering programs in the country have awarded during the academic year 2018-2019. The term Geo-Engineering is used in this survey to include Geotechnical, Geological, and Geoenvironmental Engineering.

Results

The survey was active from May 26, 2020 to July 17, 2020 and was distributed through the USUCGER email listserv (all@usucger.org). The survey received responses from 67 programs (out of 138 institutions that belonged to USUCGER at the time of the survey), the names of which are presented in Appendix A. The survey link and questions are provided in Appendix B. The following sections summarize the results of the survey. For any additional questions, please contact the USUCGER Board at uboard@usucger.org. It is our intent to conduct similar surveys every 1 or 2 years.

Of the 67 survey respondents, 83.5% were PhD granting institutions, 15% were MS/MEng granting institutions and 1.5% were Baccalaureate granting institutions (Figure 1).

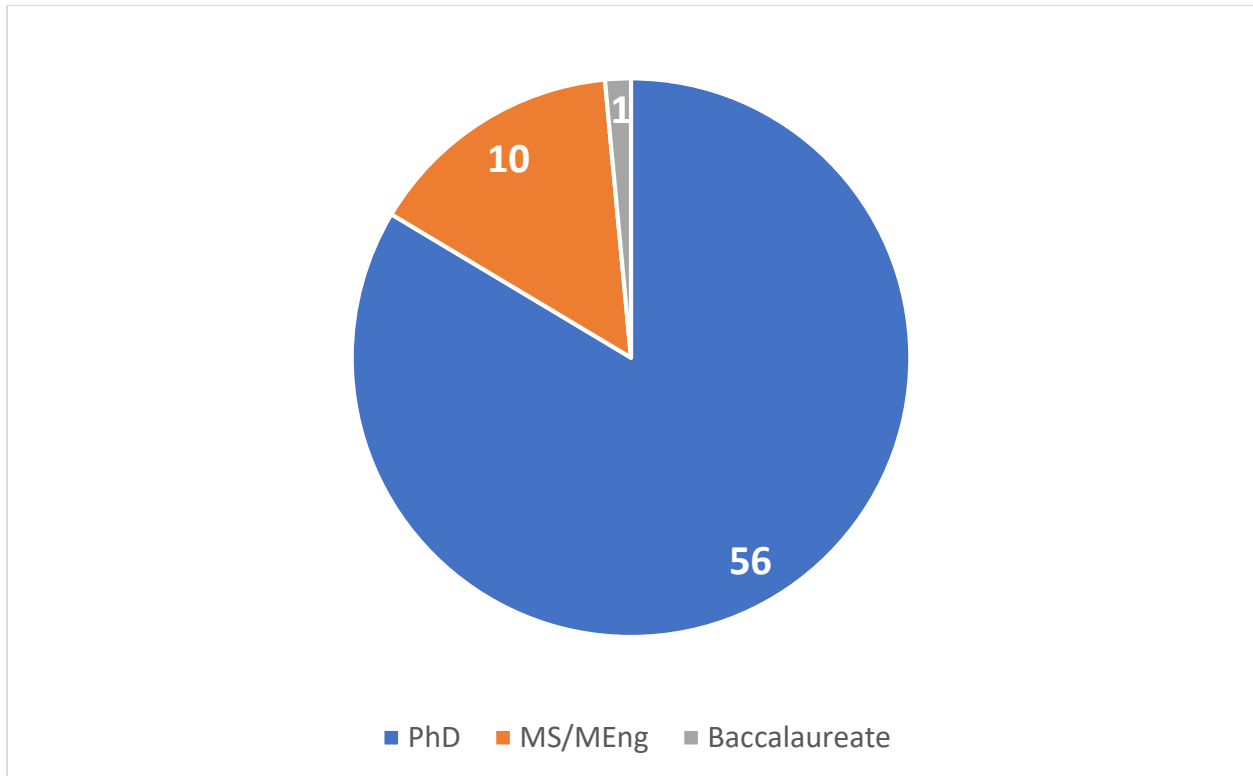


Figure 1: Distribution of absolute number of responses (out of 67) on the highest degree the institution awards (Question 2).

The survey also looked into the makeup of the faculty in the Geo-Engineering programs who responded. The following figures show the breakdown by size of group, gender and URM designation (Under-Represented Minorities).

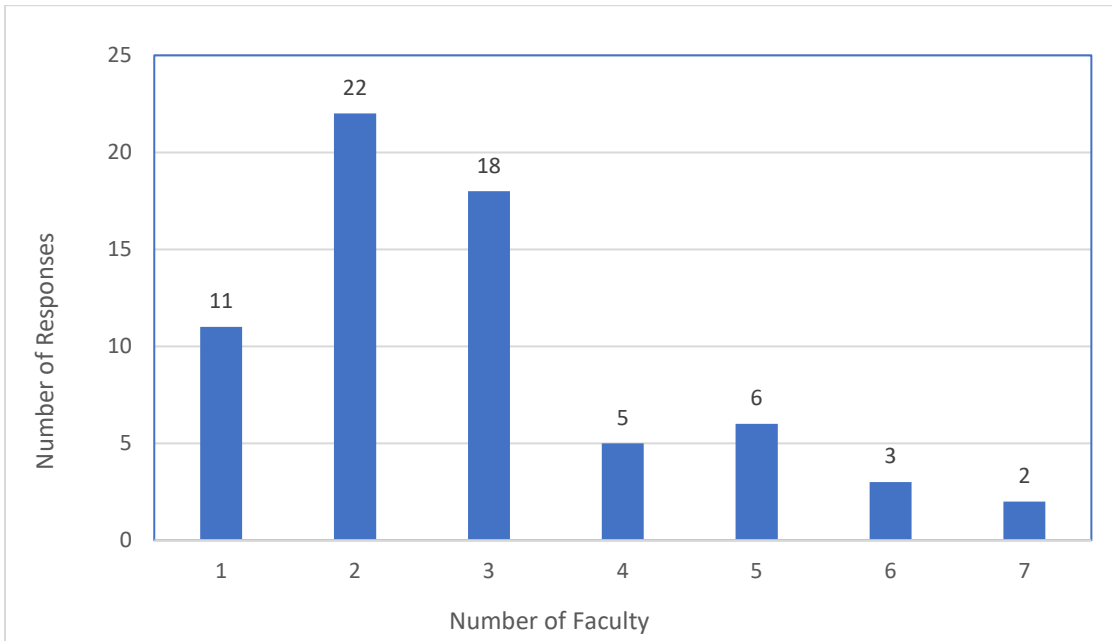


Figure 2: Distribution of geo-faculty group size among survey respondents (Question 3)

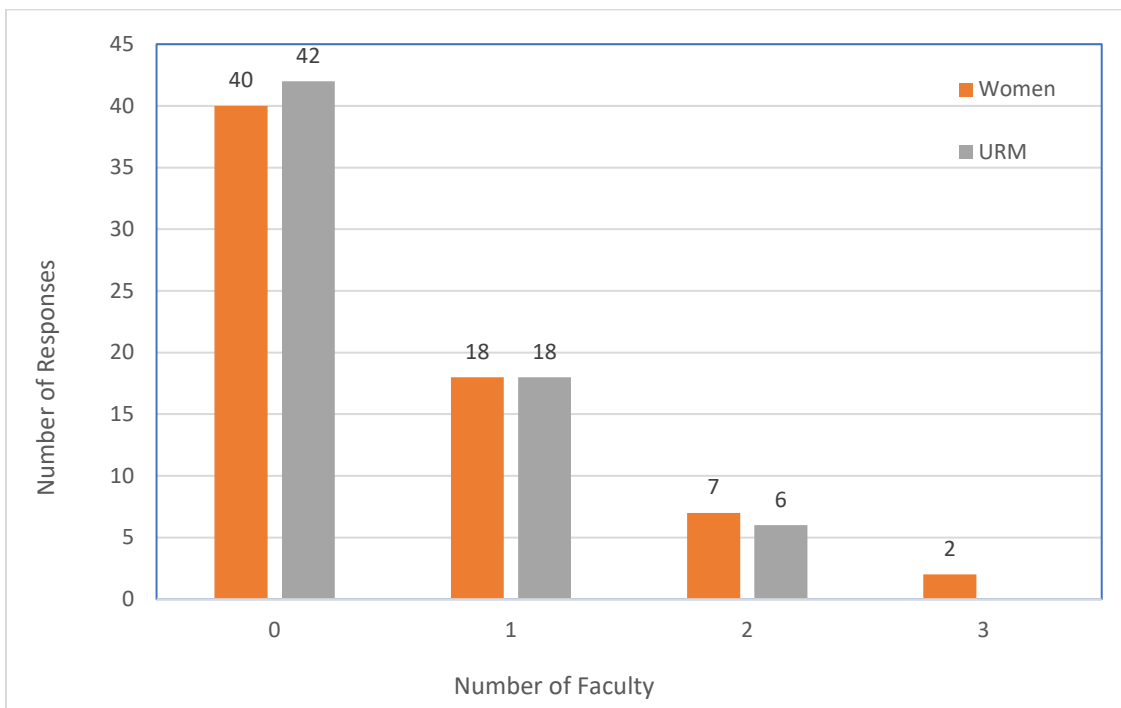


Figure 3: Distribution of data on number of women faculty and faculty who identify as URM (Questions 3a and 3b)

The following figures present the results in terms of number of PhD degrees awarded during the academic year 2018-2019, and also a breakdown by gender and URM designation. Overall a total of about 90 PhD degrees were awarded, with 65% being awarded to men and 35% to women. Of all PhD degrees awarded, 10% were awarded to URMs.

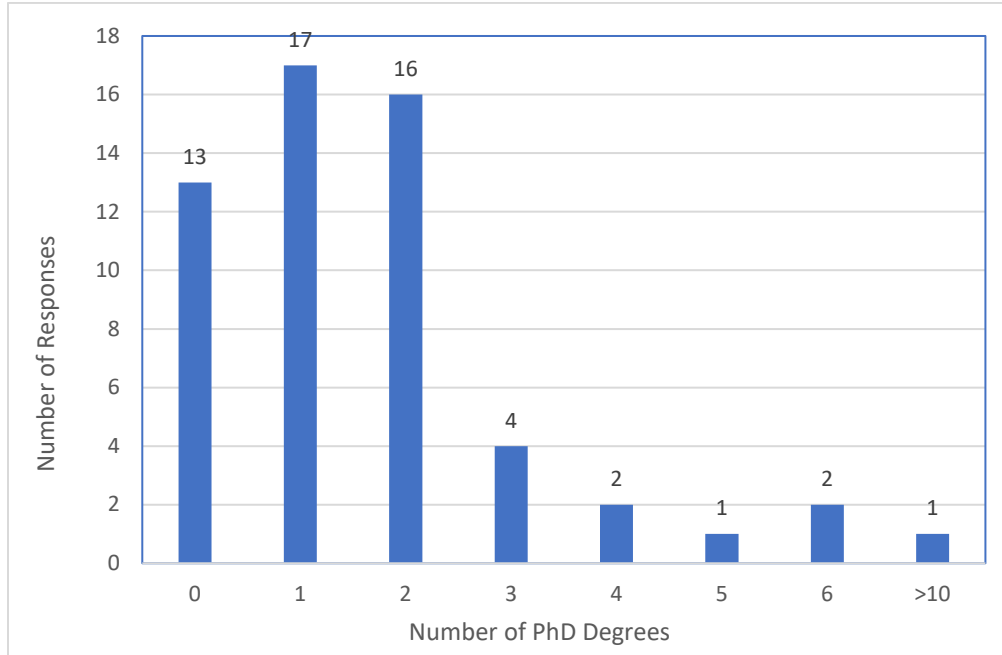


Figure 4: Distribution of number of PhD degrees awarded during 2018-2019 among survey respondents (Question 4).

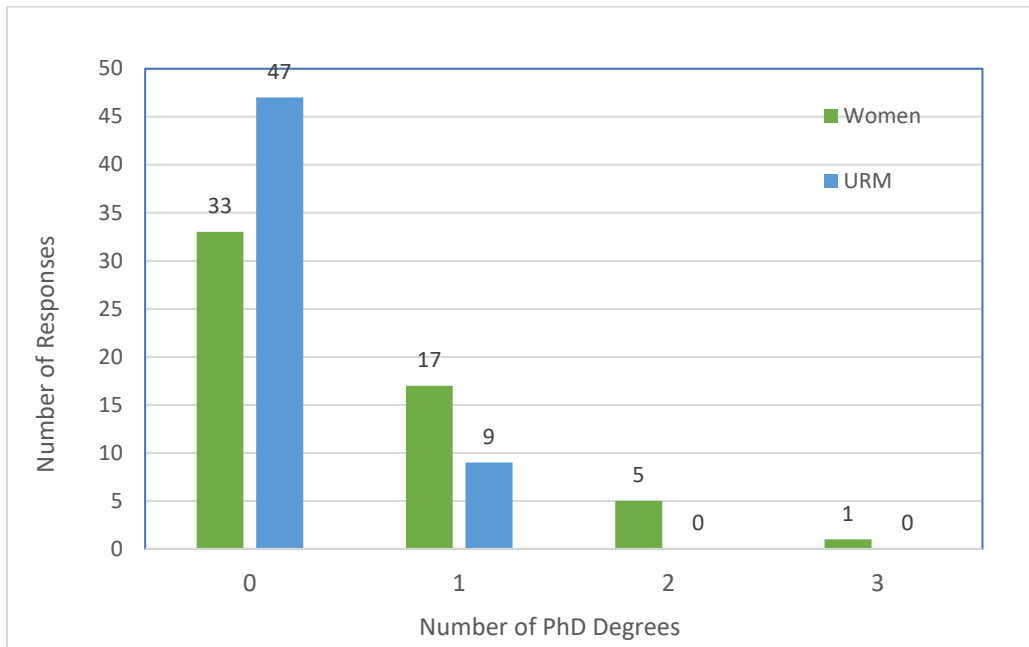


Figure 5: Distribution of number of awarded PhD degrees among women and URMs (Questions 4a and 4b).

The survey also focused on MS/MEng degrees. The following figures present the results in terms of number of MS/MEng degrees awarded during the academic year 2018-2019, and also a breakdown by gender and URM designation. Overall a total of about 230 MS/MEng degrees were awarded, with 72% being awarded to men and 28% to women. Of all MS/MEng degrees awarded, 23% were awarded to URMs.

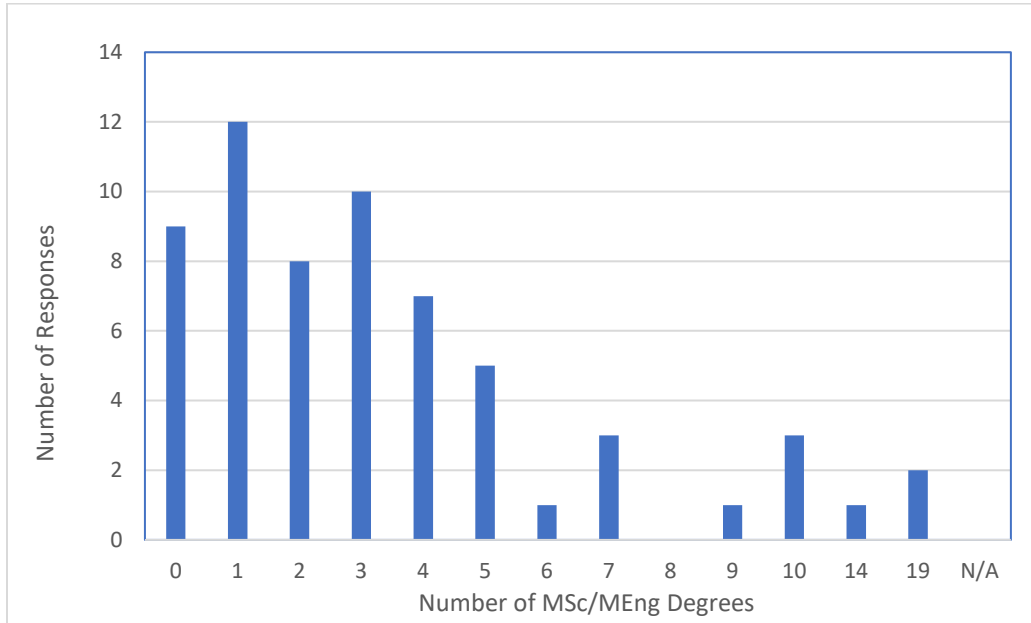


Figure 6: Distribution of number of MS/MEng degrees awarded during 2018-2019 among survey respondents (Question 5).

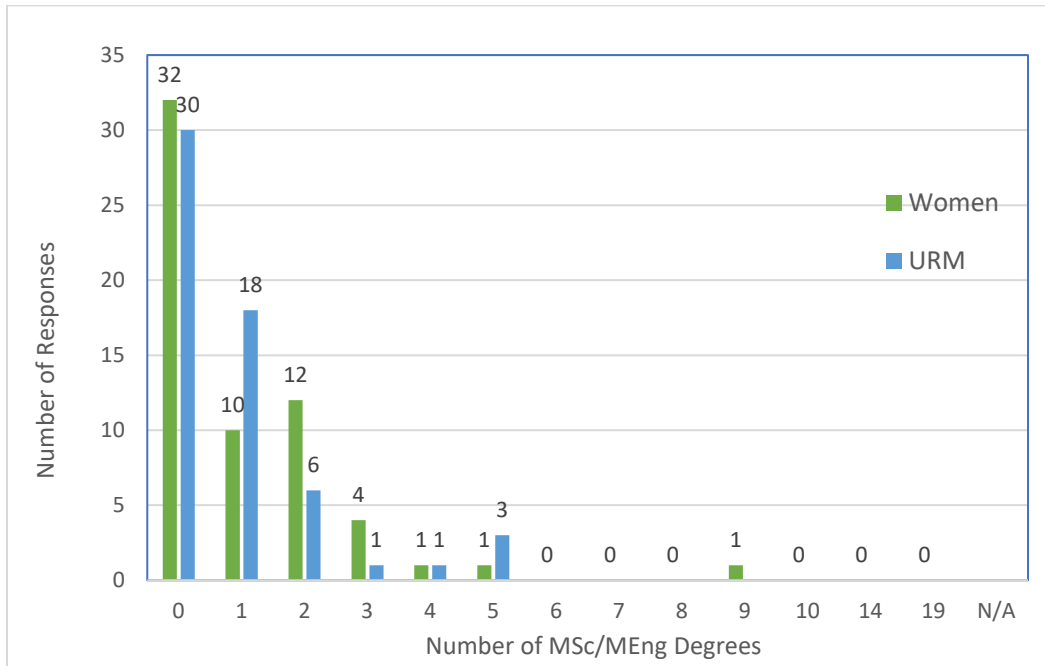


Figure 7: Distribution of number of awarded MS/MEng degrees among women and URMs (Questions 5a and 5b).

Lastly, the survey collected information on whether the programs collect data on post-graduation placement for both PhD and/or MS/MEng graduates. 42% of the respondents said “yes”, 39% responded “no” and 19% said that they didn’t know.

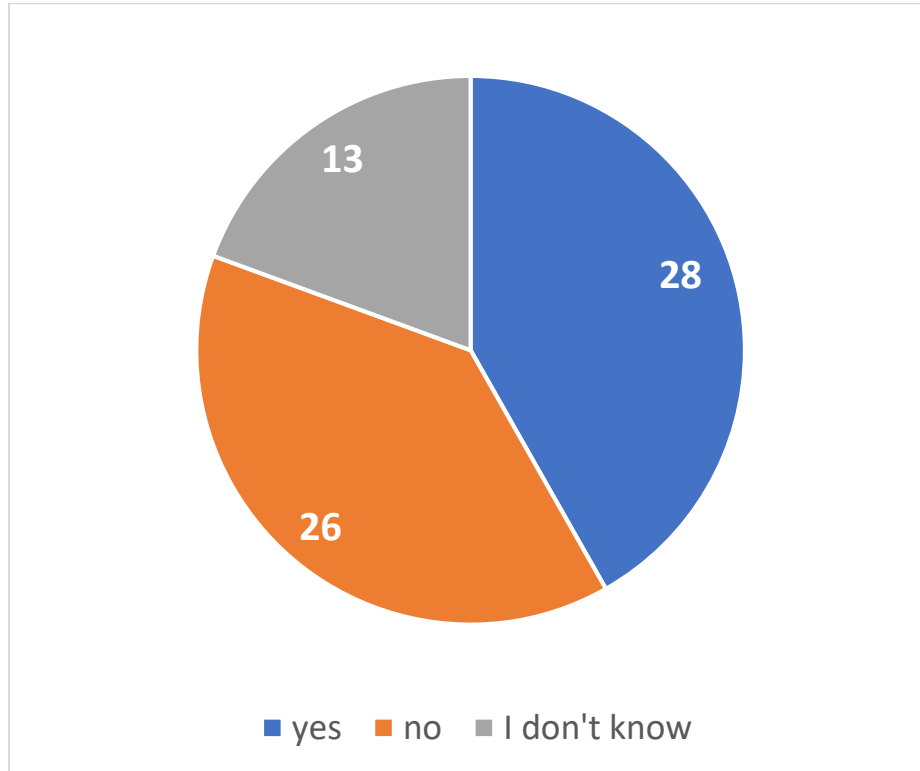


Figure 8: Distribution of absolute number of responses (out of 67) to Question 6 of the survey asking whether the programs track placement of their PhD/MS/MEng graduates.

Summary

The USUCGER Board distributed a survey to collect information on graduate degrees awarded by Geo-Engineering programs in the US. The survey received 67 responses and has provided important insights into the makeup of the faculty, as well as the graduate degrees awarded by these institutions. We recognize that there are limitations to the interpretation of these data since the 67 survey participants represent 49% of the total USUCGER membership (138) at the time of the survey. However, they represent a good sample of the graduate degree-granting Geo-Engineering programs in the US. Furthermore, we recognize that in Questions 3b, 4b and 5b, the survey didn’t allow for a more detailed breakdown by race and ethnicity which would have provided very important information on the diversity (or lack thereof) in our Geo-Engineering faculty and PhD/MS/MEng graduates. However, it was considered to be information that likely the Geo-Engineering faculty responding to the survey may not be able to access readily, and so it was not included. For any feedback/input and ideas on how to improve the survey, please contact the USUCGER Board at uboard@usucger.org.

Appendix A

List of USUCGER Members who responded to the survey

Arizona State University	South Dakota School of Mines and Technology
Auburn University	Southern Methodist University
Boise State University	Temple University
Brigham Young University	Tennessee Technological University
Cal Poly San Luis Obispo	UCLA
California State University, Fresno	UNC Charlotte
California State University, Fullerton	Univ. of California, Berkeley
California State University, Long Beach	Univ. of Idaho
California State University, Los Angeles	University at Buffalo, The State University of New York
Caltech	University of California, Davis
Case Western Reserve University	University of Hawaii at Manoa
Colorado School of Mines	University of Hawaii at Manoa
Colorado State University	University of Houston
Drexel University	University of Illinois at Chicago
Florida International University, Miami, FL	University of Kentucky
George Mason University	University of Maine
Georgia Institute of Technology	University of Massachusetts Dartmouth
Kansas State University	University of Memphis
Louisiana State University	University of Nebraska-Lincoln
Manhattan College	University of Nevada, Reno
Merrimack College	University of New Hampshire
Missouri University of Science and Technology	University of Oklahoma
Montana Technological University	University of Puerto Rico at Mayaguez
New Jersey Institute of Technology	University of Rhode Island
New Mexico State University	University of South Carolina
North Carolina State University	University of Tennessee
North Dakota State University	University of Texas
Northwestern University	University of Vermont
Oregon State University	University of Virginia
Penn State	University of Washington
PURDUE UNIVERSITY NORTHWEST	University of Wisconsin-Platteville
Rensselaer Polytechnic Institute	University of Wyoming
Rowan University	Villanova University
Saint Louis University	

Appendix B

Link to access the survey:

<https://forms.office.com/Pages/ResponsePage.aspx?id=NTd4YYsWz0axLInRxGoDugepEpG93JJLIDkpmgscBHRURUdXMTBTM1hXR0pOR1k3MERHNDBCUVhJTS4u>

Survey Questions:

1. What is the name of your institution?
2. What is the highest degree awarded by your institution? (PhD, MS, BS)
3. How many T/TT faculty belong to the Geo-Engineering group in your department?
 - 3a. How many of these faculty are women?
 - 3b. How many of these faculty are from an Underrepresented Minority Group?
4. How many PhD degrees in Geo-Engineering did your department confer for AY 2018-2019?
 - 4a. How many to women?
 - 4b. How many to an individual from an Underrepresented Minority Group?
5. How many MSc degrees in Geo - Engineering did your department confer for AY 2018-2019?
 - 5a. How many to women?
 - 5b. How many to an individual from an Underrepresented Minority Group?
6. Does your department track placement of your graduating MSc and/or PhD students?
(yes, no, I don't know)