NATIONAL ENVIRONMENTAL HEALTH SCIENCE AND PROTECTION ACCREDITATION COUNCIL (EHAC)

Outcome Assessment Report 2014

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Background:

The EHAC Undergraduate Guidelines section VI. Reporting Obligations of Accredited and Pre-accredited Programs part D. Program Outcomes Assessment Survey states that:

> "At the time of re-accreditation, the institution shall survey program graduates and employers via the Council's outcome assessment tool. All graduates since the last accreditation shall be in the pool of those to be surveyed. The completed tools shall be gathered by the institution and forwarded to the Executive Director of the Council six months prior to the annual meeting of the Council. The Council will supply a summary of the information gathered to all accredited programs on an annual basis.
>
> The purpose of this survey is to determine the adequacy of the accreditation process to the needs of the professional practice of environmental health. The information gathered by an institution through the outcome assessment process will not be used as part of the self-study for re-accreditation purposes for a given institution. The Council will use the compiled information from all institutions undergoing re-accreditation to evaluate and modify the requirements of accreditation."

The outcome assessment tool consists of two surveys conducted through surveymonkey.com, one for graduates and one for their supervisors. It is distributed to the re-accreditation candidate Program Directors where they send the links to their graduates. The graduates then submit the supervisor survey to their supervisors.

The following re-accreditation applicants responded to the outcome assessment survey:

Table 1.

EHAC Re-Accreditation Applicants 2015	Program	Next Accreditation Review	Initial Accreditation	Graduating Classes reflected on OA	# of Graduate Respondents	# of Supervisor Respondents
Alabama A&M University	Undergraduate	2015	2009	2009-2014	5	4

Graduate Skills

Listed below are core competencies in environmental health programs. Graduate (Undergraduate) respondents were asked to choose the option that most closely described their skill level. The percentages reflect 5 graduate survey respondents.

Chart 1

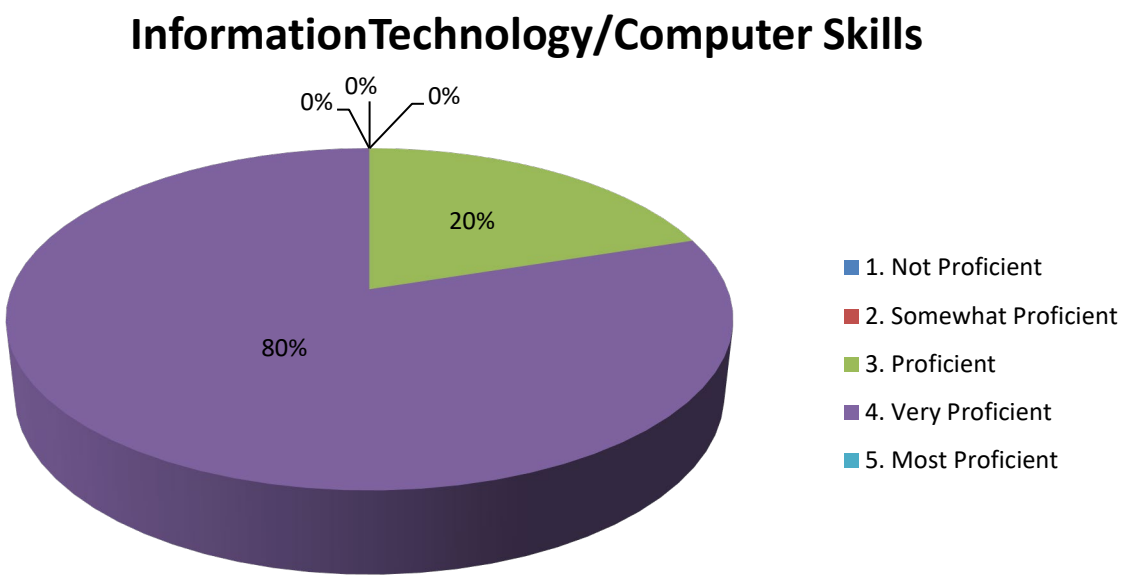
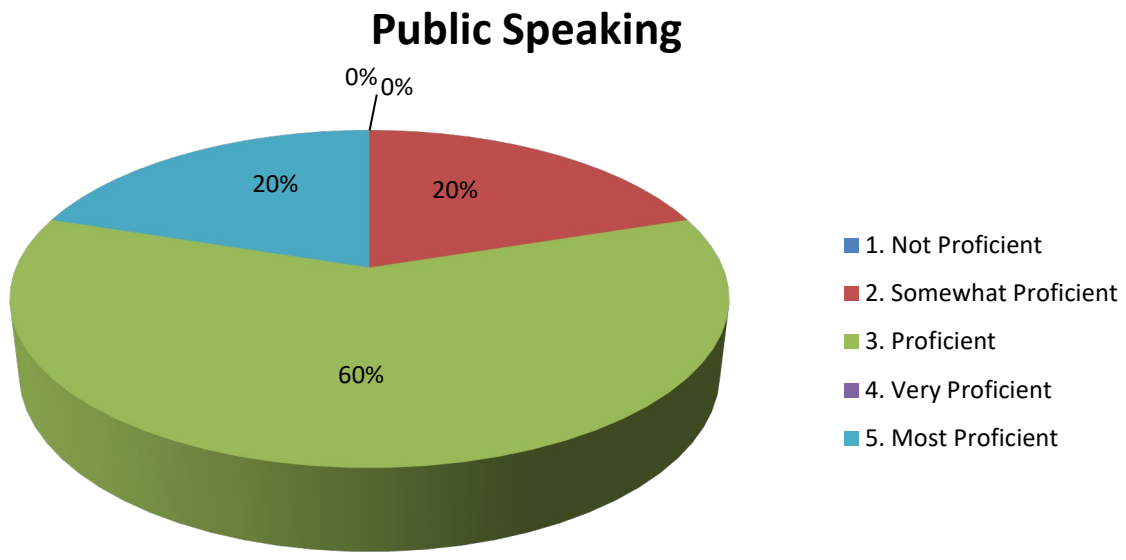


Chart 2



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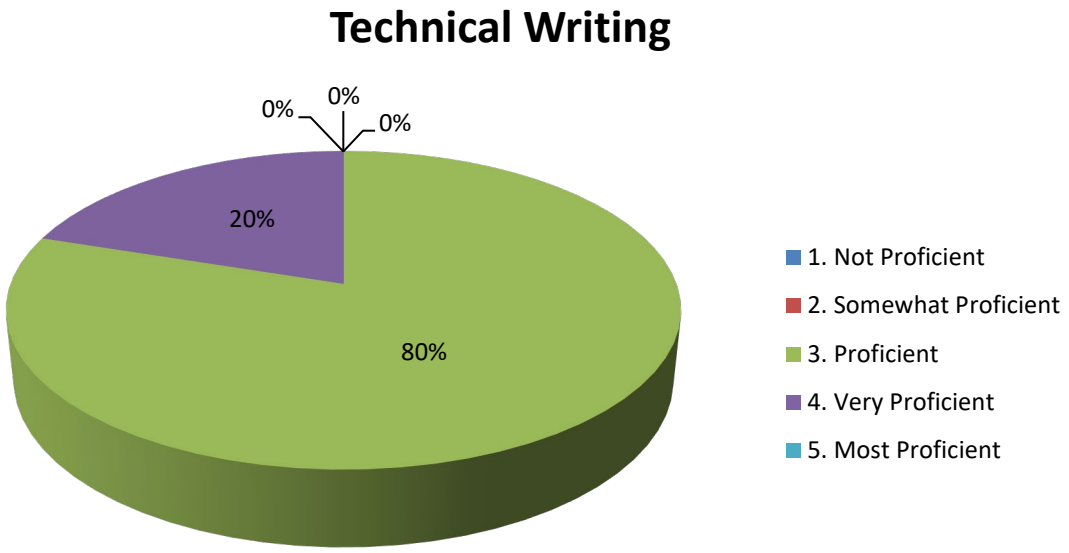
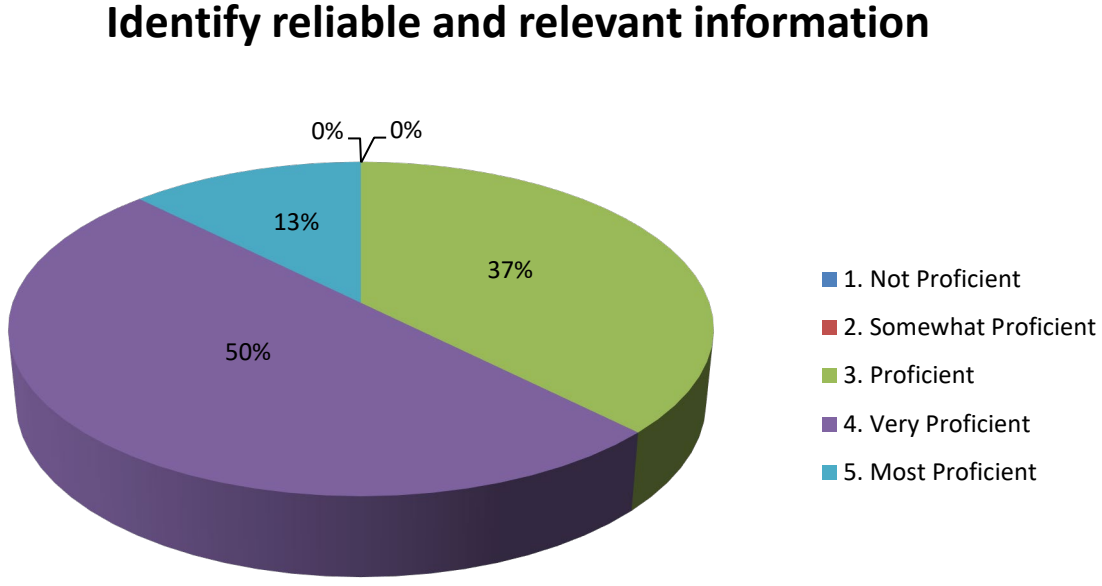


Chart 4



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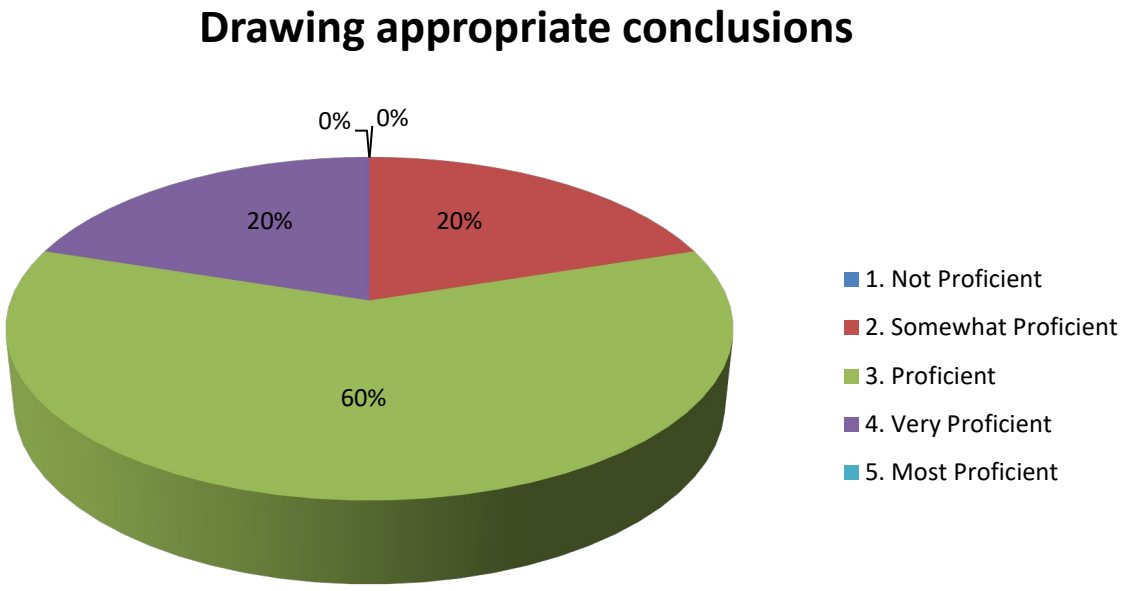

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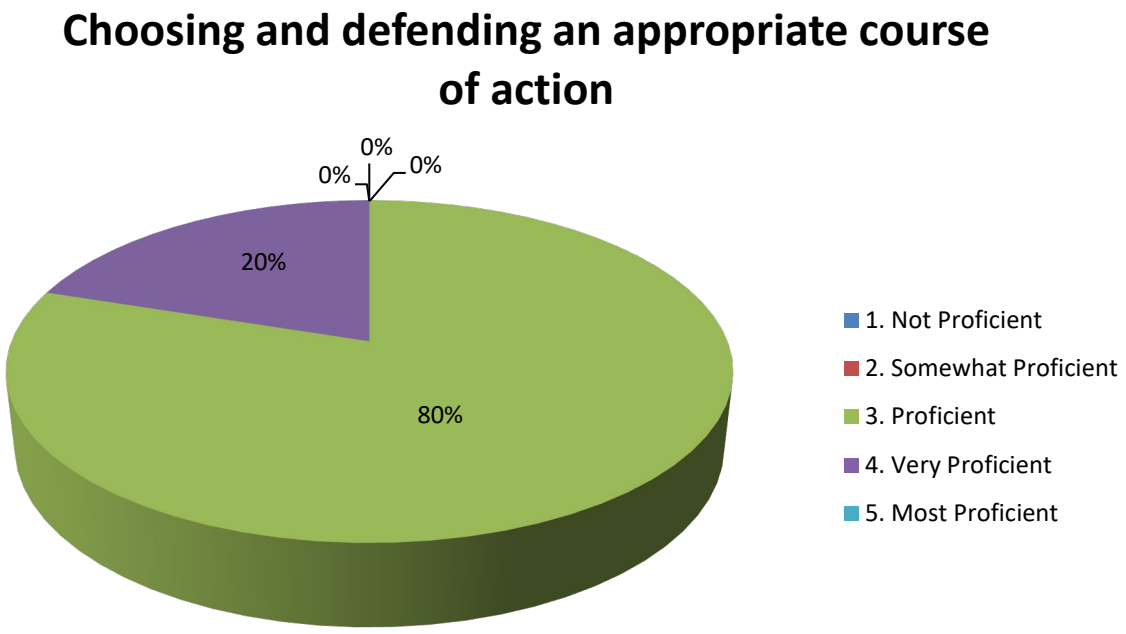

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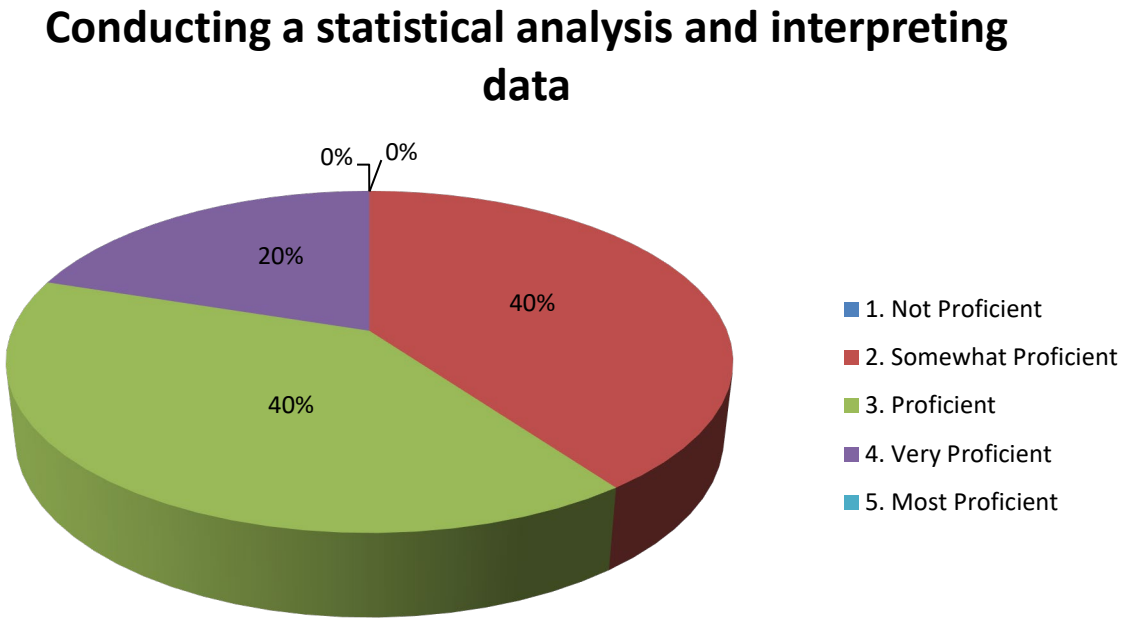

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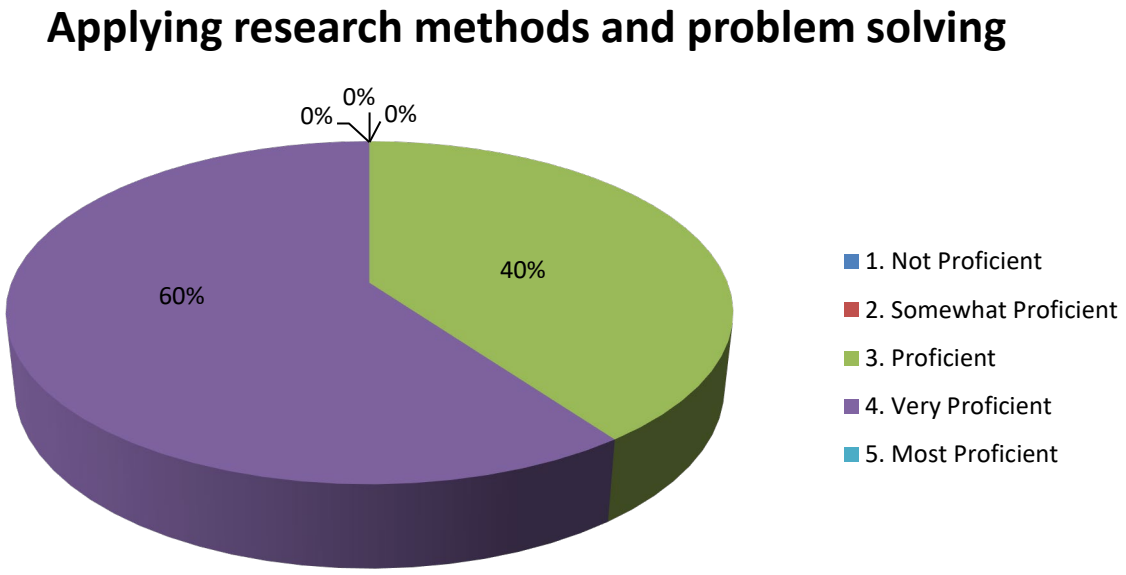

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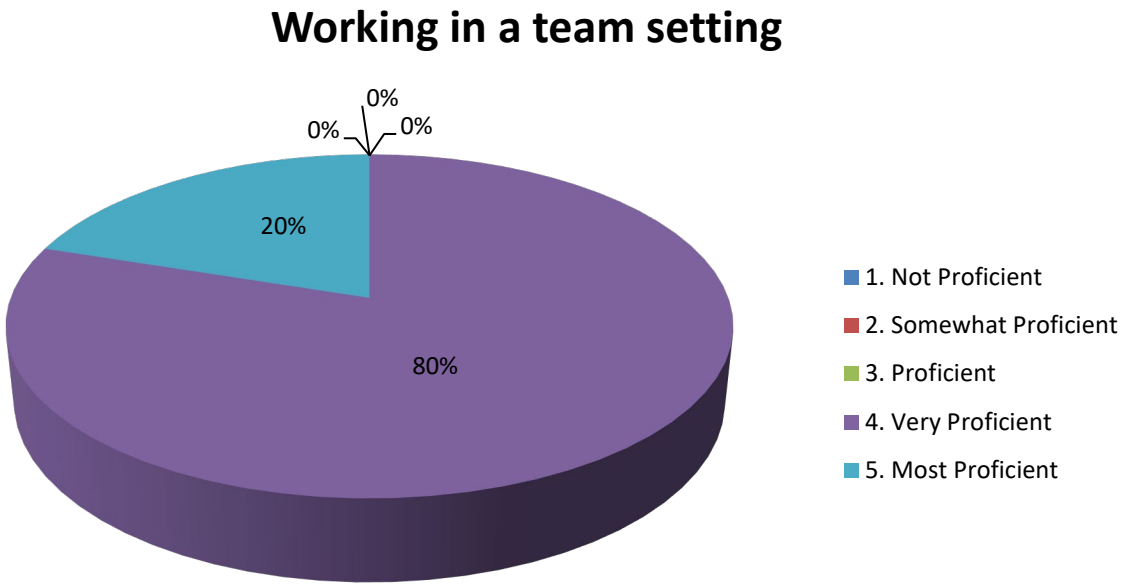
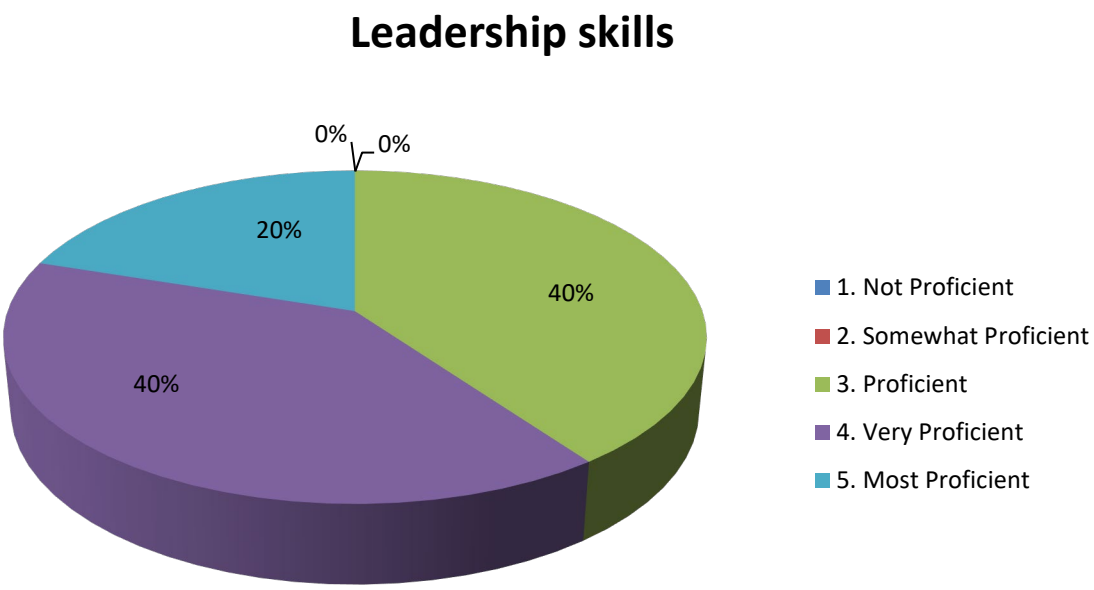


Chart 10



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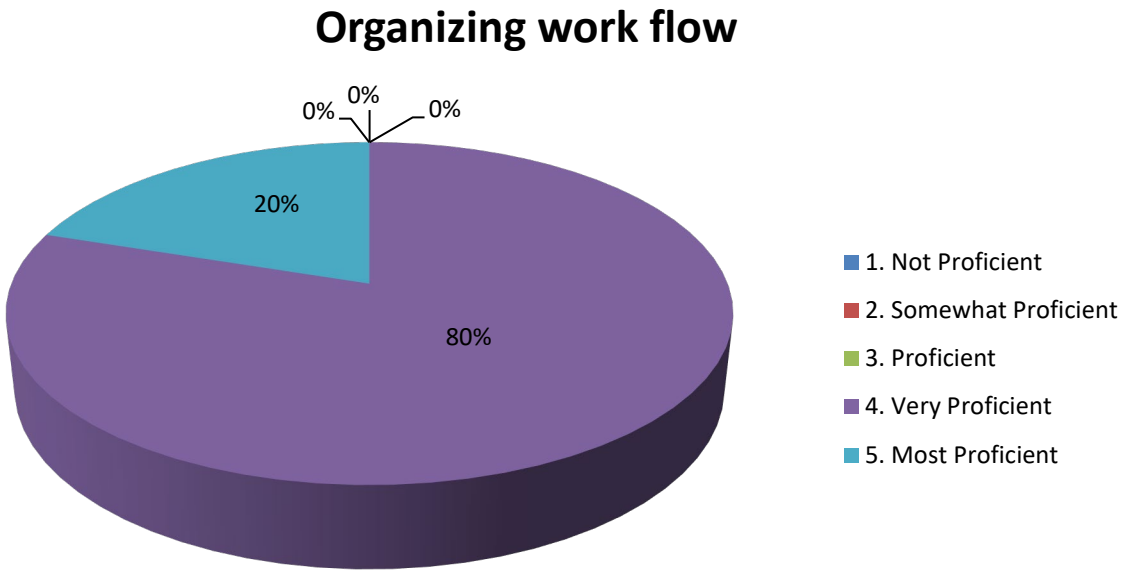
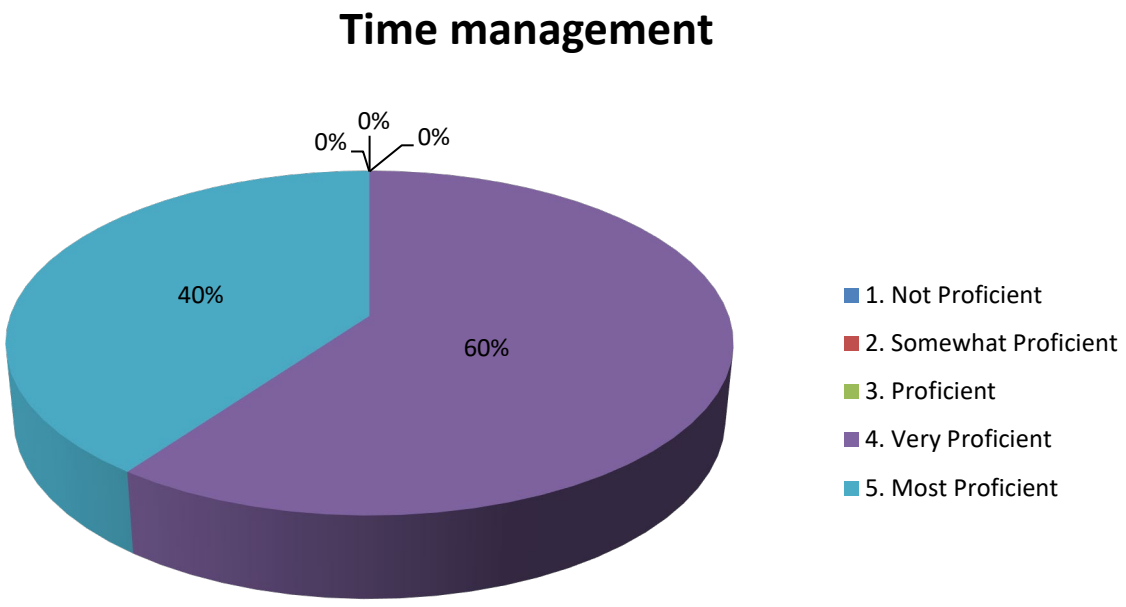


Chart 12



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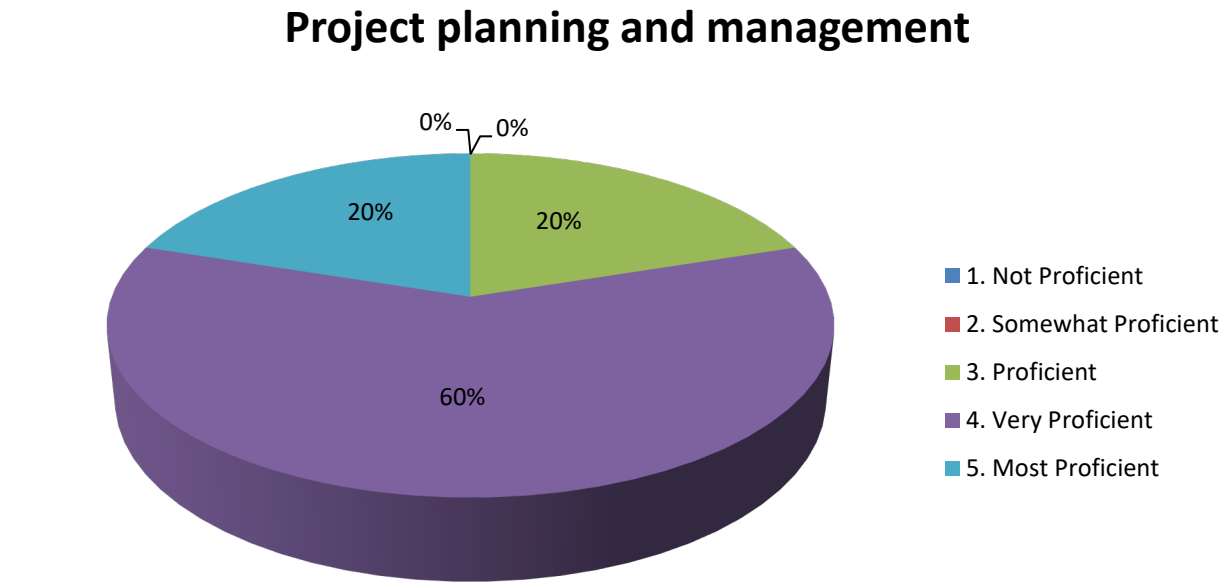


Respondents were asked to rate their skill-level (5=Best, 1=Worst) in the following areas:

Table 2.
Graduate Skills-All Respondents (5=Best, 1=Worst)

Skills	Number of Respondents	Average
Information Technology/Computer Skills	5	3.8
Public Speaking	5	3.2
Technical Writing	5	3.2
Identify reliable and relevant information.	5	3.6
Drawing Appropriate Conclusions	5	3
Choosing and defending an appropriate course of action	5	3.2
Conducting a statistical analysis and interpreting data	5	2.8
Applying Research methods and problem solving	5	3.6
Working in a team setting	5	4.2
Leadership Skills	5	3.8
Organizing work flow	5	4.2
Time management	5	4.4
Project planning and management	5	4
Epidemiology	5	2.8
Toxicology	5	3
Risk Assessment	5	3.8
Risk Communication	5	3.8
Risk Management	5	3.6

Course Relevance

Respondents were asked to answer yes or no if their job required knowledge in the following areas found in environmental health. The last two columns to the far right represent the respective percentages reflecting "knowledge required" and "knowledge not-required" in the jobs of (5) survey respondents:

Table 9.

Job requires knowledge of:	Individual Yes	Individual No	N/A	Total	% Yes	% No
Air Quality Control	1	4	0	5	20%	80%
All-hazard Preparedness	3	2	0	5	60%	40%
Built Environment	2	3	0	5	40%	60%
Disease Prevention (e.g. vectorborne, zoonotic, etc.)	1	4	0	5	20%	80%
Disease Prevention	1	4	0	5	20%	80%
Environmental Health Planning	3	2	0	5	60%	40%
Food Protection	1	4	0	5	20%	80%
Geographical Information Systems (GIS)	2	3	0	5	40%	60%
Global Environmental Health	0	5	0	5	0%	100%
Hydrogeology	1	4	0	5	20%	80%
Injury Prevention	2	3	0	5	40%	60%
Institutional Health	0	5	0	5	0%	100%
Occupational Health and Safety	3	2	0	5	60%	40%
Radiation Health	0	5	0	5	0%	100%
Recreational Environmental Health	3	2	0	5	60%	40%
Risk Analysis	3	2	0	5	60%	40%
Soils	4	1	0	5	80%	20%
Solid and Hazardous Material and Waste Management	3	2	0	5	60%	40%
Vector Control	0	5	0	5	0%	100%
Water and Waste Water	3	2	0	5	60%	40%

Specialty Area Knowledge & Program Preparation-All Respondents

Respondents were asked to answer yes or no if they were well-prepared in the following specialty areas in their undergraduate or graduate program. The last two columns to the far right represent the percentages of the 5 graduates who were well-prepared and under-prepared by their program:

Table 10.

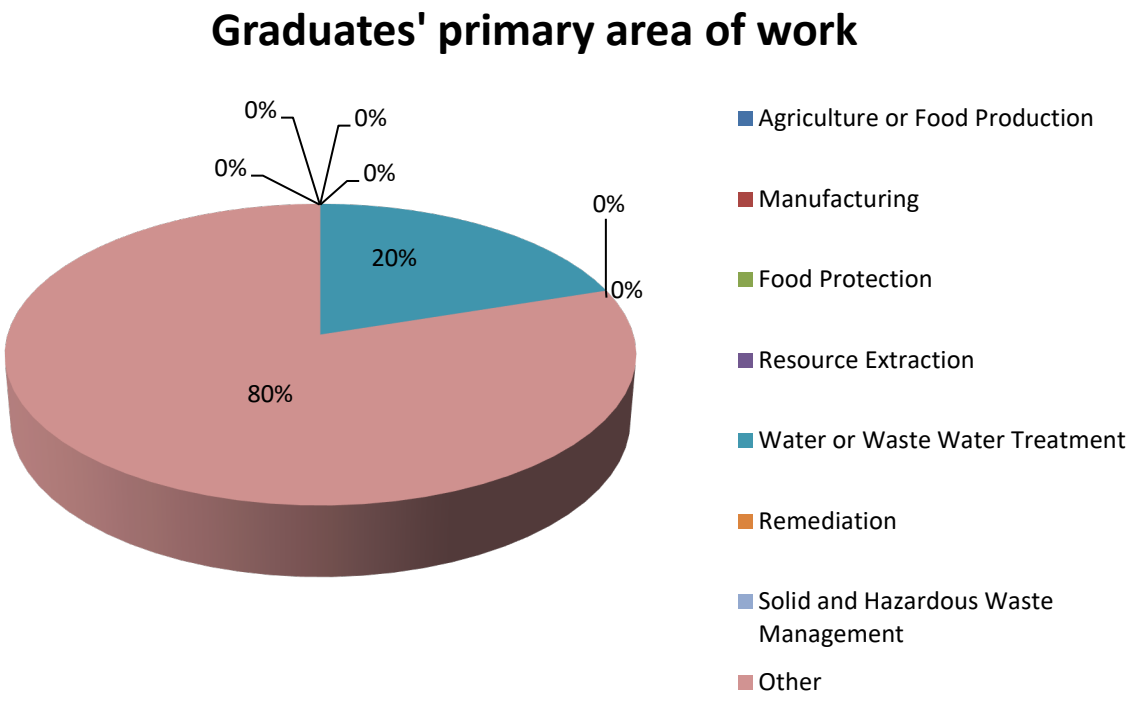
Degree to which EH Program prepared me in:	Well Prepared	Somewhat Prepared	Not Prepared	N/A	%Well Prepared	% Not Prepared
Air Quality Control	0	1	0	4	0%	0%
All-hazard Preparedness	2	1	0	2	40%	0%
Built Environment	0	2	0	3	0%	0%
Disease Prevention (e.g. vectorborne, zoonotic, etc.)	1	0	0	4	20%	0%
Disease Prevention	1	0	0	4	20%	0%

Environmental Health Planning	3	0	0	2	60%	0%
Food Protection	1	0	0	4	20%	0%
Geographical Information Systems (GIS)	1	1	0	3	20%	0%
Global Environmental Health	0	0	0	5	0%	0%
Hydrogeology	1	0	0	4	20%	0%
Injury Prevention	1	0	1	3	20%	0%
Institutional Health	0	0	0	5	0%	0%
Occupational Health and Safety	2	1	0	2	40%	0%
Radiation Health	0	0	0	5	0%	0%
Recreational Environmental Health	3	0	0	2	60%	0%
Risk Analysis	1	2	0	2	20%	0%
Soils	4	0	0	1	80%	0%
Solid and Hazardous Material and Waste Management	3	0	0	2	60%	0%
Vector Control	0	0	0	5	0%	0%
Water and Waste Water	3	0	0	2	60%	0%

Graduate Work Place Data:

The pie chart below represents job sectors for graduates of the three schools surveyed. Of the respondents, 5 are currently working.

Chart 12



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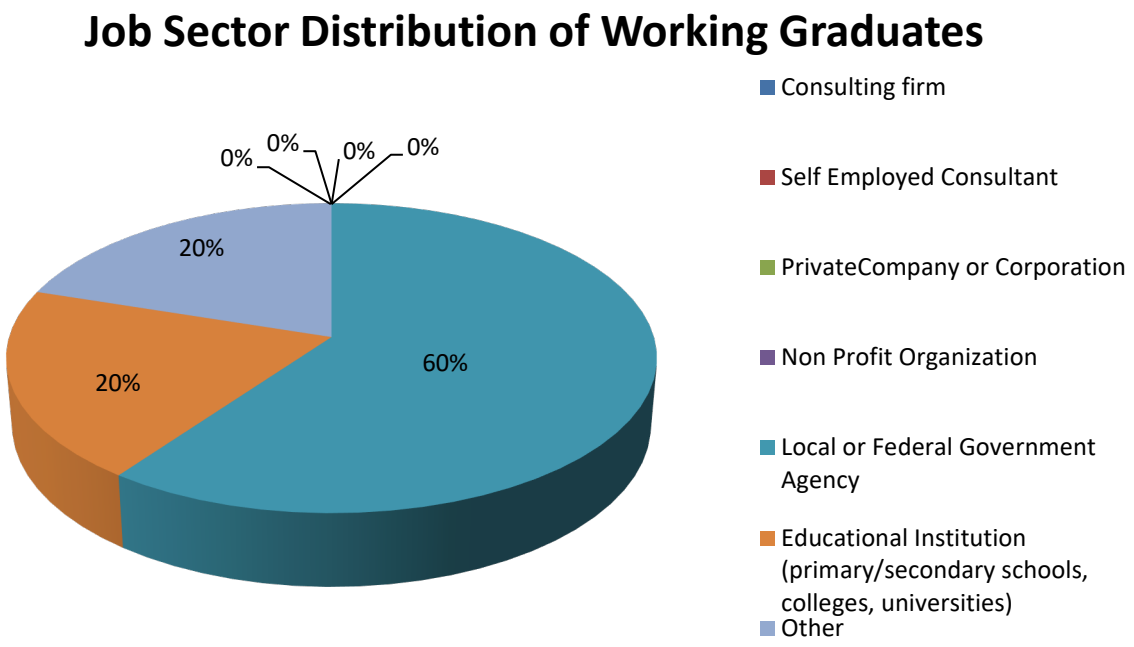

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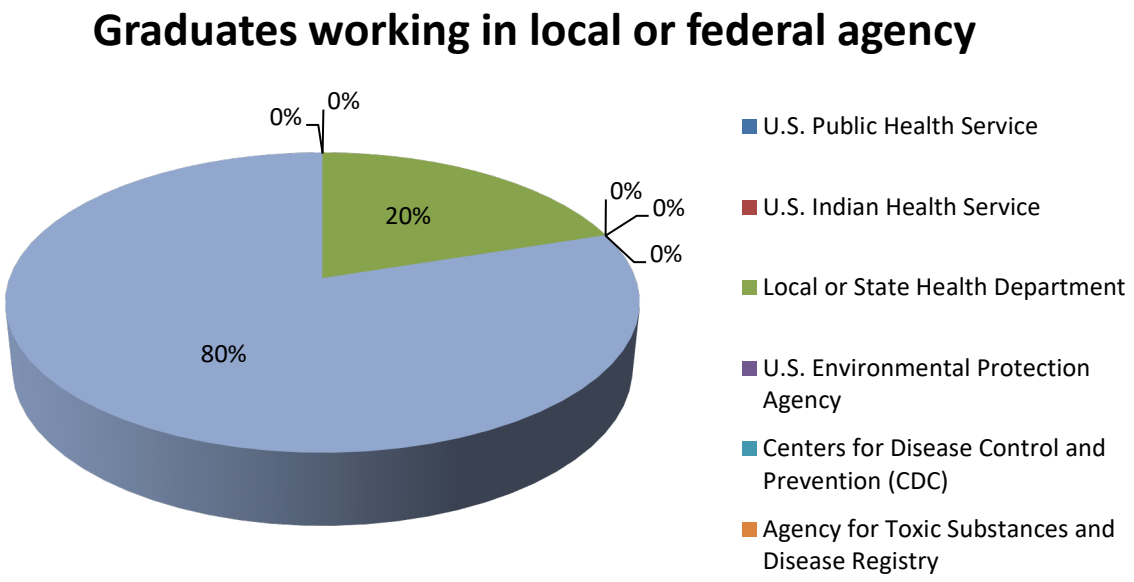

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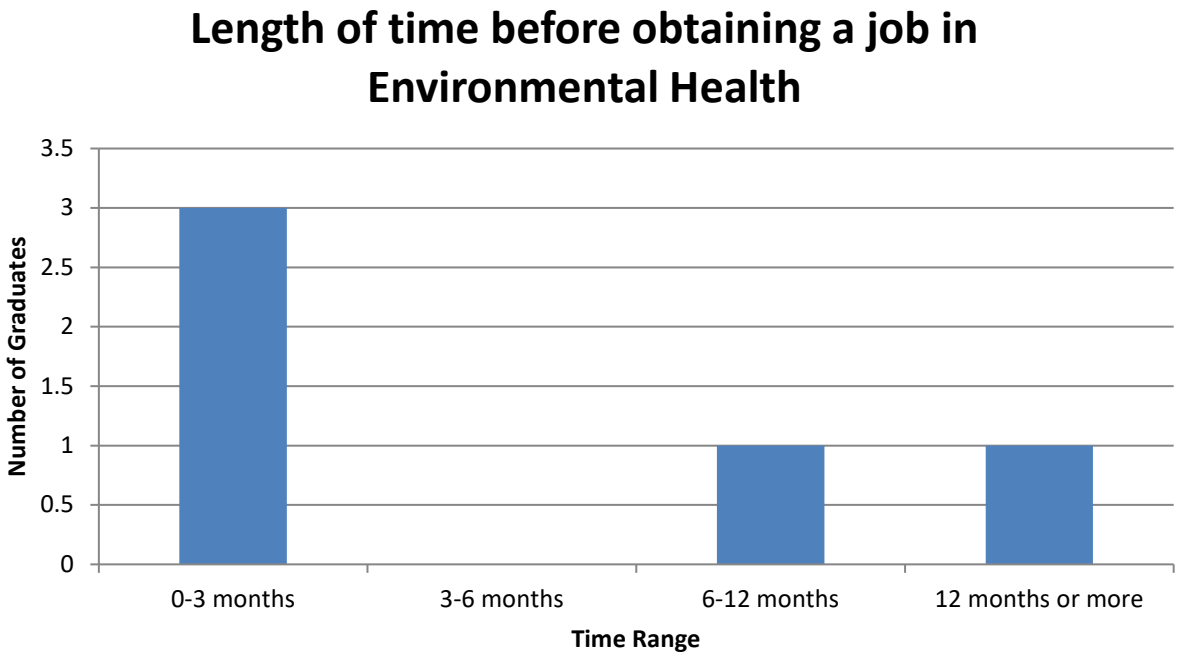

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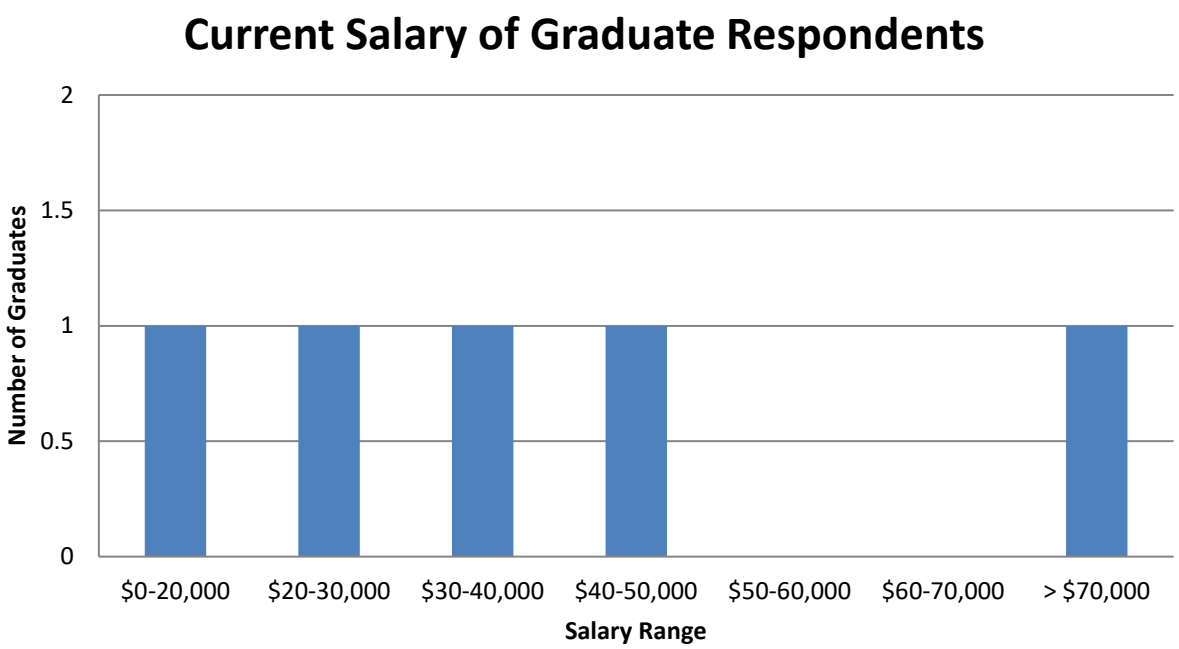

The following were listed as specific places of employment for 2 out of 5 respondents indicating which one, other agency (please specify):

Table 11.

Department of Veterans Affairs	City of Birmingham Storm Water Management Division

Graduate Data on Continuing Education and Professional Development

The table below details the degrees completed by graduates after earning a degree in Environmental Health.

Table 12.

Degree	Number of Graduates
Completed a Master's Degree	

No respondents listed specific professional awards received.

The following were listed as specific certificate or credentialing exams passed by 1 respondent:

Table 14.

Food Protection Certification

The following were the professional organizations 3 graduate respondents indicated involvement with:

Table 15

Environmental Science Club- Ms. Environmental Science Minorities in Agriculture, Natural Resources and Related Sciences
American Public Health Association Alabama Public Health Association
• Member of the Tri Societies- Agronomy Society of America, Crop Science Society of America, and Soil Science Society of America • Member, The Environmental Science Club, Alabama A&M University • Member, Graduate Student Association • Member, Soil and Water Conservation Society

Supervisor Survey Results

Background:

Four supervisors were surveyed on the skill levels of graduates.

Table 16.
Supervisor Rating of Graduate Skills-All Respondents (5=Best, 1=Worst)

Skills	Number of Respondents	Average
Information Technology/Computer Skills	4	4.25
Public Speaking	4	4
Technical Writing	4	3.75
Identify reliable and relevant information.	4	3.5
Drawing Appropriate Conclusions	4	3.75
Choosing and defending an appropriate course of action.	4	4
Conducting a statistical Analysis and Interpreting Data	4	3
Applying Research Methods and Problem Solving	4	4
Working in a team setting	4	4.75
Leadership Skills	4	4.5
Organizing Work Flow	4	4.5
Time Management	4	5
Project Planning and Management	4	3.75
Epidemiology	4	5
Toxicology	4	5
Risk Assessment	4	5
Risk Communication	4	4.5
Risk Management	4	5

Specialty Area Requirements of Jobs-All Respondents

Supervisors of graduates were asked to answer yes or no if the job required the following core competencies. The table below represents the responses of 4 supervisors:

Table 17.

Job Requirement	Individual Yes	Individual No	N/A	% Required	% Not Required
Air Quality Control	1	3	0	25%	75%
All-hazard Preparedness	2	2	0	50%	50%
Built Environment	1	3	0	25%	75%
Disease Prevention (e.g. vectorbore, zoonotic, ect.)	0	4	0	0%	100%
Disease Prevention	3	1	0	75%	25%
Environmental Health Planning	2	2	0	50%	50%
Food Protection	1	3	0	25%	75%
Geographical Information Systems (GIS)	2	2	0	50%	50%
Global Environmental Health	0	4	0	0%	100%
Hydrogeology	1	3	0	25%	75%
Injury Prevention	2	2	0	50%	50%
Institutional Health	1	3	0	25%	75%
Occupational Health and Safety	2	2	0	50%	50%

Radiation Health	1	3	0	25%	75%
Recreational Environmental Health	1	3	0	25%	75%
Risk Analysis	1	3	0	25%	75%
Soils	2	2	0	50%	50%
Solid and Hazardous Material and Waste Management	2	2	0	50%	50%
Vector Control	0	4	0	0%	100%
Water and Waste Water	3	1	0	75%	25%

Specialty Area Knowledge & Program Preparation-All Respondents

Supervisors of graduates were asked to answer yes or no if graduates were well-prepared in the following specialty areas. The table below represents the responses of 4 supervisors:

Table 18.

Graduate/Employee Preparedness	Well Prepared	Somewhat Prepared	Not Prepared	N/A	% Well Prepared	% Not Prepared
Air Quality Control	0	1	0	3	0%	0%
All-hazard Preparedness	1	1	0	2	25%	0%
Built Environment	1	0	0	3	25%	0%
Disease Prevention (e.g. vectorbore, zoonotic, ect.)	0	0	0	4	0%	0%
Disease Prevention	3	0	0	1	75%	0%
Environmental Health Planning	2	0	0	2	50%	0%
Food Protection	1	0	0	3	25%	0%
Geographical Information Systems (GIS)	1	1	0	2	25%	0%
Global Environmental Health	0	0	0	4	0%	0%
Hydrogeology	0	1	0	3	0%	0%
Injury Prevention	2	0	0	2	50%	0%
Institutional Health	1	0	0	3	25%	0%
Occupational Health and Safety	2	0	0	2	50%	0%
Radiation Health	0	0	1	3	0%	25%
Recreational Environmental Health	1	0	0	3	25%	0%
Risk Analysis	1	0	0	3	25%	0%
Soils	1	1	0	2	25%	0%
Solid and Hazardous Material and Waste Management	1	1	0	2	25%	0%
Vector Control	0	0	0	4	0%	0%
Water and Waste Water	2	1	0	1	50%	0%

Of the 4 surveyed supervisors, 2 indicated the following specific "other" specialty areas needed for the job:

Table 19.

Industrial Hygiene : art of anticipating recognizing and evaluating workplace hazards
Water & stormwater quality program management, monitoring, data interpretation and reporting, sampling process development and implementation, and grant application and reporting.