
Campus Sustainability in Higher Education:

A survey of 28 leading institutions with recommendations for next steps at Cornell University

Peer Campus Sustainability Survey Final Report May 2005

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Abstract

This report summarizes a survey of campus sustainability progress at 28 peer institutions. The survey was conducted during the Summer of 2004 with three goals: 1) compare environmental sustainability programs; 2) recommend improvements at Cornell; 3) and establish connections between active individuals and institutions.

Results are presented in quantitative, qualitative, and case study formats. Campus sustainability progress at peer institutions is impressive, and there is a very active network of sustainability professionals. Many schools are clearly demonstrating their commitment to sustainability goals, with public policies, full-time staff, high level councils, substantial funding, and various best management practices. The case study institutions, Colorado University at Boulder, Duke University, Harvard University, University of Michigan, and University of Vermont, have emerged as strong leaders in the field, with very effective campus sustainability programs.

Cornell University has achieved many campus sustainability milestones and has implemented many of the common best practices. In order to emerge as a unique leader, however, Cornell should adopt more of the most innovative and serious commitments, particularly in terms of permanent staffing for sustainability.

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OVERVIEW

Background and Goals

Campus sustainability is an important movement at local, national, and global scales. Recognizing their unique leadership roles, institutions of higher learning have implemented campus sustainability initiatives with varying success. As efforts to achieve a more sustainable campus at Cornell continue, it is an important time to examine what is and has been happening at peer institutions.

The goals of this survey were to:

- **Compare** environmental sustainability programs at peer institutions.
- **Recommend** improvements at Cornell.
- **Establish connections** between active individuals and institutions.

Notes on methods

- 33 schools were surveyed, including Ivy League, Ivy Peers, and other institutions recognized as leaders in campus sustainability and environmental responsibility ([Appendix A](#)).
- I received 24 complete responses between June and August 2004.
- The survey was designed for campus sustainability professionals to complete in less than 30 minutes.
- The original survey included 40 questions ([Appendix B](#)).
- This was an initial, simplistic survey, and the methods could be improved to streamline survey format, eliminate redundancy, and clarify ambiguities.
- Responses were edited and re-numbered for summary and analysis.
- Although campus sustainability can be defined broadly as *institutions modeling the thinking, behaviors, and operations necessary for long-term survival*, most questions focused on environmental sustainability and campus operations.

Results and discussion

Survey results and discussion are organized into three sections:

1. Sustainability milestones analysis (quantitative comparison presented in a table below).
2. Qualitative summary of questions related to priorities, strategies, results, and challenges.
3. Case study analysis of 5 leaders: CU-Boulder, Duke, Harvard, U-Michigan, U-Vermont.

Conclusion

There is exciting progress at many institutions and a very active network of sustainability professionals. 24 out of 28 of respondents have hired or are in the process of hiring full-time coordinators. Energy conservation is the most widespread strategy, saving hundreds of millions of dollars annually nationwide. Despite the success of campus sustainability initiatives, many challenges remain. The most common challenges are raising campus awareness, cultural change, funding, and genuine institutional commitment.

During these times of dire sustainability challenges on a global scale, universities and colleges are uniquely positioned to lead society toward a more sustainable future. There are many programs that could be adapted to the Cornell campus, particularly in the case study analysis. Cornell has yet to adopt some of these serious commitments, and in so doing could establish itself as leader in campus and global sustainability.

RESULTS 1: Sustainability Milestones Analysis (Figure 1)

This table was derived from a survey of full-time staff at 33 leading institutions. 28 responded to this section and are listed here.





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The table indicates the campus sustainability progress of each school, and it also shows Cornell's potential to be a unique leader.

Case study institutions are the first 5 displayed after Cornell, and the rest follow in alphabetical order.

	Cornell	Colorado U	Duke	Harvard	U-Michigan	U-Vermont	Bowdoin	Brown	Clarkson	Columbia	Dartmouth	Ithaca College	Michigan State	Middlebury	MIT	Princeton	Rutgers	Stanford	Tufts	U-British Columbia	U-Buffalo	U-Chicago	U-Connecticut	U-North Carolina	U-New Hampshire	U-Oregon	U-Pennsylvania	U-Wisconsin	Yale	
1. Office of Sustainability																														
2. Professional coordinator(s)																														
3. Institutional Authority								?			?					?		?			?				?			?	?	
4. Environmental Advisory Council																														
5. Sustainability faculty hiring initiative						?					?													?						
6. Environmental degree/certificate																														
7. Sustainable business center																					?									?
8. LEED building(s)									?		?		?							?	?	?								
9. Green purchasing																														
10. Energy conservation initiative																														
11. Green dining initiative (food service)																														
12. Composting																														
13. Successful Recycling																														

LEGEND

	= Yes
	= Pending or limited in scope
	= No
	= Respondent unsure, or no answer

DEFINITIONS

1. Formal office
2. Full-time staff
- 3-6. Respondent defined
7. Academic center for sustainable business/enterprise
8. Certified US Green Building Council LEED (Leadership in Energy and Environmental Design)
- 9-13. Respondent defined

RESULTS 2: Qualitative summary of questions related to priorities, strategies, results, and challenges

For each question, common trends and unique initiatives are listed.

- Trends: 5 or more respondents
- Unique: 2 or fewer respondents, and innovative

Complete list of responses is available from author.

Although 28 institutions responded to the survey, respondents did not answer all questions. The number responding to each question is listed in parentheses.

1. What are the environmental priorities at your institution? (n = 19)

Trends:

-Energy conservation (15), recycling (11), green purchasing (8), green building (7), water conservation (5).
-Note: Although energy conservation was listed explicitly in 15/19 responses, it was a universal theme for all respondents (19/19).

Unique:

-Research and research reputation, sustainable transportation, changing campus culture/awareness, sustainability indicators, certified wood, water quality, economic viability, open decision-making, alternative fuels, stewardship of local ecosystems.

2. What environmental strategies/tools/resources have been the most successful on your campus? (n = 19)

Trends:

-Full-time staff position(s) (10), environmental advisory council (5), student leadership (5).

Unique:

-Cost savings, alumni, conferences/networking, top-down leadership, campus initiative, master plan, combining diverse efforts, public recognition, staff training.

3. What are your institution's most significant environmental results/biggest successes? (n = 24)

Trends:

-Energy conservation/greenhouse gas reduction (18), recycling (11), green building (7), green purchasing (7), water conservation (6), transportation (5).

Unique:

-Dorm eco-rep program, local ecosystems, new faculty, campus engagement/awareness, green-certified wood products, sustainability report, new courses, active alumni, environmental consulting, composting, green chemistry.

4. What are your institution's most significant environmental challenges? (n = 18)

Trends:

-Awareness/behavior change (9), no top-down support/clout (7), organizational learning (7), financial (5).

Unique:

-Student unreliability, urban location, scale and pace of campus growth, creating lasting changes, achieving genuine sustainability.

5. How is environmental sustainability coordinated at your institution? (n = 12)

Trends:

-Sustainability office (9), environmental advisory council (5).

Note: Institutions with **both** a sustainability office and environmental advisory council (4).

Unique:

-Academic center (2).

6. How much money have environmental sustainability programs saved at your institution? (n = 11)

Columbia: \$3.4 million adjusted for inflation.

CU-Boulder: \$5 million annually.

Harvard: Over \$1 million annually.

Michigan State: Between \$750,000 - \$1,000,000.

Tufts: Easily \$1 million and most likely greater.

U-British Columbia: ~ \$2,575,000 annually (Canadian).

U-Buffalo: Energy conservation alone: \$50-100 million.

U-Michigan: \$10 million dollars annually (\$9 million dollars annually from energy reduction).

U-Oregon: Over \$1 million.

U-Pennsylvania: Millions of dollars in energy.

U-Wisconsin: \$1.5 million revenue generated by recycling.

7. Are you familiar with Cornell University as an environmental leader? (n = 23)

Yes: 8

No: 10

Limited: 5

8. If so, which Cornell initiatives/programs are you familiar with? (n = 13)

Trends:

-Composting (5).

Unique:

-Academics (2), transportation (2), recycling (2), green dining (2).

9. Why should Cornell (or any institution) have an Office of Sustainability? (n = 12)

Bowdoin: The initiatives and programs need someone to launch and coordinate them. The coordinator also acts as a go between for the student activists and the facilities staff and administration.

Dartmouth: Sustainability is one of the most important challenges facing higher education—creating sustainable institutions and educating students and the public about issues of sustainability.

Harvard: It's essential for providing the human resources needed to do anything effective.

Middlebury: Marketing environmental leadership.

MIT: These initiatives go beyond compliance but are vitally important to an institution's character, commitment, and the example they make to the students they teach.

Michigan State: Breaks down the silos between disciplines and colleges, between academic and operations, between students, and all of the above.

U-British Columbia: To coordinate departments' efforts and push ahead more innovative sustainability initiatives.

U-Connecticut: In order to educate the campus about the benefits of conserving for a better future and the advantages of living sustainable lifestyle.

U-Michigan: Having at least one full-time employee coordinating environmental activities is important.

U-North Carolina: Save money, reduce environmental impact, improve the health and productivity of the campus community, model best practices for tomorrow's leaders, reduce potential future liability.

U-Pennsylvania: Coordinate efforts across campus, save money, improve local and global environment.

U-Vermont: To spearhead sound environmental practices to help sustain the institution over time.

10. What role should universities play in the current global environmental crisis, and why? (n = 22)

Trends:

-Leadership/demonstration (15), education (11).

Unique:

-See responses below.

Bowdoin: They should play a big role – if we’re not educating the future business/government/non-profit/education leaders of the future about the importance of sustainable development – who will??

Clarkson: Education, providing a role model for our students (and future leaders) that sustainability is indeed both important and doable, even providing cost savings. Significant impacts are possible.

Columbia: Provide leadership.

CU-Boulder: from Blueprint for a Green Campus: “It is not enough to comply with environmental regulations...a forward-looking commitment to dramatically reducing environmental impacts in a range of areas will payoff in the long-run, both for the individual institution and for society as a whole...we propose a vision of a growing, dynamic campus which steps lightly upon the earth and satisfies additional demands for energy, transportation, and resources through increased efficiency rather than increased consumption.”

Dartmouth: Modeling sustainable behavior, conducting sustainability research, educating students and the public about sustainability issues.

Harvard: They have a profound responsibility to be leaders in the development and implementation of viable and environmentally-sustainable institutional practices.

Ithaca: Graduating ecologically literate leaders for today and tomorrow. The survival of future generations of humans depends on it.

MIT: Universities are places of high ideals and leadership. They should lead to the extent they can by example.

Michigan State: They should be modeling and doing demonstration projects that attempt to lower our impacts and showing how environmental sustainability is deeply linked to the social and economic spheres.

Princeton: Get accurate information about their environmental research out to the general public in a way that can be understood. Prepare the next generation of leaders so that they have a solid foundation in environmental science and policy.

Stanford: A beacon of hope. Universities are institutions of learning, and have the human, financial and natural resources to develop new resource management systems as a model to commercial and industrial society.

Tufts: Leading role, no question. We educate tomorrow’s leaders and as such we have a responsibility to make sure they are prepared for the role they will play.

U-British Columbia: Universities have always existed to nurture healthy communities and economies through education. But today, more than ever before, universities are realizing that they also need to set positive social, environmental, and economic examples for their societies to follow.

U-Buffalo: Leaders in seeking solutions. Leaders in setting an example. Because no campus should be in business without a comprehensive commitment to environmental sustainability and the future of this threatened planet.

U-Chicago: Universities have two major roles to play in our current environmental crisis. First, we need to educate our students about the environment and about what they can do to help deal with environmental problems. Second, every University should have environmental concern as a core value and serve as a role model for sustainable policies and behavior. Universities are uniquely positioned to be models for such behavior, both for their own students and for the entire world. Environmentalism should be a core value for all important institutions.

U-Connecticut: Education of sustainability and conservation for the long-term. Realizing the value of an informed citizenship as an integral part of a successful life-cycle, universities should act to provide their students with the knowledge and ability to recognize sustainable practices and conservation methods.

U-Michigan: They should be leaders, setting examples and initiating paradigms for others to follow.

U-North Carolina: Leadership role.

U-Oregon: Serve as consultants and hands on projects to help alleviate world environmental issues. Institutes of Higher Learning exist to teach students how to be good citizens. Environmental Stewardship is an essential component of higher education's mission.

U-Pennsylvania: Leadership role.

U-Vermont: Education.

U-Wisconsin: Credible and authentic institutions of higher learning must demonstrate a commitment to sane environmental operations (not to mention teaching and research). We have a responsibility to prepare students for their roles as ecologically literate citizens—teaching and research are not enough. Students need to see that the principles taught at the lectern are modeled in the every day operation of the campus.

11. What institutions do you look to as leaders in the environmental field? (n = 15)

Important factors for leading institutions:

- strength of program
- whether the program is coordinated by full-time staff
- reputation of institution
- marketing/publicity

* Indicates number of times mentioned greater than 1

*****Harvard University
*****University of Vermont
*****Middlebury College
*****Tufts University
****University of British Columbia
****Brown University
***Michigan State University
***Oberlin College
***Penn State University
***University of New Hampshire
***University of North Carolina
**Colorado University-Boulder
**Duke University
*Dartmouth College
*Emory
*University of California System
*University of Florida
*University of Michigan
*University of Oregon
*Yale University
Bates College
Bowdoin College
University of Buffalo
Carnegie Mellon University
University of Cincinnati
Colby College
Columbia University
Cornell University
Georgia Institute of Technology
University of Maine
Northland College
Princeton University
Rutgers University
University of South Carolina System
Stanford University

RESULTS 3: Case Study Analysis

Introduction

To benchmark Cornell's progress with other leading institutions, I analyzed five peers that have demonstrated remarkable success in their respective campus sustainability programs. After reviewing the achievements and responses of all 28 survey respondents, I chose Colorado University at Boulder, Duke University, Harvard University, the University of Michigan, and the University of Vermont. Each of these institutions presents an excellent comparison to Cornell. Each is relatively large, with at least 10,000 students and a large research program. Three are public; two private. Each has demonstrated innovative strategies in addressing their unique campus settings, and all five are widely recognized for their sustainability leadership.

Format of this section

I present a brief summary of each program before highlighting best practices applicable to the Cornell Sustainable Campus Initiative. The brief summaries include:

- *Respondent Contact Information*
- *Unique Factor*
- *Origin and Description of Program*
- *Best Strategies and Achievements*
- *Application to Cornell Sustainable Campus Initiative*
- *Supplemental Resources*

Institutions are presented in alphabetical order. A table of Campus Sustainability Milestones follows.

Emergent Themes

Although each campus sustainability program is a product of its unique campus setting, there are important common themes. Each has full-time, permanent coordinating staff, an environmental advisory council, some degree of institutional clout, and performs very well in the Sustainability Milestones Analysis ([Figure 2](#), p. 16).

Each campus program has been empowered by substantial institutional support. Four out of five are funded directly by the upper administration (either the Office of the President, the Provost, the Vice President of Finance/Administration, or some combination of the above).

Each program is well-known and respected on campus, and each has achieved much campus awareness of sustainability issues and goals. Each program works effectively with diverse partners and stakeholders, despite the challenge of decentralization. Each program has achieved substantial cost savings well beyond the cost of establishing and funding the program.

Recommendations

Each case study includes concise recommendations based on the strategies most applicable to Cornell. In addition to innovative strategies unique to each campus, some strategies are successful at multiple institutions:

- ***Multiple, permanent staff*** dedicated to sustainability located in all major operational departments (CU-Boulder and Michigan).
- Upper level Advisory ***Council with co-chairs*** (academic and facilities) and full-time coordinating staff (Harvard and UVM).
- ***Initial funding*** provided by a combination of facilities and academics (Duke, Harvard, UVM).
- ***Strong public policy statements*** of sustainability goals (CU-Boulder, Duke, Harvard).

It is clear that Cornell should continue to benchmark campus progress with these and other leading institutions.

Colorado University at Boulder (Abbreviated “Boulder”)

Respondent Contact Information

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Former Mayor of Boulder

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Unique Factor

Boulder’s most successful initiatives have been student-driven, funded largely by student fees and widely supported by the student body. In the most recent (2003) student survey, 86% of respondents (n = 300) stated that it is very or somewhat important that Boulder be a leader in campus environmental causes.

(more survey results available online: http://ecenter.colorado.edu/publications/env_survey/index.html)

Origin and Description of Program

The Environmental Center coordinates the Blueprint for a Green Campus program, where Boulder’s most proactive initiatives have originated. The Environmental Center was established in 1970 by students who organized the first Earth Day at Boulder and has grown to be the largest student run environmental center in the country. A permanent staff of five is funded primarily by student fees, and they support the work of the student board, volunteers, employees, and the Vice Chancellor for Student Affairs. There are also 50 part-time student employees. The base operating budget is \$370,000.

The Center assists the educational mission of the University, gives students applied experience in interdisciplinary problem solving, assesses the environmental performance of the university, works with other parts of campus to improve environmental performance, and provides direct services to the University community, including the Boulder Recycling program, the student bus pass program, and the management of the Windsource purchase. The Center staff interacts with many stakeholders across campus, including academic programs in environmental studies, business, and engineering.

There is also a campus environmental council which reports to the vice chancellors and serves as a formal coordination structure. A formal Environmental Policy was adopted in 2003.

Best Strategies and Achievements

- Approximately \$5 million annual **savings**.
- Over the past 8 years, every major operational department (Facilities Management, Housing, Parking and Transit Services) has created **new staff positions** dedicated to “greening” their operations.
- Boulder students were the first in the country to vote in a fee increase for **green energy**—100% for all student facilities.
- A **green building policy** for academic construction funded by student fees, requiring that each new building be certified as meeting the LEED Silver standard, be designed to meet LEED Gold, and that 100 percent of the electricity used in these buildings come from renewable sources.
- After 20 years of increasing energy use, Boulder has turned the corner, with three years in a row of **declining energy use**.
- The **transportation** system has made cars the alternative: only about 1 in 10 students drives to campus.

Application to Cornell Sustainable Campus Initiative

According to the respondent, Boulder’s two most successful approaches have been: 1) Student leadership and fees to push the envelope on new programs and policies and 2) Careful documentation of cost savings to gain top-down support. Many of Cornell’s initiatives have been student driven but have not yielded the same far-

reaching results as Boulder. By focusing on student fees and cost-savings, Cornell could better institutionalize current and proposed initiatives.

In addition, Cornell should consider creating new staff positions dedicated to “greening” within all operational units, as Boulder has done in the past eight years in every major operational department.

Supplemental Resources

Environmental Center: <http://www.colorado.edu/ecenter/>

Environmental Council: <http://ehs.colorado.edu/ems/EnvirCouncil.htm>

Environmental Council Charge: <http://ehs.colorado.edu/ems/files/charge.pdf>

Duke University

Respondent Contact Information

Sam Hummel

Environmental Sustainability Coordinator

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919-475-8136

Unique Factor

Duke University land holdings include 8,000 acres of forest, which are used for research in the Nicholas School of the Environment and are certified for sustainable management.

Origin and Description of Program

Campus sustainability efforts at Duke have been institutionalized for several years with the Environmental Management Advisory Committee and Duke University Greening Initiative, a primarily graduate student organization. The Greening Initiative has offered internships for several years, and one of the interns began developing a campus-wide sustainability program. This intern position evolved into a full-time environmental sustainability coordinator, located in the office of the Executive Vice President.

On March 1, 2005, the Duke President and other senior officials signed the Duke University Environmental Policy, which commits the university to leadership in three areas:

- environmental research and education.
- environmentally responsible operations.
- environmental stewardship in the community.

Best Strategies and Achievements

- **All new construction** and renovations will be **LEED certified**, and every reasonable effort will be made to achieve silver or higher ratings. This commitment is particularly important because Duke just finished a \$2.6 billion capital campaign.
- Duke University **Environmental Policy** (described above).
- Reduction of energy use by 9 percent during a period in which floor space increased 25 percent.
- **Renewable energy** investment and reduction of greenhouse gas emissions.
- New Environmental Sustainability **Website** (below).
- Forest Stewardship Council and Sustainable Forestry Initiative **certification of Duke Forest**.
- Developed and implemented comprehensive **environmentally preferable purchasing guidelines**.
- High profile initiatives and high level of interdisciplinary interaction regarding sustainability.

Application to Cornell Sustainable Campus Initiative

Like Cornell's current situation, campus sustainability efforts at Duke were largely decentralized and low profile until the Executive Vice President established the full-time environmental sustainability coordinator position.

In addition to replicating Duke's staffing solution, Cornell should consider making formal policy commitments to campus sustainability goals, including green building standards (LEED).

Finally, Duke's Master Plan should benefit Cornell planners as they begin their own effort, and Cornell's research forest should consider sustainable management certification.

Supplemental Resources

Environmental Sustainability at Duke: <http://www.duke.edu/sustainability/>

Duke University Greening Initiative: <http://www.duke.edu/greening/>

Duke University Master Plan: <http://www.architect.duke.edu/masterplan/>

Harvard University

Respondent Contact Information

Leith Sharp

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Unique Factor

Harvard University is very influential, so sustainability efforts on campus yield far-reaching results. In addition, Harvard has a very competitive culture, which can be harnessed as a motivating force for engaging people in sustainability programs across the highly decentralized campus.

Origin and Description of Program

The Harvard Green Campus Initiative (HGCI) and HGCI Director's position were established in the Spring of 2000 with a 12 month grant from the Office of the Provost. The core mission of the HGCI is to:

- Institutionalize a commitment to cost effective, environmental impact reduction in association with Harvard's campus operations.
- Utilize the campus as a living laboratory for teaching and research in support of environmental sustainability.
- Establish a learning organization capacity to support continuous improvement in the economic, social and environmental well being of the campus.

The organization includes co-chairs (Senior Associate Vice President of Administration and a tenured faculty member), the HGCI Director, the HGCI Executive Committee, and the Harvard Green Campus Interfaculty Advisory committee. There are also 12 staff (8 full-time and 4 half-time) and 20 part-time student employees associated with the HGCI. The HGCI operating budget is approximately \$710,000. The HGCI generates approximately 80 percent of its budget with "fee for service partnerships" and grants (less than 3 percent), and the rest comes from the Office of the President and Provost.

Best Strategies and Achievements

- New **campus sustainability principles** approved by President.
- Over \$1 million annual **savings**.
- Green Campus Loan Fund, Renewable Energy Fund, Green Building Loan Fund, REP Fund

- High levels of **engagement**, interaction, and learning across Harvard.
- **Campus surveys**: According to a recent student survey, over 90 percent want Harvard to address campus sustainability, and over 70 percent would be willing to pay extra for renewable energy.
- Spring 2005 **sustainability course** on institutional change.
- **Resource Efficiency Program** (REP) in residence halls, saving over \$200,000 annually and raising awareness across campus.
- Campus wide **Greenhouse Gas Inventory** and substantial purchase of renewable energy (7%).
- **Green buildings** (multiple LEED projects) and high performance building service
- **Biodiesel** bus fleet
- Student summer **internship program**
- **Best Practices Exchange**, highlighting environmental procurement, renewable energy, energy and water conservation, recycling and green building design, transportation, and behavioral change.

Application to Cornell Sustainable Campus Initiative

The HGCI demonstrates the necessity of a full-time, permanent staff for fostering campus-wide engagement and success at a decentralized, prestigious institution of higher learning. The Harvard model is one possible structure of collaboration that could be implemented at Cornell, both in terms of the staffing and advisory board and initial funding from the Office of the Provost. The various green loan funds, best practices exchange, and campus sustainability principles would also be effective at Cornell.

Supplemental Resources

Harvard Green Campus Initiative: www.greencampus.harvard.edu

University of Michigan

Respondent Contact Information

Andrew Berki
 Environmental Stewardship Coordinator
 Department of Occupational Safety and Environmental Health
 734-647-3120
aberki@umich.edu

Unique Factor

The University of Michigan is the largest institution surveyed, with an enrollment of 37,000, a staff of over 31,000, over 27,000 million square feet of building infrastructure, and the largest annual research expenditure of any university in the country.

Origin and Description of Program

Consistent with national trends and high-level support at Michigan, a pollution prevention specialist position was created in 1995, which eventually evolved into the Environmental Stewardship Coordinator position in 2001. The coordinator is located in and funded through the Department of Occupational Safety and Environmental Health under the Vice President for Facilities and Operations. The coordinator has some authority, but most authoritative decisions are made by the Vice President of Facilities and Operations, who reports directly to the Chief Financial Officer. There is also an environmental advisory committee to the President. In terms of the academic program, the coordinator works closely with graduate students and affiliated academic centers.

Though there are only two full-time staff members *coordinating* environmental stewardship, there are many other environmentally-driven staff positions strategically located throughout the university, such as a full-time

Recycling Coordinator, a full-time Energy Reduction Coordinator, and a full-time Housing Sustainability Coordinator. All of these positions also have staff reporting to them.

Best Strategies and Achievements

- \$10 million annual **savings** (\$9 million annual savings from energy reduction).
- Largest **alternative fuel** fleet in the State of Michigan (400 vehicles running on **ethanol**, all diesel busses and small vehicles running on ultra-low sulfur **biodiesel** fuel, six pure **electric** vehicles).
- Extremely successful recycling, pollution prevention, and waste minimization programs.
- Campus-wide recycling, composting, green building design, green purchasing initiatives.
- Many **national awards** for environmental accomplishments.
- Very interactive and well-known on and off campus.

Application to Cornell Sustainable Campus Initiative

There are many parallels between the Cornell and Michigan campus settings, particularly in terms of size, breadth, and decentralization. The Michigan program has been very successful in utilizing a decentralized structure, with full-time “sustainability coordinator” positions throughout the institution. Cornell has several staff in similar roles, such as energy management and recycling, but other positions should be created to champion specific initiatives in green purchasing, campus life sustainability, and community outreach. In addition, the Michigan program shows the vital importance of establishing a full-time position to support and coordinate ongoing efforts.

Supplemental Resources

Environmental Stewardship Homepage: <http://www.umich.edu/~urel/stewardship>

Center for Sustainable Systems Academic Program: <http://css.snre.umich.edu/>

Erb Institute for Global Sustainable Enterprise: <http://www.erb.umich.edu/>

University of Vermont (Abbreviated “UVM”)

Respondent Contact Information

Ralph Stuart

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Environmental Safety Manager

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802-656-5403

Unique Factor

In its strategic plan, the University of Vermont aspires to become the leading “environmental university.” According to the respondent, the primary driver of this environmental aspiration and awareness is UVM’s physical and cultural setting in Vermont.

Origin and Description of Program

Environmental interest within the UVM community has been driven historically by grassroots efforts, and this interest was institutionalized within the UVM Environmental Council in 1996. The Environmental Council has a faculty co-chair, staff co-chair, and full-time coordinator, reports to the Vice President for Finance and Administration, and is the primary tool for developing operational opportunities around sustainability. Academic opportunities are developed through a variety of colleges and departments.

The Environmental Council Coordinator position began as a graduate student research position, and was initially co-funded by the Office of the Provost and the Vice President for Finance and Administration. After

three years, the position became full-time and was entirely funded through Finance and Administration. The coordinator also oversees part-time staff support and graduate and work study student employees.

Best Strategies and Achievements

- National leader in **Sustainability Indicators** for Higher Education.
- Excellent environmental sustainability indicators report: **Tracking UVM**.
- Successful **small grants program** awarding grants up to \$1,500, totaling \$10,000, for campus greening projects involving faculty and students.
- Green and local **purchasing**.
- Committed informally to **LEED certification** for all new buildings.
- Significant recycling and energy conservation success.
- Campus community effectively engaged and coordinated through the Environmental Council.

Application to Cornell Sustainable Campus Initiative

The Environmental Council model, with faculty and staff co-chairs and a full-time coordinator, is a successful program that could work effectively at Cornell. Specifically, a similar Cornell program could be initially co-funded by the Office of the Provost and Vice President for Administration and CFO.

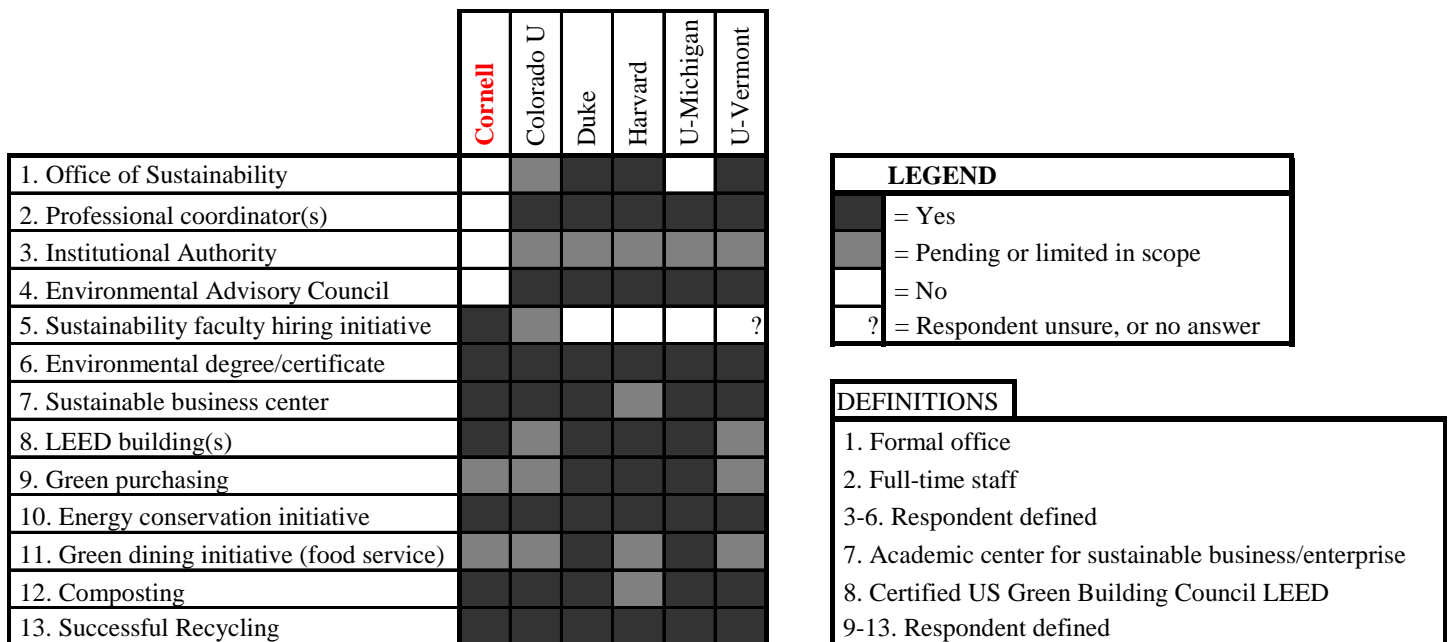
Additionally, UVM is the only other land grant institution selected for case study analysis. Effective outreach is a key component of UVM’s sustainability success, and there are important opportunities for the two institutions to share strategies for successful land grant programs in sustainability.

Supplemental Resources

UVM Environmental Council Homepage: <http://www.uvm.edu/greening>

UVM Environmental Report Card: <http://www.uvm.edu/greening/trackinguvm.html>

Figure 2: Sustainability Milestones Analysis for Case Studies



APPENDIX A: CU Peer Survey List

Institutions surveyed for environmental sustainability programs. Surveys conducted by email with full-time staff. (n = 33)

Bowdoin College
Brown University
Clarkson University
Colorado University-Boulder
Columbia University
Connecticut College
Dartmouth College
Duke University
Harvard University
Ithaca College
Michigan State University
Middlebury College
MIT
Oberlin College
Pennsylvania State University
Princeton University
Rutgers University
Stanford University
Tufts University
Tulane University
U-British Columbia
U-Buffalo (SUNY)
U-Chicago
U-Connecticut
U-Georgia
U-Michigan
U-North Carolina-Chapel Hill
U-New Hampshire
U-Oregon
U-Pennsylvania
U-Vermont
U-Wisconsin-Madison
Yale University

APPENDIX B: The Survey

Below is the survey sent to peer institutions via email during Summer 2004. I used two slightly different surveys, so the *(-or-)* indicates questions that differed between the two surveys. Finally, this is a revised version of the original surveys, streamlined for formatting in this report.

Survey for peer institution green programs

Summer 2004

Introduction

Recognizing their unique role as environmental leaders, universities and colleges have implemented environmental initiatives with varying degrees of success. As Cornell considers environmental priorities and initiatives for the next academic year, it is an important time to examine what is and has been happening at peer institutions.

This survey aims to compare environmental programs at other institutions, to recommend improvements at Cornell, and to establish a connection between institutions and individuals working for positive change. I've shortened it by eliminating several questions from the previous survey. It consists of six short sections:

- A. General campus environmental information*
- B. Policy, priorities, and resources*
- C. Green results*
- D. Environmental/Sustainability office/initiative structure*
- E. Program relationship with administration*
- F. Cornell going green*

It is my hope that you will receive this survey and have time to run through the questions. The questions are pretty straight forward and should only take about 20 minutes if you plow through it. The list of schools surveyed is included as an appendix. I'll gladly share the results of this survey upon request.

*Thanks for your time,
Garrett Meigs
Campus Sustainability Intern, Cornell University*

A. General information about your campus environment

- 1a. How many students attend your institution?
- 1b. What proportion are environmentally aware? (*what proportion (%)*, or using a scale of 1 to 5, where 1 is apathetic/inactive, 3 is moderately aware, 5 is very aware/active)

- 2a. How many faculty work at your institution?
- 2b. What proportion are environmentally aware? (*what proportion (%)*, or using a scale of 1 to 5, where 1 is apathetic/inactive, 3 is moderately aware, 5 is very aware/active)

- 3a. How many staff work at your institution?
- 3b. What proportion are environmentally aware? (*what proportion (%)*, or using a scale of 1 to 5, where 1 is apathetic/inactive, 3 is moderately aware, 5 is very aware/active)

- 4. What are (up to three) unique factors to keep in mind when considering your institution?

B. Policy, priorities, and resources

1. What is your institution's official environmental policy? (*internet link is ideal here*)
 2. Is the environment (campus sustainability, environmental research, environmental outreach, teaching) a priority at your school? What kind of priority? (*low, medium, or high*)
 3. Is your institution currently realizing its environmental priorities? Which ones?
-or-
 - 3a. What are the environmental priorities at your institution?
 - 3b. Is your institution currently realizing its environmental priorities?
 4. What environmental strategies/tools/resources have been the most successful on your campus?
 5. What tools/resources are essential to your office/program/initiative? (*institution AND outside support*)
-

Milestones Analysis (see Results 2)

Please answer yes or no for the following:

- 5 **-or-** 6. Does your institution have a(n):
- office of sustainability?
 - environmental coordinator(s)?
 - environmental advisory council to the upper administration? to the president?
 - energy conservation initiative?
 - successful recycling initiative?
 - green (environmentally-friendly) purchasing initiative?
 - environmentally-friendly food service/dining?
 - campus composting initiative?
 - academic biological conservation initiative?
 - center for sustainable business/enterprise?
 - initiative to increase the number or emphasis on sustainability-oriented faculty?
 - academic environmental program(s)? *If so, please list.*
- LEED or other green buildings? (*please specify if LEED, what rating*)
- “Ecorep” type residential/dorm program?
- other prominent environmental program? *Please list.*
-

7. How are environmental programs coordinated at your institution?

C. Green Results:

1. What are your institution's most significant environmental results?
 2. Is your office/program well-known on campus?
 3. How much direct interaction do you have with students?
with faculty?
staff?
administration?
alumni?
 4. How much money have your office/program, position, and projects saved?
 5. In addition to the above-mentioned results, what have been the biggest successes of your program/office?
failures? major challenges?
- or-***
5. What have been the biggest challenges to your office/program?
-

Cornell University is interested in establishing an office of sustainability. The following two sections were designed for this type of program, but any environmental initiative is applicable, so please answer to your best ability.

D. Office of Sustainability/Environmental Initiative Questions:

1. What is the title of your office/program/initiative?
2. How many employees?
3. What is the current website?
4. What are your mission and goals? (*internet link is ideal here*)
5. Where is your office/program/job positioned in the institution/organization?
6. When was your office/program established? When was your position established?
7. How was your position established?
8. How do you describe your job? (purpose, goals, strategies, etc.)
9. What is your academic and work background?

E. Relationship with administration:

1. To whom do you report?
 2. How is your office/program funded? Is your funding sufficient?
 3. What is your annual operating budget?
 4. How much of your time is used for development?
grants?
alumni?
 5. Do you have institutional authority? How much authority does your office/program/position have?
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F. Cornell going greener:

1. Are you familiar with Cornell University as an environmental leader?
2. If so, which initiatives/programs are you familiar with?
3. Why should Cornell (or any institution) have an Office of Sustainability or Environmental Initiative?
4. What role should universities play in the current global environmental crisis?
5. What institutions do you look to as leaders in the environmental field?