

Sustainability and Environmental Curriculum
How Does Smith Stack Up?

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Introduction

Higher Education plays an important but often overlooked, role in making the vision of a sustainable future a reality. It prepares most of the professionals who develop, lead, manage, teach, work in and influence society's institutions, including K-12 education. Besides training future teachers, higher education strongly influences the learning framework of K-12 education. Higher Education plays a critical role in creating and disseminating the knowledge, skills and values for society.

What if Higher Education were to take a leadership role in preparing students and providing the information and knowledge to achieve a just and sustainable society? Imagine the societal impact that Higher Education could have if it incorporated sustainability principles and practices into fundamental decisions about purchasing, building design, and operations. Imagine the impact of Higher Education forming partnerships with local and regional communities to help make them socially vibrant, economically secure and environmentally sustainable. In addition, imagine the long-term leverage if Higher Education faculty and students, working in conjunction with administrators and staff, conducted the research for and helped to implement sustainability programs on campus and surrounding communities. Graduating students could then bring knowledge, skills and values of sustainability to their future employment, consumption decisions, lifestyle choices, and to the improvement of communities in which they live.

In this paper, I investigate how Smith College in Northampton, Massachusetts compares with other liberal arts colleges in the areas of environmental and sustainability in the curriculum. I compare the course offerings in the Social and Natural Science at Smith College, Mt. Holyoke College, Middlebury College and Wellesley College. I make suggestions on how Smith can make this hope for a sustainable future a reality.

Methodology

To evaluate the environmental and sustainability content of the courses at the four colleges, my partner and I split the work between us, with she concentrating on Smith and Mt. Holyoke and I researching Wellesley College in MA and Middlebury College in VT. We selected these schools because of their similar size to Smith and the fact that both Wellesley and Mt. Holyoke are all-girls, liberal arts colleges. Middlebury is known for their Environmental Studies department and we were curious as to how Smith compared academically.

We determined that if a course contained 100-75% environmental content it was considered "strong", 25-74% content is "moderate", 5-24% is "slight" and 0-4% "none/weak". I went through the course catalogs sent to me as if I were a prospective student and categorized the courses. I did not count and seminars that change from semester to semester or independent studies.

Another aspect of our research was to distribute a survey to Smith College students that inquired about their knowledge of the Environmental Science & Policy Minor. We distributed 500 surveys randomly in the mailboxes at Smith and received 114 back within a month. We asked if students knew that Smith has an ES&P minor, how they heard about it, if they wanted a major, if they have taken classes in the department, and if sustainability is important to them at Smith and once they graduate.

Results

The web page of Middlebury states, "Middlebury College as a liberal arts institution is committed to environmental mindfulness and stewardship in all its activities. This commitment arises from a sense of concerned citizenship and moral duty and from a desire to teach and lead by example. The College gives a high priority to integrating environmental awareness and responsibility into the daily life of the institution. Respect and care for the environment, sustainable living, and intergenerational responsibility are among the fundamental values that guide planning, decision-making, and procedures. All individuals in this academic community have personal responsibility for the way their actions affect

the local and global environment.” Adopted by Middlebury College Trustees, June 1995. This statement became abundantly clear as I looked through their web page and later the course catalog. Environmental concerns are at the forefront of the entire Middlebury community.

The Environmental Studies major at Middlebury College was established in 1965, making it the first undergraduate ES major in the nation. The ES Program is an interdisciplinary, non-departmental major that draws upon over 45 faculty members from 20 departments. The ES major is a popular at Middlebury College, ranking as the third most popular major at the college over the last five years. The ES Program offers a major, a minor, and a number of its own courses. Environmental Studies and Awareness is one of the six peaks of excellence at Middlebury College, based on the College's long tradition of being on the forefront of environmental education in both the classroom and on campus.

The mission of the Program in Environmental Studies at Middlebury College is to provide students an interdisciplinary, liberal arts education. The faculty of the program is committed to excellence in teaching and in scholarship. To achieve this mission, the program has established goals including requiring students to achieve depth in a particular field of study, offering a interdisciplinary major for each student, to provide opportunities for students to engage in independent scholarship, to encourage students to study off-campus.

Environmental Studies Majors are approximately 100 students among the sophomore, junior, and senior classes are currently majoring in ES, constituting over 9 percent of graduates over the last five years 661 students have earned B.A. degrees in Environmental Studies since 1965. In terms of number of student majors, ES is the sixth largest major at Middlebury College. All ES majors take five core courses: environmental science, environmental policy, nature's meanings, ecology, and geographic information systems. All ES majors choose an area of focus, made up of six to eight courses in a specific area. Currently students may focus in one of twelve areas: conservation biology; creative arts; environmental chemistry; environmental economics; environmental

geology; environmental history; environmental nonfiction; environmental policy; geography; human ecology; literature; and religion, philosophy, and the environment. All ES majors take an interdisciplinary capstone seminar in their senior year and at least two additional environmental courses outside of their area.

Although not directly affiliated with the ES Program, a number of student groups on campus are active in the environmental arena: Environmental Quality, Middlebury Mountain Club, Otter Creek Journal (an environmental and nature literary journal), Rainforest Action Group, and Weybridge House (an environmental residential house). The weekly Howard E. Woodin Environmental Studies Colloquium Series brings students, faculty, staff, and members of the community beyond the College together over lunch to hear from a broad range of speakers--students, faculty, alumni, and environmental professionals--on conservation and environmental topics. In addition to helping foster an ES community on campus, students can learn about different environmental careers and develop internship and employment connections.

The enthusiasm for the Environmental Studies major is apparent throughout Middlebury's curriculum, including the social and natural sciences. In both areas combined Middlebury ranked the best out of the four colleges surveyed. In 23% of classes, there is a strong environmental and/or sustainability component, 3% moderate, 6% slight and the remaining 68% with weak or no environmental content (Fig 1). Particularly impressive is Middlebury's inclusion of environmental and sustainability issues through out courses in the natural science with over half with a strong content. In a Dartmouth College report "Not Easy Being Green, An Environmental Audit of Five New England Schools" Middlebury's E.S. program is commended and ranked first in a tie with Dartmouth. It is praised for its depth, broad offerings, and potential for in-depth focus. Senior level seminars are also a plus, as are the off-campus study experiences. The program is seen as highly successful due to the popularity of

the program and the number of non-majors who sign up for courses.

Wellesley College in Wellesley, Massachusetts is an all female school with 2,300 undergraduate students. The college created a new interdepartmental major with 16 inter-departmental faculty and concentrations in Environmental Justice and Philosophy, Environmental Policy and Economics and Environmental Science. There are three components to the 11-course major: Two core courses, five courses in an area of concentration, and four elective courses complementing the area of concentration.

The Environmental Justice and Philosophy describes itself as “giving students the background needed to understand the philosophical and ethical issues raised by human activity in the natural world, including the causes and consequences of environmental degradation as they are influenced by social inequality” (Wellesley Course Guide). Environmental Policy and Economics teaches students to understand how policy is developed, how specific policy decisions affect environmental quality, and how economic factors structure the opportunities and constraints of environmental policy and the use of natural resources. Environmental Science offers an interdisciplinary approach for viewing the Earth and its inhabitants from more than one scientific perspective.

Wellesley also has a special arrangement with the Ecosystems Center of the Marine Biological Laboratory and the Marine Studies Consortium where Wellesley College students apply for courses in these off-campus programs. The number of participants in each program is limited. Students can also enroll in courses at MIT and join student groups for the Recycling Committee, Wellesley Activists Voicing Environmentalism, Wellesley Amateur Birdwatchers and Naturalists and the Wellesley Energy and Environmental Defense.

In overall courses in Natural and Social Sciences Wellesley ranked ahead of Smith and Mt. Holyoke with 14% of courses classifies as having a strong environmental content, 5% as moderate, 11% as slight and 70% as weak or none.

Smith College

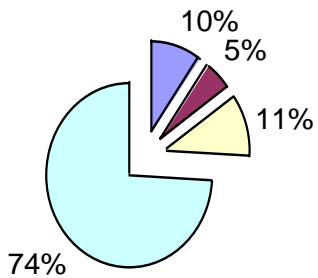
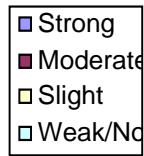
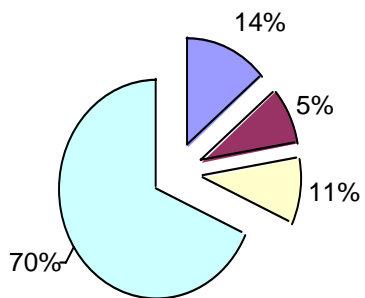
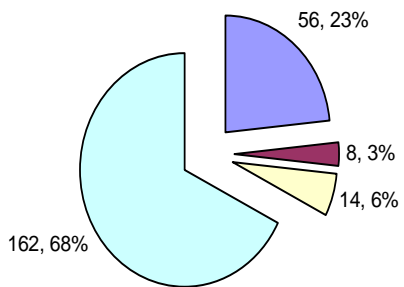


Fig. 1
A comparison of all courses
in the Social and Behavioral
Sciences.

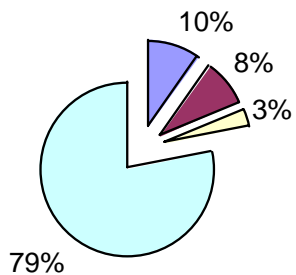
Wellesley College



Middlebury College



Mt. Holyoke College



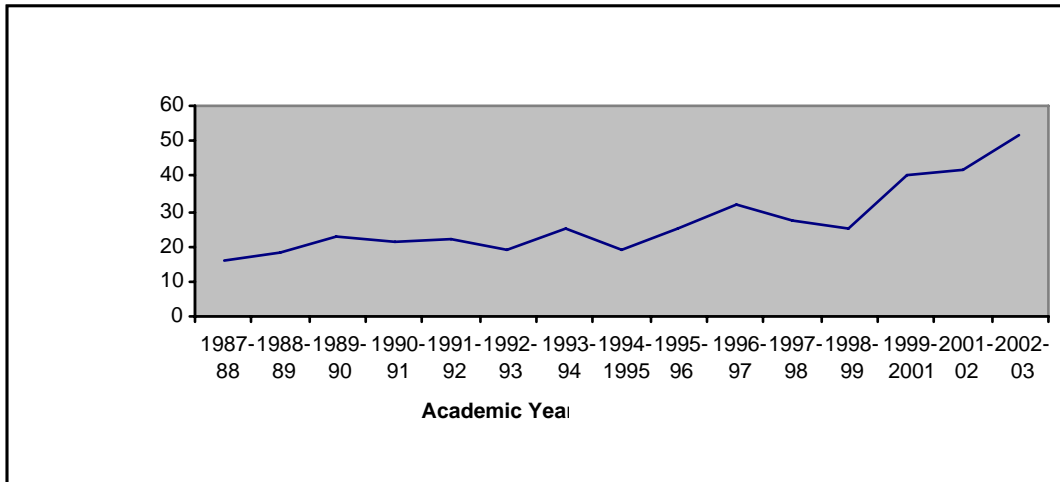


Fig. 2 An increasing environmental presence in the Smith Curriculum since 1996, the year the EV& S minor was created.

Smith College has made an increase in the environmental science and sustainability content since 1996 when it began the Environmental Science and Policy minor, but still fared worse than the other three colleges. 68% of all of the courses surveyed had no environmental content (fig. 1).

In the survey responses Over 25% of the students surveyed did not know there was an EV&P minor. If they had heard of the minor most found out from the course catalog (30%) or events (30%). Most students had taken from 1-3 courses with an environmental content (45%), however a close second was 44% of students having never taken one. An overwhelming number of students are interested in Smith offering a major in Environmental Science with 91% responding yes. As far as sustainability being important to students after graduation, 86% said yes and sustainability being important to them personally 37% said somewhat important, 30% important and 26% very important.

Discussion

Smith College is the only institution of higher education in our research that does not have an Environmental Studies major and it therefore, not surprisingly, fared the worst. Smith does have some successes, especially since creating a minor in 1996, the number of courses have gone up drastically. However, because of the overwhelming response of students and the clear improvement in environmental content of the curriculum, I suggest creating an Environmental major at Smith. In the meantime, offer more ES&P courses independent of other departments would appeal to a wider variety of students and offer more specialized course offerings. Because many students heard about the minor through events, I would suggest holding more, perhaps on a monthly or even weekly similar to Middlebury.

Even if Smith does not create a major, it is apparent that students are concerned with environmental and sustainability issues. Without creating a major, Smith College should make sustainability an integral part of operations and the curriculum. The university is a microcosm of the larger community, therefore, the manner in which it carries out its daily activities is an important demonstration of ways to achieve environmentally responsible living and to reinforce desired values and behaviors in the whole community. Students can learn how to minimize their ecological footprint and develop the critical thinking and collaborative work skills necessary for personal and societal fulfillment and success.

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