

December 7, 2009

COSEE SE Report
Results of a Survey on Diversity in Ocean Sciences Workforce
In Federal and State Agencies and in Institutions of Higher Education
In North Carolina, South Carolina and Georgia

Authorship

Lundie Spence, Ph.D. Center for Ocean Sciences Education Excellence SouthEast
Carrie Thomas, Ph.D., NCSU
Jisun Kim, University of Georgia
Denise S. Mewborn, Ph.D., University of Georgia
Tara Pearsall, Ph.D., University of South Carolina

Introduction

The Center for Ocean Sciences Education Excellence SouthEast (COSEE SE), along with the other 12 centers within the National COSEE Network (www.cosee.net), has been charged by the National Science Foundation Division of Ocean Sciences to identify and implement actions to broaden participation in the ocean sciences workforce. Without some baseline of current diversity metrics, future efforts are difficult to evaluate as to their long term success. The goal is that the future workforce for ocean sciences should reflect the changing demographics of the United States (Appendix 1).

In response to need for benchmarks, COSEE SE conducted a survey in spring 2009 of state and federal agencies and institutions of higher education in North Carolina, South Carolina and Georgia. The purpose was to gather baseline data regarding the racial/ethnic diversity of scientific professionals, faculty and graduate students associated with ocean sciences programs. The objectives of this survey were to provide the following: (1) preliminary baseline data to assist agencies and institutions in benchmarking their diversity efforts; and (2) information on funding efforts designed to broaden participation.

Procedure

The first step was to develop the survey instruments---one directed toward federal and state agencies and the other directed towards institutions of higher education. A working group of COSEE SE staff identified the type of data to collect and then wrote appropriate survey items. The final surveys were reviewed by other COSEE SE members and UGA partners for clarity. The Institutional Review Board of University of Georgia approved the survey content and format. The surveys were transformed to an online format, using Survey Monkey software (www.surveymonkey.com).

Acknowledgments: Funding for this report from NOAA NA07OAR4170423 and National Science Foundation 0527849

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The racial/ethnic diversity categories in the survey were modified from those of the National Science Foundation (Asian; Black; European/Caucasian (White); Latino/Hispanic; Native American and Pacific Islander: <http://www.nsf.gov/statistics/nsf96329/technote.htm>). Every effort was made to request racial/ethnic information that is normally reported to the U.S. Department of Labor and professional societies. In addition, questions were asked to address the second objective, i.e., to gain information about programs and funding sources for diversity initiatives. One survey directed to people in state and federal agencies consisted of six questions (Appendix 2) and the other survey directed to people in institutions of higher education consisted of seven questions (Appendix 3).

The second step was to select contact people in NC, SC and GA agencies and institutions to receive the survey instruments. The selected people were typically in management positions so that they would have access to personnel data. In a few cases, multiple units in institutions each received the survey, such as a department of marine sciences on the main campus and a coastally located marine science laboratory. Care was taken to prevent duplication of information in these situations. Ultimately, the surveys were sent to people in 14 agencies and 29 higher education institutions and marine laboratories.

The third step was to use the Internet to send an email from COSEE SE. The message described the project and contained the web link to the online survey. Additional emails, telephone calls and personal communication reminded respondents to complete the survey. In some cases, these calls led to more appropriate contact people.

Finally, a graduate student and faculty member from the Department of Mathematics and Science Education at the University of Georgia analyzed the data from the survey and compiled the results. COSEE SE team members, including the University of South Carolina Office of Program Evaluation, collaborated and edited the information into a report. This version will be further reviewed before being posted on the COSEE SE website (www.cosee-se.org).

Results

Responses were received from 14 agencies and 24 institutions of higher education and marine laboratories. This represented a 100% response rate from agencies, a 83% response rate from universities and other institutions of higher education and an 91% overall response rate.

Federal and State Agency Data

Responses were received from eight agencies in South Carolina, four in North Carolina, and three in Georgia. Table 1 reports the type of agencies that participated in the survey. The respondents represented roughly equal numbers of state and federal agencies.

Table 1: *Type of Organization for Responding Agencies*

Type of Organization	Frequency	Percent
State department of natural resources, coastal management, environment, or fisheries	6	42.9%
NOAA laboratory, reserve, sanctuary or center	4	28.6%
US Geological Survey	1	7.1%
US Army Corps of Engineers	1	7.1%
Research Facility with state, federal, and academic funding/partners	1	7.1%
State Agency	1	7.1%

Note: Number of Respondents = 14

Respondents were also asked to identify the primary activity(s) of their agency. The majority of agencies are engaged in research activities (85.7%) and over half of the agencies are responsible for some type of outreach or educational activity (64.3%). Those results are shown in Table 2.

Table 2: *Focus of Agency Activities*

Agency	Agency Focus					
	Research	Outreach	Regulatory	Policy Making	Funding	Other
A		X				
B	X					
C	X	X	X	X		
D		X				X
E	X					
F	X	X				
G	X	X	X	X	X	
H	X		X	X		
I	X					
J	X	X			X	X
K	X		X	X		
L	X	X				
M	X	X	X	X	X	X
N	X	X				
Total	12	9	5	5	3	3
Percent	85.7%	64.3%	35.7%	35.7%	21.4%	21.4%

Note: Number of Respondents = 14.

Survey respondents were asked to identify the racial/ethnic background of the professionals employed by the agency, including international scholars. Approximately 92% of the

professionals employed by state and federal agencies are European/Caucasian (White), and 4% are Black with other subgroups constituting smaller percentages. The race/ethnicity diversity of agency employees is shown in Table 3.

Table 3: *Race/Ethnicity of Professionals at Agencies*

Race/Ethnicity	Number of Individuals	Percentage
Asian (American)	10	0.9%
Black	45	4.1%
European/Caucasian (White)	1028	92.6%
Latino/Hispanic	9	0.8%
Native American	4	0.4%
Pacific Islander	14	1.3%
Total	1110	100%

Note: Number of Respondents = 14

Respondents were asked to indicate agency participation in selected, federally funded programs within the last 5 years (Appendix 4). The selected programs included three National Science Foundation (NSF) funded programs and one National Oceanographic and Atmospheric Administration (NOAA) funded program. The NSF funded programs included (a) Research Experiences for Undergraduates (REU), (b) Opportunities for Enhancing Diversity in the Geosciences (OEDG), (c) Early Career Development Program (CAREER). The NOAA funded program was the Environmental Partnership Program (EPP). Two of four programs are specifically aimed at fostering diversity (i.e., NSF's OEDG and NOAA's EPP) while the remaining two have no specific diversity focus (i.e., NSF's CAREER and REU).

Seven of the 14 agencies reported participation in at least one of the federally funded programs listed in the survey. Three of those eight agencies were involved in more than one of the federally-funded programs. The most commonly accessed program was NSF's REU program, with six of the 14 agencies participating, followed by NOAA's EPP, with four of the 14 participating. None of the 14 agencies reported participation in either the NSF's CAREER program or NSF's OEDG program. The results for participation in the selected federally funded programs are presented in Table 4.

Table 4: *Agency Participation in Federal Programs Often Associated with Broadening Participation*

Federal Programs	Frequency	Percent
NSF's Research Experiences for Undergraduates (REU)	6	40.0%
NOAA's Environmental Partnership Program (EPP)	4	26.7%
NSF's Opportunities for Enhancing Diversity in the Geosciences (OEDG)	0	0.0%
NSF's Early Career Development Program (CAREER)	0	0.0%

Note: Number of Respondents = 14.

Respondents were also asked to describe any additional efforts in which their agency participated to increase diversity in the ocean sciences workforce. Seven agencies provided additional information in response to this item. Four of the 14 agencies specifically indicated partnerships with local historically black colleges and universities (HBCUs) and/or Minority-Serving Institutions (MSIs) to provide internship experiences for undergraduate students, underrepresented in the ocean sciences. One such program was the Undergraduate Research Experience in Ocean/Marine Science (URE-OMPS) whose objective is to “promote the professional development of minority undergraduate students through their participation in ocean, marine and polar science research”. Another respondent mentioned partnering with the Science and Engineering Alliance (SEA) in Washington DC and provided a link to their website (<http://www.sea2.org>); this respondent did not specify the nature of the diversity efforts within the organization. Two agencies indicated that they reach diverse audiences through education/outreach programs via partnerships with formal and/or informal education centers. Two agencies specifically mentioned councils or work groups that focus on increasing diversity in the ocean/marine science workforce. For example, one agency provided a link to its web page on which it outlines a diversity initiative, including a strategic plan to become a progressive workplace that reflects the changing demographics of our society. One agency indicated a partnership with a minority-focused organization—the American Indian Society. Finally, one agency specifically stated that their diversity-fostering efforts were related primarily to their partnership with COSEE-SE. The results for the additional programs or initiatives mentioned by the agency respondents are presented in Table 5.

Table 5: *Additional Programs/Initiatives Associated with Broadening Participation*

Additional Programs/Initiatives	Frequency	Percent
Partnership with HBCUs and MSIs	5	33.3%
K-12 and/or Informal Education Outreach	2	13.3%
Agency Diversity Councils/Work Groups	2	13.3%
Working with Minority-focused Organization	1	6.7%
Partnership with COSEE-SE	1	6.7%

Note: Number of Respondents = 14.

Overall, eleven of the 14 agencies surveyed (73.3%) reported that they were engaged in at least one program or initiative specifically aimed at fostering diversity within the last five years. Six of those agencies (40.0%) reported involvement in two different diversity-fostering activities and four agencies (26.7%) reported involvement in three different diversity-fostering activities. Only four agencies did not report any specific efforts to foster diversity (26.7%).

Institutions of Higher Education Data

Responses were received from 24 institutions and marine laboratories—ten were in North Carolina (41.7%), nine were in South Carolina (37.5%), and five were in Georgia (20.8%). Table 7 shows the results for the different types of institutions. Approximately half represented laboratories, centers, or institutes that were part of a university (45.8%) and half represented academic departments (45.8%). The remaining two organizations (8.3%) represented different types of institutions, which one respondent described as university-based state agencies. Appendix One reports on the national information about diversity in graduate programs in the geosciences.

Table 7: *Type of Respondents within Institutions of Higher Education*

Type of Academic Departments	Frequency	Percent
Laboratory, Center, Institute (part of the university system)	11	45.8%
Department of Marine Science	4	16.7%
Department of Biological Sciences	3	12.5%
University-Based State Agencies	2	8.3%
Department of Natural Sciences and Mathematics	1	4.2%
Department of Marine Technology	1	4.2%
Department of Meteorology	1	4.2%
Department of Marine Science/Department of Geology/Meteorology	1	4.2%

Note: Number of Respondents = 24.

Respondents were asked to indicate the degree(s) offered by their institution that address ocean/marine science and/or coastal policy. Six of the 24 respondents were located in non-degree granting units of higher education institutions (25.0%). Of the remaining 18 degree-granting institutions, five offered both master and doctoral degree programs (20.8%), four offer both bachelor and master degree programs (16.7%), and four offer bachelor, master, and doctoral degree programs (16.7%). The remaining five degree-granting institutions offered only one degree program; three offered a bachelor degree only (12.5%), one offered a doctoral program only (4.2%), and one offered an associate degree program only (4.2%). The results for the degree program offerings are presented in Table 9.

Table 9: *Degrees Programs Offered by Institutions of Higher Education*

Degree	Frequency	Percent
Associate	1	4.2%
Bachelor	3	12.5%
Bachelor/Master	4	16.7%
Master/Doctoral	5	20.8%
Bachelor/Master/Doctoral	4	16.7%
Doctoral	1	4.2%
Non-degree granting institution	6	25.0%

Note. = Number of Respondents = 24.

Respondents were asked to indicate the racial/ethnic diversity of the professional employees who work in the departments, laboratories, centers or programs at their institutions. Professional employees in this survey included faculty, technicians, and research associates. According to survey respondents, approximately 88% of the professional employees are European/Caucasian (White). Of the remaining 12%, approximately 5% are Asian, and 4% are Black, 2% are Latino/Hispanic, and less than 2% are either Native American or Pacific Islander. The race/ethnicity diversity of professional employees is shown in Table 10.

Table 10: *Race/Ethnicity of Professional Employees in Institutions and Marine Labs*

Race/Ethnicity	Frequency	Percent
Asian	32	5.5%
Black	21	3.6%
European/Caucasian (White)	514	87.9%
Latino/Hispanic	11	1.9%
Native American	4	0.7%
Pacific Islander	3	0.5%
Total	585	100%

Note. = Number of Respondents = 24.

Similarly, respondents were asked to indicate the racial/ethnic diversity of the graduate students who work in the departments, laboratories, centers or programs at their institutions. Five of the 24 institutions surveyed reported that they did not have graduate students and three did not answer this question. Based on the responses for the remaining 16 institutions, the racial/ethnic diversity of the graduate students is similar to the racial/ethnic diversity of the professional employees. According to survey respondents, approximately 89% of the graduate students are European/Caucasian (White). Of the remaining 11%, approximately 4% are Asian, 4% are Black, 3% are Latino/Hispanic, and less than 1% are either Native American or Pacific Islander. The race/ethnicity diversity of graduate students is shown in Table 11.

Table 11: *Race/Ethnicity of Graduate Students in Higher Education Institutions*

Race/Ethnicity	Frequency	Percent
Asian	18	4.3%
Black	11	2.6%
European/Caucasian (White)	376	89.3%
Latino/Hispanic	13	3.1%
Native American	2	0.5%
Pacific Islander	1	0.2%
Total	421	100%

Note. = Number of Respondents = 16. Eight institutions did not provide information about graduate students.

Respondents were asked to indicate institution participation in selected, federally funded programs within the last 5 years (Appendix 4). The selected programs included three National Science Foundation (NSF) funded programs and one National Oceanographic and Atmospheric Administration (NOAA) funded program. The NSF funded programs included (a) Research

Experiences for Undergraduates (REU), (b) Opportunities for Enhancing Diversity in the Geosciences (OEDG), (c) Early Career Development Program (CAREER). The NOAA funded program was the Environmental Partnership Program (EPP). Two of four programs are specifically aimed at fostering diversity (i.e., NSF's OEDG and NOAA's EPP) while the remaining two have no specific diversity focus, i.e., NSF's CAREER and REU.

Ten of the 24 institutions (41.7%) reported participation in at least one of the federally funded programs listed in the survey, and one of those ten institutions was involved in three of the federally-funded programs (4.2%). The most commonly accessed program was the NSF REU program, with seven of the 24 institutions participating (29.2%), followed by the NSF OEDG, with three institutions participating (12.5%). Both the NOAA EPP (4.2%) and NSF CAREER (4.2%) had only one participating institution. The results for participation in the selected federally-funded programs are presented in Table 12.

Table 12: *Institutional Participation in Programs Designed to Increase Diversity*

Federal Programs	Frequency	Percent
NSF Research Experiences for Undergraduates (REU)	7	29.2%
NOAA Environmental Partnership Program (EPP)	1	4.2%
NSF Opportunities for Enhancing Diversity in the Geosciences (OEDG)	3	12.5%
NSF Early Career Development Program (CAREER)	1	4.2%

Note. Number of Respondents = 16 with 6 respondents indicating no participation.

Respondents were also asked to describe any additional efforts in which their institutions participated to increase diversity in the ocean sciences workforce. Seventeen of the 24 institutions were engaged in additional efforts to broaden participation in the marine and ocean sciences. Approximately half of the 24 institutions reported that they supply or obtain funding to provide grants, scholarships, and/or internship experiences to undergraduate and graduate students who are racially/ethnically underrepresented in the ocean sciences (45.8%). One of those respondents reported that the institution provides funds to recruit underrepresented students and others reported having grants or projects targeted at particular groups, such as females, Latino/Hispanic students, or Black males.

Eight of the institutions (33.3%) reported they reach diverse audiences through education/outreach programs; several respondents reported outreach to K-12 students through school visits, providing exhibits, or conducting summer camps for urban youth. Another institution reported having staff dedicated to K-12 ocean science education outreach. Six respondents reported in some way that increasing diversity was major focus of their institution (25.0%). Of those six institutions, three represented local historically black colleges and

universities (HBCUs) or Minority-Serving Institutions (MSIs) and three described institution-wide efforts to increase diversity. Three of the 24 institutions reported that they actively partner with HBCUs (12.5%) to increase diversity in the marine and ocean sciences. Finally, one agency specifically stated that their diversity-fostering efforts were related primarily to their partnership with COSEE-SE. The results for the additional programs or initiatives mentioned by the institution respondents are presented in Table 13.

Table 13: *Additional Programs Associated with Broadening Participation in Institutions*

Additional Programs/Initiatives	Frequency	Percent
Grants/Scholarships/Internships for Minority Students	10	45.8%
K-12 and/or Informal Education Outreach	8	33.3%
Institution-wide Diversity Focus or Initiative	5	20.8%
Partnership with HBCUs and MSIs	3	12.5%
Partnership with COSEE-SE	1	6.7%

Note: Number of Respondents = 17 of 24.

Overall, 20 of the 24 institutions surveyed (83.3%) reported that they were engaged in at least one program or initiative specifically aimed at fostering diversity within the last five years. Only four institutions did not report any specific efforts to foster diversity (16.7%).

Conclusions

The analyses of the survey responses about the race/ethnicity of the current ocean sciences workforce and graduate students do not reflect the demographic diversity of the southeast region (Table 10). Demographic data from the survey reveal that professionals in NC, SC and GA agencies are 94% White, 4% Black and 1% Asian and, in institutions of higher education data are 88% White, 7% Asian and 3% Black. Graduate students at institutions of higher education are 90% White, 4% Asian, 3% Latino/Hispanic and 3% Black. In 2007 US Census report, NC, SC and GA had a White population of 74%, 68% and 66%.

Table 10 Demographic distribution of US and NC, SC, GA in 2007 by percent
(source: US Census: <http://quickfacts.census.gov/qfd/states/13000.html>)

Race/Ethnicity	US	NC	SC	GA
Asian	4%	2%	1%	3%
Black	13%	21%	29%	30%
White	80%	74%	68%	66%
Hispanic/Latino	15%	7%	4%	8%
American Indian and Alaskan Native	1%	1%	0.4%	0.3%
Hawaiian or Pacific Islander	0.2%	0.1%	0.1%	0.1%

Two-thirds of the programs designed to increase diversity at the agencies and half of such programs at institutions were classified as “Other” by respondents. This indicates many sources of funded initiatives were external to the selected federal programs on the survey. Many of these programs appeared to be funded locally.

Recommendations

Regional agencies and institutions of higher education use this report as a benchmark for their own efforts to broaden participation in ocean sciences.

While the authors realize that ocean scientists form part of the workforce in many businesses and industries, their inclusion was beyond the scope of this study. A broader survey is warranted.

Determine more information about sources of funding for programs designed to broaden participation in the ocean sciences and explore ways to collaborate regionally.

COSEE SE sponsor a regional workshop on broadening participation in order to encourage collaboration, develop “most effective practices” and develop a network for communication for recruitment and placement.

Increase efforts to formally and informally disseminate information about diversity initiatives so that other agencies and institutions can learn from existing programs and replicate successful strategies or methods.

This type of survey should be repeated over defined periods of time, e.g., every five years, in order to assess change in regional diversity in the ocean science workforce. A similar type of survey could be used in other regions to establish benchmarks. Based on assessment of this document, an improved survey format can be refined for similar or repeated applications. For example, racial/ethnic terms could be standardized. Disaggregating citizenship between U.S. and international individuals could be useful.

The authors wish to thank the participating institutions and agencies for their cooperation in this preliminary assessment of regional diversity in the ocean sciences. We wish to acknowledge the initiation of this project to Professor Mary M. Atwater, Ms. Tonjua B. Freeman, and Ms. Regina L. Suriel of University of Georgia. The findings and conclusion of this document rest with the current authors. Please address comments to Lundie Spence (Lundie.spence@scseagrant.org).

Appendix 1: Statistics on diversity from American Geological Institute

Status of the Geoscience Workforce: Chapter 2: Four-Year Colleges and Universities

<http://www.agiweb.org/workforce/reports/2009-FourYearInstitutions.pdf>

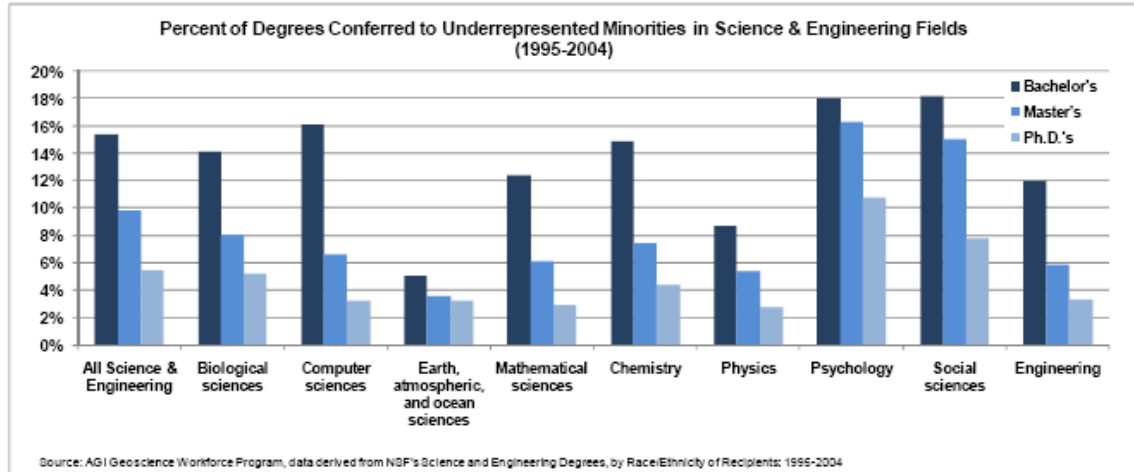


Figure 2.33: Percentage of Degrees Conferred to Underrepresented Minorities by Degree Field

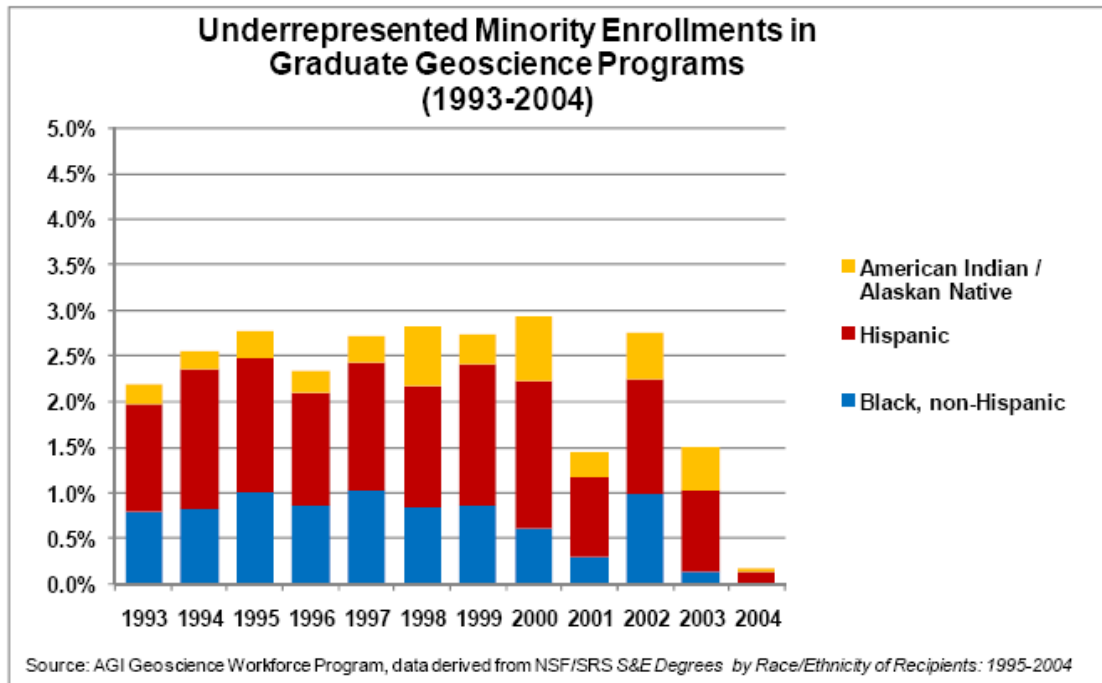


Figure 2.32: Minority Enrollments in Graduate Geoscience Programs

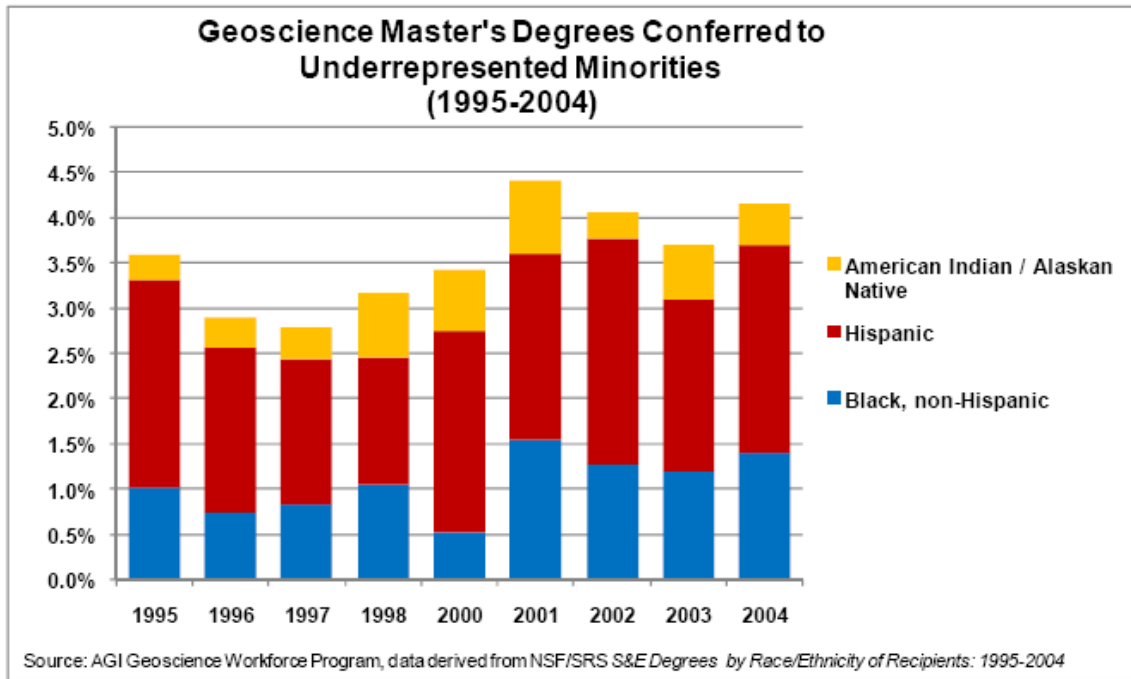


Figure 2.35: Geoscience Master's Degrees Conferred to Minorities

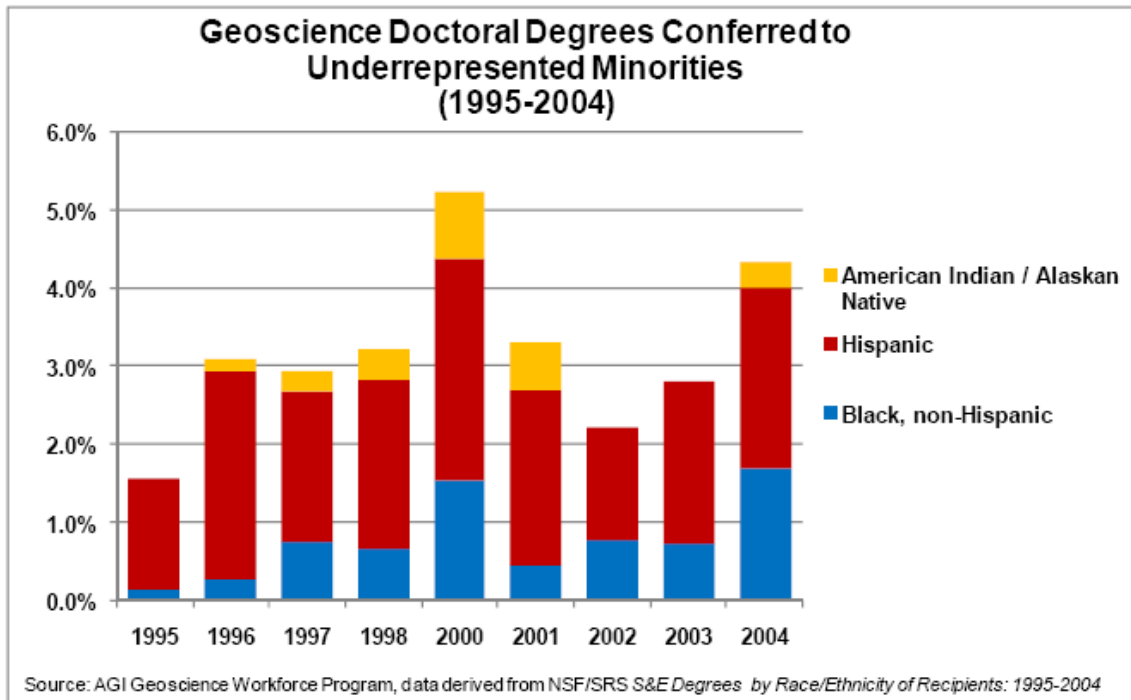


Figure 2.36: Geoscience Doctoral Degrees Conferred to Minorities

Appendix 2. Survey Sent to State and Federal Agencies

COSEE SE Diversity Survey--Agency

1. Diversity in the State and Federal Ocean Science Workforce

The Center for Ocean Sciences Education Excellence SouthEast (COSEE-SE) is sponsoring this study in response to the National Science Foundation charge to increase the diversity in the ocean and marine sciences workforce. This survey is intended to provide regional information about the ethnicity of professionals, such as researchers, policy makers and technicians working in ocean and marine sciences.

The purpose of this survey is establish a baseline for regional federal and state agencies and programs that employ professionals with coastal, ocean or marine science responsibilities. We hope that you, or your designated representative, are the best person to complete this survey.

Your responses will be kept confidential. Any resulting documents, articles and/or presentations will not identify either the agency or the responder. We will send you the initial report from the survey.

Thank you very much for your participation. Lundie Spence, Ph.D., Director COSEE SouthEast

1. Please provide contact information so we contact you, if needed, for any clarification.

Name	<input type="text"/>
Agency/Program	<input type="text"/>
Address	<input type="text"/>
City	<input type="text"/>
State	<input type="text"/>
Zip	<input type="text"/>
Email	<input type="text"/>

2. Please check the type of organization that you represent in responding to these questions.

- State department of natural resources or environment
- State department of fisheries
- Regional council, center or program with federal funding
- US Geological Survey
- US Army Corps of Engineers
- NOAA lab, reserve, sanctuary or center

Describe the type of agency/program if not listed above.

COSEE SE Diversity Survey--Agency

3. Indicate the focus of this agency/program (check as many as apply).

- Research
- Regulatory
- Policy Making
- Funding
- Outreach (Extension and Education)

Other (please specify)

4. Please provide information on the number and racial/ethnic diversity of professional people, regardless of citizenship, in this agency/program.

Total number of professionals employed in this agency/program.

Asian (American):

Black

European (American)

Latino

Native American

Pacific Islander

5. Indicate any programs designed to increase diversity in the ocean workforce that this agency/program has employed or developed either currently or in the last 5 years.

- NSF REU (research experiences for undergraduates)
- NOAA EPP (environmental partnership program)
- NSF OEDG (Opportunities for Enhancing Diversity in the Geosciences)
- NSF Faculty Early Career Development (CAREER) Program

Other (please specify)

6. If applicable, please provide a short description, or web link, to any programs that this agency/program has developed, designed to increase diversity in the ocean/marine science workforce, including efforts targeting K-16 students, undergraduate or graduate students or professional development for educators (teacher, educators in aquaria, science centers, museums, etc.).

Appendix 3: Survey Instruments sent to Institutions of Higher Education

1. Diversity of Ocean Science Faculty and Graduate Students in Universities

The Center for Ocean Sciences Education Excellence SouthEast (COSEE-SE) is sponsoring this study in response to the National Science Foundation charge to increase the diversity in the ocean and marine sciences workforce. This survey is intended to provide regional information about the race/ethnicity of professionals, such as faculty, researchers, and technicians, as well as ethnicity of current graduate students in ocean and marine sciences in this institution.

The purpose of this survey is to establish a baseline of the diversity of ocean sciences professionals in regional institutions of higher learning--colleges, universities and affiliated laboratories or research institutes. We hope that you or your designated representative is the best person to complete this survey.

Your responses will be kept confidential. Any resulting documents, articles and/or presentations will not identify either the institution or the responder. We will send you the initial report from the survey.

Thank you very much for your participation. Lundie Spence, Ph.D., Director COSEE SouthEast

1. Please provide contact information, so we can contact you, if needed, for any clarification.

Name	<input type="text"/>
Institution	<input type="text"/>
Address	<input type="text"/>
City	<input type="text"/>
State	<input type="text"/>
Zip	<input type="text"/>
Email	<input type="text"/>

2. Please check the type of organization that has faculty and/or graduate students engaged in some sort of marine/coastal/ocean sciences that you represent in responding to these questions.

- Laboratory, Center, Institute (part of the university system)
- Department of Marine Science
- Department of Geology
- Department of Biological Sciences
- Department of Engineering (civil or other)
- Department of Coastal Management/Policy

Other (please specify)

3. Please indicate what degree(s) are offered by this institution that address ocean or marine science or coastal policy.

- Bachelor
- Master
- Ph.D.
- Non-degree granting institution

Any comment or explanation

4. Please provide information on the number and racial/ethnic diversity of professional people who work in this department, lab, center or program regardless of citizenship.

Total number of individuals in your lab or department who are researchers, faculty, research assistants or technicians (not graduate students).

Asian (American):

Black

European (American)

Latino

Native American

Pacific Islander

5. The ethnicity of students in graduate studies provides clues to the diversity of the future workforce. Please provide information on the diversity of your graduate students by specifying the number of individuals for each ethnicity, regardless of citizenship.

Not Applicable-no students

Asian (American)

Black

European (American)

Latino

Native American

Pacific Islander

6. Indicate any programs designed to increase diversity in the undergraduate and graduate student population or in the faculty/researcher positions in ocean or marine sciences that your institution has employed or developed either currently or in the last 5 years.

- NSF REU (research experiences for undergraduates)
- NOAA EPP (environmental partnership program)
- NSF OEDG (Opportunities for Enhancing Diversity in the Geosciences)
- NSF Faculty Early Career Development (CAREER) Program

Other (please specify)

7. If applicable, please provide a short description, or web link, about any programs that this institution has developed that are designed to increase diversity in the ocean/marine science workforce, including those efforts targeting K-16 students, undergraduate or graduate students or professional development for educators (teachers, educators in aquaria, science centers, museums, etc.).

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Appendix 4. Links to Programs Cited

National Science Foundation

Research Experiences for Undergraduates (REU)

http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5517&from=fund

Opportunities for Enhancing Diversity in the Geosciences (OEDG)

http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=12726&org=NSF&sel_org=NSF&from=fund

Faculty Early Career Development (CAREER) Program

http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=503214

National Oceanic and Atmospheric Administration

Environmental Partnership Program

<http://www.epp.noaa.gov/>