

Environmental Studies Program Demand

Prepared for Northern Illinois University

In this report, The Hanover Research Council explores the feasibility of offering undergraduate and graduate degree programs in Environmental Studies. We provide profiles of peer institutions' offerings and present an overview of student and employer demand.

Introduction

With the recent focus on global warming, carbon emissions, alternative energy, and other environmental issues, it is no wonder that the past few years have seen an increase in the number of schools offering degree programs in Environmental Studies. Environmental Studies first became a popular program in the early- to mid-nineties with the rise of widespread environmental consciousness and continues to be a strong offering at many universities and colleges across the nation. Further, the number and diversity of environmental jobs are increasing as political and economic forces call for business practices and technology to become more environmentally friendly and efficient.¹ As we detail in this report, degrees in Environmental Studies enable students to gain a broad background suitable for a variety of jobs, typically through a combination of instruction in the social sciences, humanities, mathematics, and physical and life sciences.

In this report, Hanover analyzes a number of factors pertaining to the feasibility of offering undergraduate and graduate degree programs in Environmental Studies, including:

- ❖ Student demand for Environmental Studies academic programs and the supply of trained individuals in this field over the past five years, as indicated by degree conferrals at regional peer institutions, as well as across the State of Illinois and the United States
- ❖ Market demand for individuals with a background in Environmental Studies or related fields
- ❖ Regional peer institutions' undergraduate and graduate degree offerings, including an overview of programs and required coursework
- ❖ The organizational structure of programs at regional peer institutions

Methodology

While the primary focus of this report is on Environmental Studies programs, we have further included an examination of Environmental Science programs due to their close relationship with the field of Environmental Studies, as well as their alignment with similar occupations. Data pertaining to Bachelor's and Master's degree completions in Environmental Studies (Classification of Instructional Programs Code 03.0103) and Environmental Science (Classification of Instructional

¹ "The Clean Energy Economy: Repowering Jobs, Businesses, and Investments Across America." The Pew Charitable Trust. June 2009.

<http://www.pewcenteronthestates.org/uploadedFiles/Clean_Economy_Report_Web.pdf>

Programs Code 03.0104) were collected through the Integrated Postsecondary Education Data System (IPEDS)² for academic years 2004-05 through 2008-09.

Reflecting its interdisciplinary nature, Environmental Studies is described by the National Center for Education Statistics (NCES) as:

“...a program that focuses on environment-related issues using scientific, social scientific, or humanistic approaches or a combination. [Programs] include instruction in the basic principles of ecology and environmental science and related subjects such as policy, politics, law, economics, social aspects, planning, pollution control, natural resources, and the interactions of human beings and nature.”³

By contrast, Environmental Science takes a more focused and technical approach. The NCES describes the field as:

“...a program that focuses on the application of biological, chemical, and physical principles to the study of the physical environment and the solution of environmental problems, including subjects such as abating or controlling environmental pollution and degradation; the interaction between human society and the natural environment; and natural resources management. [Programs] include instruction in biology, chemistry, physics, geosciences, climatology, statistics, and mathematical modeling.”⁴

While Environmental Studies takes a more theoretical approach to environmental issues, studying built, social, cultural, political and organizational environments, not just natural environments, the two types of programs share some coursework and align with some of the same occupations. In order to provide a more complete picture of the competitive landscape for a new Environmental Studies program, we therefore deemed it necessary to also include a discussion of local and regional Environmental Science programs.

Employment projections were next collected through the Bureau of Labor Statistics (BLS) and the Illinois Department of Employment Security (IDES) in an effort to gauge market demand for graduates of Environmental Studies and Environmental Science programs. According to an occupational crosswalk provided by the NCES, the BLS associates only three occupational titles with Environmental Studies degrees: Environmental Scientists or Specialists (Standard Occupational Classification Code 19-2041), Environmental Science and Protection Technicians (SOC Code 19-4091),

² Integrated Postsecondary Education Data System. <<http://nces.ed.gov/IPEDS/>>

³ National Center for Education Statistics, Classification of Instructional Programs. <<http://nces.ed.gov/pubs2002/cip2000/ciplist.asp?CIP2=03>>

⁴ Ibid.

and Postsecondary Environmental Science Teachers (SOC Code 25-1053).⁵ It is further important to note that Environmental Science degree programs also align with all three of these occupations, reinforcing the rationale for tracking growth in these programs as well.⁶

Before we begin, a few notes should be made with regard to the occupations aligned by the BLS with Environmental Studies programs. Unfortunately, environmental scientists and technicians only reflect the technical side of the field. Certainly some Environmental Studies programs prepare students to take on these jobs, as evidenced by some of the placements of graduates that we present later in the report. Further, in our examination of these programs, we found that many students double major in Environmental Studies and a more traditional field such as Biology or Chemistry. These students would be particularly well-suited for positions requiring a more rigorous scientific background. However, many graduates of these programs will not wish to enter this side of the field, either due to a greater interest in other areas such as policy or a lack of requisite technical training. By providing projection data for these positions, we therefore aim to illustrate expected growth in one aspect of the demand for Environmental Studies programs.

Placing another limit on the potential helpfulness of BLS data, we exclude discussion of Postsecondary Environmental Science Teachers since the majority of individuals that would be qualified for these positions would need to engage in education beyond the Bachelor's and Master's degree levels. Therefore, in terms of BLS projections, we focus on employment demand for Environmental Scientists or Specialists and Environmental Science and Protection Technicians.

Despite the limited number of related occupations that are covered by BLS projections, it is important to keep in mind that interdisciplinary degrees such as Environmental Studies prepare students for a wide variety of fields. Thus, currently available labor statistics at the local, state, and national levels do not adequately depict growth in demand for these programs. In our discussion of employer demand for Environmental Studies degree holders later in the report, we supplement BLS data with an examination of relevant job postings and information on placement of recent graduates from degree programs around the State of Illinois.

Scope

Information on existing educational opportunities in Environmental Studies and Environmental Science, as well as related employment demand projections were

⁵ "CIP 2000 - CIP Lookup to Occupational Crosswalks: Environmental Studies." NCES.
<<http://nces.ed.gov/pubs2002/cip2000/occupationallookup6d.ASP?CIP=03.0103>>

⁶ "CIP 2000 - CIP Lookup to Occupational Crosswalks: Environmental Science." NCES.
<<http://nces.ed.gov/pubs2002/cip2000/occupationallookup6d.ASP?CIP=03.0104>>

gathered for the following areas: the United States, the State of Illinois, and the Chicago Metropolitan Division.

According to the IDES, the Chicago Metropolitan Division consists of the following counties in Illinois: Cook, DeKalb, DuPage, Grundy, Kane, Kendall, McHenry, and Will.⁷ While we initially examined other geographic groupings within Northern Illinois, such as the State Economic Development Regions that divide the northern half of Illinois into three areas, we found that the majority of both employment and educational opportunities in Environmental Studies and Science are located within the Metropolitan Division.

Summary of Findings

Overall, across the United States, Environmental Studies baccalaureate-level degree programs are growing. This is evidenced both by an increasing number of degree completions over the last five years and the creation of new programs. The picture is more varied at the state and local levels. In the State of Illinois, undergraduate degree conferrals in Environmental Studies have remained steady over the last five years, averaging 53 successful graduates annually. Within the Chicago Metropolitan Division, the number of conferrals has dropped slightly, from 28 in 2004-05 to 22 in 2008-09. We found six institutions that have conferred Environmental Studies degrees within this area in the last five years. However, among these institutions, only three granted Bachelor's degrees in 2008-09. This suggests that while Northern Illinois University's new program in Environmental Studies will be entering a relatively un-crowded local market, it should carefully monitor student needs and interests with regard to the program's focus and course offerings.

As for Master's degrees in Environmental Studies, conferrals have increased at the national level (five-year growth of nearly 18 percent), while conferrals have remained fairly steady at the state and local levels.

Available labor data suggests that employment demand for individuals with a background in Environmental Studies is increasing at the national, state, and local levels. However, as we discuss further below, due to its interdisciplinary nature, it is difficult to gain a full picture of the growth in jobs available to graduates of these programs.

⁷ "2000 Census-based Illinois Metropolitan Statistical Areas and Metropolitan Divisions." IDES. <http://lmi.ides.state.il.us/msa_def.htm>

Growth of Environmental Studies and Related Programs

In this section, we examine program growth in Environmental Studies and related degree programs throughout the United States, the State of Illinois, and the Chicago Metropolitan Division. This allows us to measure student demand for Environmental Studies programs, as well as the supply of trained individuals in this field.

Program Growth in the United States

An article published by *The New York Times* earlier this year identified Environmental Studies as an area of strong growth in colleges and universities across the nation.⁸ For example, the article noted that Boston College's minor in Environmental Studies increased from 17 students in 2003 to 44 students in 2009. Likewise, Iowa State's programs in Environmental Studies and Environmental Science grew from 99 students in fall 2003 to over 150 students in fall 2009. The chair of the Environmental Studies and Environmental Science programs at Iowa State, William Crumpton, attributed the surge in enrollments simply to a recent increase in student interest in environmental issues: "I had this sense that environmental issues got a lot more press – or maybe more effective press – in [the] last four to five years."⁹

Speaking with regard to the Environmental Science program at the University of Virginia, Jay Zieman, chair of the university's Environmental Science department noted that: "We have definitely seen an increase in majors over the past two-three years, but where we have really increased are the environmental courses we teach to non-majors. The number has increased 45 percent over the past five years."¹⁰ The growth of non-majors taking Environmental Science courses suggests that while not all of these students are interested in full immersion into a science-based program, they are clearly interested in environmental issues. Since Environmental Studies programs are interdisciplinary and draw on a wide variety of subjects, they may be successful in attracting these types of students. New Environmental Studies programs should seek to capitalize on this general increase of student interest in environmental issues.

A recent survey of interdisciplinary environmental programs in the United States, conducted by the Council of Environmental Deans and Directors (CEDD), affirms these trends.¹¹ Prior to administering the survey in spring 2008, the CEDD identified 840 degree-granting programs, offering 1,183 interdisciplinary degrees, located at 652

⁸ Kate Galbraith. "Environmental Studies Enrollment Soars." *The New York Times*. February 24, 2009.

<<http://greeninc.blogs.nytimes.com/2009/02/24/environmental-studies-enrollments-soar/?pagemode=print>>

⁹ Ibid.

¹⁰ Ibid.

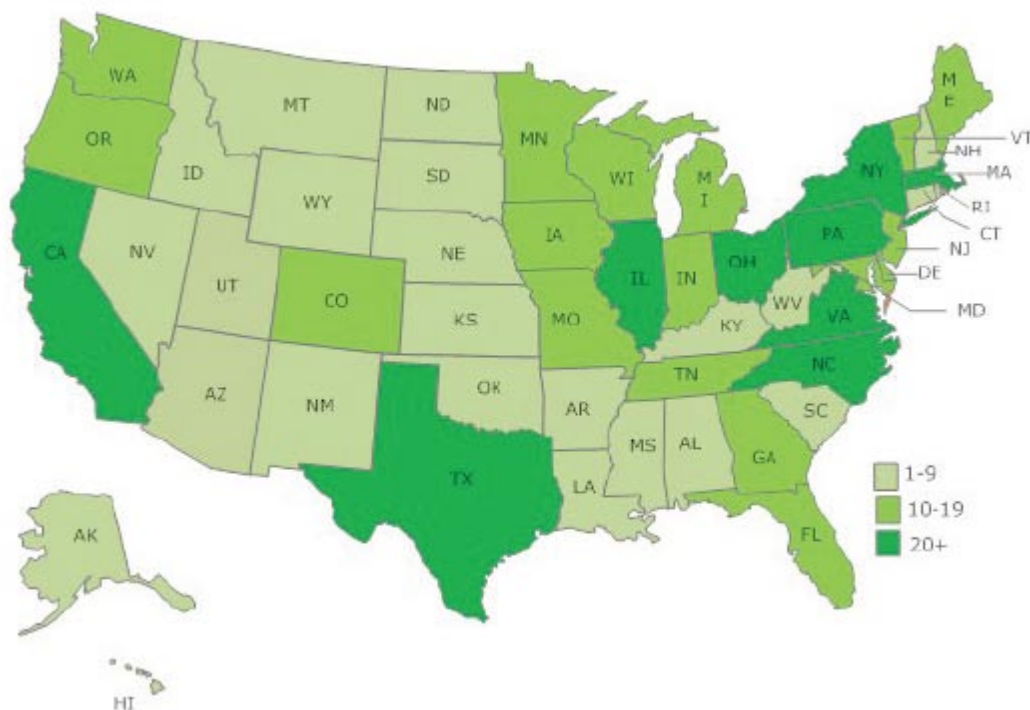
¹¹ Shirley Vincent. "Growth in Environmental Studies and Science Programs." *Association for Environmental Studies and Science Newsletter*. Vol. 2. Issue 2. Summer 2009.

<http://www.aess.info/content.aspx?page_id=22&club_id=939971&module_id=43246>

institutions. These programs offer baccalaureate and graduate-level degrees under the titles of Environmental Studies or Environmental Science, as well as some related programs in Sustainability, Environmental Policy and Management, Natural Resources, Environmental Dynamics, and Water Resources. CEDD did not include programs that offer degrees in more specific environmental fields such as Conservation Biology, Sustainable Agriculture, or Environmental Engineering.

Of these programs, Environmental Science is the most common, with 45 percent of all programs offered under this title. Another 25 percent are offered in Environmental Studies. Of the remaining 30 percent, Environmental Policy and Planning, Environmental Management and Risk Analysis, and Natural Resources Management are the most common. The following map, showing the geographic distribution of these programs, was included in the article that summarized the survey results. Note that while Illinois is one of the states with over 20 environmental degree programs, as we discuss further below, many of these programs are in Environmental Science rather than Environmental Studies.

Universities and Colleges Offering Interdisciplinary Environmental Degree Programs, as Recorded by the CEDD



Source: CEDD and AESS.¹²

The survey received responses from 260 program administrators, representing a response rate of 31 percent. The resulting survey sample was found to be

¹² Ibid.

representative of the entire target population in terms of basic Carnegie class, institution census division, institutional control, and program degree types. The responses provided some interesting insight into program trends across the United States.

- ❖ Approximately 66 percent of these programs were created after 1990
- ❖ A quarter were established after 2001¹³
- ❖ 58 percent of programs reported a growth in enrollment from 2003-2008
- ❖ 29 percent indicated steady enrollment from 2003-2008
- ❖ Only 13 percent of programs reported a decline in enrollment over this period
- ❖ Several programs noted that they had “experienced large jumps in enrollment during the fall 2008 semester.”¹⁴

Another notable fact highlighted by the survey regarded the number of students within each type of program. While there are more Environmental Science programs currently in operation, Environmental Studies programs or related programs with other names tend to have more students. For example, the study found that “undergraduate environmental science programs have an average enrollment of 26 students versus 54 for environmental studies programs and 56 for other programs.”¹⁵ Similarly, graduate programs in Environmental Studies report average enrollments of 25-35 students, which is slightly higher than other programs. However, these types of programs are much less common than Master’s or doctoral programs in Environmental Science or other related areas.

Through Hanover’s examination of IPEDS data, we found that nationwide, over 6,600 Bachelor’s and Master’s degrees were completed in Environmental Studies or Science in 2008-09. Degrees were granted by 653 different institutions across the United States.¹⁶ Echoing the CEDD survey findings, over the past five years, there has been a steady increase in the number of Bachelor’s degrees completed, with 513 more Environmental Studies degrees and 431 more Environmental Science degrees awarded in 2008-09 than in 2004-05. Master’s degree completions have remained

¹³ Note that these findings appear to conflict with the results of a 2008 study conducted by the National Wildlife Federation. The NWF study reported a decline in the number of environmental programs, stating that 38 percent of four-year institutions included in their survey had an *undergraduate major* in environmental or sustainability studies and 28 percent offered an *interdisciplinary degree* in these areas in 2008, compared to 44 percent of institutions offering an undergraduate major in 2001. However, the 2001 survey only asked “Does your campus offer an undergraduate major in environmental or sustainability studies,” while the 2008 survey asked that question in addition to another question: “Does your campus offer an interdisciplinary degree program in environmental or sustainability studies?” The perceived “decline” in the number of institutions offering undergraduate majors in environmental or sustainability studies could be accounted for by an increase in the number of institutions offering interdisciplinary programs in the field.

¹⁴ Ibid.

¹⁵ Ibid.

¹⁶ Note that while the CEDD survey only mentioned 652 institutions that offer interdisciplinary environmental programs, the numbers presented here represent the 653 institutions that have reported degree conferrals under the CIP codes for Environmental Studies (03.0103) or Environmental Science (03.0104) to IPEDS in 2008-09.

fairly stable over the past five years, with an average of 489 Environmental Studies degrees and 582 Environmental Science degrees awarded annually.¹⁷

Degree Completions, 2004-05 to 2008-09, Environmental Studies and Science

United States						
Degree	2004	2005	2006	2007	2008	Total 2004-2008
Environmental Studies						
Bachelor's	2,786	3,009	3,178	3,116	3,299	15,388
Master's	476	500	446	465	560	2,447
Environmental Science						
Bachelor's	1,792	1,908	1,928	2,090	2,223	9,941
Master's	568	611	575	585	569	2,908
Total Degrees, Environmental Studies and Science						
Bachelor's	4,578	4,917	5,106	5,206	5,522	25,329
Master's	1,044	1,111	1,021	1,050	1,129	5,355

Source: IPEDS.

Illinois Degree Completions

In Illinois, 21 colleges and universities have conferred degrees in Environmental Studies or Environmental Science over the last five years. More specifically, nine institutions conferred Bachelor's degrees in Environmental Studies, while 12 granted degrees in Environmental Science. There are also three Master's programs in Environmental Studies¹⁸ and three in Environmental Science operating within the state. The University of Illinois at Urbana-Champaign has the state's only PhD program, which is in Environmental Science.¹⁹

As displayed in the table below, overall, Bachelor's degree completions throughout the state rose slightly from 2004-05 to 2008-09. Conferrals of Bachelor's degrees in Environmental Studies have remained steady, with a five-year average of 53 degrees awarded per year. Bachelor's degrees in Environmental Science, by contrast,

¹⁷ IPEDS.

¹⁸ Note that Northeastern Illinois University reports its Master's degree in Geography and Environmental Studies under a different CIP code (45.9999), "Social Sciences – Other Social Sciences." It is therefore not included in the Illinois Board of Higher Education degree inventory for Environmental Studies. We nevertheless include the program's degree conferrals in our examination of state and local Environmental Studies programs in order to provide a more accurate representation of the competitive landscape. See: "Approved Degree Programs Fall 2007." Northeastern Illinois University.

<<http://www.neiu.edu/~isp/data/NEIU%20Degree%20Programs%20Fall%202007.pdf>>

¹⁹ "Degree Program Inventory." Illinois Board of Higher Education (IBHE).

<<http://www.ibhe.state.il.us/BHEProgramInventory/default.htm>> and "Natural Resources and Environmental Sciences." University of Illinois at Urbana-Champaign. <<http://www.nres.uiuc.edu/Dynamic.aspx?PageId=71>>

experienced greater fluctuation in completions, jumping from 78 degrees in 2004 to 101 in 2007, and then leveling back down to 88 degrees in 2008.

The majority of Master's degrees were conferred in Environmental Science. For example, in 2008 there were 40 Master's degrees in Environmental Science completed, compared with only six in Environmental Studies. The University of Illinois at Urbana-Champaign accounts for the bulk of the Master's degrees in Environmental Science, with 29 degree completions in 2008.²⁰

Degree Completions, 2004-05 to 2008-09, Environmental Studies and Science

State of Illinois						
Degree	2004	2005	2006	2007	2008	Total 2004-2008
Environmental Studies						
Bachelor's	54	62	43	53	53	265
Master's	10	10	6	13	6	45
Environmental Science						
Bachelor's	78	80	91	101	88	438
Master's	42	33	36	32	40	183
Total Degrees, Environmental Studies and Science						
Bachelor's	132	142	134	154	141	703
Master's	52	43	42	45	46	228

Source: IPEDS.

Chicago Area Degree Completions

Six institutions in the Chicago Metropolitan Division conferred Bachelor's degrees in Environmental Studies, while ten granted Bachelor's degrees in Environmental Science in the last five years. Three of these institutions offer two separate degrees in Environmental Science and Environmental Studies. Further, there are two graduate degree programs operating in the area: the University of Chicago's Master of Science in Environmental Science and Policy (categorized as Environmental Studies in IPEDS) and Northeastern Illinois University's Master of Arts in Geography and Environmental Studies (categorized as "Social Sciences, Other" in IPEDS).²¹

²⁰ IPEDS.

²¹ IBHE.

Degree Completions, 2004-05 to 2008-09, Environmental Studies and Science

Chicago Metropolitan Division						
Degree	2004	2005	2006	2007	2008	Total 2004-2008
Environmental Studies						
Bachelor's	28	30	21	25	22	126
Master's	3	6	6	8	4	27
Environmental Science						
Bachelor's	24	25	39	44	34	166
Master's	0	0	0	0	0	0
Total Degrees, Environmental Studies and Environmental Science						
Bachelor's	52	55	59	69	56	292
Master's	3	6	6	8	4	27

Source: IPEDS.

Degree Completions by Institution, 2004-05 to 2008-09

Institution	Year					Total 2004- 2008
	2004	2005	2006	2007	2008	
Bachelor's of Environmental Studies						
University of Chicago	13	14	12	13	13	65
Northeastern Illinois University	6	11	3	9	7	36
Dominican University	0	0	0	0	2	2
Loyola University Chicago	8	3	0	0	0	11
Northwestern University	1	2	1	1	0	5
Wheaton College	0	0	5	2	0	7
Master's of Environmental Studies						
University of Chicago	0	1	1	2	0	4
Northeastern Illinois University ²²	3	5	5	6	4	23
Bachelor's of Environmental Science						
Loyola University Chicago	0	9	13	15	17	54
Northwestern University	11	5	17	14	6	53
DePaul University	6	4	2	4	4	20
Dominican University	0	1	0	3	2	6
University of St. Francis	0	3	0	2	2	7
Benedictine University	4	0	4	2	1	11
Lewis University	2	0	0	2	1	5

²² As mentioned above, Northeastern Illinois University reports its MA in Geography and Environmental Studies under the CIP code for "Social Sciences, Other" (45.9999), while it reports its undergraduate program under the CIP code for Environmental Studies (03.0103).

Institution	Year					Total 2004- 2008
	2004	2005	2006	2007	2008	
Roosevelt University	1	2	2	2	1	8
Aurora University	0	1	0	0	0	1
Wheaton College	0	0	1	0	0	1

Source: IPEDS.

Other programs in the State of Illinois, but outside of the Chicago Metropolitan Division, that conferred Bachelor's degrees in Environmental Studies in 2008-09 include: Illinois Wesleyan University (6), Knox College (14), Lake Forest College (3), and Principia College (8). The University of Illinois at Springfield conferred two Master's degrees in the field.

In addition to Environmental Studies programs that have actively conferred degrees within the state, the Illinois Board of Higher Education indicates that two other institutions began enrolling students in Environmental Studies programs in 2008, but have not yet conferred degrees.²³ DePaul University, which offers both a Bachelor of Science in Environmental Science and a Bachelor of Arts in Environmental Studies,²⁴ reported to the board that it had 36 students enrolled in Environmental Studies last year. Judson University, which offers a Bachelor of Arts in Environmental Studies,²⁵ reported only two enrolled students that year. A table displaying the enrollment of Environmental Studies programs at all Illinois institutions is available in the appendix.

As displayed above, aggregate degree completions throughout the area have remained fairly consistent, with a five-year average of 25 Bachelor's degrees awarded in Environmental Studies annually and 33 Bachelor's degrees in Environmental Science. When we break the data down further by institution, however, other trends emerge. First, only three programs conferred Bachelor's degrees in Environmental Studies in 2008-09. Loyola University Chicago, Northwestern University, and Wheaton College did not award any degrees in these programs during the past year. By contrast, eight of the ten Environmental Science programs awarded degrees at the baccalaureate level in 2008-09.²⁶

With regard to Environmental Studies, it is important to note that the three baccalaureate-level programs that did not confer degrees last year also operate Environmental Science programs. Since these programs are closely related, the institutions may be experiencing a degree of internal competition between their own

²³ IBHE.

²⁴ "Environmental Science and Studies." DePaul University.

<<http://sr.depaul.edu/catalog/catalogfiles/current/College%20of%20Liberal%20Arts%20and%20Sciences%20Undergraduate%20Studies/pg120.html>>

²⁵ "Science and Math – Programs." Judson University.

<<http://www.judsonu.edu/academics/undergraduate/science-and-math/template.aspx?id=3446>>

²⁶ IPEDS.

programs. For example, despite their lack of Environmental Studies graduates in 2008, Loyola University Chicago and Northwestern University have exhibited the strongest Environmental Science degree conferrals in the Chicago area over the last five years. Students at these institutions may be looking for a more technical, science-focused education, rather than a broader and more interdisciplinary Environmental Studies degree. Such a situation appears to have motivated Northwestern University when its School of Continuing Studies decided to switch from offering an Environmental Studies to an Environmental Sciences major. The institution explained that the new Environmental Sciences major “includes more basic science requirements...so that students will be better prepared to enter professions related to this subject.”²⁷ The new program requires students to take six of the following courses:

- ❖ General Chemistry I
- ❖ General Chemistry and Lab
- ❖ Organic Chemistry
- ❖ College Physics I
- ❖ College Physics II
- ❖ Concepts of Biology
- ❖ Biology I²⁸

While the old major allowed students to take additional foundational science courses, it only required students to complete Concepts of Biology and General Chemistry I. Greater emphasis was placed on other disciplines, including geography, geology, economics, history, political science, and sociology, among others.²⁹

Another important issue to consider is enrollment at these Chicago-area institutions. Since IPEDS does not report enrollment by program, we turn to the Illinois Board of Higher Education (IBHE).³⁰ After reviewing enrollment data, as well as degree conferrals reported by the board, it is not clear that IBHE data directly aligns with IPEDS. For example, in 2008, IPEDS reported a total of 22 Chicago-area, undergraduate Environmental Studies degree conferrals, while IBHE reported 16. Further, enrollment numbers may fluctuate as many students switch from one major to another, while degree conferrals present a more stable measure. Nevertheless, we present enrollment information reported by IBHE in order to provide a gauge of enrollment trends in these programs.

²⁷ “Majors – Environmental Sciences.” Northwestern University.
<http://www.scs.northwestern.edu/student/conversion/majors/?major=ENV_SCI>

²⁸ Ibid.

²⁹ “Majors – Environmental Studies.” Northwestern University.
<http://www.scs.northwestern.edu/student/conversion/majors/?major=ENV_STU>

³⁰ IBHE.

Despite stable or lagging conferrals, some of these programs have experienced enrollment growth. When interpreting the following data, we should keep in mind, that the seemingly largest program, Loyola University Chicago, reports combined figures for its Environmental Studies and Science programs. Since the institution did not confer any Environmental Studies degrees for the past three years, and reported strong conferrals in Environmental Science for the past five, it is likely that many of these students are in fact Environmental Science majors. Aside from Loyola, we see healthy enrollment growth at Northeastern Illinois University, Wheaton College, and the University of Chicago.

Illinois Colleges and Universities, Fall Enrollment, 2004-2008

Institution	Degree	2004	2005	2006	2007	2008	5-Year Growth ³¹
Loyola University Chicago	B.A./B.S. in Environmental Science/Studies	0	45	45	40	64	42.2%
Northeastern Illinois University	B.A. in Environmental Studies	26	29	42	46	52	100.0%
DePaul University	B.A. in Environmental Studies	0	0	0	0	36	N/A
Wheaton College	B.A. and B.S. in Environmental Studies	9	9	6	10	21	133.3%
University of Chicago	B.A. in Environmental Studies	8	15	13	14	18	125.0%
Judson University	B.A. in Environmental Studies	0	0	0	0	2	N/A
Northwestern University	B.Phil. and B.S.G.S. in Environmental Studies	8	6	5	2	1	-87.5%
Dominican University	B.A. and B.S. in Environmental Studies	0	0	1	1	0	N/A

Source: Illinois Board of Higher Education.

These degree conferral and program enrollment trends provide a mixed message with regard to the future of a new Environmental Studies program in the Chicago area. Due to the fact that only three programs reported to IPEDS that they had granted degrees in Environmental Studies last year, there may only be a small number of competitors operating within the immediate area. Further, only two of these programs, the University of Chicago and Northeastern Illinois University, appear fairly well-established with steady conferrals throughout the five-year period. Dominican University, only reporting two degree conferrals over the past five years, appears to be less established. This may be due to the fact that Dominican does not offer a separate Environmental Studies degree program. Rather, the university allows students in its Natural Sciences program to concentrate in Environmental Studies.³²

Northern Illinois University will want to monitor growth trends at the more established regional programs, such as Northeastern Illinois and the University of Chicago. DePaul University is also worthy of consideration due to fairly high

³¹ Four-year growth rates are calculated for programs that did not grant an Environmental Studies degree in 2004.

³² "Natural Sciences – Environmental Studies Concentration." Dominican University.
<<http://www.dom.edu/ican/academics/information/naturalsci.html>>

enrollment numbers in 2008. The status of Wheaton College's program is harder to evaluate since IPEDS indicates that the program did not confer degrees in three of the last five years, despite enrollment growth reported by IBHE.

The lack of a large number of well-established competitors in the Chicago Metropolitan Division signals that NIU may be entering a fairly un-crowded market. With the strong growth of Environmental Studies programs at the national level and the growth of some regional programs, it appears that a new program offering could successfully attract students. Nevertheless, the stable or declining conferrals of some programs could potentially suggest diminishing student interest in the subject or rather, some of the programs offered in the area do not closely match student needs and expectations.

Since it is difficult to draw a definitive conclusion as to why some programs appear to be declining while others are remaining steady or growing, it will be important for NIU to pay close attention to the needs and interests of students in tailoring its offerings in this area. In the next section, we examine another potential driver of student interest in these programs: the labor market demand for individuals with an Environmental Studies background.

Employment Demand

BLS Employment Projections

As described in the introduction of this report, we begin our analysis of employment demand for Environmental Studies degree-holders with employment projections provided by the BLS. We identified two relevant occupations that align with Environmental Studies degrees (as well as Environmental Science): Environmental Scientists or Specialists and Environmental Science and Protection Technicians. As the descriptions provided below indicate, these positions clearly reflect the more technical side of the field, and may not be applicable to some Environmental Studies programs. Nevertheless, as these positions are among the only relevant occupations identified by the BLS as directly aligning with this field of study, we present information on their growth.

According to the BLS, Environmental Scientists or Specialists

“...conduct research to identify, abate, and eliminate hazards that affect people, wildlife, and their environments. These workers analyze measurements or observations of air, food, water, and soil to determine the way to clean and preserve the environment. Understanding the issues involved in protecting the environment – degradation, conservation, recycling, and replenishment - is central to the work of environmental scientists. They often use this understanding to design and monitor waste disposal sites, preserve water supplies, and reclaim contaminated land and water to comply with Federal environmental regulations. They also write risk assessments, describing the likely effect of construction and other environmental changes; write technical proposals; and give presentations to managers and regulators.”³³

As the BLS notes, Environmental Science and Protection Technicians typically work with Environmental Scientists or Specialists. These individuals

“...perform laboratory and field tests to monitor environmental resources and determine the contaminants and sources of pollution in the environment. They may collect samples for testing or be involved in abating and controlling sources of environmental pollution. Some are responsible for waste management operations, control and management of hazardous materials inventory, or general activities involving regulatory compliance. Many environmental science technicians employed at private consulting firms work directly under the supervision of an environmental scientist.”³⁴

³³ “Environmental Scientists and Hydrologists.” *Occupational Outlook Handbook*. 2008-09 Edition. <<http://www.bls.gov/oco/ocos050.htm>>

³⁴ “Science Technicians.” *Occupational Outlook Handbook*, 2008-09 Edition. <<http://www.bls.gov/oco/ocos115.htm>>

Despite its alignment with the Environmental Studies degree by the NCES and BLS, the BLS notes that some of these technician positions may only require an associate's degree, while others require educational attainment at the baccalaureate level.³⁵ By contrast, scientist or specialist positions typically require at least a Bachelor's degree for entry-level positions, though many environmental scientists "need a master's degree in environmental science, hydrology, or a related natural science".³⁶

Employment projections for Environmental Scientists or Specialists show a 25 percent increase in jobs nationally between 2006 and 2016.³⁷ This compares with a 10 percent projected increase in employment across all occupations and a 16 percent increase in all professional occupations, indicating that the position is growing at a considerably faster rate than the national average for all occupations.³⁸ Employment projections for Environmental Scientists or Specialists in Illinois are slightly lower than the national projections (though still strong), with a 21 percent increase between 2006 and 2016. By contrast, projections for the Chicago Metropolitan Division show a slightly higher percent increase than the national projections. In 2006, 66 percent of all Environmental Scientist or Specialist jobs in Illinois were located within the Chicago Metropolitan Division. This concentration of jobs within the Chicago area is expected to increase as by 2016, it is projected that 69 percent of these positions will be located within the division.³⁹

The projected net replacement need for Environmental Scientists or Specialists in the United States is 4,000 positions per year between 2006 and 2016.⁴⁰ The net replacement need represents opportunities for new workers to enter into the field due to retirements and job growth. The BLS uses the net replacement need as an estimate of the number of new workers who should be trained in a certain field each year.⁴¹ In Illinois, 93 Environmental Scientists or Specialist job openings are projected for each year between 2006 and 2016. The Chicago Metropolitan Division is estimated to have 68 job openings per year.⁴² Thus, both areas are expected to see strong growth in this field.

³⁵ Ibid.

³⁶ "Environmental Scientists and Hydrologists – Training, Other Qualifications, and Advancement." *Occupational Outlook Handbook*. 2008-09 Edition. <<http://www.bls.gov/oco/ocos050.htm#training>>

³⁷ "Employment Projections by Occupation." Bureau of Labor Statistics. <<http://bls.gov>>

³⁸ "Employment Projections Summary." Bureau of Labor Statistics.

<<http://www.bls.gov/news.release/ecopro.toc.htm>>

³⁹ "Employment Projections by Occupation." Illinois Department of Employment Security. <<http://www.ides.state.il.us/>>

⁴⁰ "Employment Projections by Occupation." Bureau of Labor Statistics

⁴¹ "Estimating Occupational Replacement Needs." Bureau of Labor Statistics.

<<http://www.bls.gov/emp/optd/optd005.pdf>>

⁴² "Employment Projections by Occupation." Illinois Department of Employment Security.

Employment Projections, 2006-2016

Environmental Scientists or Specialists, including Health					
Scale	Number of Positions		2006-2016		
	2006	2016	Change	% Change	Average Annual Job Openings*
U.S.	83,000	104,000	21,000	25%	4,000
Illinois	1,972	2,389	417	21%	93
Chicago Metro Div.	1,319	1,663	343	26%	68

Sources: Bureau of Labor Statistics and Illinois Dept. of Employment Security

*Average annual job openings represents both replacements and growth (net replacements)

Turning briefly to Environmental Science and Protection Technicians, we also see strong growth at the local and national levels. Despite its somewhat slower growth, the state of Illinois is still expected to have 144 average annual openings for this occupation.

Employment Projections, 2006-2016

Environmental Science and Protection Technicians, including Health					
Scale	Number of Positions		2006-2016		
	2006	2016	Change	% Change	Average Annual Job Openings*
U.S.	36,000	47,000	10,000 ⁴³	28%	2,000
Illinois	2,668	3,092	424	16%	144
Chicago Metro Div	1,579	1,926	347	22%	95

Sources: Bureau of Labor Statistics and Illinois Dept. of Employment Security

*Average annual job openings represents both replacements and growth (net replacements)

Employment Industries

As displayed in the table below, in the United States, 45 percent of Environmental Scientists or Specialists work in local, state, or federal government positions. Another 22 percent work for a private consulting firm, while 16 percent are employed in the field of architecture, engineering, and related services.

⁴³ Note that numeric change does not match 2006 and 2016 employment levels due to rounding.

Top Five Employment Industries (U.S.), May 2008

Environmental Scientists or Specialists		
Industry	Employment	Percent*
State Government	19,760	25%
Management, Scientific, and Technical Consulting Services	17,770	22%
Architecture, Engineering, and Related Services	12,900	16%
Local Governments	10,120	13%
Federal Executive Branch	5,590	7%

Sources: Bureau of Labor Statistics

*Percent based on total employment of 80,120 (does not include self-employed persons)⁴⁴

The list of top five employment industries for technicians is somewhat different than scientists. As displayed below, nearly a quarter of these individuals are employed in management, scientific, and technical consulting services, followed by local government (21 percent), architectural, engineering, and related services (20 percent), and state government (12 percent).

Top Five Employment Industries (U.S.), May 2008

Environmental Science and Protection Technicians		
Industry	Employment	Percent*
Management, Scientific, and Technical Consulting Services	8,040	24%
Local Government	6,870	21%
Architectural, Engineering, and Related Services	6,590	20%
State Government	4,060	12%
Colleges, Universities, and Professional Schools	1,070	3%

Sources: Bureau of Labor Statistics

*Percent based on total employment of 33,370 (does not include self-employed persons)⁴⁵

In suggesting internships or job placements for its students, NIU may wish to examine state and local government departments or agencies. A number of the

⁴⁴ "19-2041 Environmental Scientists and Specialists, Including Health." *Occupational Employment and Wages, May 2008*. <<http://www.bls.gov/oes/current/oes192041.htm>>

⁴⁵ "19-4091 Environmental Science and Protection Technicians, Including Health." *Occupational Employment and Wages, May 2008*. <<http://www.bls.gov/oes/current/oes194091.htm>>

programs we reviewed for this report suggest the following employers in the State of Illinois:

- ❖ Illinois Environmental Protection Agency
- ❖ Illinois Department of Natural Resources
- ❖ Illinois Department of Transportation
- ❖ Regional Planning Commissions
- ❖ County Forest Preserves and Conservation Districts

Other Sources of Occupational Growth

While the BLS only associates two occupations with degrees in Environmental Studies, graduates of these programs are qualified for a variety of other positions. In particular, the recent trend towards the creation of green jobs will increase the number and diversity of employment opportunities outside of more traditional careers for graduates of environmentally-focused degree programs.⁴⁶

For example, a June 2009 study completed by the Pew Charitable Trust, illustrates how many environmentally-focused jobs are wrapped into larger conventional occupations.⁴⁷ In creating projections of the size of the “clean energy economy,” the study explains that it includes:

“actual clean energy economy businesses and jobs rather than entire occupations (such as all jobs in mass transit, or all electricians). For example, our report counts the workers who manufacture hybrid cars and buses, technicians who construct wind turbines, electricians who install solar panels on homes and engineers who research fuel cell technology, but it does not include all auto manufacturers, electricians, technicians, and engineers.”⁴⁸

Thus, there are certainly sub-segments of existing occupational categories that would be well-suited for individuals with an Environmental Studies background. For example, some of the jobs identified in the study as wrapped within larger occupations include:

- ❖ Environmental Sustainability Consultant
- ❖ Environmental Compliance Consultant
- ❖ Energy Conservation Consultant
- ❖ Agricultural Sustainability Consultant
- ❖ Carbon Credit Trader

⁴⁶ Brian Wingfield. “For Job Market, Green Means Growth.” *Forbes*. July 3, 2007.

<http://www.forbes.com/2007/07/02/environment-economy-jobs-biz_cx_bw_0703green_greenjobs.html>

⁴⁷ “The Clean Energy Economy: Repowering Jobs, Businesses, and Investments Across America.” The Pew Charitable Trust. June 2009.

<http://www.pewcenteronthestates.org/uploadedFiles/Clean_Economy_Report_Web.pdf>

⁴⁸ *Ibid.*, p. 10.

- ❖ Environmental Education Specialist
- ❖ Green Marketing Analyst⁴⁹

Keeping these and other green jobs in mind, we move on to specific examples of Environmental Studies graduate placements, as well as recent job postings relevant to this field.

Job Placements, Service Programs, and Graduate Schools

While the following information does not provide a measure of growth in the occupational opportunities available to graduates of Environmental Studies programs, it does illustrate the types of jobs these individuals have qualified for in the past. The following table is a list of jobs held by Environmental Studies graduates of Illinois-based programs. The information was gathered from three institutions that provide detailed data on the placement of their graduates: Northeastern Illinois University, Illinois Wesleyan University, and Knox College.

Job Placements of Illinois-Area Environmental Studies Graduates ⁵⁰	
Job Title	Organization
Project Manager	SET Environmental
Special Assistant in Natural Resources and Environment Section	United States Department of Agriculture
Project Coordinator (Energy Auditing)	eZing, Inc.
Coordinator	Chicago Botanical Garden
Sustainability Coordinator	Jet Litho, Inc.
Planner	Texas Water Development Board
President	Peak Environmental Management
Assistant Support Scientist/ Database Manager	Center for Biodiversity, Illinois Natural History Survey
Technical Assistance Program Manager	Border Environment Cooperation Commission
Deputy Director	Illinois Environmental Protection Agency
Environmental Policy Analyst	SRA International, Inc.
Environmental Programs Assistant	City of Phoenix, Office of Environmental Programs
Outreach and Volunteer Program Coordinator	Northwest Earth Institute
Conservation Project Assistant, Environmental Culture and Conservation Program	The Field Museum

⁴⁹ Ibid., p. 43-44.

⁵⁰ Note that not all of these jobs represent placements upon graduation. They are gathered from information reported by each institution on where their graduates are employed now. It appears that some have acquired additional degrees or work experience on their way to attaining these jobs. However, the information does provide an overview of the career tracks individuals in these types of programs have followed.

Job Placements of Illinois-Area Environmental Studies Graduates ⁵⁰	
Job Title	Organization
Refuge Manager	Pahranagat National Wildlife Refuge, US Department of the Interior
Conservation Supervisor	Cook County Forest Preserve District
Interpretive Naturalist	DuPage County Forest Preserve District
Education Services	McHenry County Conservation District
Associate Planner	Northeastern Illinois Planning Commission
Environmental Education Specialist	United States Environmental Protection Agency
Environmental Scientist	United States Environmental Protection Agency
Researcher	Paremetrix (Environmental Consulting)
Manager of Education and Stewardship Programs	Friends of the Chicago River
Environmental Safety and Health Manager	Motorola Corporation

Source: Northeastern Illinois University,⁵¹ Illinois Wesleyan University,⁵² and Knox College.⁵³

Many of the programs we reviewed for this report also note that their graduates enter into service programs such as the Peace Corps, Teach for America, or AmeriCorps. One such program that is particularly applicable to Environmental Studies graduates is the Green Corps. Described as the “field school for environmental organizing,” the program is designed to train graduates to become environmental advocates who can successfully run campaigns, build a core group of activists, and convince decision-makers to pass laws or change policies in order to protect the environment. The program provides a full year of paid classroom training and field experience.⁵⁴ Upon completion of the program, Green Corps helps place these individuals with environmental organizations such as Sierra Club, US PIRG, Greenpeace, Endangered Species Coalition, National Wildlife Federation, ForestEthics, and the National Resources Defense Council, among others.⁵⁵

Illinois Environmental Studies programs also indicated that their students often go on to graduate programs in related fields. Among the programs we reviewed, graduates have gone on to pursue advanced degrees in Law, Medicine, Energy

⁵¹ “Department of Geography & Environmental Studies – Brag Sheet.” Northeastern Illinois University. <<http://www.neiu.edu/~deptges/brag.html>> and “Alumni.” Northeastern Illinois University.

<<http://www.neiu.edu/~deptges/alumni.html>>

⁵² “Environmental Studies Students and Alumni.” Illinois Wesleyan University.

<<http://www.iwu.edu/environ/Alums.shtml>>

⁵³ “Alumni in Environmental Studies.” Knox College. <<http://www.knox.edu/academics/courses-of-study/environmental-studies/envs-careers.html>>

⁵⁴ “Field School for Environmental Organizing.” Green Corps. <<http://www.greencorps.org/field-school-for-environmental-organizing/program-overview>>

⁵⁵ “Career Placement: Growing the Movement.” Green Corps. <<http://www.greencorps.org/field-school-for-environmental-organizing/career-placement>>

Engineering, Oceanography, Conservation Biology and Sustainable Development, Behavioral Ecology, and Environmental Science, among others.

Job Postings

The breadth of positions available to graduates of environmentally-focused degree programs is also evident on several job-posting websites. The table below presents a selection of jobs listed on environmental career websites, as well as general job search sites including:

- ❖ EcoJobs.com
- ❖ SustainableBusiness.com
- ❖ EnvironmentalCareer.com
- ❖ The Nature Conservancy⁵⁶
- ❖ Chicagoland Environmental Network⁵⁷
- ❖ University of Michigan Multicultural Environmental Leadership Development Initiative (MELDI) – Green Jobs Center⁵⁸
- ❖ SimplyHired.com
- ❖ Monster.com
- ❖ Indeed.com

All jobs were posted between January 2009 and August 2009 (with the majority posted over the summer). Particular attention was paid to entry-level positions or positions that require minimal work experience, and mention degrees in Environmental Studies or Science in terms of qualifications. In addition to Environmental Studies or Science, the degree qualifications typically included other areas of study, such as Biology, Chemistry, Natural Resources Management, Ecology, Conservation Biology, Wildlife Management, or Environmental Planning/Policy.

We first present a set of positions located within Illinois. This is followed by a table with a sample of positions available across the United States.

Environmental Job Postings, Illinois

Job Title	Organization	Location	Degree Qualifications
Sustainability Coordinator	North Central College	Naperville, IL	Bachelor's in Environmental Studies
Sustainability Program Coordinator	University of Chicago	Chicago, IL	Bachelor's in Environmental Studies
Environmental Services Coordinator	American Lung Association	Springfield, IL	Bachelor's in Environmental Studies

⁵⁶ <<http://www.nature.org/careers/>>

⁵⁷ <<http://www.chicagoenvironment.org/>>

⁵⁸ <http://meldi.snre.umich.edu/green_jobs_center>

Job Title	Organization	Location	Degree Qualifications
Environmental Specialist	First Environment	Chicago, IL	Master's or Bachelor's in Environmental Science
Conservation Coordinator	The Nature Conservancy – Illinois River Program	Lewiston, IL	Bachelor's in Biology, Ecology, Natural Resources Management, or Related Field
Project Assistant	ENVIRON	Chicago, IL	Bachelor's with interest/knowledge of environmental topics and legal issues
Student Programs Coordinator	John G. Shedd Aquarium	Chicago, IL	Bachelor's or Master's in Environmental Studies
Natural Areas Instructor	Downers Grove Park District	Downers Grove, IL	Bachelor's in Environmental Education, Natural Sciences, or Related Field

Environmental Job Postings, Other Areas

Job Title	Organization	Location	Degree Qualifications
Lead Naturalist-Outreach	Indiana Dunes Environmental Learning Center	Chesterton, IN	Bachelor's in Environmental Studies
Natural Resources Manager	Mecklenburg County Parks	Charlotte, NC	Bachelor's in Environmental Science
Water Quality Team Associate	People and Ecosystem Program at the World Resource Institute	Washington, D.C	Bachelor's in Environmental Science
Program Manager	Consortium for Energy Efficiency	Boston, MA	Master's or Bachelor's in Environmental Studies
Environmental Educator	McDowell Nature Center	Charlotte, NC	Bachelor's in Environmental Studies
Offset Portfolio Associate	The Climate Trust	Portland, OR	Bachelor's in Environmental Science or Studies
Environmental Educator/Coordinator	Cold Spring Harbor Fish Hatchery and Aquarium	Cold Spring Harbor, NY	Bachelor's in Environmental Studies
Environmental Science Writer/Analyst	Eastern Research Group, Inc	Arlington, VA	Bachelor's in Environmental Science
Environmental Planner	Enrix, Inc.	Phoenix, AZ	Master's in Environmental Studies
Environmental Specialist	Ecology and Environment, Inc.	Nationwide	Bachelor's in Environmental Science

Job Title	Organization	Location	Degree Qualifications
LEED/Green Building Analyst	ECW Environmental Group, LLC	Hampton, VA	Master's or Bachelor's in Environmental Studies or Science
Risk Assessment/ Environmental Restoration	Oak Ridge Institute	Portsmouth, VA	Master's in Environmental Science
Associate Regional Representative, Beyond Coal Campaign	Sierra Club	McLean, VA	Bachelor's in Environmental Studies

Desirable Skills

While the above jobs represent an extremely wide variety of skill sets, we briefly provide an overview of the skills related to three of these positions. First, a common move for organizations seeking to “green” their operations is to hire an individual responsible for managing the various components of a sustainability initiative, particularly within the realm of higher education.⁵⁹ Thus, “Sustainability Coordinator” appeared frequently as a job title relevant to individuals with an Environmental Studies background.

A presentation given to the National Conference on Sustainability for Community Colleges in April 2008, titled “Skill Set Trends for Sustainability Coordinator Jobs,” provides details on common skills required for these positions.⁶⁰ The presenter surveyed 53 sustainability jobs in colleges/universities, government, non-profits, private companies, and school districts. Specific job titles included Sustainability Coordinator, Sustainability Manager, Director of Sustainability, Environmental Coordinator, and Sustainability Planner, among others.

Examining job descriptions for each position, the presenter compiled a list of skills required for sustainability coordinators. The table below presents the most commonly required skills, as well as the percentage of job descriptions included in the survey that mention each skill.

⁵⁹ Scott Carlson. “In Search of the Sustainable Campus.” *The Chronicle of Higher Education*. October 20, 2006. <<http://chronicle.com/article/In-Search-of-the-Sustainable/29408/>> and Reeves Wiedeman. “Young, Green, and in Charge.” *The Chronicle of Higher Education*. February 13, 2009. <<http://chronicle.com/article/Young-Greenin-Charge/28134/>>

⁶⁰ Tammie Stark. “Skill Set Trends for Sustainability Coordinator Jobs.” National Conference on Sustainability for Community Colleges. April 17, 2008. <<http://www.lanec.edu/sustainability/conferences/Stark.pdf>>

Sustainability Coordinator – Common Skills

Skill	Percent of Job Descriptions Mentioning Skill
Coordinate, Collaborate, Liaison with all Levels	90.6%
Communication: Writing, Speaking, Interpersonal	75.5%
Implement: Programs, Goals, Policies	62.3%
Educate: Outreach, Connections	56.6%
Research	54.7%
Assessment: Cost/Benefits, Carbon Footprint, etc.	52.8%
Public Meetings: Committee, Board Meetings	50.9%
Computer Skills	47.2%
Project Management	39.6%
Knowledge of Sustainability Theory and Application	39.6%
Green Building: Facility Operations	39.6%
Recycle/Waste Management	39.6%
Energy	37.7%
Fundraising/Grant Writing	37.7%
Leadership/Influence	37.7%
Curriculum/Academic: Infusing Sustainability	34.0%

Source: Stark, 2008.⁶¹

As displayed above, many of the most common skills focus on issues such as collaboration, communication, and implementation, rather than skills specific to study of the environment. As we move down the list, however, knowledge of issues related to carbon footprints, sustainability theory, green building, recycling, and energy come into play. Therefore, a program that will prepare students for this type of job should be careful to incorporate coursework or experiential learning that develops interpersonal skills in addition to imparting knowledge of environmental systems.

Providing a specific example of skills necessary for becoming a sustainability coordinator, North Central College in Naperville, Illinois is advertising an opening for a recently created full-time administrative and support position under this title. Specific responsibilities and tasks that the coordinator will be expected to carry out include the following:

- ❖ Develop measurement, plans, policies, and procedures for sustainability of the campus
- ❖ Develop a campus-wide sustainability plan, including strategies, policies, and programs
- ❖ Create, coordinate, and support a sustainability working committee

⁶¹ Ibid.

- ❖ Lead and/or participate in efforts to develop alternative energy programs on campus
- ❖ Develop sustainability efforts that prioritize the purchase of green products
- ❖ Explore transportation alternatives in conjunction with the transportation coordinator
- ❖ Foster student involvement in sustainability initiatives
- ❖ Develop communication, media, and web resources relating to sustainability⁶²

The job posting specifically states that a Bachelor's degree in "Environmental Studies or a similar program" is preferred, as well as a "passion for sustainability."⁶³ Further note that the position announcement made no mention of prior work experience, suggesting that applicants could be recent graduates of an Environmental Studies program.

Environmental education appeared as another common area of employment for Environmental Studies graduates. Positions related to this area include "Natural Areas Instructor," "Lead Naturalist – Outreach," "Student Programs Coordinator," and "Environmental Educator." Providing a good example of such a position, the McDowell Nature Center in Charlotte, North Carolina, is looking for an Environmental Educator to "research, develop, schedule, and conduct a variety of environmental education/interpretive programs for school groups and the general public of all ages," in addition to supporting other activities of the center.⁶⁴

Specific responsibilities include:

- ❖ Plan, schedule, and instruct environmental education, interpretative, and nature-based programs for all ages
- ❖ Assist with planning and implementation of teacher workshops, summer ecology camps, and special events
- ❖ Assist with designing thematic lesson plans and pre/post-visit materials
- ❖ Curate a variety of native animals including fish, reptiles, amphibians, and insects, establish feeding and maintenance schedules, and ensure adequate supplies are maintained
- ❖ Assist with development of educational exhibits, interpretive brochures, and other educational materials
- ❖ Maintain program props, interpretive displays, native plant gardens, and demonstration compost areas⁶⁵

⁶² "Sustainability Coordinator – North Central College." Higher Education Recruitment Consortium. Posted June 9, 2009. <http://www.hercjobs.org/c/job.cfm?site_id=1684&jb=5614063>

⁶³ Ibid.

⁶⁴ "Environmental Educator – McDowell Nature Center." Sustain Lane. Posted July 17, 2009. <<http://www.sustainlane.com/jobs/environmental-educator-mcdowell-nature-center/ZTAWS2QLTHMVYDOURYIHTN8DDLRLU>>

⁶⁵ Ibid.

The center is looking for an individual with a Bachelor's degree in Environmental Studies, Natural Resources, Science Education, Biological Sciences, or a related field, in addition to one year of experience in environmental education. Other qualifications include strong organizational skills and the ability to multitask.

Finally, as mentioned earlier, the growth of the clean energy economy is resulting in the creation of many new categories of positions. For example, The Climate Trust is advertising an interesting opportunity for graduates with a background in Environmental Studies or related fields, titled "Offset Portfolio Associate." This individual supports the organization's efforts in developing and promoting "high quality greenhouse gas offset projects" by managing the performance of the Trust's project portfolio. Specifically the position has the following responsibilities:

- ❖ Facilitate and ensure contractual compliance of offset projects
- ❖ Maintain relations with project developers under contract
- ❖ Assist with the development of monitoring and verification plans
- ❖ Assist with the identification of technical experts and third party verifiers
- ❖ Track and report on portfolio performance
- ❖ Track delivery of greenhouse gas reductions and maintain offset registry
- ❖ Ensure The Climate Trust's offset portfolio reflects the latest high-quality standards in the offset market
- ❖ Track and develop a working understanding of current and emerging carbon offset methodologies⁶⁶

The position requires two years of work experience but does not specify a particular field. Other qualifications include a Bachelor's degree in Environmental Studies, Environmental Science, Economics, or another relevant discipline; strong analytical, quantitative, and writing skills; and good interpersonal skills. A Master's degree is preferred, as is forest management experience, knowledge of carbon markets, and a high level of computer literacy.

Summary of Employment Trends

As illustrated above, the Environmental Studies degree can translate into many different career paths for students after graduation. Because of this, the employment demand for graduates of these degree programs is difficult to capture. Generally, the number of jobs related to environmental issues is growing. As displayed by the BLS employment projections, openings for environmental scientists and technicians are expected to experience strong growth at the national, state, and local levels. Further, as demonstrated by our review of job placements and postings, there is an extremely wide variety of positions open to these students. Since the degree does not translate

⁶⁶ "Position Announcement – Offset Portfolio Associate." The Climate Trust. Posted July 30, 2009. <<http://www.climatetrust.org/documents/OffsetPortfolioAssociate.pdf>>

neatly into a specific set of careers, it will be important for the program to act as a guide and inform its students of what opportunities are available to them. Further, due to the various skill sets required for these positions, program administrators and faculty, as well as students, should be aware of internship and other experiential learning activities that could help them gain relevant preparation for jobs in this diverse field.

Environmental Studies and Science Program Profiles

The following section provides details concerning Environmental Studies and Environmental Science programs at five different institutions in Illinois:

- ❖ The University of Chicago
- ❖ Loyola University Chicago
- ❖ Northeastern Illinois University
- ❖ Northwestern University
- ❖ Knox College

When available, information about degree requirements, course offerings, faculty, student enrollment, and employment of graduates is provided.

The University of Chicago

The University of Chicago offers three programs in Environmental Studies, a B.A. in Environmental Studies, an undergraduate minor in Environmental Studies, and a M.S. in Environmental Science and Policy.⁶⁷ In each of the past five years, the Bachelor's program has conferred the most degrees in Environmental Studies in the Chicago Metropolitan Division.

The Program on the Global Environment

The B.A. in Environmental Studies and the minor in Environmental Studies are administered by The Program on the Global Environment. This organization is housed within the university's Center for International Studies, which is also the home of the International Studies interdisciplinary degree program. The Environmental Studies programs' curricula are also affiliated with the Social Sciences Collegiate Division.

Degree Requirements

The B.A. degree requirements include:

- ❖ Two core Environmental Studies courses:
 - ENST 21201 Human Impact on the Environment
 - ENST 21301 Making the Natural World: Foundations on Human Ecology
- ❖ Four courses in the student's chosen track and two from the other track.

Tracks:

 - Environmental Economics and Policy

⁶⁷ As mentioned above, this program is classified by IPEDS as Environmental Studies.

- Socio-Natural Systems and Frameworks
- ❖ One course to satisfy a quantitative analysis requirement
- ❖ Three additional Environmental Studies courses
- ❖ Internship or field study
- ❖ B.A. Thesis and Thesis Colloquium course

The minor program consists of six courses:

- ❖ Two core Environmental Studies courses:
 - ENST 21201 Human Impact on the Environment
 - ENST 21301 Making the Natural World: Foundations on Human Ecology
- ❖ Four courses in the student's chosen track:
 - Environmental Economics and Policy
 - Socio-Natural Systems and Frameworks

Courses

There are well over 100 courses that can be taken to fulfill requirements for the Environmental Studies B.A. and minor. In the 2008-2009 academic year, over 40 courses were cross-listed with Environmental Studies.⁶⁸ A sample of the courses offered during the 2008-2009 academic year is included in the table below.

Course Title	Course Description
ENST 21201. Human Impact on the Environment (<i>Cross-listed: New Collegiate Division</i>)	The goal of this course is to analyze the impact of the human enterprise on the world that sustains it.
ENST 21301. Making the Natural World: Foundations of Human Ecology (<i>Cross-listed: Anthropology</i>)	This course considers the conceptual underpinnings of contemporary Western notions of ecology, environment, and balance, but also examines several specific historical trajectories of anthropogenic landscape change.
ENST 23100. Environmental Law (<i>Cross-listed: Multiple</i>)	This lecture/discussion course examines the development of laws and legal institutions that address environmental problems and advance environmental policies.
ENST 23900. Environmental Chemistry (<i>Cross-listed: Geophysical Sciences</i>)	The focus of this course is the fundamental science underlying issues of local and regional scale pollution.
ENST 25100. Ecological Applications to Conservation Biology (<i>Cross-listed: Biological Sciences</i>)	This course focuses on the contribution of ecological theory to the understanding of current issues in conservation biology.
ENST 26100. Roots of the Modern American City (<i>Cross-listed: Geographical Studies, History</i>)	This course traces the economic, social, and physical development of the city in North America from pre-European times to the mid-twentieth century.
ENST 29000. Energy & Energy Policy (<i>Cross-listed: Multiple</i>)	This course is designed to show how scientific constraints affect economic and other policy decisions regarding energy.

⁶⁸ University of Chicago, Program on the Global Environment. <<http://pge.uchicago.edu/index.shtml>>

Course Title	Course Description
ENST 22502. Environmental Philosophy (<i>Cross-listed: Philosophy</i>)	This course is designed to encourage critical reflection on the relationship between humans and the natural world through a historical survey of philosophical perspectives on the environment.
ENST 25300. The Planetary Footprint of Farming (<i>Cross-listed: Geophysical Sciences</i>)	This course draws on a ten-day field study of small, organic farms in the Berkshires to explore the environmental impact of modern industrial agriculture and realistic alternatives.

Faculty

The Program on the Global Environment has a faculty board of 15 members from across the University, with one faculty member serving as the program director. Members of the board come from a variety of academic departments including British History, Ecology and Evolution, Public Policy Studies, Geophysical Sciences, Slavic Languages and Literature, Theology and Ethics, and Urban Sociology. There are also five affiliated faculty members. The program is further supported by three staff members at The Program on the Global Environment, a program administrator, preceptor/lecturer, and program advisor.⁶⁹

Student Enrollment

As displayed in the table below, enrollment in the Environmental Studies program experienced some fluctuation between 2001 and 2004 but has risen slightly over the past five years.

University of Chicago, Fall Enrollments, 2004-2008

Degree	2004	2005	2006	2007	2008
B.A. in Environmental Studies	8	15	13	14	18

Source: Illinois Board of Higher Education.⁷⁰

Student Employment

Students have worked with a number of organizations across the nation for the program's required internship and field study. Some of the student experiences highlighted in the program's recent newsletter include, researching in Belize, interning with an aquaculture association in Alaska, working with the Canadian Institute for Environmental Law and Policy, volunteering with the Sierra Club in Chicago, and working at a McHenry County organic farm.⁷¹

⁶⁹ "Faculty" University of Chicago, Program on the Global Environment
<<http://pge.uchicago.edu/undergraduates/faculty.shtml>>

⁷⁰ IBHE.

⁷¹ "Annual Newsletter 2008-2009." University of Chicago, Program on the Global Environment
<http://pge.uchicago.edu/newsletter/pge-newsletter_0809.pdf>

Master of Science in Environmental Science and Policy

The Harris School of Public Policy and the Physical Sciences Department jointly administer the M.S. in Environmental Science and Policy. The two-year degree consists of 18 courses, including eight required public policy courses and one introductory course, entitled Environmental Science and Policy.

Four elective courses must come from the physical or biological sciences. The remaining electives may be chosen from either public policy or physical science. An independent study project is also required to integrate concepts in public policy and physical science.⁷²

Smaller than the university's undergraduate program, the Environmental Sciences and Policy graduate program has had 5-6 student enrollments for the last three years.

University of Chicago, Fall Enrollments, 2004-2008

Degree	2004	2005	2006	2007	2008
M.S. in Environmental Sciences and Policy	0	2	6	6	5

Source: Illinois Board of Higher Education.

Loyola University Chicago

Loyola University Chicago offers a B.A. in Environmental Studies and a B.S. in Environmental Science. Students can also earn a minor in Environmental Action and Leadership. For three of the past four years, Loyola University graduated the most Environmental Science students out of all similar programs in the Chicago Metropolitan Division.

The Environmental Studies and Environmental Science majors and the Environmental Action and Leadership minor are housed within a single Environmental Studies/Science Program.

Degree Requirements

Both Bachelor's degrees share a set of eight common requirements:

- ❖ One course in Economics
- ❖ One course in Statistics
- ❖ One course in Environmental Ethics
- ❖ One course in Environmental History, Policy, or Sociology
- ❖ ANTH 104 The Human Ecological Footprint

⁷² :M.A. in Environmental Science and Policy." University of Chicago, The Harris School of Public Policy. <<http://harrisschool.uchicago.edu/Programs/degrees/masters/ms.asp>>

- ❖ ECON 328 Environmental Economics
- ❖ NTSC 180 Environmental Sustainability
- ❖ ENVR 390 Integrative Environmental Seminar

The B.A. in Environmental Studies requires the following additional courses:

- ❖ Basic Science Requirements of 15 credit hours (One course in each of the following: Chemistry, Life Science, Physics, and Human Environment, two of which have lab sections)
- ❖ 15 elective credits (from approved list)

The B.S. in Environmental Science requires the following additional courses:

- ❖ Basic Science Requirements totaling 41 credit hours
 - Chemistry (three courses)
 - Biology (four courses)
 - Physics (two courses)
 - Math (one course)
 - Natural Sciences (one course)
- ❖ Four Electives, two in a science

Students in the B.S. in Environmental Science have the option to complete a five-year B.S./M.B.A. degree. Students apply to the Graduate School of Business in their junior year and begin taking graduate-level business courses as electives in their senior year.

The interdisciplinary minor in Environmental Action and Leadership requires 21 credit hours. Students have a high degree of flexibility in course selection, choosing courses from broad categories, like ethics, policy, and leadership. The minor also requires one application course or independent research project.⁷³

Courses

Most courses taken towards Environmental Studies and Science degrees are housed in other departments. However, there are five courses based in the department:

- ❖ ENVR 390. Integrative Environmental Seminar
- ❖ ENVR 391. Independent Environmental Research
- ❖ ENVR 395. Environmental Internship
- ❖ UNIV 350. Solutions to Environmental Problems
- ❖ ENVR 399. Directed Readings⁷⁴

⁷³ “Degree Programs.” Loyola University of Chicago, Environmental Studies/Sciences, <<http://www.luc.edu/envsci/degrees.shtml>>

⁷⁴ “Courses.” Loyola University of Chicago, Environmental Studies/Sciences, <<http://www.luc.edu/envsci/courses.shtml>>

Descriptions of selected required coursework for B.A. and B.S. degree are provided in the table below.

Course Title	Course Description
ANTH 104 The Human Ecological Footprint	Study of human/land interactions in past and contemporary cultures. Processes of landscape formation and the study of people's impact on these processes. How the development of culture and technology affects land use patterns.
ECON 328 Environmental Economics	This course applies economic theory to environmental and natural resource problems and policies, investigates the role economic incentives play, and discusses externalities, property rights, common property problems, pollution and pollution control, and renewable and non-renewable resource management.
NTSC 180 Environmental Sustainability	This course examines the impact of humans as consumers on the environment and how these interactions affect the probability of establishing sustainability for human and non-humans on Earth.

Faculty

There are 21 faculty members associated with the Environmental Studies/Science Program. One faculty member serves as the Program Director. Faculty members come from the Departments of Anthropology, Business Administration, Biology, Economics, Chemistry, Theology, Political Science, History, Natural Science, and Communications.⁷⁵ Many of these faculty members are also associated with the Center for Urban Environmental Research and Policy, which is also affiliated with the degree programs.

Student Enrollment

The Illinois Board of Higher Education reports combined enrollments for the Environmental Studies and Science majors. No enrollments were reported for fall 2004. As displayed below, the program has experienced a recent jump in majors.

Loyola University Chicago, Fall Enrollment, 2005-2008

Degree	2005	2006	2007	2008
B.A./B.S. in Environmental Science/Studies	45	45	40	64

Source: Illinois Board of Higher Education.

Student Employment

While not providing details of the job placements of its recent graduates, the Environmental Studies/Science Program website cites advocacy or lobbying groups,

⁷⁵ "Faculty." Loyola University of Chicago, Environmental Studies/Sciences, <<http://www.luc.edu/envsci/facultystaff/index.html>>

non-governmental organizations, government agencies, and businesses as potential places of employment for graduates.⁷⁶

Northwestern University

Northwestern University offers two Environmental Science degree options, one through the School of Continuing Studies and the other through the Environmental Science, Engineering, and Policy Program. As we discuss below, the university recently discontinued its Environmental Studies degree offering.

Environmental Science, Engineering, and Policy Program

The Environmental Science, Engineering, and Policy Program is housed within the Weinberg College of Arts and Science. The program offers a Bachelor's degree in Environmental Science with the following degree requirements:

- ❖ ENVS 201 Earth, A Habitable Planet
- ❖ ENVS 202 The Health of the Biosphere
- ❖ ENVS 203 Energy and the Environment: The Automobile
- ❖ Three courses in Chemistry
- ❖ Two courses in Calculus
- ❖ Five other Mathematics, Science, or Economics courses
- ❖ Six upper-level electives (from approved list)
- ❖ Environmental Research Seminar
 - Environmental Research or Community-Based Design⁷⁷

Courses

The following table provides descriptions of selected required coursework.

Course Title	Course Description
ENVS 201 Earth, A Habitable Planet	This course presents a broad description of Earth System Sciences focused on the physical, chemical, and biological processes that have made the planet habitable.
ENVS 202 The Health of the Biosphere	This course focuses on the growth of populations and their impacts. Topics include the history and projections of human population growth, harvested populations and their economics, and methods of population viability analysis for endangered species.

⁷⁶ Loyola University of Chicago, Environmental Studies/Sciences. <<http://www.luc.edu/cuerp/index.shtml>>

⁷⁷“Environmental Science Program Brochure 2006.” Northwestern University. <<http://www.wcas.northwestern.edu/esep/EnvScibrochure06.pdf>>

Course Title	Course Description
ENVS 203 Energy and the Environment: The Automobile	This course uses the example of the automobile to provide students with an integrated study of fundamental chemistry (thermodynamics, atmospheric chemistry, free radical mechanisms of reaction), industrial production, energy use, and public policy from an environmental perspective.

Faculty

The Environmental Science Program Committee consists of eight faculty members from the Engineering, Chemistry, Geography, Earth Science, and Biological Science departments. Within the committee, there is one Director and one Associate Director for the Environmental Science Program. The program website also lists 15 additional faculty members who offer coursework related to Environmental Science.⁷⁸

Student Employment

Many graduates of the Environmental Science program go on to graduate school in a variety of subject areas, including law, medicine, life sciences, earth sciences, and environmental engineering. The program website lists environmental consulting firms and government agencies as popular sources of employment for graduates, while others have become environmental activists, environmental educators, or members of the Peace Corps.⁷⁹

Environmental Science (School of Continuing Studies)

In 2004 the School of Continuing Studies replaced the Environmental Studies program with a curriculum in Environmental Science. The new curriculum incorporates more basic science requirements “so that students will be better prepared to enter professions related to this subject.”⁸⁰ The Environmental Science degree requirements are:

- ❖ One course in Calculus
- ❖ Six courses in Chemistry, Physics, and Biology
- ❖ CIV ENG 206 Analyzing Environmental Issues
- ❖ GEOG 211 World Biogeography
- ❖ POL SCI 371 Environmental Politics
- ❖ SOC 312 Social Basis of Environmental Change
- ❖ Four upper-level electives (from approved list)

⁷⁸ “Faculty.” Northwestern University, Environmental Science Program.
<<http://www.wcas.northwestern.edu/esep/faculty.html>>

⁷⁹ “Careers.” Northwestern University, Environmental Science Program.
<<http://www.wcas.northwestern.edu/esep/career.html>>

⁸⁰ “Majors – Environmental Sciences.” Northwestern University, School of Continuing Studies.
<http://www.scs.northwestern.edu/student/conversion/majors/?major=ENV_SCI>

Environmental Studies (Discontinued)

The Environmental Studies major was formerly offered through the School of Continuing Studies. Students already in the program were given the option of switching to an Environmental Science degree or could finish out the program as originally planned.⁸¹ The degree requirements were:

- ❖ Concepts of Biology
- ❖ General Chemistry I
- ❖ One course in Environmental Economics or Environmental Policy
- ❖ One course in Statistics or Statistical Analysis
- ❖ CIV ENG 206 Analyzing Environmental Issues
- ❖ GEOG 210 The Natural Environment
- ❖ GEOL SCI 201 Surface Processes
- ❖ Three upper-level elective courses (from approved list)
- ❖ Two other elective courses (from approved list)

Student Enrollment

As displayed in the table below, enrollment in the now discontinued Environmental Studies program has declined while the Environmental Science program has experienced moderate growth over the last five years.

Northwestern University, Fall Enrollment, 2004-2008

Degree	2004	2005	2006	2007	2008
B.Phil. and B.S.G.S. in Environmental Studies	8	6	5	2	1
B.S.G.S. in Environmental Sciences/ B.A. in Environmental Sciences	19	26	17	18	24

Source: Illinois Board of Higher Education.

Northeastern Illinois University

The Geography and Environmental Studies Department at Northeastern Illinois University offers a B.A. in Environmental Studies and a M.A. in Geography and Environmental Studies. Students also have the option of earning a minor in Geography and Environmental Studies. In 2008, Northeastern Illinois had the second most graduates in Environmental Studies out of all similar baccalaureate programs in the Chicago Metropolitan Division. First offered in 1991, the B.A. in Environmental Studies represents a well-established degree program.⁸²

⁸¹ "Majors – Environmental Studies." Northwestern University, School of Continuing Studies. <http://www.scs.northwestern.edu/student/conversion/majors/?Major=ENV_STU>

⁸² Northeastern Illinois University. Department of Geography and Environmental Studies. <<http://www.neiu.edu/~deptges/>>

Degree Requirements

The B.A. in Environmental Studies has the following course requirements:

- ❖ G&ES 150 Introduction to Environmental Studies
- ❖ G&ES 205 Physical Geography I: Fundamentals
- ❖ G&ES 218 Conservation of Natural Resources
- ❖ Two courses from:
 - G&ES 319 Environmental and Natural Resources Policy
 - G&ES 359 Environmental Planning
 - G&ES 338 Sustainable Planning
- ❖ G&ES 386 Internship
- ❖ G&ES 374 Research Methods

The minor in Geography and Environmental Studies requires:

- ❖ G&ES 104 World Geography
- ❖ G&ES 105 Introduction to Environmental Science
- ❖ Four additional electives (from approved list)

The M.A. in Geography and Environmental Studies requires 33 credit hours, all of which can be completed in evening and weekend courses. The degree has the following requirements:

- ❖ G&ES 411 Scope and Philosophy of Geography and Environmental Studies
- ❖ G&ES 415 Geospatial Data Analysis
- ❖ G&ES 441 or 441 Qualitative Research Methods or Quantitative Measurements
- ❖ G&ES 430 or 431 Research Seminar or Thesis Seminar
- ❖ 18-21 elective credit hours (from approved list)
- ❖ Comprehensive Examination⁸³

Courses

Descriptions of selected required coursework for the B.A. degree are displayed below.

Course Title	Course Description
G&ES 150 Introduction to Environmental Studies	Introduction to basic concepts of Environmental Studies, including natural processes, human impact on the environment, environmental management and policy, and innovative solutions. Global, regional, and local issues.
G&ES 218 Conservation of Natural Resources	Contemporary approaches toward understanding and management of natural resources: air, water, minerals, soil, forests, grasslands, and wildlife.

⁸³ "MA G&ES." Northeastern Illinois University. <<http://www.neiu.edu/~deptges/mages.html>>

Course Title	Course Description
G&ES 319 Environmental and Natural Resources Policy	Physical, economic, social and political factors involved in policy determination and planning for natural resource development; emphasis upon relations between public and private enterprise and policies for international resource development.
G&ES 359 Environmental Planning	Principles of land development with emphasis on opportunities and limitations imposed by the physical environment; concepts of land ownership, tenure and use; ecological and environmental analysis; techniques of site design

Faculty

There are nine faculty members in the Department of Geography and Environmental Studies. Faculty members are all based within the department but represent a diverse collection of specialties. Faculty member areas of expertise include: economic geography, GIS, environmental policy and planning, environmental geography, water resources, geology, waste management, global wildlife, urban planning, and natural hazards, among others.

Student Enrollment

In the fall of 2008 there were a total of 89 undergraduate students in the Department of Geography and Environmental Studies, 64 of them majoring in Environmental Studies and 25 in Geography. There were also 30 graduate students in the M.A. in Geography and Environmental Studies program.⁸⁴ Enrollment in both the B.A. in Environmental Studies and the M.A. program has increased over the past five years.⁸⁵

Northeastern Illinois University, Fall Enrollment, 2004-2008

Degree	2004	2005	2006	2007	2008
B.A. in Environmental Studies	26	29	42	46	64 ⁸⁶
M.A. in Geography and Environmental Studies	22	21	24	24	30

Source: Northeastern Illinois University.

Student Employment

Alumni of the Geography and Environmental Studies Department have gone on to work at many different organizations and in a variety of roles:

- ❖ Chicago Botanical Garden, Coordinator
- ❖ Jet Litho, Inc. (lithographic printing), Sustainability Coordinator

⁸⁴ "2008 Fall Enrollment Survey." Northeastern Illinois University.
<<http://www.neiu.edu/~isp/data/IPEDS2008%20Table%202.pdf>>

⁸⁵ "Fall Enrollments Five-Year Data Trends." Northeastern Illinois University.
<<http://www.neiu.edu/~isp/data/5yrFallEnrollmentsCatalogue08.pdf>>

⁸⁶ Note that the Illinois Board of Higher Education only reported 52 students enrolled in this program in 2008.

- ❖ Municipal GIS Partners, GIS Specialist
- ❖ eZing, Inc. (energy auditing), Project Coordinator
- ❖ SET Environmental (hazardous material management), Project Manager
- ❖ Paremetrix (environmental consulting), Researcher
- ❖ United States Environmental Protection Agency, Environmental Education Specialist
- ❖ Friends of the Chicago River, Manager of Education and Stewardship Programs
- ❖ Northeastern Illinois Planning Commission, Associate Planner⁸⁷

Other students have entered into graduate programs in Geography, Urban Planning, and Energy Engineering.

Knox College

While Knox College is not located within the Chicago Metropolitan Division, it did account for the most Bachelor's degrees in Environmental Studies in 2008-09 in Illinois. 14 students completed the B.A. in Environmental Studies in that year. An average of 11 students earned degrees each year in Environmental Studies from 2004-05 to 2008-09.⁸⁸

Degree Requirements

The Environmental Studies Program administers the B.A. and minor in Environmental Studies.

The B.A. in Environmental Studies has the following requirements:

- ❖ ENVS 101 Introduction to Environmental Studies
- ❖ ENVS 118 Environmental Ethics
- ❖ Introductory Course in either Earth Science, Atmosphere and Weather, or Environmental Policy
- ❖ One course in Statistics
- ❖ Principles of Ecology or Conservation Biology
- ❖ ENVS 368 Environmental Resource Economy
- ❖ Three electives in Environmental Studies
- ❖ Senior project or independent study

The minor in Environmental Studies has the following requirements:

- ❖ ENVS 101 Introduction to Environmental Studies

⁸⁷ "Department of Geography & Environmental Studies – Brag Sheet." Northeastern Illinois University. <<http://www.neiu.edu/~deptges/brag.html>> and "Alumni." Northeastern Illinois University. <<http://www.neiu.edu/~deptges/alumni.html>>

⁸⁸ IPEDS.

- ❖ Introductory Course in either Earth Science or Atmosphere and Weather
- ❖ Three additional courses in Environmental Studies, one of which may be taken as an independent study.⁸⁹

Courses

The table below presents descriptions of selected required coursework for the B.A. or minor.

Course Title	Course Description
ENVS 101 Introduction to Environmental Studies	An overview of both the “natural” and human components of such environmental issues as climate change, human population growth, and biological diversity. The adequacy of scientific and policy responses to environmental dilemmas is examined in light of current knowledge and research.
ENVS 118 Environmental Ethics	An examination of the contested frameworks that govern our environmental policies. Critical questions are: Is there a land ethic? Do animals have rights? Do we have ethical obligations to natural objects? Special attention is given to the major arguments of libertarian, utilitarian, and liberal-pluralist social philosophies and to the policies and practices of contemporary environmental activists.
ENVS 368 Environmental Resource Economics	The study of the economics of renewable and exhaustible resources, environmental problems and policy responses. Topics include: the economics of air and water pollution control, the economics of recycling, the use of cost-benefit analysis, the ‘limits to growth’ debate, and philosophical issues in environmental policy making.

Faculty

There are two full-time faculty members who are solely affiliated with the Environmental Studies Program. Thirteen faculty members from other academic departments are associated with the Environmental Studies Program. These faculty members come from the Biology, Education, Economics, Philosophy, Psychology, Anthropology, Chemistry, and History departments.⁹⁰

Student Enrollment

As displayed below, the Knox College program in Environmental Studies has experienced a recent increase in enrollment.

Degree	2004	2005	2006	2007	2008
B.A. in Environmental Studies	19	17	19	22	29

Source: Illinois Board of Higher Education.

⁸⁹ “Environmental Studies Curriculum Overview.” Knox College. <<http://deptorg.knox.edu/envs-infosite/curriculum.htm>>

⁹⁰ “Environmental Studies Faculty.” Knox College. <<http://www.knox.edu/academics/courses-of-study/environmental-studies/envs-faculty.html>>

Student Employment

The Environmental Studies program indicates that many Knox graduates have entered environmental careers.

- ❖ United States Environmental Protection Agency, Environmentalist
- ❖ USDA Hiawatha National Forest, Forest Hydrologist
- ❖ DuPage County Forest Preserve, Naturalist and Data Analyst
- ❖ Peace Corps, Volunteer
- ❖ Texas Water Development Board, Planner
- ❖ Peak Environmental Management, President
- ❖ Illinois EPA, Deputy Director
- ❖ Center for Biodiversity, Assistant Support Scientist and Database Manager
- ❖ Border Environment Cooperation Commission, Technical Assistance Program Manager

Graduates have also gone on to graduate school for Conservation Biology, Sustainable Development, Environmental Science, and Behavioral Ecology.⁹¹

⁹¹ "Alumni in Environmental Studies." Knox College. <<http://www.knox.edu/academics/courses-of-study/environmental-studies/envs-careers.html>>

Appendix – Illinois Environmental Studies Program Enrollments

The following table presents Environmental Studies fall enrollment figures for the past five years, as reported by the Illinois Board of Higher Education.⁹² As illustrated below, the state has experienced strong growth in both undergraduate and graduate enrollment in this field of study.

Illinois Colleges and Universities, Fall Enrollment, 2004-2008

Institution	Degree	2004	2005	2006	2007	2008	5-Year Growth ⁹³
Northeastern Illinois University	B.A. in Environmental Studies	26	29	42	46	52	100.0%
DePaul University	B.A. in Environmental Studies	0	0	0	0	36	N/A
Dominican University	B.A. and B.S. in Environmental Studies	0	0	1	1	0	N/A
Illinois Wesleyan University	B.A. in Environmental Studies	0	4	16	18	27	575.0%
Judson University	B.A. in Environmental Studies	0	0	0	0	2	N/A
Knox College	B.A. in Environmental Studies	19	17	19	22	29	52.6%
Lake Forest College	B.A. in Environmental Studies	10	7	9	8	7	-30.0%
Northwestern University	B.Phil. and B.S.G.S. in Environmental Studies	8	6	5	2	1	-87.5%
Principia College	B.A. in Environmental Studies	20	15	15	14	21	5.0%
University of Chicago	B.A. in Environmental Studies	8	15	13	14	18	125.0%
Wheaton College	B.A. and B.S. in Environmental Studies	9	9	6	10	21	133.3%
Loyola University of Chicago	B.A./B.S. in Environmental Science/Studies	0	45	45	40	64	42.2%
Total Undergraduate Enrollment		100	147	171	175	278	178.0%
U of I at Springfield	M.A. in Environmental Studies	49	33	46	62	70	42.9%
University of Chicago	M.S. in Environmental Sciences and Policy	0	2	6	6	5	150.0%
Northeastern Illinois University	M.A. in Geography and Environmental Studies	22	21	24	24	30	36.4%
Total Graduate Enrollment		71	56	76	92	105	47.9%

Source: Illinois Board of Higher Education.

⁹² IBHE.

⁹³ Four-year growth rates are calculated for programs that did not grant an Environmental Studies degree in 2004.

Note

This brief was written to fulfill the specific request of an individual member of The Hanover Research Council. As such, it may not satisfy the needs of all members. We encourage any and all members who have additional questions about this topic – or any other – to contact us.

Caveat

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