

National Environmental Health Science & Protection Accreditation Council



2007-2008 Update of Accredited Programs
AMENDED VERSION

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1.0 – Introduction

Each year environmental health programs accredited through the National Environmental Health Science and Protection Accreditation Council (EHAC) are required to submit an annual report. This report covers topics which will allow EHAC to better understand the health of individual programs, as well as the overall strength of EHAC accredited programs.

This year all thirty-one EHAC accredited schools participated in the 2007-2008 survey. Of which, six schools boast both graduate and undergraduate accredited programs and only two schools solely offer graduate level education. EHAC accredited one new program, Lake Superior State University, in June 2007.

The Annual Report format and content was revised in the winter of 2007. For example, the survey was uploaded on the website surveymonkey.com to aide in the ease of taking the survey as well as the synthesis of data. Programs were given a link to fill out their program's information.

This report will explore; student and faculty diversity, the security and stability of individual programs, suggestions for EHAC accreditation guidelines, changes and innovations in programs, and student recruitment, enrollment, retention, and graduation. Additionally questions about faculty degree requirements, faculty salary information, the origin of international students, public vs. private sector employment of graduates, outreach strategies, program need and questions about Association of Environmental Health Academic Program (AEHAP) support were added to enhance the quality and quantity of data.

2.0 – Program Faculty Updates

2.1 Number of Faculty within Accredited Programs

Table 1 below breaks down the number of program faculty reported by each accredited program and includes the number of full-time faculty as of January 2008.

Table 1: Program Faculty by Program

University name	Number of Faculty Reported	Full-Time Faculty (100% only)
Benedict College	3	3
Boise State University	7	1
Bowling Green State University	2	2
California State University, Fresno	10	3
California State University, Northridge	18	6
California State University, San Bernardino	2	2
Colorado State University	41	2
East Carolina University	8	2
East Central University	3	1
East Tennessee State University	8	7
Eastern Kentucky University	8	6
Illinois State University	5	3
Indiana State University	2	2
Indiana University of Pennsylvania	4	0
Indiana University-Purdue University Indianapolis	9	0
Lake Superior State University	4	1
Mississippi Valley State University	6	2
Missouri Southern State University	2	2
New Mexico State University	7	1
Ohio University	6	2
Old Dominion University	6	4
Salisbury University	2	2
Spelman College	4	1
Texas Southern University	4	4
The University of Findlay	6	5
University of Georgia	11	7
University of Illinois at Springfield	9	4
University of Washington	18	13
University of Wisconsin-Eau Claire	4	1
Western Carolina University	3	2
Wright State University	9	
Total Number of Faculty Reported	231	91

2.2 New Program Faculty

Benedict College

Samual Darko **FTE**

California State University, Fresno

Darren Cousineau

California State University, Northridge

Michael Sullivan **FTE**

Jody van Leuven

Doris Miller

East Carolina University

Timothy Kelley, PhD **FTE**

Paul Knechtges, PhD

Mustfa Selim, PhD **FTE**

Eastern Kentucky University

Dan Harper **FTE**

East Tennessee State University

Nathan Fethke, PhD

Illinois State University

Jack Kaufmann

Mississippi Valley State University

Konsuela Glass

New Mexico State University

Adrian Unc

Ohio University

Chuck Hart

Old Dominion University

Charlene Brassington **FTE**

Holly Gaff

Spelman College

Dr. Cassia Galvao

Texas Southern University

Zivar Yousefipour **FTE**

University of Georgia

Anne Marie Zimeri **FTE**

Travis C. Glenn **FTE**

Lucy Peipins

University of Illinois at Springfield

Kathy DeBarr **FTE**

Shahram Heshmat **FTE**

Mark Edgar **FTE**

Jim Veselenak

Ken Runkle

Wright State University

Rick Shiverdecker

Alan Pierce, M.P.H., R.S.

2.3 Unfilled and Anticipated Vacancies

Vacancies

California State University, Northridge

“We are currently searching for a fulltime tenure track position. We are also recruiting numerous part-timers in anticipation of our growth.”

Mississippi Valley State University

“Yes, there is one unfilled position. This is a full time position. Recruitment effort is on-going”

Old Dominion University

“Yes. We have one full time tenured ENVH Endowed Professor position that is currently being advertised. We hope to have the position filled and the new faculty member on board by August 2008.”

University of Georgia

“One. A full time department head (professor) will be hired in 2008.”

University of Wisconsin-Eau Claire

“One full-time tenure track position -- we are now making the final selection.”

Western Carolina University

“Yes, one full-time”

Anticipated Vacancies

California State University, Fresno

“Yes, we had an unsuccessful search for a full-time, tenure-track position this year, which we hope will be renewed in the fall. After we fill this position, we will immediately have to fill a second position.”

Indiana University – Purdue University Indianapolis

“Currently searching for full-time epidemiologist for starting fall 2008.”

Spelman College

“We are anticipating creating a minor in environmental and public health. This might enable us to create a faculty position in environmental and public health.”

The University of Findlay

“We are awaiting approval to fill a vacant fulltime position.”

Wright State University

“We have three adjunct faculty at this time who are teaching designated courses. We anticipate at least one more for 2008-2009 to fill in for sabbatical.”

3.0 – Faculty Information

3.1 Salary Information

Programs were invited to report the average salaries for both junior and senior faculty for nine month and twelve month time periods.

Table 2: Junior Level Salary Averages

Time Period	Salary Average	Number of Responses
<i>Nine Month</i>	\$52,473.00	Out of 21 responses
<i>Twelve Month</i>	\$73,720.00	Out of 3 responses

Table 3: Senior Level Salary Averages

Time Period	Salary Average	Number of Responses
<i>Nine Month</i>	\$70,645.00	Out of 18 responses
<i>Twelve Month</i>	\$113,500.00	Out of 5 responses

3.2 Faculty Experience

Table 4 identifies the environmental health field experience level of the faculty teaching in the accredited environmental health programs.

Table 4: Faculty Experience

	Number of Responses	Percentage
<i>More than five years</i>	123	53.2%
<i>At least one year</i>	19	8.2%
<i>Less than one, more than six months</i>	4	1.7%
<i>Less than six months</i>	5	2.2%
<i>No experience</i>	80	34.6%
Total	231	100%

3.3 Faculty Requirements

Programs were asked to report whether or not a terminal degree was required for a faculty position at their school. The results are listed in Table 5.

Table 5: Degree Requirements

	Number of Responses	Percentage
<i>Only Tenure Track Positions</i>	12	48.4%
<i>No</i>	4	12.9%
<i>Yes</i>	15	38.7%
Total	31	100%

According to the annual update surveys, 21 of the 31 programs utilize adjunct faculty in their program.

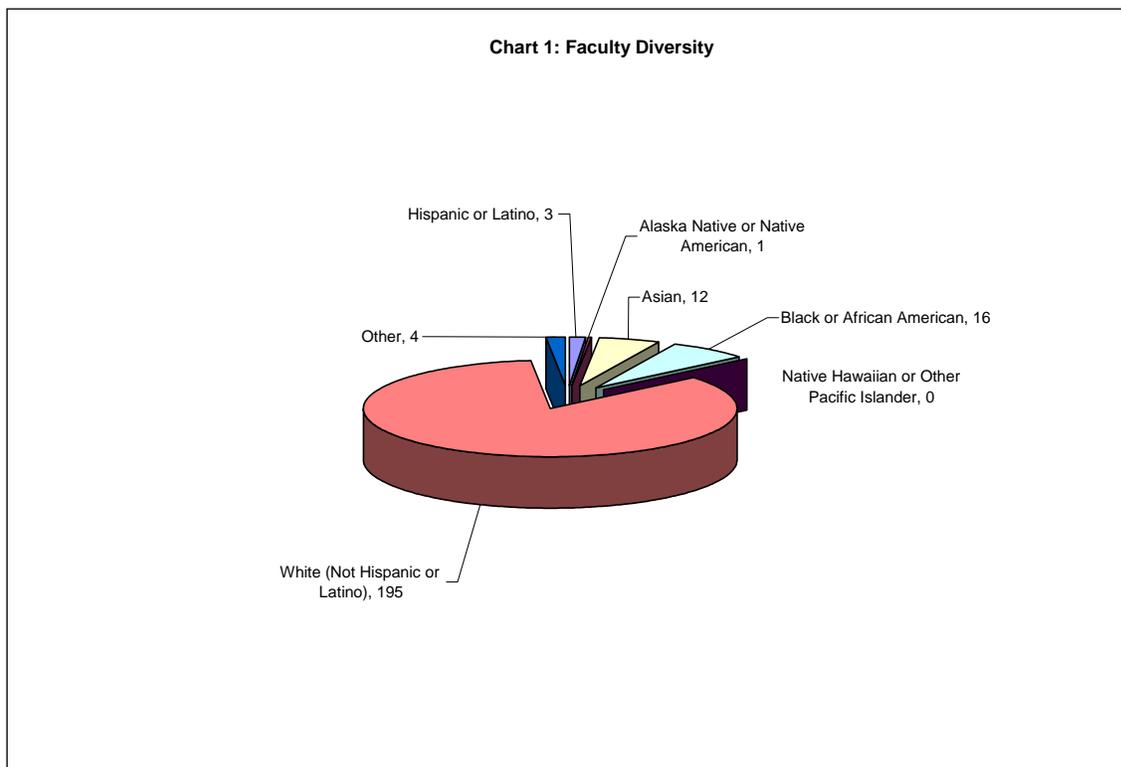
Table 6: Adjunct Faculty Prevalence

Yes	21	67.7%
No	10	32.3%

4.0 – Faculty Demographics

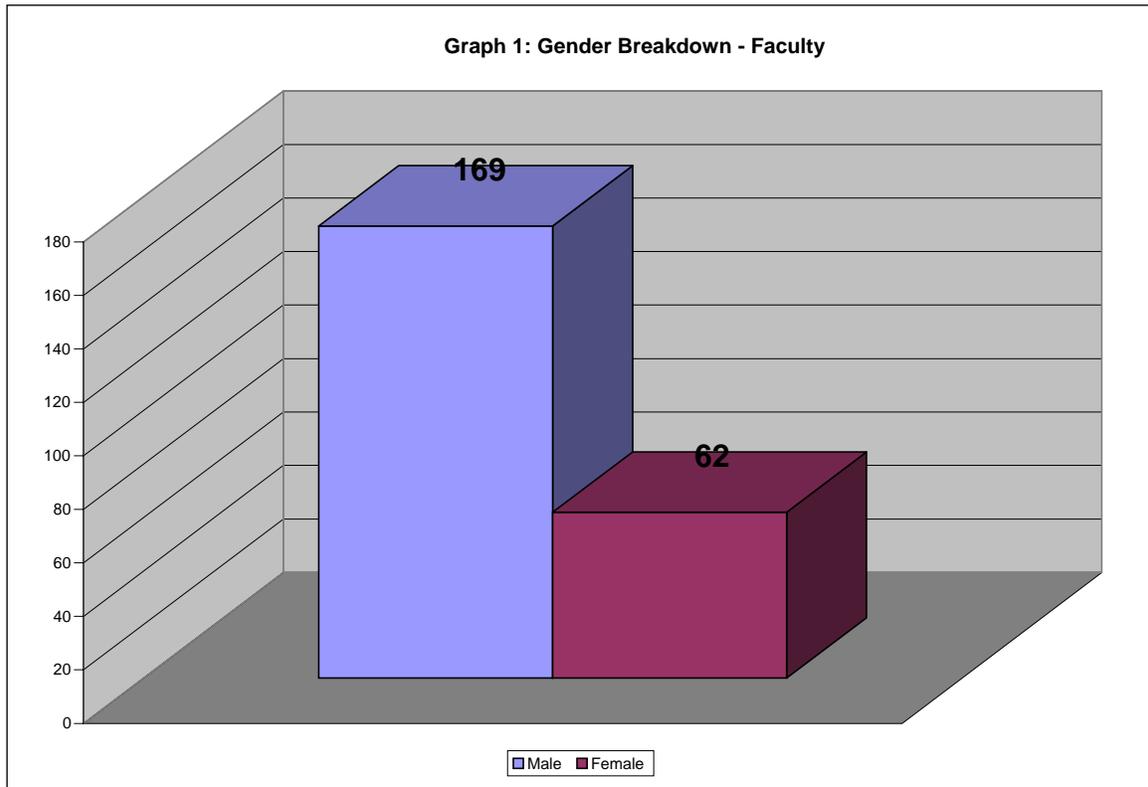
4.1 Faculty Diversity

When compared with the information gathered for 2006-2007 Annual Update data, there was a 16.7% increase in faculty diversity; from 30 non-white faculty members in the 2006-2007 academic year to 36 non-white faculty in 2007-2008.



4.2 Faculty Gender

While the total number of faculty has increased from 208 in the 2006-2007 academic year to 231 in 2007-2008, there is only one more female faculty as opposed to 22 more male faculty indicated in this year's annual report. Males make up 63.3% of the environmental health faculty in EHAC accredited programs.



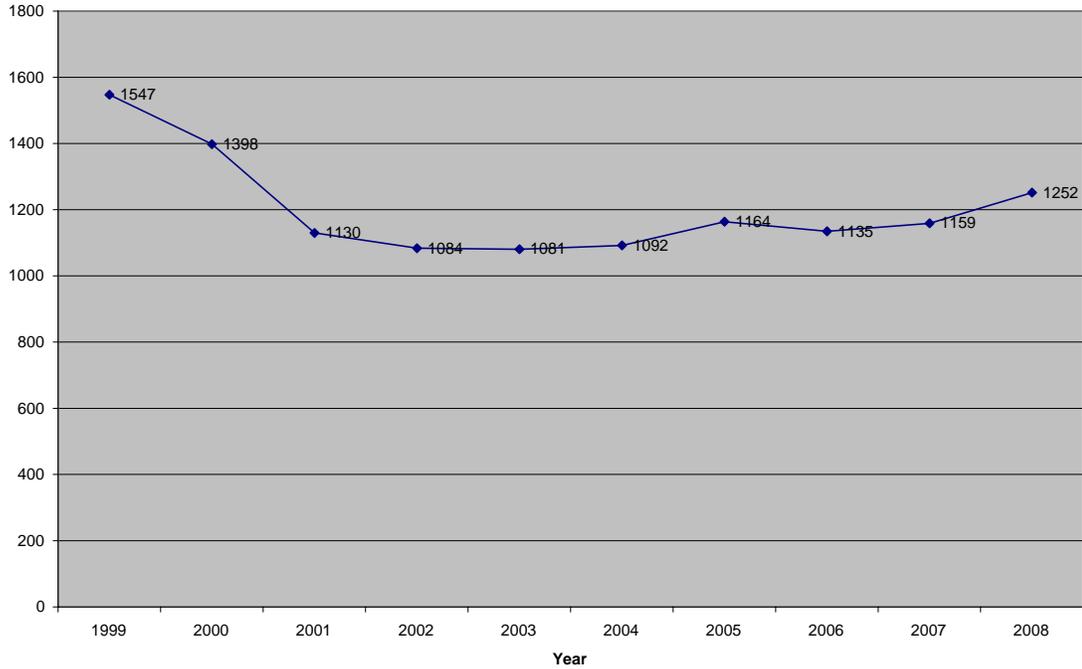
5.0 – Enrollment and Graduation

5.1 Undergraduate Enrollment

Enrollment increased from 1,159 in 2007 to 1,252 in 2008, a 7.4% increase over last year's reported enrollment, although it is important to remember four schools did not report their enrollment figures in 2006-2007. Last summer Lake Superior State University became the 29th accredited undergraduate program for a total of 31 accredited programs in the 2007-2008 academic year. Programs reported 1076 full time and 176 part time undergraduate students.

Graph 2: Enrollment Trend Over 10 Years

Number of Students Enrolled



This year's undergraduate enrollment is 3.8% above the 10 year average and 7.3% over the 5 year average.

Graph 3: 2008 Enrollment by Program

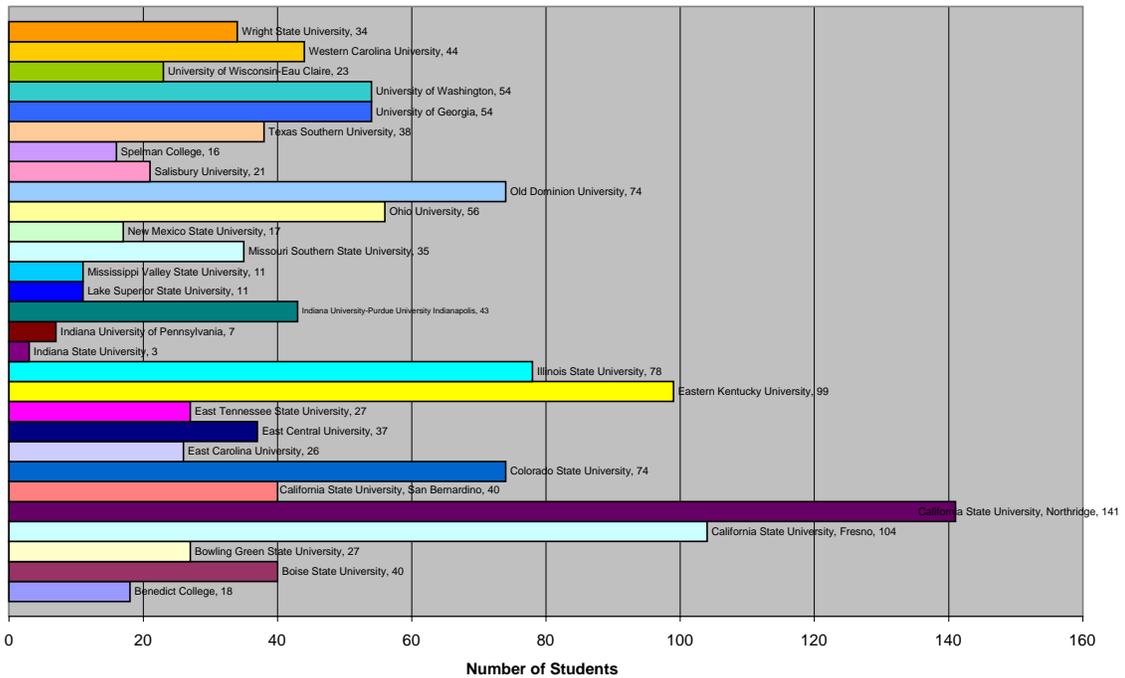


Table 7 illustrates the difference in individual program enrollment from the academic year 2006-2007 to academic year 2007-2008. This table also shows that 12 of the 31 program's enrollment is decreasing, and 4 of the 12 programs with a decrease in enrollment are experiencing a drop of over 25%. These programs are; Indiana State University (-62.5%); University of Georgia, Athens (-34.1%); Indiana University Pennsylvania (-30.0%); and East Carolina University (-25.7%).

On the other hand, 13 undergraduate programs have increased enrollment. Of the 13 programs with increased enrollment, 8 of these program's enrollment has increased by more than 10%; Bowling Green State University (+11%); Illinois State University (+11.5%); California State University, San Bernardino (+12.5%); Old Dominion University (+13.5%); Western Carolina University (+20.5%); California State University, Northridge (+22%); Texas Southern University (+55.3%); and New Mexico State University (+64.7%).

Table 7: Enrollment by Comparison: AY 06-07 – AY 07-08

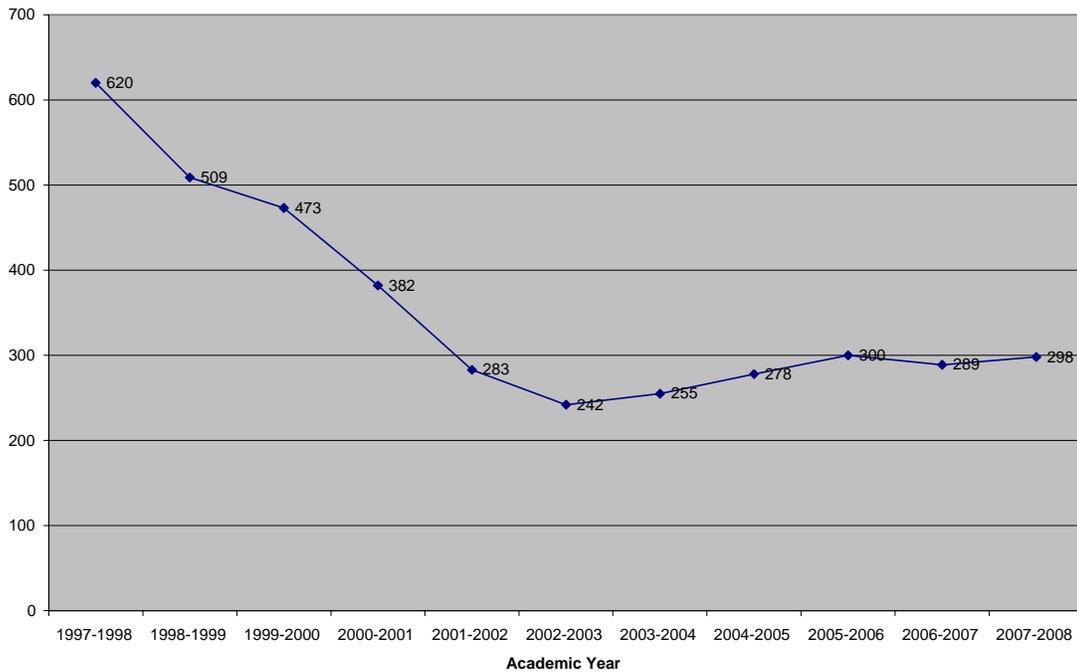
University	2007	2008	Difference
Benedict College	21	18	-3
Boise State University	38	40	2
Bowling Green State University	24	27	3
California State University, Fresno	94	104	10
California State University, Northridge	110	141	31
California State University, San Bernardino	35	40	5
Colorado State University	79	74	-5
East Carolina University	35	26	-9
East Central University	42	37	-5
East Tennessee State University	34	27	-7
Eastern Kentucky University	112	99	-13
Illinois State University	69	78	9
Indiana State University	8	3	-5
Indiana University of Pennsylvania	10	7	-3
Indiana University-Purdue University Indianapolis	NA	43	NA
Lake Superior State University	NA	11	NA
Mississippi Valley State University	NA	11	NA
Missouri Southern State University	32	35	3
New Mexico State University	6	17	11
Ohio University	NA	56	NA
Old Dominion University	64	74	10
Salisbury University	20	21	1
Spelman College	19	16	-3
Texas Southern University	17	38	21
University of Georgia	82	54	-28
University of Washington	52	54	2
University of Wisconsin-Eau Claire	30	23	-7
Western Carolina University	35	44	9
Wright State University	36	34	-2

5.2 – Undergraduate Graduation

This year undergraduate graduation rates rose by 3%. Last spring programs reported 306 students graduating from accredited programs, but this year programs were asked to revise these 2006-2007 graduation estimates (numbers of students graduating were reported before spring graduation). The 2006-2007 graduation numbers fell from the estimated 306 to the actual 289.

Graph 4: Undergraduate Graduation Trends Over 10 Years

Number of Students Graduating



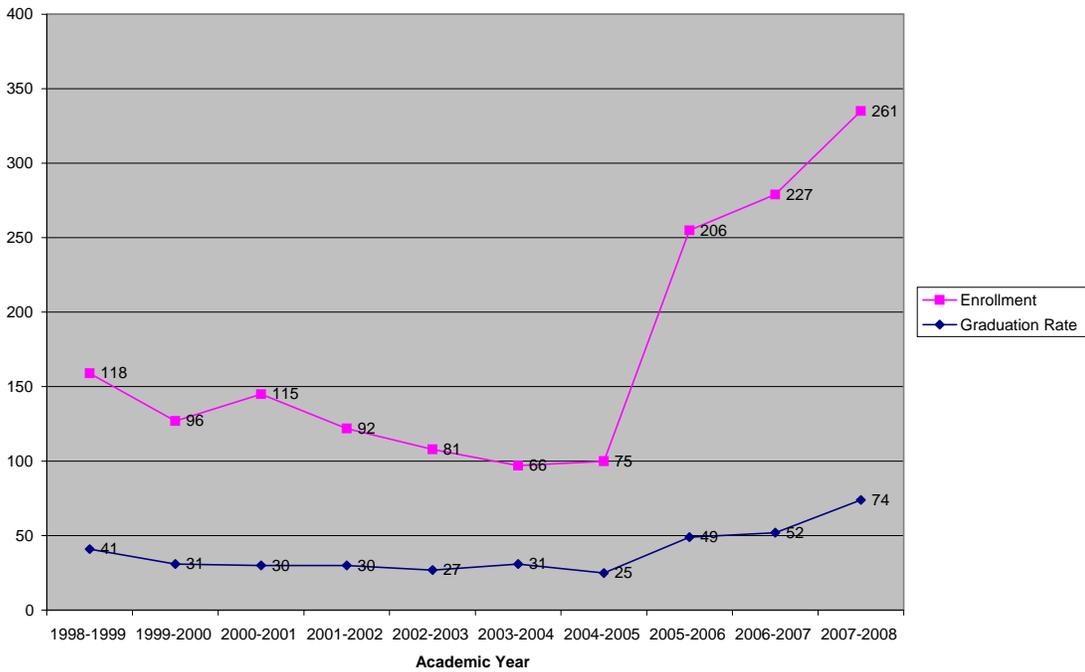
5.3 – Graduate Enrollment and Graduation

Graduate student enrollment continues to increase. This year alone there is a 13% increase in enrollment. Last year Old Dominion University’s graduate program gained accreditation increasing the number of graduate programs to 8. This year 62 of the graduate students are full-time and 199 are part time

Graduate enrollment levels have increased 54.8% over the last 10 years and 74.7% in the last five years.

The graduation rate of graduate students has also increased, rising by 29.7% in the past year and by 58.1% in 5 years.

Graph 5: Graduate Student Enrollment and Graduation Trends Over 10 Years
Number of Students



5.4 Enrollment Requirements

Nine out of 31 accredited programs have a selective admission process. Six programs reported having more students apply to their environmental health program than are admitted, and 16 programs said that the numbers of students applying are roughly equal to the number of students entering the program. Below are some examples of school's admission requirements into an environmental health program.

Admission Requirements

University of Georgia

“2.3 GPA to be admitted as a major; 2.0 GPA to be admitted as an intended major”

Texas Southern University

“Students must earn a C or above in all 2.5 required prerequisite science courses”

East Tennessee State University

“Graduate enrollment is selective. Acceptable GRE scores and a minimum GPA = 3.0. Students must have appropriate undergraduate coursework for the graduate program (e.g., MPH, MSEH or PhD). Undergraduate is not selective.”

University of Illinois, Springfield

“GRE Pre-requisites (30 hours natural sciences and 300-level or higher biostats) higher TOFL score higher GPA (3.0)”

Colorado State University

“In addition to the general admission process, we accept students in the major at various levels of their academic development. We interview candidates, evaluate their performance in science courses, overall GPA and interest in the major. We typically do not accept students with a GPA less than 2.0 or those who do not earn c or better in math and science courses. We want students to succeed and do not wish to bring students into the major that will fail.”

University of Washington

“Prerequisite courses to be completed before entry to major: General Chemistry (3 quarters) Organic Chemistry (2 or 3 quarters) Calculus (1 quarter) Biology (3 quarters) English Composition (1 quarter) Student must also complete application to major including personal statement.”

California State University Northridge

“Students must apply to the master's program. Applications are reviewed by the department.”

Wright State University

“Students must have a 2.0 GPA and are admitted at the time they declare a major. Also, no grade below "C" is accepted for program courses.”

University of Findlay

“1.) Students must have 2 courses in biology including A&P and Cellular or Micro 2.) Students must have 2 courses in Chemistry including Organic 3.) Students must take GRE and obtain >35%tile on Quantitative 4.) International Students must have TOEFL paper score of 550 or equivalent. 6.) Students must have 3.0 GPA in last 60 hours. 7.) If students are lacking in one area or more area they may conditionally qualify by taking bridge courses.”

5.5 Enrollment Trends

The following lists denote factors observed by faculty, which contribute to either an increase or decrease in student enrollment.

Factors Contributing to an Increase in Enrollment

- “Increased emphasis on such environmental concerns as food contamination, lead hazards in toys and environmental contributors to global warming”
- “‘Environment’ as a topical issue in current world affairs”
- “Students on our campus see EH as an "easier" degree to obtain than, say, biology.”
- “Aggressive recruiting using all the factors mentioned above.” See Section 9.0
- “Students look for job availability, stability and community service.”
- “Increased awareness of environmental health problems on the local, national and global stages - Projected career opportunities for graduates in the major”
- “Students and introductory course”
- “Current events, - publicity about global climate change, economic changes, political changes”
- “Primarily, recruiting fro the large half semester EHS classes we offer, recruiting transfer students from our community colleges and getting the outfall from the more than 300 incoming freshmen who declare forensic science for a major and later get disenchanted with their choice.”
- “Global Warming concerns”
- “Homeland Security, public service”
- “Increase is primarily by student to student word of mouth. This is why our best recruiters are our junior/senior EH majors. They are very effective at getting high school and freshmen to listen about EH as a major.”
- “Increasingly strong employment outlook due to gentrification of profession”
- “9/11, accreditation of graduate program in ENVH, addition of ENVH track in joint MPH program, word of mouth particularly to the BIOL and CHEM classes”
- “Increased student awareness in having an enhanced voice for conversation. This effort is organized through the Environmental Task Force.”
- “Word of mouth by students”
- “International interest because of accreditation. Work on Professional Masters Degree. Dual with MPH programs”

- “Current events such as pandemics, bioterrorism, global warming; establishment of new College of Public Health at UGA”
- “Change in curriculum delivery”
- “Growing general awareness of environmental factors that adversely affect human health; student satisfaction with quality of teaching and advising”
- “Recruiting faculty with energy and enthusiasm for EH”
- “Awareness of sustainability issues raised in entertainment, the news media, and corporate advertising”

Factors Contributing to a Decrease in Enrollment

- “Lack of knowledge about the major at private and public levels and some antagonism of environmental concerns by some politicians”
- “The amount of science and math required for the degree”
- “EH is simply not the radar screen of students, their parents, or others in their community. EH is an invisible discipline and unknown career. Employers are more likely to identify with and hire graduates from more traditional science programs such as biology, chemistry, etc.”
- “Some students find it difficult to cope with the basic sciences and math requirements.”
- “University attempted to close the program several years ago. Temporary offices and classrooms”
- “A lot of students are intimidated by the number of science courses that they have to take. Environmental Health program are very challenging and difficult for students.”
- “An increase in ‘pre-professional’ and pre-med majors, an overall decline in biology majors, and a greater interest in environmental biology than environmental health at IUP”
- “EH profession not well known to the public”
- “The requirement of general physics and organic chemistry courses which have very little application to environmental health keep students from considering the EH degree even though they (the potential EH student) have a great deal of interest in environmental issues. Most of our students do not need a science background that would lead them into the scientific research field, they need coursework and skills that take them into management positions.”
- “Requirements in the sciences, especially chemistry”
- “Salaries and competition in a high tech world”
- “Lack of interest in this perceived "rigorous" major and in the environment”
- “Lack of visibility”
- “Perception of public health as a low paying field”
- “Decline of students interested in risk sciences”
- “Lack of public knowledge of the work that EH professionals do”
- “Lack of awareness of program availability, content, and career opportunities”

6.0 – Student Demographics

6.1 Diversity

The student body is showing an increase in diversity for the seventh year in a row. Diversity increased by 15.2% over last year.

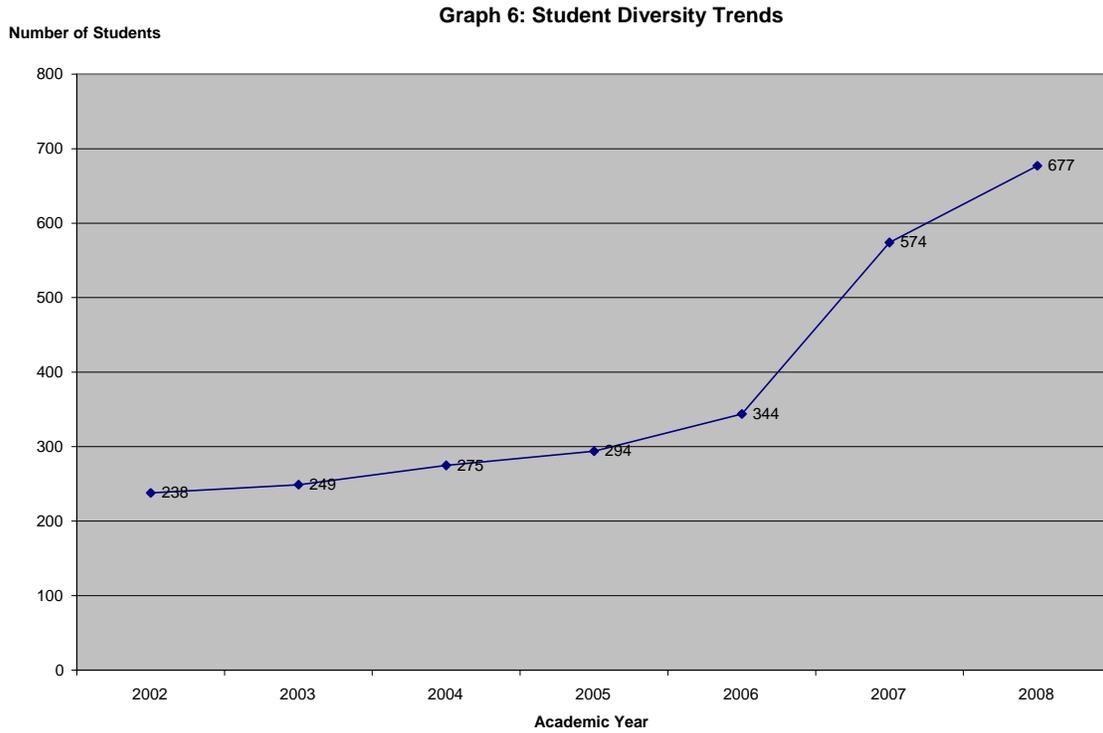
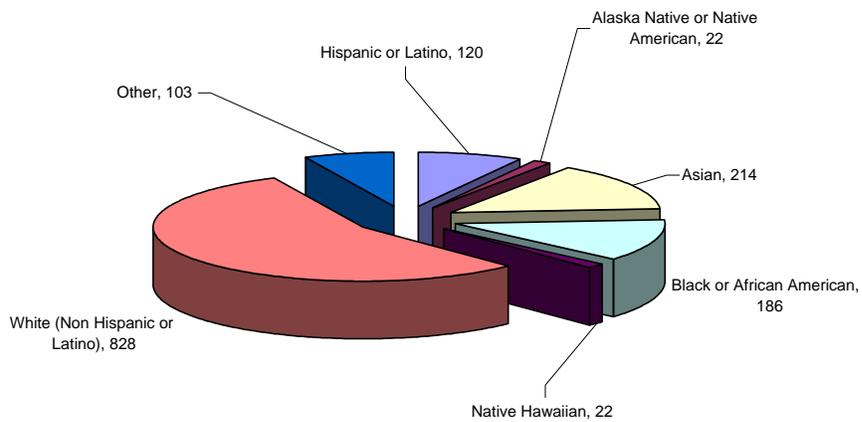


Chart 2: 2008 Student Diversity



Graph 7: Student Diversity Comparison: AY 06-07 & 07-08

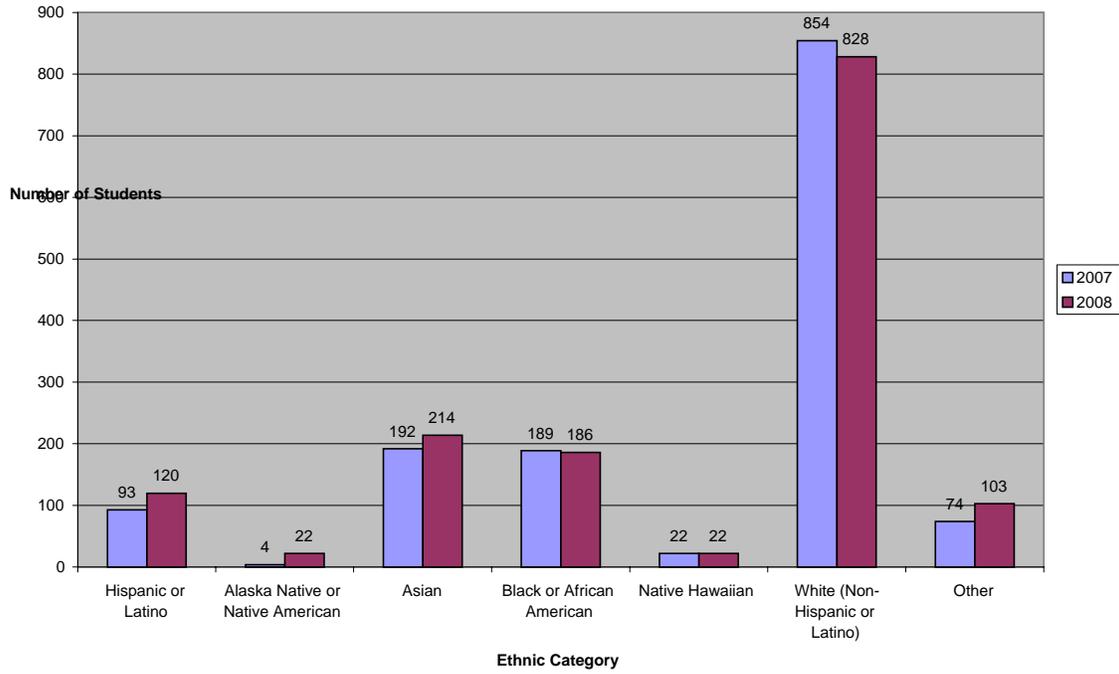


Table 8: International Students

Country	Number of Students
Zimbabwe	1
Nigeria	1
Kenya	2
Thailand	1
Colombia	2
Puerto Rico	1
Saudi Arabia	5
India	45
Japan	5
Mexico	1
Burma	1
Sri Lanka	1
Nepal	17
China	8
Canada	5
Ghana	1
Virgin Island	1
Swaziland	1
Sierra Leone	1
Ukraine	1
Not Specified – Africa	22
Not Specified – Asia	3
Not Specified - America	6

6.2 Gender

Graph 8: Student Gender Break Down

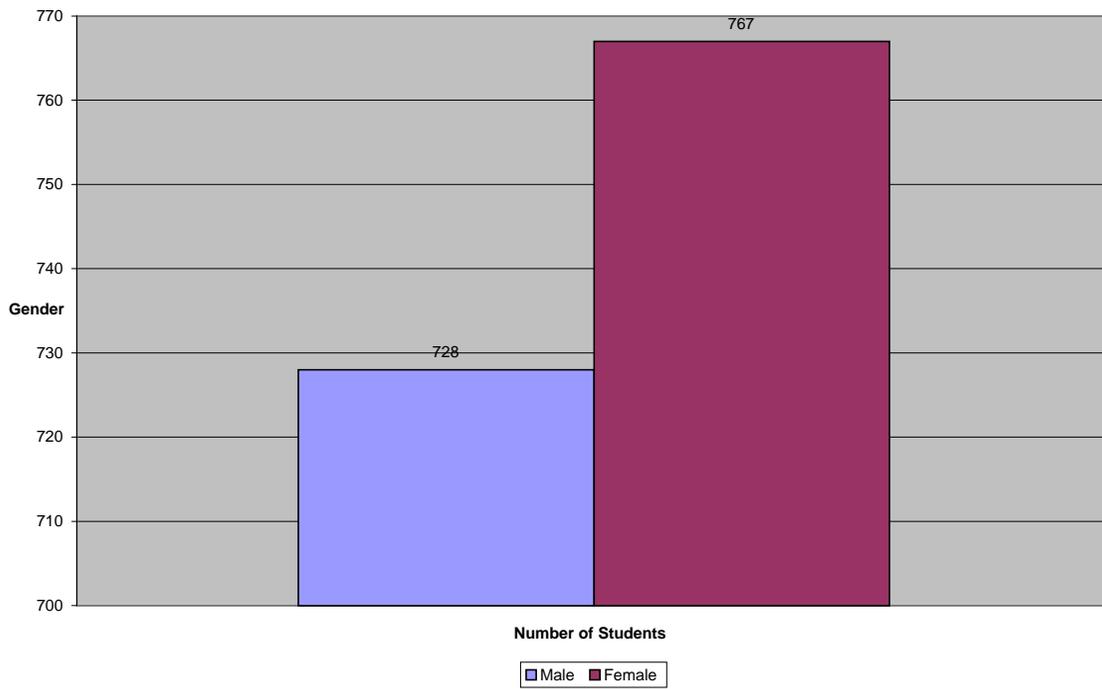
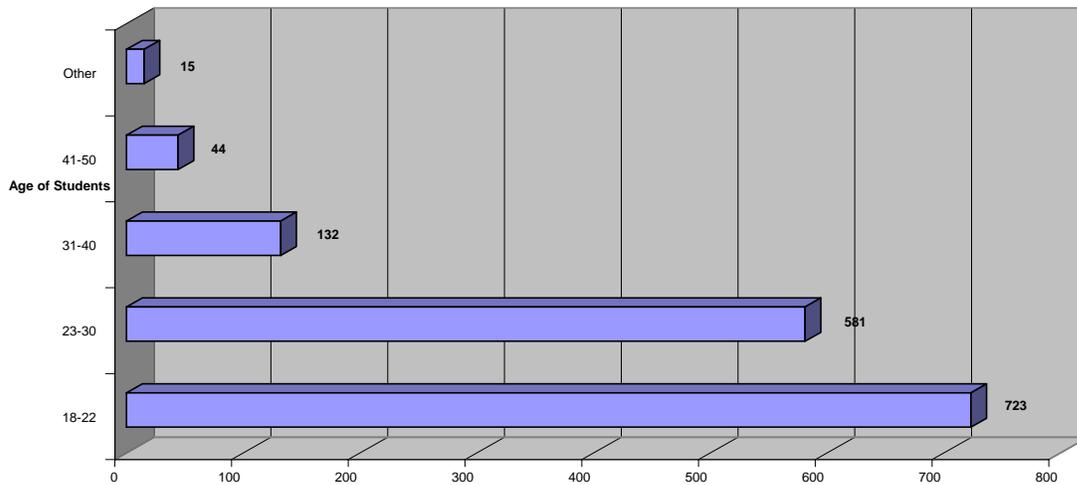


Table 9: Student Gender by Comparison: AY 06-07 & 07-08

<i>Student Gender</i>	2006-2007	2007-2008	% Increase
<i>Female</i>	744	767	3%
<i>Male</i>	695	728	4.5%

6.3 Enrolled Students by Age

Graph 9: Enrolled Students by Age



7.0 – Employment after Graduation

7.1 Employment Opportunities

This year 22 of the 31 programs noted an increase in the number of job opportunities for graduates of accredited environmental health degree programs. The other 9 programs observed no change in the availability of job opportunities.

7.2 Employment Areas: Public vs. Private Sector

Based on program's graduate tracking, 306 of the 565 students monitored after graduation are employed within the public sector, whereas 259, or 46% of students are employed in the private sector.

8.0 – Program Health

8.1 Program Health Status

Programs were asked a series of questions regarding the health of their programs. Their answers are recorded in the tables below

Is your administration concerned with the enrollment in your program?

Yes	18 Programs	58%
No	13 Programs	42%

Have your administrators discussed the possibility of closing your program?

Yes	6 Programs	19%
No	3 Programs	10%
Don't know	22 Programs	71%

Are you concerned about the enrollment of the program?

Yes	23 Programs	74%
No	8 Programs	26%

Do you feel that the health of your program is improving or diminishing?

Improving	17 Programs	55%
Diminishing	11 Programs	35%
Maintaining	3 Programs	10%

Why do you feel the health of your program is improving or diminishing?

Spelman College

“There is a renewed interest to broaden the current scope of our program to include a minor in environmental and public health. The committee for this effort is drawn from across our major disciplines and has the college support.”

California State University, Fresno

“Improving because the number of majors continues to grow (we have more students now than ever before in the history of the program), 4 new program electives have been developed and offered, the number and quality of online courses is increasing, an EOHS student club has been organized, internship sites are increasing, ethnic diversity of the majors is increasing, and the number of students graduating is increasing. Also, talks have resumed on providing EOHS with a teaching lab and equipment storage space. HOWEVER, diminishing because of a decline in the scholastic ability of our majors (resulting in some students leaving the program after a few semesters because of failing grades in their science and math courses). Also, our class sizes are huge, averaging 45-50 students per section, with no relief in sight. In addition, we are critically in need of new faculty to replace current faculty who will be retiring in the next 1.5-3 years.”

Salisbury University

“Freshman ENVH majors enrolled Fall 2007 are accepted in the program; however, the program has been suspended for two years thereafter, and no new students will be accepted.”

Indiana University of Pennsylvania

“The Environmental Health Science Program operating budget from the Department of Biology has been reduced from \$3,500 to \$3,000. Because the Associate Provost’s budget for support of accredited programs was eliminated this year, the operating budget of the Program was used in part to pay EHAC accreditation and AEHAP membership dues. The Environmental Health Science Teaching Laboratory is temporarily being used to house biology graduate students, so ENVH laboratory courses are being taught in shared classrooms. The Director does not receive release time during the fall or spring semesters to manage the program, and did not request compensation last summer. IUP has reformatted its entire website. Consequently, the Director opted not to build a new Environmental Health Science website. The program will have a webpage on the Department of Biology’s new website comparable to its other degree programs and tracks.”

Western Carolina University

“Added faculty and got rid of poor faculty.”

Texas Southern University

“Then number of inquiries increased over the last year. More faculty available for recruitment. More recruitment opportunities on campus.”

Eastern Kentucky University

“Accelerated recruitment efforts and drawing more than 300 undeclared majors into our half-semester courses will assure improvement.”

California State University, San Bernardino

“We have followed an extensive recruitment and retention program, employing all available options available both on- and off-campus. Said program was funded by a 3-year, \$300,000 approx. grant from the USDA Hispanic Serving Institutions Grants Program. As a result of our efforts, the program enrollment in the teens some three years ago, has more than tripled, 40 students in the major.”

Indiana State University

“The program has been eliminated at ISU. We will have the program until December of 2009. By that time all students should graduate already.”

East Tennessee State University

“Increased recognition by incoming students about the field of environmental health and a renewed interest in the environment due to publicity about issues such as global climate change.”

Old Dominion University

“With the accreditation of our Graduate program in June 2007 and the recent addition of an ENVH track in our joint ODU/EVMS MPH program there is renewed interest on and off campus in our program. This particularly true with our large military population.”

Lake Superior State University

“Our new President, Rodney Lowman, is promoting our program and hopes to attract Canadian Students. Under CIPHI rules a graduate with an REHS may sit for the CIPHI exam. As indicated earlier we added a faculty line.”

East Carolina University

“We have added two new faculty members this academic year and are moving into a new facility.”

New Mexico State University

“Combined the environmental health and environmental science programs. We have eliminated unaccredited options with the result that all remaining students are funneled into the accredited environmental health program.”

University of Illinois at Springfield

“2007-2008 Curriculum Revision Online MPH with EH concentration began this year New target audience with MPH over old Environmental Sciences degree”

Colorado State University

“We are constantly evaluating the curriculum and educational experience of our majors. We listen, learn and make changes that enhance the EH major, college experience and

resulting career opportunities. We market our program aggressively and have seen increased interest among many science minded students. We are seeking to develop a minor that will also provide greater awareness and value complementary to other science majors.”

University of Washington

“The health of the major is improving because we are attracting a stable or growing number of prospective students. We are also growing an undergraduate scholarship fund (the Jack Hatlen Scholarship Fund) while providing more internship opportunities for our students. We have strengthened an already good relationship with Public Health Seattle King County. The immediate result has been a more continuous flow of internship opportunities for our undergraduates. My sense is student morale is high in large part because students continue to be very happy with their courses. Class sizes in our major remain very low compared to class sizes in other science majors at the University of Washington. Our courses are taught by faculty rather than graduate students. And the faculty who teach undergraduates, by and large do an excellent job according to students with whom I've spoken. At this point we are a little too big. Our program budget cannot sustain current enrollment levels and we do not see additional funding coming. We have transitioned to a competitive admission process to gain greater control over enrollment. Our goal is to reduce the number of enrolled students by about 10 while growing the applicant pool. We hope this process will yield an even stronger (academically) cohort of graduates.”

California State University, Northridge

“‘Concerned’ means different things to different programs. In our case, everyone is enthusiastic about our growth, which is due to aggressive recruiting. With higher enrollments come increased funds for student assistants, equipment, staff, and even more resources for recruiting!”

Wright State University

“Increased emphasis on recruitment; recent integration of the Environmental Sciences Program with the Department of Geological Sciences; increased dialogue with prospective employers in the surrounding community; increased dialogue with other academic programs; and redesigned web presence.”

The University of Findlay

“We have increased the % of international students and need to attract more domestic students.”

Illinois State University

“Enrollments are increasing”

Benedict College

“Although I consider the health to be maintaining, it seems to fluctuate with both increasing and decreasing enrollments based on recruitment and retention of students.”

9.0 – Recruitment

9.1 Off Campus Recruitment

The following are techniques being used by accredited programs to outreach to potential new environmental health students off campus.

Table 10: Off Campus Recruitment Techniques

Technique	Number of Programs Implementing Strategy	Percentage
Participation in career day events	21	68%
Science fairs	14	45%
Electronic media	13	44%
High school class presentations	13	44%
Community-university partnerships	14	45%
Participation in local events	15	48%
Use of News Media	8	26%
Alumni	21	68%

Additional techniques implemented to attract new students from off campus;

“1. We have partnered with a local high school in initiating and implementing a health and environmental health academy whereby students will be identified and introduced into our environmental health program,. 2. The Student Club has sponsored a 2-mile segment of the freeway close to the campus. The sponsored segment carries a sign, “CSUSB Environmental Health Science Club,” that brings visibility to our Program. 3. We have service learning activities where students participate in community or elementary events and extol the virtues of the major.”

“We received a grant to work with 4-H and Boys and Girls club to promote EH to high school counselors and middle school students.”

“Our admissions recently had a TV commercial made to promote the EH degree.”

“Web based promotion on main page of school participation in college ‘majors fair’.”

9.2 On Campus Recruitment

The following are techniques being used by accredited programs to outreach to potential new environmental health students off campus.

Table 11: On Campus Recruitment Techniques

Technique	Number of Programs Implementing Strategy	Percentage
Student Club Activities	26	84%
Students Recruiting Other Students	26	84%
Outreach to Undeclared Majors	22	71%
Financial Aid Incentives	9	29%
Participating in On-Campus Events	25	81%
Posting Advertisement Flyer's	14	45%
Working with the Admissions Office	17	55%
Articles in the School Newspaper	10	32%
Recruitment/Introductory Class	17	55%

Additional techniques implemented to attract new students from off campus;

“Participation in on-campus activities such as career day, environmental health expo, earth day”

“We were recently awarded a grant from AEHAP to develop a website being designed to attract, excite and inform prospects about the EH major. We use course websites to market resources for EH majors. Many of our students are working in research labs where they interact with other majors and have attracted them to the major.”

“We are currently recruiting in-house from Fish and Wildlife and Environmental Science.”

“Transfer from MBA program”

“We maintain strong relationships with the central undergraduate advising office keeping these academic advisers up to date with changes to admission processes and encouraging them to send appropriate students our way. We also collaborate with academic advisers from an number of environment related majors on campus. The goal again is to keep visibility relatively high amount staff who may encounter students wanting our major.”

9.3 Diversity Recruitment

Fourteen of the EHAC programs have initiatives for recruiting ethnically diverse students. Some programs described these initiatives and their statements are quoted below.

Benedict College

“Most program students are minority and may be considered diverse, however we encourage international students by using the student environmental health association and current international students to promote recruitment.”

California State University, San Bernardino

“Both the Program and the University, as a Hispanic Serving Institution, dwell on diversity at all levels--students, faculty and staff. The Program received a grant from the USDA Hispanic Serving Institutions Grants Program. The focus of the grant was recruitment and retention of bilingual pre-professionals in the Environmental Health Science Program.”

Colorado State University

“We offer scholarships unique to diverse students through our McNair program and IHS. We are connected with advocacy offices on campus and organizations that provide the opportunity to meet with diverse HS students evaluating careers for science majors.”

East Tennessee State University

“The university has an Office of Diversity and Multicultural Affairs that works with departments on recruiting minority students and faculty. The university has a full time recruiter devoted to attending events that are directed toward minority students. The university sponsors several summer research and education opportunities focused for recruitment of minority students.”

Eastern Kentucky University

“Our efforts are well known to EHAC and NEHA and can be reviewed by going to the NEHA site (diversity). Also, see our website www.eku.edu/ehs/diversity. The number of minority students entering our program has steadily increased from 1% five years ago to more than 13% presently.”

Lake Superior State University

“The Boys and Girls club works through the Bay Mills tribe of Chippewa Indians.”

Mississippi Valley State University

“Availability of scholarships for other race.”

New Mexico State University

“University wide initiatives are specifically aimed at minorities and particularly native Americans.”

The University of Findlay

“International recruiting. We have one of the largest international students body on a percentage basis of any college in the country.”

University of Georgia

“Undergraduate scholarships (3/year) are available for underrepresented groups.”

University of Illinois at Springfield

“Target graduates from minority serving institutions in state of Illinois.”

University of Washington

“For three years now, the Department of Environmental and Occupational Health Sciences has sponsored a summer EH research program for undergraduates. The Environmental Health Research Experience Program (EH-REP) targets students traditionally underrepresented in the sciences. Under-represented prospective students may participate in the program and join the major or become attracted to the major by hearing about the program. Outreach to community colleges allows contact with racially diverse prospective students.”

Wright State University

“The College of Science and Mathematics, in which this unit is housed, has been quite successful at obtaining NSF funding for recruiting under-represented into the sciences.”

10.0 – Retention

10.1 Five Year Retention Rates

Undergraduate student retention rate has fallen from 24.4% in 2003-2007 measurements to 23.0% in 2004-2008 measurements, although it is important to remember that several schools do not have five year's worth of data.

Table 12: Retention Rates By Program

Accredited Program	2004-2008 Mean Enrollment	2004-2008 Mean Graduation	Graduation / Enrollment
Benedict College (4)	20.25	3.25	16.0%
Boise State	33	6	18.2%
Bowling Green State	21.8	6	27.5%
California State, Fresno	76.2	16.6	21.8%
California State, Northridge	107.8	23.2	21.5%
California State, San Bernardino (4)	32	7	21.9%
Colorado State	75.2	23.8	31.6%
East Carolina	38.4	12.4	32.3%
East Central	42.2	10.4	24.6%
East Tennessee State	36.4	9.6	26.4%
Eastern Kentucky	132.8	29.2	22.0%
Univ. of Georgia, Athens	78.8	20.4	25.9%
Illinois State	58.6	16	27.3%
Indiana State	9.6	2.4	25.0%
Indiana Univ of Pennsylvania (4)	11.75	2.5	21.3%
Indiana University PUI (1)	43	7	16.3%
Lake Superior State University	11	1	9.1%
Mississippi Valley State University (4)	13.75	2.75	20.0%
Missouri Southern State	33.2	7.8	23.5%
New Mexico State University (2)	11.5	1.5	13.0%
Ohio University	53	9.8	18.5%
Old Dominion University	62	12	19.4%
Salisbury State	23.4	7	29.9%
Spelman College (3)	19	4.3	22.6%
Texas Southern(1)	27.5	4	14.5%
Univ. of Washington	47	14.4	30.6%
Western Carolina	36.8	13.2	35.9%
Univ. of Wisconsin, Eau Claire	31.4	6.6	21.0%
Wright State	37.8	10.8	28.6%

** A number beside the program name denotes the total number of annual data used to derive the retention rate (instead of five).

11.0 – Online Programs

11.1 Full Online Degree Programs

The University of Illinois Springfield, University of Findlay and East Carolina University all have full graduate degree programs available online.

Benedict College, California State University, Fresno, Missouri Southern State University and Ohio University are in the process of developing online degree programs.

11.2 Online Courses by Program

Benedict College

We are working to develop online courses in such subjects as air pollution control, food science, epidemiology and similar courses formally offered by federal organizations such as EPA and CDC.

Bowling Green State University

ENVH 210 Global Commons

California State University, Fresno

HS 160: Toxicology

HS162A: EH Concepts

HS 168A: Occupational Health Concepts

HS 166T: Hazardous Waste Management

HS 166T: EH Epidemiology

California State University, Northridge

Environmental Law Introduction to Environmental Health for non-majors.

Many of our courses are hybrid (partially online).

Colorado State University

Fundamentals in Ergonomics - 2 credits

We are developing a course in Emergency Response and Preparedness - 2 credits

East Carolina University

The entire graduate program MSEH (applied option) is offered on-line.

All of the Graduate Courses (5000) level and above are offered on-line.

East Central University

EHS 3703 Environmental Toxicology

East Tennessee State University

ENVH 3500 Environmental Safety

ENVH 4500 Fundamentals of Occupational Safety and Health

ENVH 5100 Environmental Health Practice

Eastern Kentucky University

EHS 280- Introduction to EH

EHS 850- Introduction to EH

Illinois State University

HSC 156 Environmental Health in the 21st Century (general education course)

Indiana State University

HLTH 210 - Principles and practices of Environmental Health

HLTH 360 - Epidemiology

HLTH 340 - Biostatistics

Lake Superior State University

We intend to develop our GIS and Solid and Hazardous Waste Management classes into online versions.

Missouri Southern State University

EH 201 Hazardous Materials (hybrid)

EH 304 Geographic Information Systems

EH 312 Environmental Biology (hybrid)

EH 370 Environmental Health

EH 373 Solid Waste Management

EH 375 Disease Vector Control

EH 378 Occupational Health & Safety

EH 311 Soil Morphology and Sewage Systems (hybrid)

*hybrid courses require some time on campus

New Mexico State University

HLS 450

HLS 452

HLS 453

Ohio University

EH260 Introduction to Environmental Health

IH400 Sampling and Analysis

University of Washington

ENV H 471: EH Regulation is offered via internet for students enrolled in the graduate Extended MPH Degree program (ExDP) and is available as a free standing course through the ExDP office.

University of Wisconsin-Eau Claire

Epidemiology

Intro to EH

12.0 – AEHAP

12.1 AEHAP's Impact on Programs

Programs were asked “Do you feel AEHAP is an effective organization that provides benefits to your students and overall program.”

Twenty-six programs feel AEHAP is an effective organization. Some of their opinions regarding AEHAP's benefits follow.

- AEHAP Student Research Competition
- Yes, AEHAP has historically assisted students in areas such as environmental surveying and conducting internships
- We received recruitment grants when we needed them in the past.
- Grants
- We received recruitment grants when we needed them in the past
- Grants
- AEHAP serves as a bridge, effectively bringing together existing and future accredited programs in the field of environmental health
- We received recruitment grants when we needed them in the past
- It facilitates communications between schools and programs, support recruiting, provide career and educational materials
- Provides an organization and point of reference for all Environmental Health students
- AEHAP supported the Program through re-accreditation and student awards
- Publicity about Environmental Health
- Newsletter is particularly helpful in getting good ideas from other programs
- Yes, it offers some recruitment money.
- Grants, awards, publications, newsletter, a forum for faculty discussions.
- Recruiting Grants-Faculty development
- AEHAP is a means of staying connected and networking with other schools of EH.
- Yes, promotes discipline
- Newsletter and emails bring up timely topics
- Yes. It is a good source of info and support for all ENVH programs accredited and not accredited.
- I like the support available from AEHAP.
- Updates-newsletters and program support
- Mailings have been helpful this year
- It keeps us in touch with opportunities (scholarships, internships) for students in EHS.
- AEHAP is an important organization that has been doing a great job in helping new programs to achieve accredited status, and in providing funding to help some

existing programs to develop recruiting materials for help bolster their student enrollment. However, it has not yet lived up to its potential. It should be more proactive in monitoring the health of the existing EH programs and in providing support to programs that are in danger. It also needs to do a better job of disseminating the materials and lessons learned from the project that it has funded.

- AEHAP has been a good source of information on education and research

Six programs feel that AEHAP can make improvements. Their opinions are below.

- Not effective in recruiting new students to member programs
- Nothing really directed at students I've seen
- Better at getting new programs than helping existing ones for the most part
- Support seems hit or miss

Table 13: Benefits of AEHAP

Observed Benefits of AEHAP	Number of Programs
Support Increasing Enrollment	2
Student Resources (ex. awards, network)	7
Funding	8
Mentorship	3
Program Support (from closure)	1
Informational Resources	3

12.2 Program Needs

Programs were asked to identify ways AEHAP can better support their environmental health programs. Their comments are below.

Table 14: Suggested Areas of Increased AEHAP Support

Technique	Number of Programs	Percentage
<i>Recruitment Grants</i>	20	64.5%
<i>Outreach Materials</i>	21	67.7%
<i>Faculty Workshops</i>	11	34.4%
<i>Faculty Exchange Programs</i>	11	34.4%
<i>Media Presence</i>	1	3.2%
<i>Advertising</i>	1	3.2%

Comments

- AEHAP has historically assisted the program. It can continue to serve as a resource for information about undergraduate and graduate environmental

- programs and as a facilitator for joint efforts among programs from different institutions.
- More support opportunities for students to attend national or regional conferences
 - Needs to focus more on supporting EHAC For example: strong career oriented web page for students to access national- level outreach needs to be a player in Washington, D.C. (current location hinders effectiveness)
 - They're doing fine right now
 - Grants
 - AEHAP has been doing a fine job by bringing in so many programs at par and helping them work towards receiving accreditation from the National Environmental Health Science and Protection Accreditation Council.
 - Keep up the good work! Provide more funding to programs to support initiatives for recruiting, advising, diversity and retention, undergraduate research, curriculum development, etc. We need larger grants with secondary costs provided to the institution. It doesn't seem logical to offer an award that costs more to administer than it is worth.
 - AEHAP can better serve our program by assisting us in recruiting new students to the field of Environmental Health.
 - Work closely with EHAC to insure accreditation guidelines further programs and the workforce.
 - Continue to support visibility of the discipline and the member programs.
 - To this point, we have not seen any positive actions that we could call on to benefit students or our program
 - We need help developing online course materials.
 - Financial Support for recruitment.
 - Restart the Spirit of EH Awards. This AEHAP sponsored award was given by each program director (who wanted to participate) to an individual, company or agency that directly benefited the EH Program in their area over the past year. It is a great way to give "national" recognition to those benefiting our EH degree programs. The award was often given at some sort of local ceremony from the Program Director to the recipient. It is a way of saying thanks to those who directly help the EH degree programs e.g. scholarships, internships, classroom visits etc. Those receiving these awards in the past have treasured them.
 - Help in recruiting efforts.
 - Is there a student section on the AEHAP web site? Special membership rates?
 - Through recruitment grants
 - Provide recruitment materials. Act as a resource for EH program recruitment materials course sharing
 - Service as a clearing house for online info on workshops, meetings, on-line courses, symposia, credentialing exams in EHS
 - Increased Advertizing in general
 - Our students would benefit from greater exposure to other EH students at different institutions. AEHAP could sponsor a yearly EH Undergraduate conference that allowed students to lead sessions, present on research and internships and share ideas with other programs. Plenary sessions would also

feature active EH professionals. The culmination of the conference could be an EH careers/banquet.

- More student scholarships, travel stipends, more online resources, e.g., "What does an EH Professional do?"
- Be more inclusive
- By providing any additional assistance or information dealing with student internships and recruiting strategies.