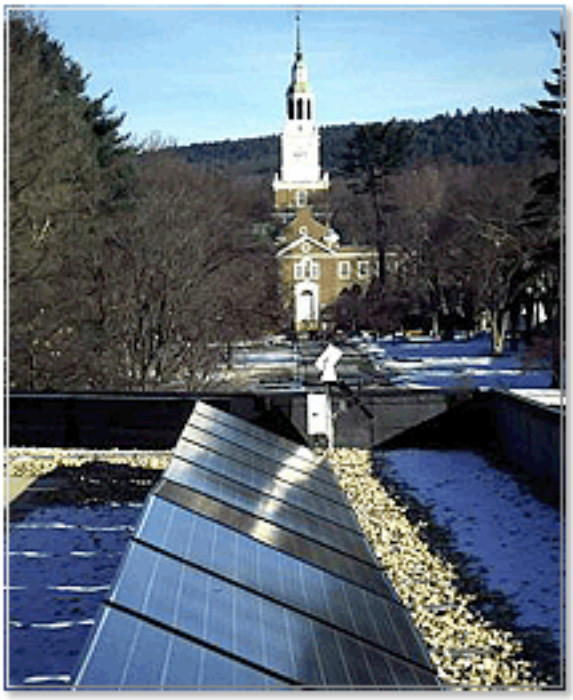
The Feasibility of Sustainability Reporting At Dartmouth College



A report by the members of Environmental Studies 50

Spring 2003

The Feasibility of Sustainability Reporting at Dartmouth College

By the Members of
Environmental Studies 50
Dartmouth College
Spring 2003

The Environmental Studies Program
Dartmouth College
6182 Steele Hall Room 113
Hanover, NH 03755
603-646-2838

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Environmental Studies 50

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Ronné A. Adkins ‘03
Rebecca J. Aledort ‘04
Catherine B. Ballard ‘03
Risa N. Borowick ‘03
Jennifer P. Casler ‘03
Jonathan N. Cedar ‘03
Alan Y. Cheng ‘03
Aja K. DeCoteau ‘02
Elisse M. Gaynor ‘03
Nicholas C. Giammaria ‘03
Jesse J. Hinueber ‘04
Svante P. Horn af Aminne ‘03
Jeffrey L. Kemnitz ‘03
Gregory D. Klein ‘04
Kristopher L. Kolta ‘03
Allegra S. Love ‘03
Megan P. Malgeri ‘03
Jorge I. Montalvo ‘02
Michael P. Paul ‘03
Kerry D. Quinn ‘03
Freya M. Sachs ‘04
Adam J. Smith ‘03
Rebekka M. Stucker ‘04
Lauren L. Welsh ‘03
Paloma K. Wu ‘03
Edward S. Yip ‘04

Karen A. Fisher-Vanden, Faculty Advisor

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Sources from the Dartmouth Community

Karen A. Fisher-Vanden, Our Class Advisor, Environmental Studies Department, Dartmouth College.

Ellen Arnold, Associate General Counsel, Office of the General Counsel, Dartmouth College
Lisa Ashworth, Civil Engineer and Solid Waste Manager, FO& M, Dartmouth College
Cassie Barnhardt, Office of Residential Life, Dartmouth College.
Oliver Bernstein, Class of 2003, Dartmouth College.
Mike Blayney, Office of Environmental Health and Safety Dartmouth College.
Katherine Burke, Office of the Provost, Dartmouth College.
Mike Cimis, Director, Office of Environmental Health and Safety, Dartmouth College
Beth DiFrancesco, Dartmouth Dining Services, Dartmouth College.
Julie Dolan, Vice President of Finance, Dartmouth College.
Kevin Evans, Director of Woodland Operations, Dartmouth College.
Wendy Flanders, Procurement Services, Dartmouth College.
Jesse Foote, Class of 2001, Dartmouth College.
John Gratiot, Facilities, Operations and Management, Dartmouth College.
William Hochstin, Materials Management Coordinator, Procurement Services, Dartmouth College.
John Hoffman, Procurement Services, Dartmouth College.
Greg Husband, Procurement Services, Dartmouth College.
Barbara Johnson, Director of Employee and Labor Relations, Office of Human Resources, Dartmouth College.
Rita Johnson, Vice President of Investment, Dartmouth College.
Daniel Krawiec, Accounting, Hanover Inn.
Sarah A. LaBombard, the Endowment Registrar, Dartmouth College.
Craig Layne, Department of Biological Sciences, Dartmouth College.
Paul Ligon, Tuck MBA and business consultant, Dartmouth College.
Larry Litten, Director, Office of Institutional Research, Dartmouth College.
Paul Olsen, Director, Office of Real Estate, Dartmouth College.
David Peart, Professor, Department of Biological Sciences, Dartmouth College.
Michael Ricci, Tucker Foundation, Dartmouth College.
William Riehl, Heating Plant Manager, Dartmouth College Power Plant.
Frank Roberts, Facilities, Operations and Management, Dartmouth College.
Laurel Stavis, Vice President of Public Affairs, Dartmouth College.
Jan Tarjan, Tucker Foundation, Dartmouth College.
Robert Thebodo, Grounds Foreman, Dartmouth Grounds Department.

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Suzanne Savanick at the University of Minnesota.
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EXECUTIVE SUMMARY

The following report was compiled at Dartmouth College by the students of *Environmental Studies 50: Environmental Analysis and Policy Formulation*. The specific task taken on by this course in the spring of 2003 is to evaluate the feasibility of sustainability reporting at Dartmouth. We do this by assessing the costs and benefits entailed in that reporting, reviewing the available reporting options, and assessing the costs of data collection. We then offer recommendations on what approaches Dartmouth might take to sustainability reporting. Sustainability reporting, which involves the provision of social and environmental annual reports in addition to the traditional financial one, has developed as a trend in corporate management over the past decade but has been slow to take root among colleges and universities. Dartmouth has an opportunity to establish itself as a leader in sustainability by adopting reporting in some form.

PART I: THE CASE FOR SUSTAINABILITY REPORTING

CHAPTER 1: INTRODUCTION

Defining Sustainability

- Sustainability is providing for the needs of the present while preserving the ability of future generations to enjoy a similar standard of living.
- Sustainable development is "a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development, and institutional change are all in harmony and enhance both current and future potentials to meet human needs and aspirations." (WCED, 1987)
- The triple bottom line of sustainability encompasses environmental, economic and social responsibilities.

The Rationale for Sustainability in Higher Education

- Colleges and universities have the social and ethical responsibility to promote sustainability, as well as the expertise and the ability to make significant progress in this area.
- Corporations have experienced benefits from sustainability reporting that are also applicable to educational institutions.

Recent Developments in Sustainability Reporting

- Heightened interest in corporate accountability has created a movement toward sustainability reporting.

- Various types of reporting options are now available for corporations, and frameworks are being developed for higher education in a variety of forms.

CHAPTER 2: BENEFITS AND COSTS OF SUSTAINABILITY REPORTING

Stakeholders

- In this section we outline Dartmouth's stakeholders, or those who are affected by College actions. These include trustees, students, faculty, staff, alumni, community, government, and granting agencies.

Reputation and Differentiation

- Dartmouth is considered a leader in environmental practices. Sustainability reporting would enhance and advertise Dartmouth's role in environmental issues and a successful report could be a key selling point for prospective students, faculty and staff.
- Sustainability reporting is ultimately about sharing information in an open, transparent manner in order to build trust. It is an attempt to protect the trust that is the basis of reputation, and can help advance that reputation, thus accruing a competitive advantage over other universities.

Institutional Management

- Sustainability reporting allows more efficient intra-institutional management. It streamlines communication between departments, facilitates idea sharing, helps manage existing sustainability initiatives, increases the college's adaptability, promotes community interaction and communication, and establishes a common language with which to communicate with other universities.

Financial Benefits

- Sustainability reporting would provide the College with a more comprehensive way of looking at short-term costs vs. long-term savings. Decreasing environmental impact can lead to economic savings.
- Sustainability reporting introduces a common language with business, which may lead to profit opportunities for Dartmouth that would not otherwise be available.

Risk Reduction

- Sustainability reporting is a proactive measure that can be employed to decrease some of the risks that Dartmouth is exposed to. These risks include liability for personal injuries, contractual liabilities related to everything from construction to research and grants, intellectual property infringement, environmental issues, employment and labor disputes, disability-related issues, and compliance with Federal education, workplace, and national security statutes.

Exposure of Good Social Practices

- Sustainability reporting can enhance relations within the community by highlighting the social practices that Dartmouth offers to the community, specifically in employment practices, employee diversity, community service, and health and safety.

Costs of Increased Transparency

- It is possible that reporting could expose information that is contrary to the College's mission statement and goals. Revealing such information could have negative consequences. Voluntarily excluding information could be equally detrimental, because it could create a presumption of guilt.

CHAPTER 3: OPTIONS FOR A COMMITMENT TO SUSTAINABILITY

Reporting Options

- There is significant overlap between the various reporting options. This section individually compared them to the Global Reporting Initiative (GRI), the most thorough reporting mechanism to date.
- The Global Reporting Initiative (GRI), developed in 1997, promotes the dissemination of information in a structured format for easy comparison between reports and encourages stakeholder involvement. Its mission is to develop and disseminate globally applicable sustainability reporting guidelines to report on the economic, environmental and social effects of their activities, products and services.
- We also address other sustainability reporting options, which address some aspects of the triple bottom line but are not comprehensive.

Declarations and Charters

- Since 1972, institutions of higher education have also adopted declarations, charters and action plans in order to address their roles in sustainable development. These serve as important frameworks upon which colleges and universities can build.

Survey of Other Schools

- Included in this survey are five universities that have completed some form of sustainability reporting. These reports range from comprehensive catalogues of university practices to simple discussions of how sustainability can begin to be incorporated.

PART II: DATA-RELATED COSTS OF SUSTAINABILITY REPORTING

The second part of this report catalogues the availability at Dartmouth College of the data required by the Global Reporting Initiative. The GRI entails the reporting of indicators under three main classifications: economic, environmental, and social. For the purposes of an

educational institution, a fourth category, education, has been added. These sections detail the relative amount of effort necessary to gather the data.

CHAPTER 4: ECONOMIC INDICATORS

Economic indicators involve monetary inputs and outputs encompassing all of Dartmouth's stakeholders. Problems concerning the application of GRI guidelines to educational institutions continue with these specific guidelines. Many of the indicators designed to provide fiscal disclosure do not apply to an educational institution, such as Dartmouth College. However, each of the listed sections is necessary for a comprehensive sustainability review. A brief summary of each indicator section is listed:

Customers

- A study of Dartmouth's customers involves breaking down data according to each stakeholder. Each monetary input of the school discloses information relating to the net income. Also a geographic breakdown of markets reveals the origins of monetary income. These indicators provide information relating to the net income and the diversity of Dartmouth's customers. Overall data availability is good. All of this information is already collected annually for the financial report and tax information. Data collection costs involve only a minimal amount of data aggregation.

Suppliers

- This indicator group, Suppliers of Dartmouth, examines the costs of all goods, materials and services provided, contract responsibilities, and payroll liabilities. This information discloses Dartmouth's monetary outflows and liabilities. Data was already available, previously collected for the annual financial report and tax audits. Collection costs involve only the organization of data. Full GRI compliance is recommended.

Providers of Capital

- Providers of Capital reveal the nuances of Dartmouth's incoming monetary flow excluding main tuition funds, which is reported under the customers section. Data includes Dartmouth's holdings in the equity and debt market, alumni gifts, and student contributions. An increase/decrease in retained earnings is also reported to evaluate firm performance over a given period. Finally, a total sum of taxes is broken down by geographic region. All of the required information for full GRI compliance is already readily available in the annual financial report or on file in the treasury office. Collection costs will be minimal involving mostly an organizing an aggregation of data.

Public Sector and Indirect Economic Impacts

- As an educational institution, Dartmouth has significant effects on the public sector. In order to quantify this indicator, the school's monetary donations can be examined; however this information is costly to obtain. There is no aggregate campus-wide data available yet, so data collection will involve a variety of sources.

- By breaking down Suppliers by organization and country, a list of the top supplier vendors at Dartmouth will be used to show Dartmouth's economic impact on external firms. Collection will be time-consuming, as data must be compiled from individual revenue data from each involved firm. However, this section is a non-core indicator and is not required for GRI compliance.

- Another non-core indicator, indirect economic impacts attempts to quantify the effects students have on the economy after graduation, by administering a contingent valuation survey. Survey questions attempt to estimate employment and salary from its graduating seniors. Survey information is readily available from institutional research, but may be inaccurate and unreliable as information is easily subject to change as students change employment. However, this is another section that is non-core and is not required for GRI compliance.

CHAPTER 5: ENVIRONMENTAL INDICATORS

Overall, the data for the environmental indicators of the GRI is already being collected by the College and is readily available. In some instances, time and extra labor are required to change the format of the data to the GRI format. The indicators that are the most costly are the ones that are least quantifiable. We did not experience any data sensitivities with respect to environmental indicators. What follows is an explanation of our focus in each category of indicators:

Materials:

- For these indicators, we considered the total volume of materials that enter the College, everything from paper products to fertilizers to food to lab chemicals. We found that the data is available for the most part. The main issue is its organization and tracking since, at present, materials enter the College through four separate routes.

Energy:

- For energy, we looked at how energy consumption is tracked by Dartmouth and how it could be improved in the future. We considered types of fuel used directly as well as indirect energy uses. The information is already collected. Reporting on sustainability would likely move Dartmouth towards greater energy efficiency as well as more centralized processes for data collection.

Water:

- The water indicators did prove to be slightly complex because water is managed in part by the College and in part by the town. The situation is one where the data is available, but it requires effort to isolate Dartmouth water use and management from the entire system in place.

Biodiversity:

- We found the biodiversity indicators to be the most difficult to report on. The data is not very available because it is hard to quantify. However, the indicators are very general and allow room for interpretation. In light of this, we found that a summary of Dartmouth's policies and initiatives regarding biodiversity would be the best way to fulfill this part of reporting.

Emissions/effluents/waste:

- This section covers the wastes of Dartmouth's processes to air, water, and the solid waste stream. Overall, this data is readily available. Again, the main issue becomes how to centralize the data. At present, several different offices on campus collect the data for these indicators.

Suppliers:

- This indicator does not consider the environmental impact of the actual products supplied to the institution. Rather, it assesses the process by which such products were created. Therefore, the main consideration in this section was how Dartmouth decides upon the products it buys. The data for this indicator is also not very quantitative. There is room for interpretation in terms of how Dartmouth could best capture the environmental impact of its suppliers.

Products and Services:

- These indicators are not very relevant to an educational institution. Rather, they apply to industry where the principal products and services are clearly defined. Still, to the extent that this indicator applies to Dartmouth, we found that the College does take steps to reduce the environmental impacts of its operations.

Compliance:

- The data for this indicator is minimal and readily available. The College maintains excellent records of incidents of and fines for non-compliance with environmental regulations. These violations, though, are infrequent.

Transport:

- This additional indicator looks at the significant environmental impacts of transportation. The data is available though difficult to quantify since the indicator is so general. For early sustainability reports, the College could narrow this indicator to parking operations and wintertime procedures such as salt and sand application, since this data is most easily accessible.

CHAPTERS 6 AND 7: SOCIAL AND EDUCATIONAL INDICATORS

- During our research to provide information about the data availability at Dartmouth of the "Social Indicators" section outlined by the GRI, we found it necessary to articulate supplementary indicators that made such standards applicable and relevant to the

university setting. In addition, we have developed a separate indicators section entitled "Education Indicators" for this purpose.

- We found that the majority of the information required by GRI standards (and supplemented at our discretion) is available and readily accessible through already existing college resources in an appropriate data format. If the College were to decide only to compile and report on such readily available indicators, the labor and materials required would be negligible in relation to the estimated benefits.

- The indicator data requested by the GRI (and our supplements) that is not immediately available and accessible can be roughly defined as falling into two general categories: (1) missing data, and (2) missing mechanisms.

- The vast majority of "missing data" type indicators would not require significant additional labor or materials to gather. Because Dartmouth College already has extensive and relatively well-streamlined database systems and information gathering mechanisms, technologies, and institutionalized procedures, most "missing data" type problems could easily be solved by asking/gathering the lacking data in new question within existing surveys and departmental reports. The labor/materials required to address such "missing data" gaps would be minimal. We believe that the part-time work of supervised interns with appropriate administrative support could successfully network with offices already responsible for maintaining similar data collection services and information.

- The second category of "missing mechanisms" includes indicators that request a description of policies, procedures, monitoring systems, and mechanisms to respond to results of monitoring. For these "missing mechanisms" type indicators, which are very few, the amount of labor and materials required to develop responses to GRI standards, and our own, would be significant.

- Because we are not familiar with the processes and politics involved in negotiating relative data sensitivity issues in relation to estimated benefits, especially in reference to the investment methodology changes we have recommended, which would need to be critically constructed in coordination with the Office of the General Counsel, we do not feel confident in judging the precise amount of effort required to accomplish the collection and reporting of the social and educational indicators.

CHAPTER 8: RECOMMENDATIONS

- We recommend that Dartmouth employ some form of the GRI. However, producing a full GRI report may prove too costly for Dartmouth, at least at the outset. Therefore, we refrain from complete endorsement of full GRI. Dartmouth's decision makers will ultimately choose what type of report to employ, based on the financial commitment they would like to make and what benefits they are willing to forgo.

- The Full GRI is estimated to take 670-1010 hours for student interns to compile. Though it captures all of the benefits enumerated in Chapter 2, it is very costly. By removing the most time-consuming data collection, we were able to trim the estimated time by about two-thirds. Other ways for Dartmouth to save on costs are to eliminate the education indicators or to report on only the environmental indicators. For each alternative option, Dartmouth loses out on a number of benefits. Dartmouth must consider the costs and benefits of each option in deciding how to move forward.

- Regardless of what form of GRI Dartmouth decides to employ, we suggest the following next steps. A student intern should beta test the data collection, attempting to verify our time estimates for a fraction of the indicators. The student would write up a report that would serve as a corollary to this report. Being better informed as to the costs of data collection and reporting, Dartmouth could make a better decision as to what form of GRI to pursue.

PART I:

THE CASE FOR SUSTAINABILITY REPORTING

CHAPTER 1:

INTRODUCTION

1.1 THE MISSION OF ENVIRONMENTAL STUDIES 50

The following report was compiled at Dartmouth College by the students of *Environmental Studies 50: Environmental Analysis and Policy Formulation*. The specific task taken on by this course in the spring of 2003 is to evaluate the feasibility of sustainability reporting at Dartmouth. We do this by assessing the costs and benefits entailed in reporting, reviewing the available reporting options, and assessing the costs of data collection. We then offer recommendations on what approaches Dartmouth might take to sustainability reporting.

1.2 STRUCTURE OF OUR REPORT

We begin our report with a background discussion of sustainability, its place in higher education, and the evolution of sustainability reporting practices. In Chapter 2, we consider the benefits and costs to Dartmouth of producing a sustainability report. Chapter 3 follows with an analysis of reporting options, a look at what other schools are doing, and the recommendation that the Global Reporting Initiative framework is the most suitable option if Dartmouth decides to report. We then apply the GRI to Dartmouth in Chapters 4 through 7, determining data accessibility at the College and analyzing the appropriateness of GRI's sustainability metrics for higher education. Based on this analysis, Chapter 8 closes the report with an assessment of what mechanisms or systems need to be in place to make sustainability reporting a viable reality at Dartmouth.

1.3 DEFINING SUSTAINABILITY

There is some debate over the origins of the concept of sustainability. Some scholars argue that the concept grew out of both ecological and social roots and thus has always been a broad philosophy incorporating social, environmental and economic aspects.[1] Others argue that the concept was only ecological in origin, coming into prominence in 1980 with the International Union for the Conservation of Nature and Natural Resources World Conservation Strategy. These individuals maintain that sustainability was originally focused only on environmental issues and that social and economic concerns are more recent additions.[2]

Whatever the roots of the concept, sustainability received a major boost from the Brundtland Commission in 1987 and again at the 1992 Rio Earth Summit. The definition of

sustainability adopted at Brundtland and reinforced at Rio was "development which meets the needs of the present without compromising the ability of future generations to meet their own needs."[3] In addition, the report goes on to discuss sustainable development "as a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development, and institutional change are all in harmony and enhance both current and future potentials to meet human needs and aspirations."[4] Sustainability is thus a framework to address "a widespread wave of concern about the ability of environmental resources to sustain human civilization."[5] The focus on sustainable development bridges the gap between those seeking a more ecological view of sustainability and those more concerned with economic development.[6]

Currently, sustainability is seen as resting on the three pillars of ecological, economic and social responsibilities, sometimes referred to as the triple bottom line. Of the three, ecological sustainability is the most well-defined and refers to the idea that nature's functions and diversity should not be compromised by human influence. Social sustainability is related to the fair distribution of resources, the sharing of power, and maintaining the population at levels below carrying capacity.[7] The final pillar, economic sustainability, is the subject of considerable debate. Some scholars, most prominently Robert Solow, argue that "a sustainable path for the economy is…not necessarily one that conserves every single thing or any single thing. It is one that replaces whatever it takes…What matters is not the particular form that the replacement takes, but only its capacity to produce the things that posterity will enjoy."[8] This theory of sustainability places the most emphasis on the economy and its ability to maintain a constant level of consumption, only concerning itself with environmental and social issues as inputs into the economy. Others see the relationship between the economy and the environment as reversed. These theorists see the economy as a subset of the environment, believing that natural resource harvest rates should not exceed regeneration rates, and waste should not exceed the long-term ability of environmental sinks to handle them.[9] Thus while most agree that social, environmental, and economic factors are essential to sustainability, there is not consensus on the precise relationship of these areas to each other.

There are certainly critiques of the current concept of sustainability. Some critics feel that by focusing on environmental, social, and economic factors, the concept of sustainability is too broad to be of much practical use. Others are concerned that current practices are already

unsustainable and therefore the focus should be on restoration rather than attempting to sustain the status quo. Thirdly, since difficult systemic changes may be required to achieve sustainability, some argue that too much focus on sustainability can hinder incremental improvements. Finally, some also feel that the accepted definition of sustainability is too focused on human development and not concerned enough with the state of the natural environment.[10]

Despite these critiques, the concept of sustainability has many advantages. One of the major advantages is the intertwining of social, environmental, and ecological factors. This focus on the triple bottom line makes sustainability distinct from many of the other concepts of the environmental movement. On the inclusion of social factors, John Pezzey notes that, "policies are needed to put some kind of price or discouragement on pervasive social externalities, just as with environmental externalities."[11] The inclusion of social and economic factors with ecological ones is powerful because these three spheres all influence each other, as well as the relationship between people and the natural world. Through the use of the triple bottom line, sustainability has "the potential to catalyze individuals and groups to implement social and environmental change through promoting integrated, systemic thinking." Thus, despite criticisms of sustainability, it is in a unique position to provide the impetus for changes that crosscut traditional boundaries between ecological, economic and social factors.

1.4 THE RATIONALE FOR SUSTAINABILITY IN HIGHER EDUCATION

Sustainability is important to institutions of higher education because they are long-term institutions and thus should be concerned with the long-term health and livability of their community and region. In addition, colleges and universities have the expertise and the ability to make significant progress since they are often on the cutting edge of new ideas. Some have gone as far as to argue that institutions of higher learning have a social and ethical responsibility to promote sustainability due to their unique place in society.[12] Campuses have the ability and perhaps even the obligation to become "a living laboratory for the practice and development of environmental sustainability."[13] It is also important for universities to pursue sustainability because they are part of the problem. These institutions are not "ivory towers'" but in reality have major ecological, social and economic impacts on the communities in which they exist.

Finally, colleges and universities should pursue sustainability due to the image benefits they can potentially receive from being leaders in the field. Adopting sustainability as a core principle "can be used as a selling point with both the community and prospective students and can be a theme around which [the school] can develop new, innovative and attractive courses and curricula."[14]

1.5 RECENT DEVELOPMENTS IN SUSTAINABILITY REPORTING

The rise of multinational corporations conducting commerce around the world, combined with the instant spread of information through the internet, has created an environment where public awareness and perceptions of not only the economic, but environmental and social impacts of large corporations are of ever increasing importance. This heightened awareness, coupled with the multitude of recent corporate accounting scandals, has created a movement towards greater corporate accountability. Corporations can use sustainability reports to enhance their reputations and gain a competitive advantage over those corporations that are not engaged in sustainability reporting.

The concept of corporate accountability came to national attention during the stock market crash of 1929. The stunning decline of over 80 percent in the market value of stocks on the New York Stock Exchange from 1929 to 1932 convinced lawmakers of the importance of accountability standards for corporations. In response, the Securities Act of 1933 and the Exchange Act of 1934 were passed to address the growing need for accountability. Though it appears upon initial reading that these laws only pertain to financial disclosure, legislative history indicates that social and environmental accountability fall within the boundaries of the law.[15]

Debates about these Acts focused on how to achieve disclosure rather than what information needed to be made public. Voluntary reports eventually began to surface as a way of disseminating information that previously had been limited to shareholders. Approximately 3,000 environmental and sustainability reports have been released by 1,500 organizations.[16] These voluntary reports are usually attached to financial reports. Their prevalence has grown so rapidly that large accounting firms such as KPMG and Deloitte and Touche will now certify companies based on sustainability standards. Specifically, the growth of Corporate

Environmental Reports (CERs) has been exponential, with approximately 1,000 CERs published annually. Just thirteen years ago, CERs were nonexistent.[17]

However, with the expansion of voluntary reports and disclosure have come difficulties. The information reported by corporations is often inconsistent and unverified. Without uniformity between companies, the value of the data is limited, as comparison is impossible. Industries have been searching for a standard, with the aim of enhancing external accountability while also serving internal data needs.[18] One of the earliest standardized reports was developed by the Coalition for Environmentally Responsible Economies (CERES). Launched in the early 1990s, CERES created the first standardized environmental report. Since that initial report, a variety of other options have become available. These range from those using the triple bottom line of economic, environmental and social indicators reports to those with single indicators designed to be used in conjunction with other reporting options.[19] We review the various reporting options in Chapter 3, assessing their strengths and weaknesses for reporting purposes at Dartmouth. But first we discuss the benefits Dartmouth could realize by engaging in sustainability reporting.

NOTES

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[3] World Commission on Environment and Development. *Our Common Future*. Oxford: Oxford University Press, 1987.
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[5] Pezzey, John. "Sustainability: An Interdisciplinary Guide". *Environmental Values*. Vol. 1. 321-62. 321.
[6] Shriberg, 10.
[7] Shriberg, 13-5.
[8] Solow, Robert. "An Almost Practical Step Toward Sustainability". *Resources Policy*. 19:3. Sep 1993. 162-72. 168.
[9] Daly, Herman "Sustainable Growth: An Impossibility Theorem". *Development*. 40:1. Mar 1997. 121-5. 124.
[10] Shriberg, 15-8.
[11] Pezzey, 352.
[12] Shriberg, 54-9.
[13] Sharp, Leith. "Green Campuses: The Road from Little Victories to Systemic Transformation". Cambridge, MA: Harvard University, 2001. 17.
[14] Shriberg, 54-9.
[15] White, Allen. "Sustainability and the Accountable Corporation". *Environment.* Vol. 41, No. 8. 1999. 34.
[16] Ligon, Paul. "The Applicability of Sustainability Reporting to Universities With Notes on Implementation at Dartmouth". Independent study for Tuck School of Business at Dartmouth College, 2002. 1.
[17] White, 35.
[18] White, 36.
[19] White, 37.

CHAPTER 2:

THE BENEFITS AND COSTS OF SUSTAINABILITY REPORTING

Sustainability reporting ultimately amounts to increased institutional disclosure, for better or worse. In this section, we outline Dartmouth's stakeholders, those who are affected by College actions. It is important to consider the stakeholders when discussing costs and benefits of reporting, as it is often easy to forget that more than just students, faculty and administrators have a stake in what Dartmouth does. Next, we outline the benefits that producing a sustainability report would produce for Dartmouth and its stakeholders. Finally, there is a section that outlines the negative effects sustainability reporting would have on Dartmouth. Cognizant of those costs, Dartmouth has a lot to gain from sustainability reporting.

2.1 STAKEHOLDERS

Dartmouth's stakeholders are the people and organizations that are affected socially, environmentally and/or economically by the College's actions. Sustainability reporting contributes to the organization-stakeholder dialogue that ultimately influences the decisions and behavior of each.[1] In the case of Dartmouth, there are a wide variety of stakeholders. The most obvious group of stakeholders is the students who are receiving the "product" of a Dartmouth education and alumni who benefit from their association with Dartmouth. In addition, the faculty and academic departments, the administration and other individuals employed by the College are all affected by the College's actions and thus have a stake in the sustainability of the institution. Less obvious perhaps is the local community. Dartmouth has a huge impact on Hanover and the surrounding communities and a sustainability report would begin to look at the interaction between the school and those communities. Indeed, the entire State of New Hampshire and its regulatory agencies are stakeholders in Dartmouth because of the profound impact the College has on the state due to the magnitude of its resources and the size of its operations. Beyond New Hampshire, federal regulatory agencies are stakeholders, as well as both public and private granting institutions. The ultimate stakeholders are the trustees of the College, as they are effectively the "owners." Any actions related to sustainability will have effects on these stakeholders and a sustainability report seeks to provide a sense of these effects.

Below is the list of stakeholders and illustrative concerns they have about the College's actions. This list is not meant to be exhaustive, nor are the concerns limited to one party.

Table 1: Stakeholders

Stakeholder	Potential Interest
Students	* Quality of education offered * Socially and environmentally responsible operations
Faculty and Staff	* Remuneration and benefits * Occupational health and safety * Job security * Diversity and equity * Discrimination and harassment
Community	* Local employment and standard of living * Local environmental quality * Infrastructure * Consultation practices in site planning
Alumni	* Reputation * Alumni influence on operations
Trustees and Administration	* Accurate and timely disclosure of operations * College governance * Brand preservation and bolstering * Operating costs * Risk management
Governments and Regulators	* Regulatory compliance * Environmental protection * Occupational health and safety * Taxation * Economic Impacts * Research and infrastructure developments
Granting Agencies	* Compliance with environmental and social requirements * Institutional reputation and integrity * Influence on public policy

Increased transparency is becoming an important issue for universities. Information technology has created a rising demand for disclosure, and recent corporate scandals have resulted in a public outcry for a higher degree of transparency in businesses and other major institutions. A sustainability report makes more organizational information available to the stakeholders, addressing their potential interests. In one report, faculty and staff can read about Dartmouth's diversity and equity in staffing, the community can read about local environmental impacts, and government regulators and granting agencies can read about compliance with environmental and social requirements. In short, a report addresses stakeholder concerns that are

otherwise not dealt with or dealt with on an ad hoc basis. Offering this information to the community in one report confers many benefits to Dartmouth, which we now address.

2.2 BENEFITS

The benefits Dartmouth would gain from reporting fall into five broad categories: Reputation and Differentiation, Institutional Management, Risk Reduction, Decreasing Costs, and Exposure of Social Practices. Among the many benefits, reporting would enhance the College's reputation, improve internal management, open lines of communication between Dartmouth and its stakeholders, and save the College money.

2.2.1 Reputation and Differentiation

According to KPMG's *Beyond Numbers*, a document assessing how leading companies use sustainability practices to enhance value, reputation is based on emotional appeal, financial performance, products and services, social responsibility, vision and leadership, and workplace environment.[2] By completing a sustainability report, Dartmouth would be in a position to enhance its reputation in all of those areas.

Dartmouth as a Leader in Environmental Practices

Sustainability reporting would offer the College an opportunity to highlight its commitment to environmental responsibility. Here we present a brief survey of Dartmouth's environmental groups and the actions they are taking. Started in 1996, the Resource Working Group "seeks to identify possible adjustments to operating policies and/or practices at Dartmouth that may have an adverse impact on our environment, and then works with appropriate people on campus to implement initiatives to alleviate these impacts."[3] RWG came out of the Committee on Environmental Policies for College Operations (CEPCO), which was set up by the Provost's office in 1994. CEPCO had drafted a statement of Dartmouth's commitment to the environment and suggestions for how Dartmouth could lessen its environmental impact. The RWG meets once a month and consists mainly of "managers of programs that involve the utilization of resources such as paper, food, and energy, and the generation of waste."[4] Many of the

environmental successes at Dartmouth are a result of the RWG, including recycling and composting programs, environmentally-friendly purchasing, and energy conservation efforts.

The following list outlines the projects discussed, assisted, and completed by the Resource Working Group since beginning its work in January 1996. In some cases, the RWG spearheaded these projects as a group. In other cases, the RWG encouraged projects started by other groups or undertook suggestions brought to it for consideration. For complete information on these projects, see Appendix E.

Table 2: Resource Working Group Projects, 1996-2003

	Completed	In Progress	Ongoing
Purchasing	* Recycled Paper * Recyclable Plastic Bags * Thermometer Swap * Certified Wood * Waste Reduction in Design, Printing, and Mailing Service	* Recycled Paper * Recycled Carpeting on Campus	* Use of Low- and No-VOC Paint * Efforts by Procurement Services
Energy	* Torchiere-Style Halogen Lamp Ban * Energy Conservation at New Skiway Lodge	* Light Switch Stickers Encouraging Energy Conservation * Energy-conserving Vending Machines	* Energy Conservation Measures * Computing Conservation Measures * Energy Auditing and Environmental Construction of New Buildings * Energy Savings in Residence Halls * Making the Dartmouth Fleet More Energy-Efficient
Miscellaneous	* Centralized Mailing/Elimination of Postage Meters * Reusing of Abandoned Bicycles on Campus * Water Conservation * Towel Racks in the Residence Halls * Dining Services * Reducing Waste in Public Printing	* Meetings with Students and Faculty to Seek Input * Visits to Environmental Projects at Peer Campuses * Organic Farm * Student Internships * Public Printing: GreenPrint * Environmental Homepage	* ECO Tours

The Resource Working Group is not the only group at Dartmouth working towards better environmental practices.[5] Students have a long history of environmental concern at Dartmouth. The Environmental Studies Division (ESD) of the Dartmouth Outing Club was founded in 1969. The group since has worked "to reform the College's policies from the inside out." Efforts have included Earth Day celebrations, Environmental Action Days, supporting the creation of the Environmental Studies Program, providing physical space and staffing for the first Environmental Studies Library, opposition to Dartmouth College holdings in Hydro Quebec, and the creation of the Dartmouth Organic Farm.[6]

In 1998 the Environmental Conservation Organization (ECO) at Dartmouth was formed by several members of ESD. ECO is involved with programs to raise awareness of recycling, composting, energy conservation and other environmental efforts among Dartmouth students and to further the effectiveness of these programs. ECO is run through the Tucker Foundation, Dartmouth's community service clearinghouse. There are interns in all areas of the College dedicated to making Dartmouth more sustainable. Depending on departmental needs, there are between ten and fifteen positions at a time. These include a Public Printing intern, Composting interns, Recycling interns, Energy interns, and a Purchasing intern. Additionally, ECO is working with ORL and the RWG to establish Model Sustainable Residence Hall Rooms, beginning in the fall of 2003.[7]

Other student groups include the Dartmouth Organization for Global Awareness (DOGA), a student group currently focused on ensuring that Dartmouth's endowment is invested in a socially responsible manner, and the Dartmouth Vegetarian Alliance (DVA), an organization focused on making it easier to be vegan or vegetarian while at Dartmouth.

Students are not the only concerned Dartmouth stakeholders. Alumni continue to be involved in environmental issues after graduation. The Dartmouth Environmental Network (DEN) consists of a group of 500 alumni sharing an interest in environmental issues. This group holds campus workshops and career panels, puts out a quarterly newsletter, and maintains a directory of its members. [8] According to the DEN website, "The mission of DEN is to facilitate solution-oriented discussion about environmental responsibility. In doing so it intends to empower members of the Dartmouth Community to make informed decisions, on the level of the individual, community, corporation, and institution."[9]

In addition, many faculty members are involved with work in sustainability and environmental matters. Dartmouth has one of the oldest Environmental Studies programs in the country. Founded in 1970, the "principal mission of the Environmental Studies Program is to investigate and teach about natural and social systems and provide students with the opportunity to assess the complexity of environmental problems and understand how to search for solutions to these problems." The program also encourages students to become active in environmental issues outside of the classroom.[10]

Dartmouth can claim environmentalism – both of the activist and academic varieties – as one of its strengths. By producing a sustainability report, Dartmouth would be able to advertise its leading role in the field.

Differentiation for Recruiting Students, Faculty, and Staff

The completion of a successful sustainability report could be a key selling point to prospective students, faculty and staff. According to John Gratiot, Associate Vice President for Facilities Operations & Management, the College is weak when it comes to publicizing its sustainability practices. By the 1980s, Dartmouth had made huge strides and many accomplishments in energy conservation since beginning a program the decade before. Around that time, other colleges and universities began receiving media attention for their contributions to energy conservation. While Dartmouth has perhaps been a leader in the field, it has not established a clear popular reputation.[11] Larry Litten, Director of Institutional Research, Office of the Provost at Dartmouth, shares Gratiot's concerns; he feels frustrated that Dartmouth has not done a better job of publicizing its successes to potential students and faculty. Sustainability reporting would provide a forum for Dartmouth to demonstrate and document its sustainability efforts, thereby letting its stakeholders know about the positive initiatives that the College has undertaken.

Brand Preservation and Bolstering

Sustainability reporting would also serve to protect Dartmouth's "brand." A university's reputation is a function of its perceived credibility related to all of the above issues. In quantitative terms, "reputation" is the single largest factor (25% of the total) used in the U.S.

News & World Report rankings of college campuses. Universities are extremely interested in their USNWR ranking, as it helps in recruitment of students. In another example, "Beyond Pin Stripes" highlights top schools incorporating environmental and social impact management into their MBA programs. Producing a sustainability report would help put Dartmouth on the list, which is currently occupied by many of Dartmouth's peer institutions.

A large part of sustainability reporting is sharing information in an open, transparent manner in order to build trust with an organization's stakeholders, improving reputation and brand recognition. Protecting the trust that is the basis of reputation can help accrue a competitive advantage over other universities.[12]

Exposure of Good Social Practices

As an elite educational institution that prides itself on its commitment to the community, Dartmouth has the opportunity to profit from the exposure of its social practices in a sustainability report. The commitment to the community is included as an essential element of Dartmouth's mission statement:

> "A commitment to sustain an academic residential community that cultivates and nurtures the social, emotional, moral, and physical well-being of its members…A recognition that its setting and location in northern New England offer Dartmouth unique advantages, special traditions, and ongoing obligations related to understanding our relationships to our community and to our environment." [13]

Sustainability reporting can highlight the "advantages and obligations" that Dartmouth offers to the community, specifically in four areas: employment practices, employee diversity, community service, and health and safety.

Employment Practices: Barbara Johnson, Acting Associate Vice President for Human Resources, said that Dartmouth performs far and beyond social regulations and already releases information on employee rights, benefits, management goals, and its commitment to hiring in the Upper Valley. Johnson has also been employed by Harvard University and adds that Dartmouth is "unrivaled" in its commitment to its employees and the community.[14]

Dartmouth prides itself on the convenience and friendly work environment that it provides to its employees, as well as offering highly competitive wages and benefits. The Office of Human Resources produces an Annual Report outlining Dartmouth's status as an employer,

emphasizing how Dartmouth strives to provide an effective, efficient, and favorable environment for employees. The report stresses the major yearly initiatives undertaken by the Office of Human Resources that are geared towards maintaining quality relations with employees. For example, employees are offered a choice of three benefit plans (Standard, Union, or Dartflex), which are presented by the Benefits Office through a new hire orientation meeting. Since 1966, Union employees and the College have had a superb strike/lockout-free relationship, which is secured and documented through the *Agreement Between Dartmouth College and Dartmouth College Employees' Union.*[15] By exposing these practices through reporting, Dartmouth will increase its reputation as an exemplary employer.

Employee Diversity: The Office of Human Resources has created a Recruiting and Diversity Initiative and summarized its goals in the Annual Report. Dartmouth is committed to recruiting faculty and staff from diverse backgrounds to promote the overall educational agenda of the College. As part of the initiative, Dartmouth will be featured as a "Select 50 Diversity Employers of Choice" in the magazine *Employment Review*, as well as in other media publications.[16] A sustainability report will allow Dartmouth to highlight its achievements in employee diversity.

Community Service: The Tucker Foundation offers a multiplicity of volunteer opportunities to the Dartmouth community, from cross-cultural programs in other countries to mentoring in Hanover. Although Tucker is the center for community service at Dartmouth, much more service probably goes undocumented and the contributions of the Dartmouth community are not always credited to the association with Dartmouth. Dave Newport, Director of the Office of Sustainability at the University of Florida, says that the University of Florida has benefited immensely from the creation of a Community Service Department that has established a system that attempts to document all service even *service which is* unrelated to the Department programs.[17]

Health and Safety: The health and safety of students, faculty, and staff is one of the College's top priorities. The Office of Human Resources has established a Communications Manager staff position which is devoted solely to facilitating "effective and consistent" strategies

for communications between employees. The Faculty and Employee Assistance Program provides all employees confidential, cost-free counseling services that address personal tragedy, financial issues, depression, drug abuse, anger management, family relationships, as well as other personal issues.[18] Dick's House, the campus infirmary, provides a similar service for students. Health Services also publicizes health prevention programs that inform the community of potential health hazards. Recent examples are the Severe Acute Respiratory Syndrome (SARS) advisory and information on Meningococcal Meningitis.[19] Safety and Security offers the community a number of free services that promote a safe atmosphere on campus. Some programs are the Escort Service, Workplace Violence Program, and the Rape Aggression Defense (RAD) Program.[20] A sustainability report that emphasizes Dartmouth's dedication to maintaining a safe, healthy community can further improve relations within the community.

2.2.2 Institutional Management

Sustainability reporting allows more efficient intra-institutional management. It streamlines communication between departments, facilitates idea sharing, helps manage existing sustainability initiatives, increases the College's adaptability, promotes community interaction and communication, and establishes a common language with which to communicate with other universities.

Streamlining Management and Intra-Institutional Communication

According to Paul Ligon, Tuck '03, "what gets measured gets managed." In other words, if an institution is not collecting data, it is difficult to manage itself in a way that is consistent with its mission and values. Reporting provides framework to identify an institution's areas of strength and weaknesses and assess what direction it needs to move to become more sustainable.

Eric Israel, a Partner at KPMG International, believes that intra-institutional communication is enhanced through reporting.[21] Information is readily conveyed between departments, as well as to administrators and other stakeholders. This would benefit Dartmouth because it would establish a standard and a language with which departments could exchange information on their goals and activities. Laurel Stavis, Vice President of Public Affairs, pointed out that there are times when without a standard method of reporting information, departments

do not have the means to fully disclose their activities. She brought up the point of community service. It would benefit departments to know how much community service is going on in other departments. As it stands, however, there is no way of measuring and reporting that every department shares.[22] Sustainability reporting would put the actions and goals of different departments and employees in a standard format from which everyone could benefit.

Additionally, sustainability reporting would streamline communication with other universities and research institutions. Reporting framework would provide a common language for diverse educational institutions to discuss sustainability issues and approach problems.

Managing Existing Sustainability Initiatives

Sustainability reporting provides an organization with the ability to compare its present data to past data to ensure that it is continuing to operate sustainably. Sustainability reporting is, therefore, the most effective way to monitor the progress of the initiatives mentioned under Section 2.2.1 of this report, "Dartmouth as a Leader in Environmental Practices."

Institutional Adaptability

What is sustainable now may change as the priorities and demands of Dartmouth's stakeholders change. According to Tim Lankford, President of Sustainable Asset Management, companies that manage from a sustainable perspective are in the best position to handle political, cultural, and market changes.[23] Managing a company, or in Dartmouth's case, an academic institution, from a sustainable approach allows it to be flexible in the event that regulations or social and cultural expectations change. PriceWaterhouseCoopers writes in their publication *Corporate Responsibility and Sustainable Business Solutions*, "investors, regulators, media, and pressure groups are scrutinizing corporate behavior closely."[24] There are changing demands on companies that will require institutional adaptability to retain the trust and investment of stakeholders. The same will be true of Dartmouth. Awareness of where the College stands socially, economically, and environmentally will allow for greater flexibility as society changes and stakeholder demands evolve.

Stakeholder Interaction and Input

By making its stakeholders more aware of the concept of sustainability and the goals that Dartmouth is pursuing, stakeholders will become more willing participants and may even provide ideas and innovations. Better educated stakeholders can help identify what the College wishes to sustain and can offer input for areas of improvement.[25] Bill Hochstin, Materials Manager in the Procurement and Auxiliary Services Department, says that much of the Dartmouth community has little knowledge of Dartmouth's success regarding sustainability. For example, most people are unaware that the College recycles its plastic bags directly with the manufacturer, reusing the plastic to make new bags, that it strictly controls and monitors all pesticides through an Integrated Pest Management Program, and that campus furniture is built with wood from the Second College Grant.[26]

Involving local community members in Dartmouth proceedings can improve the overall quality of life in the Upper Valley of New Hampshire and Vermont. Part of engaging the public is to provide it with a means of understanding how the College affects its surroundings. Public education can also help ensure broad support for sustainable activities in the surrounding community. A sustainability report can help dispel misunderstandings about economic and environmental actions taken by the College. As most of Dartmouth's staff, faculty, and students live in the community surrounding the College, improved communication with that community can only improve the well-being of those associated with the College.

2.2.3 Financial Benefits

Cost Reduction

Often, decreasing environmental impact can lead to economic savings. An example of this is Dartmouth's new printing system, Greenprint. According to Oliver Bernstein '03, despite the fact that equipment and program costs were quite high for implementing Greenprint on campus, ultimately, savings will occur over an extended period of time based on reduction of paper, toner, and labor. Bernstein pointed out that it is essential to examine the costs of implementing sustainable practices in the short run and the long run. He used the example of energy efficient dryers. Whereas over a period of ten years energy efficient dryers would save

the College money, it would appear as a major cost when balancing an annual budget. Bernstein pointed to the example of Greenprint to show how, presently, it is very difficult to convince College officials of the long term economic savings of sustainable practices. It took two years of research to implement Greenprint. Sustainability reporting would not only make the College aware of the various options that they have towards decreasing costs but it would also be a more comprehensive way of focusing on short term costs versus long term savings, which might make sustainable decisions more attractive.[27] The College has already implemented some of these cost saving measures. Facilities Operations & Management installed water conserving fixtures in the residence halls in 1998 that have reduced water consumption in the modified buildings by 17.5% and saved the college around $50,000.[28]

Revenue Opportunities

According to Dave Newport, Director of the Office of Sustainability at the University of Florida, GRI reporting (Global Reporting Initiative, see section 3.1.1) would provide a common language for Dartmouth to communicate with businesses about sustainability issues, thereby increasing the flow of research and consulting dollars to the College.[29] The productivity of the University of Florida's Office of Sustainability has been a tremendous benefit to the University. They are currently consulting on a GRI for a Brazilian mining company. In addition, they are beginning a related project to raise revenues and create development and consulting opportunities by launching a professional development series of courses this coming fall aimed at senior corporate officers. They will teach executives leadership principles and practices based on successful business models implemented by companies following a sustainability agenda. We believe Dartmouth can benefit similarly.[30]

The J. M. Huber Corporation demonstrates another opportunity that may arise from increased communication as a result of sustainability reporting. By reporting environmental indicators on company forestland, Huber obtained lucrative deals with The Nature Conservancy. TNC hired them to manage the St. Johns watershed land in Maine, then started a Conservation Capital Partners program in which TNC pays for conservation easements on Huber lands, compensating the company for the balance of forgone profit from more environmental forest practices.[31]

Thus, increased communication spurred by sustainability reporting may lead to revenue-raising opportunities for Dartmouth that are not otherwise available.

2.2.4 Risk Reduction

As a large institution with far-reaching impacts, Dartmouth is subject to a variety of risks. According to Ellen Arnold, Associate General Counsel in the Office of the General Counsel, these risks include, but are not limited to, "liability for personal injuries on and off campus, contractual liabilities related to everything from construction to research and grants, intellectual property infringement, environmental issues, employment and labor disputes, disability related issues, and compliance with Federal educationally related laws, Federal work place and national security laws."[32] Sustainability reporting is a proactive measure that can be employed to decrease some of these risks.

Preserving Research Partnerships

As businesses face increasing pressure to prove that they are acting responsibly, they must ensure that the universities to which they donate research money are sustainable and transparent as well, in order to avoid potential scandal. Adopting a sustainability report shows other institutions that Dartmouth is serious about sustainability, providing a safe haven for research dollars. Dave Newport, Director of the Office of Sustainability at the University of Florida, suggests that the value chain of businesses will begin to influence the research agenda and that universities will need to provide assurances that research will be done in a sustainable manner. As a result, research money will likely flow towards the universities that are transparent and sustainable. Furthermore, Newport states, "GRI reporting signals to potential corporate research clients that the University speaks their language and so better understands their problems. It has, in our case, been the opener with a corporation we wanted to court. Their GRI report and ours created a relationship that will bring money to the University of Florida."[33] Thus, by using sustainability reporting Dartmouth can benefit from greater opportunity to engage with corporations and gain an edge when competing for research money.

Avoiding Socially Irresponsible Investments and Decisions

Dartmouth needs to monitor its own spending practices and investments carefully to maintain their legitimacy. According to business consultant and Tuck MBA Paul Ligon, lacking awareness of the economic, social and environmental consequences of what one invests in can have a variety of negative consequences. For example, in the late 1980s, the issue of divesting in South Africa led several students to take over the president's wing for a sit-in that lasted several days at the University of Vermont.[34] Likewise, in 1985, Dartmouth students built shanties on the Green to express their disapproval of the College's investment in apartheid South Africa, resulting in a wave of negative publicity. In another example, a controversy over living wage issues caused a major controversy at Harvard University that lasted from 1999 to 2001. Outraged students engaged in a sit-in that lasted over five days in order to get college administrators to agree to a living wage for Harvard janitors. Students complained that more than 1,000 workers earned less than the $10.25 per hour that the city of Cambridge deemed a "living wage" for its employees in a 1999 ordinance. Students also demanded that Harvard decrease the number of workers it hires through subcontractors, a practice that students say allows the university to avoid paying adequate benefits.[35] Additionally, Paul Ligon noted that Yale has had several labor issues in the last few years centering on adjunct professors organizing a labor union.[36]

Dartmouth wants to avoid such situations. Sustainability reporting is an effective tool for monitoring the legitimacy of investment and social practices, which can help prevent disruptive costs and minimize negative publicity associated with socially irresponsible investments and decisions.[37]

Avoiding Regulatory Fines

Sustainability reporting can reduce the risk of regulatory fines. In 1999, the EPA launched the College and University Initiative.[38] As a result, many New England colleges have had to pay heavy fines, including University of Rhode Island ($800,000), Brown University ($500,000), University of New Hampshire ($229,000), Yale ($348,570), Boston University ($753,000), and MIT ($550,000).[39] Catherine Smith, an EPA senior enforcement counsel, said that many universities are having trouble adhering to environmental regulations, suggesting that one reason may be that "many university departments have great autonomy, and problems can

crop up with lack of accountability, money and training."[40] Sustainability reporting can identify these issues, allowing the College to rectify problems before the EPA fines are imposed. According to Mike Cimis of Dartmouth's Office of Environmental Health and Safety, the College was inspected in 2000 and several violations were found. However, Dartmouth was able to avoid fines by quickly coming into compliance. As Mike Cimis puts it, "Dartmouth dodged a bullet." The College may not always be so lucky. Subject to inspections from the EPA, the New Hampshire Department of Environmental Services, and other regulatory agencies, it would benefit Dartmouth to identify problem areas before they became a basis for fines.

In addition to catching potential violations early, sustainability reporting can also "be supportive of regulatory activities" and be used as "a lever with the agencies if there are violations in any area."[41] Nan Jenks-Jay, Sustainability Coordinator at Middlebury, said, "as a result of reporting, folks at EPA have told Middlebury how much they respect this effort and look to the college as a role model for others… In addition, when we discover minor failures with compliance, the state regulators are very willing to work things out with the college in a rapid and reasonable manner."[42]

Thus, reporting reduces risk both by staving off problems before they become fineable and by making an institution more amenable to cooperation with regulatory agencies.

2.3 COSTS

The costs Dartmouth could accrue from reporting fall into two categories: Monetary Costs of Reporting and Costs of Increased Transparency. The surest cost to be realized is the monetary commitment it would take to produce a report. The other costs are tenuous possibilities at best and are certainly outweighed by the benefits.

2.3.1 Monetary Costs of Reporting

Implementing a sustainability report would require a financial commitment for data collection and report authoring. This could be achieved either by hiring a new staff person or

arranging for a number of student interns to do the compiling. The specific costs of reporting are detailed in Chapters 4 through 7. Recommendations for how to evaluate the costs and how interns could handle compiling a report are detailed in Chapter 8.

2.3.2 Costs of Increased Transparency

It is possible that reporting could expose information that is contrary to the College's mission statement and goals. Revealing such information could have negative consequences, such as bad publicity. Voluntarily excluding information could be equally detrimental, because it could create a presumption of guilt.

Exposure of Social Practices

These concerns are especially salient in terms of controversial social indicators. Social indicators are much less developed and refined than environmental and economic indicators. According to Paul Ligon, social indicators more frequently involve "inherently sensitive issues" such as diversity and gender equity. Ligon gave the following as an example of a controversial social issue organizations face: "what is a 'living wage'? And can an organization afford to pay such a wage to all employees and remain competitive?" Ligon pointed out that many organizations are wary about making all of their social policies transparent because "it exposes them to undue criticism in an area in which there are limited (at best) mutually agreed upon standards."[43] However, in forcing itself to publicize its social indicators, Dartmouth will be able to respect and manage diversity, health and safety, and employment practices more effectively.

Exposure of Investments

If it were revealed that Dartmouth is investing in corporations that have practices that run counter to the values espoused in the College's mission statement, pressure to divest may hurt the College financially. Divestment is a "tremendously drastic decision" for a college or university, according to Treasurer and Vice President Lyn Hutton.[44] The decision to divest involves not only whether to continue to hold stock in the companies with ties to a controversial situation, but also whether or not to continue to use the products of those companies. As mentioned earlier, in 1985, Dartmouth students built shanties on the Green to express their

disapproval of the College's investment in apartheid South Africa.[45] Dartmouth's Board of Trustees did not decide to divest from South Africa until November 1989.[46] This is an example of a time when Dartmouth received negative publicity as a result of their investments. In this way, reporting could either act as a cost by exposing controversial investment practices, or as a benefit by aiding the recognition and elimination of these types of controversial investments and minimizing the associated disturbances.

Post Hoc Fines

It is also possible that Dartmouth could be subject to fines based on historical data. However, this is highly unlikely. In order to encourage the regulated community to engage in audit activities, EPA policy states that they will not routinely request audit documents. Rather, the participant is permitted to submit a "disclosure statement," which only provides the EPA with the information that the participants want to disclose. While the EPA retains the right to request information that would otherwise be accessible under current environmental regulations,

> "EPA's authority to request an audit report, or relevant portions thereof, will be exercised on a case-by-case basis where the Agency determines it is needed to accomplish a statutory mission, or where the Government deems it to be material to a criminal investigation. EPA expects such requests to be limited, most likely focused on particular information needs rather than the entire report, and usually made where the information needed cannot be obtained from monitoring, reporting or other data otherwise available to the Agency."[47]

Furthermore, EPA policy clearly states that, "EPA believes routine Agency requests for audit reports could inhibit auditing in the long run, decreasing both the quantity and quality of audits conducted. Therefore, as a matter of policy EPA will not routinely request environmental audit reports. The 1986 policy also acknowledges regulated entities' need to self- evaluate environmental performance with some measure of privacy."[48] Thus, the EPA appears to be largely supportive of reporting initiatives, and would be unlikely to use a sustainability report to levy fines based on historical data.

NOTES

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[33] Correspondence with Dave Newport, Director of Greening UF, University of Florida 5/5/03
[34] Correspondence with Paul Ligon business consultant and Tuck MBA ’03 5/8/03
[35] Stockman, Farah “Sit-In Turns to Live-In Over Wages at Harvard.” The Boston Globe 4/23/01
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CHAPTER 3:

OPTIONS FOR A COMMITMENT TO SUSTAINABILITY

3.1 REPORTING OPTIONS

Dozens of business, non-governmental organization, accounting, and government entities have launched reporting initiatives. It is important for us to identify these initiatives and determine the commonalities. In looking through these reports, we have noticed a significant overlap between the various reporting options. The overall vision is clear: there is a need to improve the accountability and overall performance of organizations by increasing the quality of social and ethical accounting, auditing, and reporting. We compare each reporting option to the Global Reporting Initiative (GRI), the most thorough reporting mechanism to date.

Reporting options reviewed:

- ◊ Global Reporting Initiative (GRI)
- ◊ Global Compact
- ◊ Global Sullivan Principles
- ◊ SA 8000
- ◊ AA 1000
- ◊ ISO 14000 Series
- ◊ OECD Guidelines for MNEs

Table 3: Comparing Reporting Options to the GRI

	Major Difference	*Major Similarity*	*Key Linkage*
SA 8000	SA 8000 is a workplace standard and verification system, while GRI is a disclosure framework for a range of issues that includes labor conditions.	Similar labor indicators that have the goal of using widely accepted principles for a just and decent working environment.	GRI provides organizations with specific indicators and an overall reporting structure for economic, environmental, and social performance. SA 8000 is a tool that organizations use to audit and track the progress of workplace performance.
AA 1000	AA 1000 is based on accountability principles and the process of social accounting and stakeholder engagement, while GRI is a disclosure framework based on reporting principles, characteristics, and indicators.	Emphasis on satisfying the information and decision-making needs of a full range of stakeholder groups.	AA 1000 provides a rigorous process mechanism for the stakeholder engagement that supports the development of sustainability indicators. GRI provides organizations with specific indicators and an overall reporting structure that is interdependent with stakeholder engagement.
Global Compact	GC is based on operating principles, while GRI is a disclosure framework based on reporting principles, characteristics, and indicators.	Voluntary efforts supported by the UN to promote corporate accountability and sustainability.	GRI provides GC supporters with an instrument to demonstrate accountability against GC's nine principles.
Global Sullivan Principles	The Global Sullivan Principles (GSP) is a set of ethical business operating principles, whereas the GRI is a disclosure framework based on reporting principles, characteristics, and indicators.	Voluntary initiatives recognized by the UN Secretary General as ways to promote social accountability and sustainability of corporate activities.	While the GSP has its own internal reporting system on company progress toward implementing the Principles, the GRI provides a framework for companies to externally report their overall sustainability efforts.
OECD Guidelines for MNEs	OECD Guidelines are based on operating principles, while GRI is a disclosure framework based on reporting principles, characteristics, and indicators.	Voluntary efforts providing guidance to organizations wishing to communicate their environmental performance.	GRI guidelines provide a mechanism for tracking how MNE practices comport with most of the OECD Guidelines.
ISO 14000	ISO 14000 addresses environmental management systems and practices, while GRI is related to economic, environmental, and social reporting principles and practices.	Consensus-based voluntary standards.	External environmental reporting by companies is referenced in general in the ISO 14000 series of standards (14001, 14004, 14031).

3.1.1 Global Reporting Initiative (1997)

The Global Reporting Initiative[1] was started in 1997 by the Coalition for Environmentally Responsible Economies (CERES) and became an independent entity in 2002. The GRI is endorsed by the United Nations Environment Program (UNEP) and works in conjunction with UN Secretary-General Kofi Annan's Global Compact. The GRI works to combine the active participation of representatives from multiple sectors, including business, accounting, investing, environmental, human rights and labor organizations.

The mission of GRI is to develop and disseminate globally applicable sustainability reporting guidelines. These guidelines are available for voluntary use by organizations to report on the economic, environmental and social effects of their activities, products and services. The guidelines include specific reporting principles to guide the presentation of a sustainability report and assist organizations in creating a balanced snapshot of their economic, environmental and social performance. The GRI promotes the dissemination of information in a structured format for ease of comparison between reports and serves as an instrument to encourage stakeholder engagement.

Since its creation, GRI has become a well-known sustainability reporting option. It is used by a variety of businesses, including Anheuser-Busch, Ford, McDonalds and Motorola. Recently, the University of Florida became the first university to complete the GRI. However, the GRI is neither a performance standard nor a management system. The guidelines instead support the assessment of sustainability through compliance with codes, performance standards, and voluntary initiatives. Though GRI does not certify reports, it does set out a number of criteria by which an organization can report "in accordance" with GRI.

3.1.2 SA 8000 (1993)

Social Accountability 8000 (SA 8000)[2] is a social accountability system developed by Social Accountability International (SAI). The core mission of the SA 8000 is to improve labor conditions around the world through a humane workplace standard and system for verification and public reporting.

SA 8000 is based on international workplace norms delineated in International Labor Organization conventions and the UN's Universal Declaration of Human Rights and the

Convention on the Rights of the Child. The standards encompass nine elements – child labor, forced labor, health and safety, freedom of association and right to collective bargaining, discrimination, discipline, working hours, compensation and management systems. SA 8000 has two levels of certification. Accredited auditors either certify companies to SA 8000 through audits or companies can progress to the SA 8000 Corporate Involvement Program, which focuses on implementing SA 8000 throughout the corporate supply chain.

SA 8000 began in 1993 and since then has certified facilities in thirty countries on five continents in twenty-two industries. Public reporting is a major component of SA 8000-certified facilities are listed on the SAI website and companies that progress to level two of the SA 8000 Corporate Involvement Program (CIP) release annual progress reports verified by SAI. The benefits of SA 8000 include benefits for consumers and investors (for example, the ability to purchase products from ethically conscious companies) and benefits for businesses (for example, enhancing brand and company reputation).

SA 8000 has an extremely narrow focus. It is aimed primarily at retailers, brand companies, and suppliers. For example, large companies such as Avon, Dole, and Toys "R" Us have used SA 8000. The standards are strictly social in nature as the indicators only pertain to the goal of a humane workplace. SA 8000 is not as applicable to Dartmouth due to this narrow focus and because the benefits of SA 8000 are more business oriented. However, SA 8000 could be used in conjunction with the GRI and most likely, if Dartmouth completed the GRI, it would easily be able to certify for SA 8000. Dartmouth also most likely meets the majority of the accountability standards through steps it has already taken to achieve a humane workplace, such as labor organization and compliance with Occupational Safety and Health Administration (OSHA) regulations.

3.1.3 AA 1000 (1999)

Launched in 1999, AA 1000[3] is an accountability standard designed to improve accountability and performance through stakeholder engagement. The core mission of AA 1000 is to improve the accountability and overall performance of organizations by increasing the quality of social and ethical accounting, auditing, and reporting

According to the AA 1000 website, the standards "do not prescribe what should be reported on but rather the 'how.'"[4] AA 1000 Assurance Standard is a new standard within the

existing core AA 1000 standards. It can be used in conjunction with other standards or by itself. The AA 1000 Assurance Standard is based on three principles. First, stakeholder engagement should be the center of accountability and accounting. Second, accountability is about "organizational responsiveness" or the extent to which an organization takes action regarding an issue. Third, AA 1000 states that this responsiveness requires the organization to learn and innovate effectively.

AA 1000 is aimed particularly at businesses, as it has a large focus on accounting practices. It has too narrow a focus for Dartmouth, as it does not address environmental concerns. Additionally, not all of the new series has been developed and tested at other institutions. However, AA 1000 was designed to be used in conjunction with the GRI guidelines, and thus, if Dartmouth completed the GRI, it would most likely certify for AA 1000. Despite the potential ease of compliance, AA 1000 is still largely irrelevant to Dartmouth – the standard was designed for corporations with faulty accounting practices and/or companies that do not publicity release enough relevant financial information.

3.1.4 The Global Compact (1999)

The Global Compact[5] is a United Nations initiative that promotes corporate responsibility by advancing universal values in business operations around the world. The Compact challenges business leaders to adopt and apply nine principles in the fields of human rights, labor standards, and the environment. The Global Compact principles derive from the Universal Declaration of Human Rights, The International Labor Organization's Fundamental Principles of Rights at Work, and the Rio Principles on Environment and Development.

The core mission of the Compact is to build the social and environmental pillars required to sustain the new global economy and make globalization work for all of the world's people, based on a commitment to universal principles. In essence, the Global Compact's mission is to expand economic progress and foster corporate responsibility, global citizenship, and institutional learning in addressing some of the globe's more intractable problems. In so doing, the Global Compact brings together on common ground multinational businesses and labor and civil society organizations in an effort to expand the benefits of economic globalization and stem its negative effects.

The UN Partners working with the UN Secretary General to implement the Global

Compact are the United Nations Environment Program (UNEP), the International Labor Organization, and the High Commissioner for Human Rights.

Human Rights

Businesses are asked to:

1. Support and respect the protection of international human rights within their sphere of influence;
2. Make sure their own corporations are not complicit in human rights abuses.

Labor

Businesses are asked to:

3. Uphold freedom of association and the effective recognition of the right to collective bargaining;
4. Elimination of all forms of forced and compulsory labor;
5. Effectively abolish child labor;
6. Eliminate discrimination with respect to employment and occupation.

Environment

Businesses are asked to:

7. Support a precautionary approach to environmental challenges;
8. Undertake initiatives to promote greater environmental responsibility;
9. Encourage the development and diffusion of environmentally friendly technologies.

The goal of collaboration is to embed the Compact's principles into day-to-day business operations while measuring and reporting performance using the GRI framework. Like many of the other reporting options, the Compact is intended for use by corporations and has not been used by institutions of higher education. Since this is a compact and not a reporting standard, the standards are sufficiently vague that Dartmouth already meets nearly all of the goals – the College already supports the protection of human rights, allows for labor organization and collective bargaining and has encouraged the development and use of environmentally-friendly technologies.

3.1.5 Global Sullivan Principles

The Global Sullivan Principles[6] is an initiative of the late Reverend Leon H. Sullivan (1922-2001), with support from a group of multinational corporations and a business association, to promote ethical business operations throughout the world, particularly in less developed countries. The Principles originated as the 1977 Sullivan Principles for South Africa, which greatly influenced business operations in that country, contributing to the eventual abolition of apartheid.

The Global Sullivan Principles' core mission is to promote ethical conduct in business by encouraging internal policy development and implementation to ensure support of human rights of employees and the communities in which companies operate. The eight Principles address protecting human rights, ensuring equal employment opportunities, recognizing freedom of association, providing educational opportunities, improving quality of life, creating healthy social and natural environments, prohibiting corruption, and encouraging adoption of the Principles by companies' business partners.

This voluntary initiative requires each endorsing company to report their progress on an annual basis. A letter signed by an official company representative must be submitted each year, describing progress within that year and activities planned for the next year to support the Global Sullivan Principles. In addition, an annual meeting is held to facilitate dialogue among companies and organizations supporting the Global Sullivan Principles.

The Global Sullivan Principles represent a standard for corporate conduct that focuses on less-developed countries, and consequently, the Principles are not particularly relevant to Dartmouth, or to higher education in general. As for the Principles that do apply to higher education, Dartmouth is probably already compliant.

3.1.6 The ISO 14000 Series

The ISO standards series was created by the International Organization for Standardization (ISO), a non-governmental organization composed of representatives from 146 countries. The goal of the ISO is to "facilitate the international coordination and unification of industrial standards."[7] From 1947 to the present, ISO has created over 13,000 standards. Of these, the ISO 14000 series is the best-known and most widely-accepted environmental standard.

The ISO 14000 series[8] emerged as a result of the Uruguay round of the General Agreement on Tariffs and Trade (GATT) negotiations and the Rio Summit on the Environment held in 1992. ISO recognized the need for environmental management standards and attempted to create a single standard to ensure that there would be no conflicts between different regional interpretations of good environmental practice.

The core mission of the ISO 14000 series is to provide voluntary environmental management standards to enhance companies' ability to manage environmental impacts and risks and improve environmental performance. The standards promote continual improvement without specifying actual standards of performance. Companies may use any or all of the ISO 14000 series standards. Within the series, ISO 14001, 14002 and 14004 focus on standards for environmental management systems, 14010, 10411 and 14012 are related to environmental auditing, 14031 focuses on evaluating environmental performance, 14020, 14021, 14022, 14023, 14024 and 14025 relate to environmental labeling, and 14040, 14041,14042 and 14043 are life cycle assessment standards.

ISO 14001 is the best-known standard and many companies register their environmental management system when it has been demonstrated to conform to the specifications provided in this standard. The ISO 14001 specifies requirements for:

- establishing an environmental policy
- determining environmental aspects and impacts of products/activities/services
- planning environmental objectives and measurable targets
- implementation and operation of programs to meet objectives and targets
- checking and corrective action
- management review

An environmental management system document is compiled in accordance with the ISO 14001 framework. This document allows a third-party auditor to understand the environmental management systems in place. Thus, ISO 14001 is a system of guidelines to which an organization must conform in order to achieve certification, differing from an environmental reporting framework such as GRI in terms of its objectives.

The ISO 14000 series' and ISO 14001's focus on environmental management makes it incomplete for Dartmouth's purposes, since the College is looking for a broader overall sustainability standard. The College does not currently conform to ISO 14001 standards, as it

does not have a written environmental policy. However, the Office of Environmental Health and Safety is currently pursuing the implementation of an environmental management system. That system could possibly be ISO 14001 certified in the future. Additionally, the College has programs that have environmental objectives and targets, as described in section 2.2.1. Dartmouth's participation in ISO 14001 and GRI-compliant sustainability reporting would be mutually beneficial. If Dartmouth were to complete the GRI, completing the ISO 14001 certification would be considerably easier since it would identify where the College may need to improve its environmental management systems. By certifying for ISO 14001, Dartmouth would be better able to improve the indicators reported in GRI, thereby reaping more of the benefits of reporting.

3.1.7 OECD Guidelines for MNEs (1976, Revised 2000)

The OECD (Organization for Economic Cooperation and Development) Guidelines for Multinational Enterprises (MNEs)[9] are the only comprehensive code of corporate conduct agreed to by multiple nations. They are part of a larger package of OECD instruments that seeks to improve the fit between business and society by clarifying the rights and responsibilities of governments and enterprises in the area of international business.

The OECD Guidelines' core mission is to encourage responsible business practices, strengthen relationships between governments and MNEs and enhance the contribution of MNEs to sustainable development. The Guidelines establish voluntary policies that promote corporate transparency and accountability worldwide, specifically addressing disclosure of material information, employment relations, environmental management, bribery, competition, consumer interests, and science and technology diffusion. Observance of the Guidelines is encouraged and facilitated by OECD member governments through National Contact Points (NCPs). NCPs are offices supported by each member country to gather information on experiences with the Guidelines and assist in solving problems. Internationally, this role is played by OECD's Committee on International Investment and Multinational Enterprises (CIME).

These guidelines were intended for MNEs as a code of corporate ethics and have not been applied to institutions of higher education. They are based on operating principles that are sufficiently vague with regard to specific indicators that Dartmouth already meets them, particularly the disclosure of information on labor relations. The foundations of the guidelines

and the nature of the principles make the OECD Guidelines not relevant to Dartmouth and other universities and colleges.

3.2 DECLARATIONS AND CHARTERS

Beginning in 1972 with the Stockholm Declaration, a number of declarations, charters and action plans have been adopted by various colleges and universities around the world addressing the role of these institutions in sustainable development. These declarations represent an effort to mobilize the resources of institutions of higher education to further the concepts and objectives of sustainability. Additionally, these documents serve as frameworks upon which colleges and universities are able to build action plans for sustainability efforts. Notable declarations include the Halifax Declaration, the Talloires Declaration, The Swansea Declaration and the University Charter for Sustainable Development. A multitude of colleges and universities have signed these Declarations, particularly the Talloires Declaration, such as Brown, Tufts, the University of New Hampshire, and the University of Virginia. Dartmouth has not signed any of these declarations.

Opinions on the success of the Declarations have been mixed. Though they serve as important frameworks for sustainability efforts and provide clear sustainability goals for colleges and universities, critics believe that they are largely used for public relations reasons, being set forth as examples of an institution's dedication to environmental sustainability. The Declarations' lack of specific indicators and precise language leads to a variety of approaches to compliance and therefore a variety of results.

Declaration and Charter options reviewed:

- ◊ HALIFAX DECLARATION, follow-up to the Halifax Conference on University Action for Sustainable Development held in Halifax, December 9-11, 1991
- ◊ TALLOIRES DECLARATION, adopted at the Tufts University European Center, Talloires, France, October 1990
- ◊ SWANSEA DECLARATION released at the conclusion of the Association of Commonwealth Universities' fifteenth Quinquennial Conference, University of Wales, August 1993, Swansea, Wales
- ◊ UNIVERSITY CHARTER FOR SUSTAINABLE DEVELOPMENT, 1993

3.2.1 The Halifax Declaration

The Halifax Declaration[10] was a result of a meeting of presidents and senior representatives of 33 universities (from ten countries, five continents) for three days in 1991. These individuals were attempting to take stock of the role of universities with respect to the environment and development. They were joined by a number of senior representatives from business, the banking community, governments, and non-governmental organizations. Meetings were sponsored by the International Association of Universities (IAU), the Association of Universities and Colleges of Canada (AUCC), and the United Nations University. The Halifax Declaration was released at the end of the conference. Dartmouth College is not a member of the IAU and therefore did not participate in the conference or sign the declaration.

Those present at the conference affirmed the need for universities to take part in creating a sustainable world. The conference took place prior to the United Nations Conference on Environmental Development (UNCED) meetings at Rio in 1992 and was focused on this as a crucial step toward sustainability. The declaration was written with the intention of being considered in conjunction with the Talloires Declaration. It outlines ways in which universities can contribute to the goal of sustainability, including cooperation between universities and segments of society and emphasizing the ethical obligation to overcome environmental unsustainability. (See Appendix G for full list of actions proposed).

3.2.2 The Talloires Declaration

Composed in 1990 at an international conference in Talloires, France, the Talloires Declaration[11] is the first official statement made by university administrators of a commitment to environmental sustainability in higher education. Over 275 university presidents and chancellors in over 40 countries have signed the declaration. Even though the declaration was written in 1990, colleges and universities are still signing on and the current number of signatories stands at 293, including 80 in the United States.

The Talloires Declaration is a ten-point action plan for incorporating sustainability and environmental literacy into teaching, research, operations and outreach at colleges and universities. The declaration is considered an historic document, linking together an

international network of colleges and universities committed to a sustainable future. It aims to be an inspiration and motivation for colleges and universities to pursue environmental and sustainability initiatives and constitutes a commitment to which an institution can be held accountable. The Declaration's recommendations include the establishment of programs in all major disciplines to teach about the environment and sustainable development and encourage multidisciplinary thinking in programs.

In recent years, Dartmouth students have pushed the administration to sign the Declaration. However, President Wright felt that Dartmouth should achieve the statements of the Declaration before signing it. Dartmouth lacks sufficient environmentally-focused community outreach and collaboration between faculty and environmental practitioners, two of the recommendations proposed by the Declaration (See Appendix G for full list of recommendations).

3.2.3 The Swansea Declaration

Written in 1993, the Swansea Declaration[12] is a framework for sustainable development among the Association of Commonwealth Universities (ACU) across Europe (400 universities, 47 countries) and inspired by the Halifax and Talloires Declarations. Membership comprises over 480 universities drawn from the Commonwealth countries of Africa and Asia, Australasia and the South Pacific, Canada and the Caribbean, the United Kingdom, Cyprus and Malta. The idea of sustainable development was a fairly new concept for universities in 1993, and the Swansea Declaration sought to lay out an action plan for these universities to become educated and aware of their role in the environment.

The underlying philosophy of the declaration is that universities have a major responsibility to help societies shape their present and future development policies into the sustainable and equitable forms necessary for an environmentally secure and civilized world. The Swansea Declaration provides a checklist of ten actions that each university should be doing or trying to do, including urging universities to seek, establish and disseminate a clearer understanding of sustainable development, and to utilize the resources of the university to encourage this clearer understanding (See Appendix G for full checklist of actions).

3.2.4 University Charter for Sustainable Development

The University Charter for Sustainable Development[13] was introduced and presented to the Association of European Universities (CRE) biannual conference in Barcelona in the autumn of 1993. Two years later, the document had been endorsed by the personal signature of the rectors of 213 universities in Europe. There are no American universities committed to this agreement. The charter was created at the same time as the Swansea Declaration and applies many of the same ideas as far as the role of universities and their commitment to environmental literacy and the promotion of the practice of environmental ethics in society.

The Charter expresses a collective commitment on behalf of a large number of universities. Like the Swansea Declaration, it delineates ten principal actions, including incorporating the environmental perspective into all university education and simulating and coordinating integrated, multidisciplinary and collaborative research projects on environmental issues (See Appendix G for full list of principle actions).

3.3 SURVEY OF OTHER SCHOOLS

Many institutions of higher education have recognized the importance of sustainability, and several have attempted to report on sustainability. Included here are summaries from five schools that have completed a sustainability report of some type. The descriptions provided are intended to convey the range of reporting being done by other institutions of higher learning. These reports range from comprehensive catalogues of university practices to simple discussions of how sustainability can begin to be incorporated into college and university life. For example, the University of Florida is the first school to have completed a GRI-compliant report and thus is a leader in campus sustainability reporting (see section 3.1.1 for an overview of GRI). Not all efforts have been as comprehensive and several of these reports come from within the academic departments of institutions rather than the administration of the institution. Here we review the approaches taken by the University of Florida, the University of Michigan at Ann Arbor, the University of Vermont, Tulane University, and Williams College.

3.3.1 University of Florida

Greening UF

The University of Florida has emerged as a global leader by being the first university to publish its own GRI-compliant report, Greening UF[14]. Modifications to the GRI Reporting Guidelines were made where necessary in order to accommodate a university setting as opposed to a business organization. Irrelevant indicators were omitted and additional indicators were added to address educational aspects. The final report generally shows continuous improvement; environmental and economic performance indicators are mostly positive, while some key social indicators show negative trends.

University of Florida's Sustainability Task Force

In 2001, the University of Florida established a Sustainability Task Force comprised of thirteen members, including academic units, the student body, administrative affairs, auxiliary units, and the community, with the goal of submitting the University's sustainability report within a year. After submission, the Task Force would also be expected to monitor and report on the development of policy and practices implementing their recommendations, as well as to provide public forums for interested campus and community members. The final report was submitted in July of 2002 and the Task Force will continue to develop a detailed implementation plan until their term ends in 2004. Plans for a future report do not exist at the moment. The mission of the Sustainability Task Force is fourfold:

1. To review UF's assets and deficits relative to advancing sustainability in the areas of research, education, campus operations, and community outreach;
2. To facilitate communication of UF's sustainability initiatives and their benefits to the campus and community;
3. To survey global institutional trends towards sustainability and identify UF's best niche(s) or role(s) in that movement, and;

4. To make recommendations to the President and the Faculty detailing specific actions and resources required to make the University of Florida a global leader in the field of sustainability.

Greening UF recommends principles and practices that would make the University of Florida a global leader in sustainability. The Task Force analyzes UF's position in a global sustainability context and offers recommendations to ensure that the sustainability minimum standards are being met, including: initiatives that can elevate UF's standing and funding for sustainability-related research; reduced operational costs through innovative sustainable practices; practices relating to increased campus sustainability and its integration with educational and research programs; increased attention to campus climate and campus-community interactions; and associated changes in UF's mission and organizational structure.

3.3.2 University of Michigan- Ann Arbor

Prototype Sustainability Report

The University of Michigan-Ann Arbor prototype sustainability report[15] was compiled by four graduate students as part of a master's project in 2002. The report had support from the Center for Sustainable Systems. The scope of the report focused on only the Ann-Arbor campus, in particular "all University-owned and operated land and infrastructure within the city limits of Ann Arbor that is utilized primarily by University faculty, staff, or students."[16] The idea of a triple bottom line (economic, environmental, social) was recognized by the report, but while the GRI was mentioned in the introduction, it was not used. The report was instead written using its own set of indicators. It is similar in form to the fragmented implementation of the GRI (see section 3.4) in that there is not much integration between the three elements, full data is not provided under each heading, and it has the most data on environmental and the least on economics. The project was designed to provide the University with a framework for assessing and reporting the performance results of its sustainability efforts in the present and future. Currently efforts are being made to improve, evaluate and comply with the recommendations prescribed in the report but there are no definite plans for a follow-up report.

3.3.3 University of Vermont

Environmental Report Card 1990-2000

The report card[17] tracks the University of Vermont's *environmental* impacts with indicators encompassing land and water use, energy and air pollution, solid and hazardous wastes, and academics and culture. It describes university policies, best practices, community concerns, and next steps for greening the university. To lay the groundwork for the future, the UVM Environmental Council has begun tracking their progress as an environmentally responsible institution in key areas. In some cases, the indicators show considerable progress toward a sustainable vision, and in other cases, indicators point to gaps in data or areas for improvement. These quantitative measures can serve both as a history of the last ten years of effort and as a baseline for evaluating future progress.

The central question of the report asks "are the daily operations of the university creating more or fewer environmental impacts than in 1990?" The purpose of the report was defined by four ideas:

- Establish a set of measures to track the environmental impacts of the university in consultation with the campus community of Burlington
- Identify university programs that have reduced environmental impacts
- Stimulate discussion on the campus and in the Burlington community about the progress made so far and future actions the university could take
- Share findings with the larger community of higher education

The report shows connections among environmental impacts, the activities that create these impacts, and programs that have been and could be established to reduce the negative impacts of UVM's activities. Major findings and recommendations are compiled in three sections: land and water use, energy and air pollution, and solid and hazardous waste. Each section also contains a resource map, campus resource use, trends, UVM programs and best practices and community comments and next steps. No plans for further reports exist at the moment, but UVM has created a campus-wide environmental policy and plan.

3.3.4 Tulane University

Environmental Reporting Project

Tulane is a large urban university comprised of eleven colleges. It has multiple campuses, the central campus being the 110-acre uptown campus. It has 12,381 students, including 7,522 undergraduate students. Tulane has two sustainability-related reports. The first is a report card type report and the second is an analysis of the previous report and discussion of completing an ISO 14001 Aspect Analysis Report.

Environmental Sociology Audit Project

The first report is called an "Environmental Sociology Audit Project" and was completed in 1997 by an environmental sociology class. It focuses specifically on environmental indicators and examines a number of areas, including curriculum, lighting, hazardous and medical waste policies, student environmental consciousness, and food services among others. The Tulane report includes specific numeral data relating to these indicators and can be classified as a fragmented GRI (for a definition, see section 3.4). The scope of the project is unclear and it appears that the report has not been completed on an annual basis.

ISO 14001 Aspect Analysis

The second document relating to sustainability at Tulane is a presentation on an ISO 14001 Aspect Analysis[18]. The presentation discussed what had been completed in the previous report (discussed above), including the limitations of the report, and it concluded that a new environmental analysis should be conducted at Tulane, specifically recommending the completion of an ISO 14001 Aspect Analysis. However, it appears that a report was never completed or has not been released to the public, and as of now, there are no plans for future reports or analysis.

3.3.5 Williams College

Campus Sustainability Project

Williams's report[19] does not conform strictly to the GRI guidelines, as it does not include any economic or social indicators. The report neither conforms to GRI environmental indicators

such as materials, energy, and water, nor does it contain any data pertaining to environmental indicators. Instead, the report discusses several segments of the Williams community based on four criteria. The segments covered in the report are building purchasing; dining services; academic departments; administrative offices, classrooms and labs; and research facilities and studios (hazardous materials). The first criterion is a discussion of the meaning of environmental sustainability to the segment. This is followed by the development of a research methodology for investigating the current status of sustainability in each area. The third criterion is a discussion of the existing sustainability efforts in each area. Finally, the report suggests strategies for each segment to implement.

The purpose of the Williams paper was not to follow the GRI guidelines or another reporting option. It was to create a "working paper" to serve as a starting point for interested parties to discuss campus environmental sustainability. The recommendations made in the report are currently being followed up on, but there is no proposal for another report to be implemented. The paper is relevant to sustainability at Dartmouth, as Williams and Dartmouth are both small rural schools that do not have a large graduate student population. However, the Williams report should not be weighed as heavily since it does not conform to any GRI or other reporting standards.

3.4 OPTIONS FOR DARTMOUTH: VARIATIONS ON THE GRI

Sustainability reporting within institutions of higher learning has become increasingly paramount within past years. Accountability of ecological, social and economic factors, provided by institutions and corporations is essential to holding these factions responsible for their external effect on the surrounding environment. There are numerous accountability reports, declarations for sustainable development, and individualized reports provided by schools already leading the way for a sustainable future. The problem, however, lies in the fact that there is not a universal framework for colleges and universities to use for comparison. Those that do exist are meant for business corporations and do not include aspects needed for higher education. In this sense, Dartmouth College has the opportunity to be a global leader in sustainability reporting.

Despite advances in standardized reporting by the Coalition for Environmentally Responsible Economies (CERES), there was still a great demand for a uniformly accepted standard. With this in mind, CERES created the Global Reporting Initiative (GRI) in 1997. GRI

has emerged as a leader among reporting options for several reasons. First, GRI is governed by a committee comprised of stakeholders from different sectors, including economic, environmental, social and accounting interests. Second, it is endorsed by the United Nations. Third, GRI attempts to go above and beyond the traditional reporting concerns. Finally, GRI emphasizes its standardization – its greatest and most prominent asset.

The University of Florida is the first school to use the Global Reporting Initiative (GRI), which addresses specific "indicators" that can be used as reporting metrics. Modifications to the GRI Reporting Guidelines were made when necessary in order to accommodate a university setting as opposed to a business organization. Irrelevant factors were omitted and additional indicators were added to address educational aspects. If Dartmouth follows the same overall format, this would encourage other institutions to adhere to the same sustainability reporting framework and allow a basis for comparison.

If a full adoption of the GRI is deemed too costly there are other options for sustainability reporting at Dartmouth. The creators of the GRI understand that it can be difficult for institutions to adopt a full report immediately and have provided options for incrementally working towards a full adoption of their framework. One option for Dartmouth to consider is the Fragmented report. Typically, the organization choosing this option has some systems for data collection in place, but has little integration across the indicators and/or lacks full data on some core indicators. In this option only indicators for which data is readily available are included.

Another option is to complete a full GRI report minus the Education Indicators. The Education section reported on in Chapter 8 is not part of the official GRI guidelines. This section was invented by the University of Florida to capture elements of higher education sustainability that are not included within GRI's business oriented scope. Dartmouth could leave out the Education Indicators and still be in accordance with GRI.

A third option of how to address meeting the GRI guidelines is to do a full report but focus on a more limited scope. A discussion of scope is included in the introduction to chapter four. Dartmouth could choose to narrow the scope of the report to only the four schools if full adoption on a larger scale is determined to be too difficult.

Yet another way to approach incremental adoption of the GRI would be to complete only the Environmental Indicators section. Other schools such as the University of Vermont have

produced reports focused solely on environmental issues and the adoption of GRI's Environmental Indicators would be a similar step.

A final option for Dartmouth is to create their own indicators to report on, perhaps by combining elements of SA 8000 and ISO 14001. This is similar to a report such as the one prepared by graduate students at the University of Michigan. A customized report could still integrate elements of the triple bottom line but the indicators could be tailored to meet the information already available. The relative advantages of these various reporting options are discussed in the Chapter 8 recommendations.

NOTES

[1] http://www.globalreporting.org/
[2] http://www.cepaa.org/
[3] http://www.accountability.org.uk/
[4] http://www.accountability.org.uk/
[5] http://www.unglobalcompact.org/
[6] http://globalsullivanprinciples.org/
[7] International Organization for Standardization, http://www.iso.ch/iso/en/aboutiso/introduction/index.html
[8] http://www.iso.ch/
[9] http://www.oecd.org/
[10] http://www.unesco.org/iau/sd/halifax.html
[11] http://www.ulsf.org/programs_talloires_td.html
[12] http://www.acu.ac.uk
[13] http://www.copernicus-campus.org/
[14] Newport, Dave and Chesnes, Thomas "University of Florida Sustainability Indicators Report", University of Florida, 2001.
[15] Rodriguez, Sandra; Roman, Matt; Sturhahn, Samantha; and Terry, Elizabeth, "University of Michigan Ann Arbor Prototype Sustainability Report" Master Project for University of Michigan, 2002.
[16] Rodriguez, 2001.
[17] Thompson, Gioia, "Tracking UVM: An Environmental Report Card for the University of Vermont for the Years 1990-2000", 2002.
[18] Hirsch, Barry "ISO 14001 Aspects Analysis", Tulane, 2001.
[19] Sarkis, Anthony and Williams College ENVI-12 Class "Campus Environmental Sustainability Course Project and Working Paper", Williams College, 2002.

PART II:

DATA-RELATED COSTS OF SUSTAINABILITY REPORTING

INTRODUCTION

The second part of this report details the availability of data required to develop a comprehensive sustainability reporting framework at Dartmouth. Our two touchstones are the Global Reporting Initiative (GRI) and *Greening UF*, the University of Florida's sustainability report based on the GRI-- the only existing template to date of the GRI applied to a college or university. *Greening UF* is used in chapters 5 through 7 as a baseline for the minimum that Dartmouth would have to do to comply with the GRI, as most of the data for the indicators reported by the University of Florida was readily available. We feel that Dartmouth would benefit from more in depth reporting, however, thus enabling the report to be used internally as a resource for change as well as externally as a measure of comparison against other schools. . The idea of the University GRI is an evolutionary process in its beginning phases; the important factor is that the seed has been planted, but we should not be satisfied with fulfilling only the minimum standards of compliance.

The GRI lists specific "indicators" within its three subdivisions based on the conventional model of sustainable development and the triple bottom line: the economy, the environment, and the social sphere. In order to make these indicators more applicable to Dartmouth's structural framework, many of these categories have been further subdivided and opened up to interpretation; in some sections entire categories have been added that pertain to Dartmouth. For each indicator, information is provided as to availability, including the estimated time input to gather the data. Spreadsheets are included in Appendices A through D in order to provide this information at a glance, detailing the availability of the indicator in question, the office or source of information, and the estimated time input.

Based on the University of Florida's model, we have also included a section on Education Indicators. This follows the Social Indicators section and details areas that are specific to institutions of higher education.

The GRI also calls for Integrated Indicators. These help to locate the state of an institution's practices within a meaningful context. These are subdivided into two types, Cross-Cutting and Systemic indicators. Because each institution is distinct, and GRI is intended to apply to different organizations, there is no set list of Integrated Indicators. A step not covered in this report is to define a relative context for the report, and to make a list of these indicators. If a GRI report were to be done for Dartmouth, the next step would be to identify and articulate

these Integrated Indicators. The data to do so would already be available in the Economic, Environmental, or Social indicators sections.

Ultimately, we conclude that the Global Reporting Initiative is a good start for sustainability reporting at Dartmouth. If Dartmouth should choose to report using a framework other than the GRI, it still serves as a good starting point for data collection. As the most comprehensive framework, it provides the best foundation, and the college could chose not to report on all of the indicators. Some of these required indicators are not entirely applicable to Dartmouth as an institution of higher education, as the GRI was designed for reporting among corporations. Other indicators we have deemed worthy of disclosure are missing from the existing GRI framework and have been added in the following chapters. As far as the future of a university GRI is concerned, flexibility to account for these discrepancies among institutions will need to be built into the framework.

An important consideration in determining a reporting mechanism is scope. Dartmouth College is comprised of the Tuck School of Business, Dartmouth Medical School, the Thayer School of Engineering, and the College of Arts and Sciences. While this provides some definition to what that is and is not within the boundaries of this report, there are many areas that remain ambiguous. Initially, we planned to determine the scope of the report based on what is included in the College's annual report. While this provided a good starting point, it was not clear enough. One of the implications of sustainability reporting is the necessity of looking at an institution's effect on the community, meaning that Dartmouth needs to be defined in a broader sense. To ignore the property that Dartmouth owns in Hanover would be to ignore a major impact of the College on the community.

For the purposes of this report, we have defined Dartmouth to include the four schools of the College and properties directly managed by Dartmouth. This includes most of its real estate in Hanover, while excluding the College's holdings that are considered to be investments. This interpretation of the scope of Dartmouth makes sense in terms of both available data and the purpose of the report. In order to make the report more complete and credible, it is important to think about how far Dartmouth extends into the community. The data for the four schools and managed properties is fairly accessible and helps show the College's impacts in Hanover and the surrounding communities. Depending on how Dartmouth is defined, some data may become easier or harder to find. Broadening or narrowing the scope would change the implications and

scale of the report. Narrowing the scope might be a way to decrease costs involved with the project. Focusing on just Arts and Sciences, or excluding the real estate managed by the college, might be options for narrowing the scope and decreasing the costs of reporting. Regardless of the scope that is selected, the GRI would still be the suggested method for data collection and reporting.

Chapter 8, following the indicator chapters, presents the relative feasibility of this reporting option and others in a final recommendation to the College.

CHAPTER 4:

Economic Indicators

4.1 INTRODUCTION

The Economic Indicators provide an assessment of Dartmouth's economic impact on its stakeholders, whom this section defines as students, college employees, the local community, and the communities in which students reside after graduation. The thirteen indicators that follow are divided into only six sections in the Global Reporting Initiative (GRI): Customers, Suppliers, Employees, Providers of Capital, Public Sector and Indirect Economic Impacts. Since it was originally designed for commercial firm use, the GRI often appears ambiguous in its application towards an institution of higher education. In order to make the structure of the GRI more applicable to Dartmouth College, each Economic Performance Indicator has been broken down into more specific components than those enumerated in the GRI. To analyze the costs and benefits of conducting a sustainability report, data availability was reported for each of the listed indicators. Where appropriate, the corresponding spreadsheets (found in the Appendix) include columns of "Estimated Hours to Acquire Data" in order to provide a detailed quantitative assessment of data availability. The following sections contain an interpretation of each indicator, a general description of the information collection process, and individual recommendations for each indicator based on data availability and collection costs.

4.1.1 Relevant Offices and Contacts

The following chart summarizes the list of relevant contacts we spoke with regarding the economic indicator section.

Table 4: Economic Indicator Contacts

Abbreviation	Office	Contact (title)
OHR	Office of Human Resources	Barbara Johnson, Director
OIR	Office of Institutional Research	Larry Litten, Director
ODA	Office of Development Administration	Rita Johnson, Deputy Director
	Tucker Foundation	Jan-Roberta Tarjan, Associate Dean

OFIN	Office Fiscal Affairs	Julie Dolan, Vice President for Fiscal Affairs
OPRO	Office of Procurement Services	Gregory Husband, Director
OPR	Office of Public Relations	Kate Burke, Director
ORE	Office of Real Estate	Paul Olsen, Director
	Office of Sustainability, University of Florida	Dave Newport, Director
	Tuck MBA	Paul Ligon, business consultant

4.1.2 Data Formatting Summary

Much of the data included in the Economic Indicators is collected by different institutional branches of the College and compiled within a variety of different databases. As often as possible we broke down the GRI according to the organizational structure already present in these documents. Also, the financial statement directly correlates to several indicators, and therefore the data is directly transferable. The data formats included in our section are: IPEDS excel data from the Provost's Office and the Oracle Financial database from the Procurement Office; most of the basic financial data exists in MS Excel, which is used in several offices. The two data systems' accessibility and GRI-specific format is outlined below.

IPEDS (Interagency Postsecondary Education Data System)

This data system is complete with information Dartmouth sends to the Federal Government annually. The data is organized within Excel spreadsheets and is available on-line with an Institutional ID number. The Provost's Office has access to this system and can view Dartmouth's information as well as compare the College's figures to those of other institutions. The on-line version of the system lags about a year and a half behind, but the data also exists in hard copy form in the office of the Provost, dating back to the mid 1990's. According to Larry Litten, Director of the Office of Institutional Research, "getting a single year's data takes about 10 minutes. Training to do it could be done in about 15 minutes."[1]

Oracle Financial Database

The Office of Procurement maintains the Oracle Financial database, which contains all purchases made with contracted vendors going back to the late 1990s. Procurement has technicians who can write the necessary computer commands to extract requested data, and it generally does not take more than a few minutes to run each command.

4.2 CUSTOMERS

EC 1. Net Sales

Total Income or Revenue for the Reporting Organization

The Customer section is broken down into two measures, the first of which is the monetary indicator Net Sales. For an educational institution such as Dartmouth, this is more accurately described as Net Income. The total income for the College is provided in the annual financial report. *"Greening UF,"* the University of Florida's GRI-based sustainability report, provides only this total number in its Net Sales section. However, we feel that Dartmouth would benefit from a more in depth look at the various streams of income, thus we broke the total figure down according to the specific source of income from each "customer" of the institution. Included in *Greening UF* "Revenues" indicator is a graph of total income from 1990-1999 and another graph summarizing private money by source over the same time period. While this seemed appropriate for UF, a public institution, we chose to expand on this information in order to accommodate specifically the data for Dartmouth, a private, non-profit institution. Total income is broken down into three sources for UF: Student Fees, State Appropriations and Other. Because Dartmouth is a private institution, it does not receive any state funds; however, many of the sources included in "other" are similar to some of Dartmouth's breakdowns, such as grants, contracts, and gifts. Private money by source is also very applicable to Dartmouth and is included in our chart for Net Income.

We met with Larry Litten, Director of the Office of Institutional Research, who provided us with the information used in the Net Sales section of the Excel worksheets in the appendix. The information is identical to what Dartmouth submits as revenue data to the federal government through IPEDS (Interagency Postsecondary Education Data System).[2] This

classification of incoming funds combines general numbers from the financial statement with supplementary broken-down information, both of which sets of data are compiled in the process of obtaining the total figure. Organizing the information in these categories not only provides an indication of scale for stakeholders but also allows for the comparison of different educational institutions. The last vertical column, titled "All Other College," includes income that is not split between the undergraduate and graduate Arts and Sciences. Julie Dolan, Vice President, Office of Fiscal Affairs, recommended we add this column, which includes everything but tuition and other fees (i.e.: gifts, donations, endowment, etc.).[3]

The economic indicators included in the GRI have two main purposes: bridging the gap between the reporting organization and the stakeholders and measuring scale in comparison to similar reporting institutions. The total income figure is useful in conveying questions of scale; however, the above breakdown of the total income figure presents the information in a more straightforward and comprehensive way. It enables the stakeholders to understand what is included in this figure, as well as to view Dartmouth College in the context of its institutional peers. An examination of the broken-down numbers also enables the institution to see needed improvements as well as the original direct sources of income.

EC 2. Geographic Breakdown of Markets

For each product or product range, disclose national market share by country where this is 25% or more. Disclose market share and sales for each country where national sales represent 5% or more of GDP.

Also under the heading of Customers, the GRI's second monetary indicator demands a "geographic breakdown of markets," as stated in the GRI and defined above. These guidelines pertain more specifically to a multinational corporation than to an educational institution, thus we adapted specific measures useful to Dartmouth. This section did not appear in *Greening UF*, thus we developed a new framework.

Diversity is a major concern at Dartmouth, with the College attracting students from all over the world. The "Customers" are individuals who are paying for the products (or education) that Dartmouth is providing, which includes students and others who give financially to the College. This information should be comprised mostly of tuition dollars and other major gifts or donations, organized by region. According to Larry Litten, Director of the Office of Institutional

Research, "Dartmouth can obtain these data from the student information systems by country of citizenship and can aggregate the data by region or list the top X countries. We can do it for each school. It will take .5-2 hours depending on the ways we have to aggregate data."[4]

We also talked to Rita Johnson, Deputy Director, Development Administration, concerning gifts and donations and whether or not Dartmouth tracks their sources geographically. Dartmouth has undertaken a new campaign, reporting two "giving by region reports" which will be put into use starting September of 2003. "Giving" as it relates to this campaign is considered to be not only financial donations, rather, any gift or pledge payable over five years. According to Johnson, one of the reports will tally "giving" to campaign priorities (e.g. professorships, financial aid, facilities, etc.) by region, and the other will tally "giving" by constituencies and region (e.g. alumni, parents, friends, corporations, foundations, etc.). By September of this year, Dartmouth will be able to examine the origin of the majority of the money in tuition dollars and in gifts and pledges. This will show the financial impacts of the institution.[5]

4.3 SUPPLIERS

EC 3. Costs of all Goods, Materials and Services Purchased

Total value of all expenditures excluding investments, payroll, and retirement payments

This is the first and major indicator for the Suppliers part of the GRI's economic section. GRI compliance simply requires a single dollar value representing the institution's total expenditures, excluding investments, payroll, retirement, etc. Calculating the amount of money Dartmouth spends on everything from paper plates to oil for the power plant falls under the purview of Greg Husband, Director, Office of Procurement and Auxiliary Services.[6] His office has a wealth of data going back at least five years, all in one or two Oracle Financial databases. Thus, minimal compliance with GRI for this indicator can be easily achieved.

In order to make a sustainability report helpful at Dartmouth, however, we broke this indicator up into a variety of categories: locally-sold and non-locally-sold, compostable and non-compostable, recyclables and non-recyclables, reusables and non-reusables. (Husband suggested we include the final category of small, minority- or women-owned businesses in the list.) The

Procurement Office has the ability to categorize data by the four schools as well as by Facilities, Operations and Management, Dartmouth Dining Services, or any other major administrative unit. Thus, if one wanted to know how much money was spent by the Dana Medical School, or DDS, on only goods, services and materials sold to Dartmouth in Hanover or in New Hampshire, Procurement can have that data within the day. We were told that it would even be possible to differentiate the amount spent to suppliers owned by African-American women as opposed to Asian-American women. Thus, deciding which of the myriad data to report may be trickier than obtaining it.

All of the information available at Procurement is from the major contracts Dartmouth has signed with its thousands of suppliers from whom the College purchases goods and services. Small and off-contract purchases would be practically impossible to track. For any of Dartmouth's major contractors, however, requests can be made by Procurement to the contractor for information regarding how much money was spent on recycled goods, or compostable materials. Such data is most easily gathered contractor by contractor. However, aggregate data could also be obtained. For example, this might be done by first identifying the Thayer School's ten largest suppliers and then contacting them about a specific category of goods, services or materials. Nonetheless, Procurement generally has very powerful databases and there are few limitations on deciding if and how to disaggregate these costs. We have offered only a general vision of how Dartmouth might go about reporting these costs, but some other organization might end up being more appropriate. We felt, though, that a commitment to sustainability at Dartmouth includes at a minimum an increased awareness of dollars spent in an environmentally and socially responsible way.

EC 4. Percentage of Contracts that Were Paid in Accordance with Agreed Terms, Excluding Agreed Penalty Arrangements

Terms may include conditions such as scheduling of payments, form of payment, or other conditions. This indicator is the percent of contracts that were paid according to terms, regardless of the details of the terms.

This indicator is testament to the recurring issue that the GRI was developed for multi-national companies, not institutions of higher learning. EC 4, like the other Supplier indicators, falls under the purview of the Procurement Office. Greg Husband, Director, confirmed our

sentiment that Dartmouth fulfilled 99%-100% of its contracts.[7] If this number was lower, than we would suggest breaking it down to see in what sectors contracts are not fulfilled. As the case is, minimal compliance with the GRI is all we recommend for Dartmouth to report in regards to this indicator.

4.4 EMPLOYEES

EC 5. Total Payroll and Benefits

Includes wages, pension, and other benefits.

Satisfying this indicator will provide information on Dartmouth's economic impact on its employees. We looked at *Greening UF* and once again considered it to be a baseline for GRI compliance. The University of Florida had two graphs relevant to EC5, the first of which showed accrued salaries and wages paid by the University for each year from 1994 to 1999. The second graph was accompanied by a table and showed the gain and loss in jobs for the University, broadly broken up by job type for each year from 1995 to 1999. To provide an accurate assessment of Dartmouth's expenses on its employees, we felt that this indicator in Dartmouth's GRI report should be substantially more detailed. We broke up the indicator into the following categories: number of employees, expenditures on salary, hours of training provided, and benefits. In addition to reporting aggregate expenses, we thought that the information would be more useful if it was reported for different types of Dartmouth employees, thus we divided them into these types: administration, students, professors, staff, and retirees. The Acting Vice President, Barbara Johnson, Human Resources, suggested that it is possible to further break down the sections of Dartmouth employees by differentiating between tenured and non-tenured professors and between salaried and hourly staff.[8]

Johnson also informed us that the Office of Human Resources is in the process of switching to a new automation system. When this system is fully operational, each employee will have a code, signifying his or her position, and the office will then be able to search and collect data based on job type or description. Complete data for the number of employees and expenditure on salaries will be available, and this data could be reported for each subgroup of Dartmouth employees. Partial data will be available for hours of training and benefits. For

example, Human Resources offers training programs for Dartmouth employees, and information is kept as to how many hours each program is used. This is not Dartmouth's total expenditure on training, however, because individual departments offer training that is not tracked by Human Resources. In addition, users of the Human Resource training programs are not tracked, thus breaking down training expenses for each category of Dartmouth employees does not seem feasible. Although expenditures on employee benefits are generally tracked through Human Resources, there are some fringe benefits such as subsidized childcare and reduced tuition that Human Resources does not account for. The expenditures that are tracked, however, can be reported for each section of Dartmouth employees.

The amount of time needed to gather information from the payroll office depends on when the data is needed. Were the timing to coincide with the regular internal management reports generated by the Payroll Office, the data could be included with these reports and the time input would be minimal. If the data was needed at other times, Johnson estimated that it would take the office "a few days" to generate a report containing the information.

In order to locate more information regarding fringe benefits, we spoke with Sheila Culbert in President's Office and Julie Dolan, Vice-President in the Office of Fiscal Affairs[910]. They informed us that benefits such as child care and unemployment insurance are paid out of the fringe benefits pool, and information is not available for individual sections of Dartmouth employees. Dolan did not think, given the current accounting practices, that it would be possible to obtain the data broken down for each section of employees. They also mentioned that there were other fringe benefits enjoyed by Dartmouth employees, such as use of the athletics facilities that are not associated with a monetary value.

4.5 PROVIDERS OF CAPITAL

EC 6. Providers of Capital

Distributions to providers of capital broken down by interest on debt and borrowings, and dividends on all classes of shares, with any areas of preferred dividends to be disclosed.

Essential for analyzing incoming monetary flow and budget, Providers of Capital gives insight into the debts and equities of a firm. This economic indicator section targets firms that issue debt and equity to raise capital. Dartmouth College, as an educational institution, does not

sell bonds or issue stock; therefore a different approach was needed. Because this section of the GRI guideline is a relatively new addition, the University of Florida Sustainability Report did not address it. Due to lack of precedence, this indicator section was largely open to personal interpretation. After consulting Larry Litten, Director of Institutional Research, Provost's Office, and Julie Dolan, Vice President, Office of Fiscal Affairs, a matrix breakdown evolved from collective interpretation.[1112] First, we analyzed Dartmouth's incoming capital flow. The main providers of capital in the schools were broken down into a matrix of 5 different categories: Students, Alumni, Equity Markets, Debt Markets, and International Contributions. "Student Capital Contributions" does not include tuition (tuition provides a large percentage of the operating budget, but it is covered in EC1, net sales), but it includes any gifts or donations made by students and their families (not legacies). "Alumni Capital" includes gifts and donations, which are largely a function of the Dartmouth College Fund. The "Equity and Debt Markets" represent Dartmouth's endowment holdings. Additionally, "International Contributions" to the school are also included in the outline.

Next, stakeholder monetary flows were divided into the categories of assets and liabilities. Since a significant amount of capital is invested to gain interest, a separate column of interest change was added to view the monetary changes from year to year.[13] Liabilities, or the school's capital borrowings, are considered minimal or nonexistent.[14] However, this column exists to remain consistent with traditional balance sheet protocol and the guideline of the GRI protocol. A final column of the matrix addresses information availability: the estimated hours to acquire the respective data provide a quantitative record of data availability.

After meeting with Litten and Dolan, it was possible to assess this question of data availability.[15] Most of the information required is readily available from the listed sources. Endowment information is listed in the annual financial report and further applicable information concerning Dartmouth holdings in the equity and debt markets is available from Jon King of the Investment Office. Alumni Fund information is available from Rita Johnson, Vice President, Development Administration.[16] Student capital provisions are provided by Dolan. Overall, information is readily available and the estimated time for data collection is minimal.

EC 7. Increase/Decrease in Retained Earnings at the end of period.

Change in earnings over a specific period, after liabilities have been subtracted from assets.

Change in retained earnings provides an overall perspective of a firm's economic behavior over the past period. This section has been an integral part of traditional financial reporting, as it represents the change in net assets over a specific period, or the net profit from a change in assets.[17] First, "Greening UF" was referenced as a precedent for the matrix breakdown.[18] Paul Ligon, a Tuck School of Business MBA and business consultant, assisted us with questions raised in applying this matrix to Dartmouth.[19]

A data breakdown was proposed to include these categories: Pledges, Funding for Student Loans, Life Income and Annuities, and Endowment. Although net sales seem to be the majority of the school's earnings, this information is elaborated upon in EC1 instead of this section. Changes in pledges reveal the change in gifts and donations for the College. Changes in student loans, on the other hand, represent the change in federal, state, or private loans or grants among periods. Changes in Life Income and Annuities appear as a liability of the College towards its employees both present and future. Finally the endowment's change is noted, representing any changed profits from dividends, sales, or losses.

Each category is further examined through each of the four schools that comprise Dartmouth College. Also, an additional column, "Return on Average Capital Employed" was added to fulfill a proposed GRI guideline. This formula is readily available in the background information of the GRI sustainability guidelines. Data availability is again assessed with the category of Estimated Time to Acquire Data.

Net profit or change in assets is readily available in the Dartmouth College Annual Financial Report. For more specific indicator breakdowns, a list of contacts was gathered. Jon King of the Investment Office has pledge information available as well as information regarding the endowment. Loan information is located in the Controllers Office under the attention of Mike Wagner. Finally, annuity data is controlled by Diane Houle in the Accounting Office.[20] Data Availability was also assessed positively. Collecting data in each of the specific groups was estimated to be less than an hour.

4.6 PUBLIC SECTOR

EC 8. Total Sum of Taxes of all Types paid broken down by Country

Total Tax payments over a specific period. Broken down by governmental recipient.

Taxes, one of the largest liabilities of a firm, are an essential component of economic analysis. Meetings with Larry Litten, Director of Institutional Research, Provost's Office, and Julie Dolan, Vice President, Office of Fiscal Affairs, helped to clarify tax data information,[21] most of which is readily available in the annual financial report. However, breaking down the different types of taxes will provide a more specific outlook on liability spending at Dartmouth.

The matrix for taxes is broken down into three main levels, Federal, State and Local Taxes. Although Dartmouth, as a non-profit educational institute, is largely exempt from Federal income taxes, it still must file taxes for the profitable portions of the College (i.e. Hanover Inn, Dartmouth Skiway, etc).[22] Local taxes include property taxes, associated social taxes (school) and community taxes (ex. Vehicle registration). Sales tax is minimized in the state of New Hampshire, and therefore state taxes account for a small portion of Dartmouth's taxes. However, Dartmouth is liable for taxes including wealth taxes and excise taxes.[23]

Results of the data search were also regarded as exceedingly positive. Tax data is available from Dolan. Breaking down the property tax information requires data from Paul Olsen, Director in the Real Estate Office.[24] General tax information can be readily accessed in the financial report; further specifics can be gathered from the listed sources.

EC 9. Subsidies Received Broken Down by Country or Region

Grants, tax relief, and other types of financial benefits that do not represent a transaction of goods and services.

After consulting with Larry Litten, Director of Institutional Research, Provost's Office, and Judy Dolan, Vice President, Office of Fiscal Affairs, we decided that there was no meaningful way to adapt this indicator to an institution of higher education. Dartmouth does not receive any subsidies, and anything that might be construed as one, such as a federal research grant, would already be accounted for in other indicators. We recommend either reporting that

Dartmouth receives no subsidies or omitting EC 9 altogether. The University of Florida GRI report also did not include any information pertaining to this indicator.

EC 10. Donations

Includes donations to community, civil society and other groups broken down in terms of cash and in kind donations per type of group.

This indicator will attempt to quantify Dartmouth's economic impact on the surrounding community through direct aid. As background, we looked at the sections of the Greening UF report that pertained to this indicator. The report stated the hours of community service performed by students during the 1999-2000 academic year and the total amount of dollars donated to charities by student organizations during this same time period. The next item was a graph of the money spent each year by the University of Florida's hospital on indigent care from the years 1997 through 2000. The final section focused on the University of Florida's Center for Pre collegiate Education and Training (CPET), which "coordinates on-campus and outreach programs for secondary students and "teachers across Florida."

To apply this indicator to Dartmouth, our group focused on the donations of cash and goods made by the College and individual college organizations. Initially we considered including hours of community service performed by Dartmouth students; however, we felt that these data fit better as a social indicator. The social indicators group agreed to include this qualitative information in their section. We concluded that the donations of money and goods, which have a direct monetary value, were more applicable to the economic indicators section. We spoke with Larry Litten, Director of Internal Research in the Provost's Office who directed us to Jan Tarjan, assistant Dean at the Tucker foundation, and Kate Burke, Director of Community Relations in the Provost's office.[25] In addition we talked with Cassie Barnhardt, Assistant Dean of Residential Life about donations made by Greek houses.[26]

Tarjan informed us that as a rule, Dartmouth does not make cash donations to charitable organizations.[27] We do however donate goods, and student community service organizations hold fundraisers and events that raise money for charitable organizations. Tarjan also directed us to Michael Ricci, Assistant to the Dean at the Tucker Foundation.

These are the three categories of community service for which donations of cash and goods may occur:

1. Habitat for Humanity: This is a partnership with the Upper Valley Chapter of Habitat for Humanity. Recently, Dartmouth students raised a significant amount of money that was donated to the class of 2004 house. Also, the Habitat partnership with Bike and Build raises money that is donated to the Dartmouth's Chapter of Habitat for Humanity, which is in turn donated to the '04 house. Finding the specific information will require consulting with Dartmouth's chapter of Habitat for Humanity.

2. *On-going Projects*: There are between 15 and 20 student community service organizations. Tucker has a budget for money they spend on supplies and materials that are directly donated, however this budget does not accurately reflect what actually happens. There is an accounting framework in place for student organizations, but the students are very lax about complying with it. To obtain an accurate picture of how much student organizations donate, it would be necessary to meet with each of the 15-20 organizations.

3. *Special Events*: Sometimes groups will do specific fundraising drives to raise money for a charity. An example of this is the Homeless and Hunger Awareness Week, which raises food for a local food shelter. We would need to ask the groups that sponsored the events how much money and goods were raised.

In addition to these three main areas, donations are made by the following:

-*Traveling Community Service Programs*: These include Alternative Spring Break trips, as well as Cross-Cultural Service Trips. In these trips, Dartmouth partners with an outside organization to send volunteer to different places. The volunteers raise money to cover the cost of the trip, but a portion of this money may also be donated. Ricci indicated that each partnering organization would need to be contacted to determine the amount that was donated.[28]

-*The Listen Center*: Dartmouth donates used clothes to the Listen Center Thrift Store. These donations make up a significant part of the store's inventory. Ricci indicated that it would be necessary to contact the Listen Center to determine the amount that is donated.

-*The Hopkins Center*: The Hopkins Center donates tickets and offers reduced ticket prices for community members engaged in community service programs, for example the children in the Big Brother Big Sister Program. Tarjan did not think that these donations were tracked.

-*The Dartmouth Organic Farm*: Organic farm food may be donated to community food banks. The Organic farm would have to be contacted.

-*Procurement Office*: Ricci informed us that Dartmouth donates used computers to a Norwich Organization, which in turn, distributes them to those in need. Ricci suggested that Bill Hochstin, the Materials Manger in the Procurement Office would have information regarding the number of computers donated.

In general, the Tucker Foundation does not record the amount of monetary and goods donations made by student organizations. Ricci indicated that reporting on this section would

require a considerable amount of time.[29] Each of the 15-20 active student groups would need to be contacted to determine their donations. In addition, Dartmouth's chapter of Habitat for Humanity, the traveling community service programs, The Listen Center, The Hopkins Center, the Dartmouth Organic Farm, and the Procurement Office would need to be contacted.

Burke informed us that she was unable to provide a comprehensive summary of Dartmouth's community contributions, but she was able to provide us with examples of the type of contributions that Dartmouth makes.[30] It will be useful to check with Burke to corroborate the information given by Ricci and Tarjan.

Information on donations made by Greek houses is tracked by Office of Residential Life and is readily available. Barnhardt was able to tell the amount of money donated by Greek houses each year for the past two years. It only took her a few minutes to obtain this information.

4.7 NON-CORE INDICATORS

EC 11. Supplier Breakdown by Organization and Country

List of all suppliers from which purchases in the reporting period represent 10% or more of total purchases in that period. Also identify all countries where total purchases represent 5% or more of GDP.

This is the first of three additional indicators. The Procurement Office has a list of every single vendor with whom Dartmouth contracts in the Vendor Activity Summary, including how much money was spent with each annually since 1998.[31] Dartmouth's total costs are approximately $250 million annually, and thus obtaining a list of vendors with contracts of at least $2.5 million is easily done. Dartmouth purchases almost exclusively domestically, and thus the second part of this indicator is inadaptable. For simplicity's sake, we suggest reporting on the ten vendors with the largest contracts with Dartmouth. This would ensure that all vendors representing 10% or more of total purchases were included.

We also thought that it would be useful to know Dartmouth's impact on these top ten vendors. Reporting on each vendor's percentage of revenue coming from Dartmouth would

require contacting each one and then requesting the information. Such data is not necessarily within Dartmouth's purview to report, but knowing the financial footprint of the institution on its largest vendors may help inform future procurement decisions.

EC 12. Total spent on non-core business infrastructure development.
This is infrastructure built outside the main business activities of the reporting entity such as a school, or hospital for employees and families.

After consulting with Larry Litten, Director of Internal Research, Provost's Office and Julie Dolan, Vice President, Office of Fiscal Affairs, we decided that this indicator did not apply to an academic institution such as Dartmouth.[3233] For businesses, this indicator refers to money spent on building structures such as a school or hospitals for its employees. Litten and Dolan indicated that Dartmouth does not have any such expenses. We discussed the possibility of defining "non-core" for an academic institution as spending on goods and services unrelated to education, but concluded that any expenses that Dartmouth had in this area would be covered in EC 3. EC 12 is not a core indicator, and it is not necessary for GRI compliance. *Greening UF* also did not include any information pertaining to this indicator.

EC 13. Indirect Economic Impacts
The organization's indirect economic impacts. Identify major externalities associated with the reporting organization's products and services.

The Economic Performance Indicators consist of both direct and indirect impacts. Indirect economic impacts are those that may not be "fully reflected in the monetary amount of the transaction."[34] The GRI's broad definition of "Indirect Economic Impacts" is difficult to apply to an educational institution, possibly the reason *Greening UF* did not report on any externalities.

Assuming Dartmouth College's main "product" is education, students' future roles following their years in Hanover seem to constitute an indirect economic impact on their given community of residence. Graduating students are asked to fill out a questionnaire before commencement concerning their future plans and expected salaries. The information intends to

estimate their anticipated "impacts" within the next year, and the Director of Institutional Research, Larry Litten, compiles it yearly in the Provost's Office. However, there are situations where this method does not fully capture Dartmouth's external impact. If a student does not receive a salary it becomes very difficult to quantify their impact, although a given community might still benefit from his or her contribution. The indirect economic impact is also an "additional indicator," meaning it is not critical to report in the GRI. Nevertheless, we see this as an important component of the GRI, one that will hopefully expand to encompass the broader impacts that Dartmouth has on the surrounding community.

4.8 SUMMARY

The majority of the economic indicators are readily available in the suggested format. Most of the general figures come directly from the financial statement, and we have broken them down in a more comprehensive manner in the matrices found in the Appendix . This was done to balance information from the financial statement with new external perspectives, found outside of the annual report. Information coming from the two mentioned databases is organized according to their breakdown previously specified in that system for consistency as well as efficiency. This compilation coming from different sources will provide the most useful information for Dartmouth, as it grows towards a sustainable institution of higher education. Some time input will be essential to convert this data into the GRI-based template provided here. For the most part this responsibility could feasibly be taken by staff positions already in place.

Since the majority of our information does come from the financial report, it could potentially be helpful to have a sustainability coordinator who puts together all the sections of the economic report. If the individual was already familiar with the financial report, additional training would be minimal. The only section that demands critical time and energy is EC10; otherwise, the majority of the time spent on data collection will be in communicating with various parties. Even though a sustainability coordinator would be useful to organize data and contact various sources, it is not essential, especially for an institution like Dartmouth that is already looking to streamline costs and employment. Possibly internship positions or assigning responsibilities to existing staff positions would be feasible. Overall effort for each of the five

indicator groups has been estimated using staff-hours required for data collection and formatting. These estimates are presented in the table below.

Table 5: Economic Indicator Time Estimates

Category	**Estimated Number of Hours**
Customers	2
Supplies	4
Employees	5
Providers of Capital	4
Public Sector and Indirect Economic Indicators	88

Because of the GRI's broad, all-encompassing design, much of the framework we have devised was decided according to personal opinions. Interpretations were made based on efficiency potential. By consulting client objectives and intentions, the respective indicator breakdowns reflect their informational requests. Flexibility is essential for an effective report, so changes are expected to this specific format before implementing the GRI at Dartmouth College.

NOTES

[1] Larry Litten, "Re: envs 50 – economics," e-mail communication, 19 May 2003.
[2] Larry Litten, In-person interview, 09 Apr 2003.
[3] Julie Dolan, "Re: ENVS 50- economics," e-mail communication, 01 May 2003.
[4] Larry Litten, "Re: ENVS 50 – economics," e-mail communication, 28 Apr 2003.
[5] Rita Johnson, "Re: ENVS 50- economics," e-mail communication, 30 Apr 2003.
[6] Greg Husband, In-person interview, 29 Apr. 2003.
[7] Greg Husband, In-person interview, 29 Apr. 2003.
[8] Barbara Johnson, In-person interview, 21 Apr. 2003.
[99] Shelia Culbert, e-mail communication, Apr 23, 2003
[10] Julie Dolan, « RE : Envs 50 Econ Question, » e-mail communication, 23 Apr. 2003.
[11] Larry Litten, In-person interview, 09 Apr. 2003
[12] Julie Dolan, Office of Finance, In-person interview, 21 Apr. 2003
[13] Dolan, 21 Apr.2003.
[14] Dolan, 21 Apr. 2003.
[15] Dolan, 21 Apr. 2003.
[16] Dolan, 421 Apr. 2003.
[17] Paul Ligon, In-person interview, 07 Apr. 2003.
[18] Newport and Chesnes, 2000.
[19] Ligon, 7 Apr. 2003.
[20] Dolan, 21 Apr. 2003.
[21] Litten, 09 Apr. 2003, Dolan, 21 Apr. 2003.
[22] Dolan, 21 Apr. 2003.
[23] Dolan, 21 Apr. 2003.
[24] Dolan, 21 Apr. 2003.
[25] Larry Litten, In-person interview, 9 Apr. 2003.
[26] Cassie Barnhardt, « Re: Question, » e-mail communication. 9 Apr. 2003.
[27] Jan Tarjan, In-person interview, 01 May 2003.
[28] Michael Ricci, In-person interview, 06 May 2003.
[29] Michael Ricci, In-person interview, 06 May 2003
[30] Katherine Burke" Re: Community Contribution Information," e-mail communication, 16 May 2003.
[31] Greg Husband, In-person interview, 29 Apr. 2003.
[32] Larry Litten, In-person interview, 9 Apr. 2003.
[33] Julie Dolan, In-person interview, 21 Apr. 2003.
[34] *Sustainability guidelines*. Global reporting Initiative, 2002 , <www.globalreporting.org)>

CHAPTER 5:

Environmental Indicators

5.1 INTRODUCTION

The environmental dimension of sustainability concerns an organization's impacts on living and non-living natural systems, including ecosystems, land, air, and water.[1] The Global Reporting Initiative's *2002 Sustainability Reporting Guidelines* provide a comprehensive framework for reporting on an organization's environmental performance. The thirty-five environmental indicators included in the GRI *Guidelines* are grouped into ten aspects of environmental performance: Materials, Energy, Water, Biodiversity, Emissions, Effluents, and Waste, Suppliers, Products and Services, Compliance, Transport, and Overall.[2]

We have structured this chapter around these ten aspects of environmental performance. In each section, we provide a brief introduction to the aspect of environmental performance and we assess the data availability for each of the core and additional indicators that are grouped under that aspect.[3] Where relevant, we have added additional indicators for Dartmouth College. These additional indicators for Dartmouth include indicators that highlight areas for environmental improvement or that seem applicable to higher education.

At present, Dartmouth can report on most of the environmental performance indicators in these ten areas. The College has data available to draft a preliminary environmental performance report. While this task would require additional staff hours to complete, an environmental report using the framework set out in the GRI *Guidelines* is a realistic option for Dartmouth in the immediate future.

5.1.1 Relevant Offices and Contacts

In assessing the data availability for the environmental performance indicators section of the GRI, we corresponded or met with a number of different contacts and offices. As we discuss the availability of environmental data at Dartmouth in this chapter, the different contacts and their corresponding offices are included in the text. The table below provides an overview of the main information sources that were used in compiling this chapter.

Table 6: Environmental Indicator Contacts

Office	Contact
Facilities, Operations, and Management	Frank Roberts, Director of Operations
Facilities, Operations, and Management	Lisa Ashworth, Campus Civil Engineer and Solid Waste Manager
Facilities, Operations, and Management	William Barr, Director of Fiscal and Auxiliary Services
Power Plant	William Riehl, Heating Plant Manager
Office of Procurement and Auxiliary Services	John R. Hoffman, Contracts Manager
Office of Procurement and Auxiliary Services	Sarah A. LaBombard, Inventory Operations Specialist
Office of Procurement and Auxiliary Services	William Hochstin, Materials Manager
Office of Environmental Health and Safety	Mike Cimis, Chemical Safety Officer
Garber Travel	Alison Dwan, Corporate Office Manager
Dartmouth Dining Services	Beth DiFrancesco, Ordering Manager
Office of Human Resources	Barbara Johnson, Acting Vice President
Real Estate Office	Paul Olsen, Director
Facilities Planning Office	Jack Wilson, Associate Director of Facilities Planning
Engineering and Utilities Office	Bo Petersson, Assistant Director
Hanover Waste Water Facility	John Dumas and Bill Matthews
Dartmouth Grounds Department	Robert Thebodo, Grounds Foreman
Second College Grant	Kevin Evans, Director of Woodland Operations
Parking Operations	Robin Guay, Parking Operations Coordinator
Dartmouth's Hinman Mail Center	Howard Durkee, Supervisor

5.2 MATERIALS

A study of the total consumption of materials by a company or institution is necessary for a thorough sustainability report. By monitoring the import of materials, a clear picture emerges of the overall impact of the reporting body upon the environment. Furthermore, tracking materials with a focus on the efficiency of ordering practices and reliance upon green products reveals the overall commitment of a company or institution to sustainability.

Core Indicators

EN1. Total materials use other than water by type.[4]

Provide definitions used for types of materials. Report in metric tons, kilograms, or volume.

This environmental indicator gives a lot of flexibility to the reporting institution due to its generality. The major categories of materials typically reported by universities include paper, paper products, food, pesticides, fertilizers, custodial products, and chemicals. Since these categories cover most of the materials purchased by Dartmouth and exported in Dartmouth's waste stream, they should be the focus of initial sustainability reports.

There are four general ways for materials to enter Dartmouth. Central Stores, the Hanover Inn, and Dartmouth Dining Services (DDS) all purchase materials independently of each other. Each of these entities has tracking systems and detailed records for the materials purchased. Central Stores, a department within Dartmouth College's Procurement Services, works primarily with the academic departments on campus and has data collected for the amount of materials purchased per account number dating back to 1993. All of the data is formatted in a specific computing system called Oracle Financials. Extra staff hours would be required to get the data into the correct format for the GRI of volume of material by type and year. Sarah LaBombard, an inventory operations specialist with Central Stores, estimates that it would take an afternoon of work to pull together a year's supply of purchasing data and organize it into a legible format for the GRI.[5] The purchasing done by the Hanover Inn and by DDS presents a similar situation. Virtually all food purchased by Dartmouth, for the cafeterias, dining halls, and Topside grocery store, goes through Dining Services and is ordered by Beth DiFrancesco

(Ordering Manager).[6] Thus, while the data for this indicator exists, some effort is needed to organize it into the required format of material use by type and year.

The last pathway for materials to enter Dartmouth provides the biggest obstacle to a GRI report. Individual departments and groups on campus may also order materials on their own. Since this data is so scattered, it will be hard for the College to account for these purchases. Within a year or two, however, Dartmouth will be adopting some form of chemical management service to address the weak organization in this area. This new centralized system will track all chemicals and research-related equipment entering the College in one database.[7] With this system in place, records for almost all materials entering the College will become readily available.

EN2. Percentage of materials used that are wastes (processed or unprocessed) from sources external to the reporting organization.

Refers to both post-consumer recycled material and waste from industrial sources. Report in metric tons, kilograms, or volume.

This indicator is not very applicable to an educational institution since the import of wastes from industrial sources is both minimal and difficult to quantify. However, some materials purchased by Dartmouth contain post-consumer recycled material. For example, Dartmouth stocks both virgin paper and recycled paper (30% and 100% post-consumer recycled).[8] Also, there is some emphasis on purchasing environmentally friendly products as evidenced by the specifications set on products such as cleaning products.[9]

Should Dartmouth choose to follow the GRI as a reporting method, Central Stores does maintain a master contract list of all major companies that supply materials to the College.[10] With further definition of this indicator, this master list could be used to generate basic figures for the indicator. However, this would be a time consuming task, requiring several additional staff hours.

5.3 ENERGY

Energy consumption is at the heart of many pressing global sustainability issues, ranging from acid deposition to global warming. Tracking changes in energy use with the goals of efficiency, conservation and ultimately sustainability in mind is key to understanding the impacts various institutions have on the environment. Furthermore, this information is invaluable to determine the changes that are necessary to limit negative environmental effects associated with substantial energy use.

The GRI outlines a comprehensive set of guidelines to implement for energy tracking and assessment. There are two core indicators and three additional indicators for this aspect of environmental performance. Each is outlined below with regard to how it will fit into a Dartmouth produced report.

Core Indicators

EN3. Direct energy use segmented by primary source.

Report on all energy sources used by the reporting organization for its own operations as well as for the production and delivery of energy products (e.g. electricity and heat) to other organizations. Report in joules.

Dartmouth College operates a power plant in the town of Hanover, which burns #6 fuel oil, residual fuel, in its four boilers to co-generate steam and electricity. The steam is pumped around campus for building heat and hot water. The steam is also used to run the campus' steam absorption chillers, which provide chilled water for air conditioning. The plant produces approximately forty percent of campus electricity needs. The remaining sixty percent is purchased from Granite State Electric. Other fuel use at Dartmouth includes #2 fuel oil, liquid propane (LP), kerosene, diesel, and gasoline.[11]

Facilities, Operations, and Management (FO&M) maintains a spreadsheet, "Dartmouth College Heating Plant Year End Totals," that contains steam, oil, and electric totals organized by calendar year back to 1995.[12] Total steam flow, in thousands of pounds, and total consumption of #6 fuel oil, in gallons, can be taken directly from the FO&M spreadsheet and converted to joules for each year reported. The spreadsheet also separates total electricity use into generated

and purchased electricity. Total generated electricity, in kilowatt-hours, can be taken directly from the spreadsheet and converted to joules for each year reported.

Reporting the data for purchased electricity is more complicated. The purchased electricity totals in the FO&M spreadsheet contain only the two main electric bills for the East and West sides of the Dartmouth campus. Not included in the FO&M totals are about 30 smaller electric bills for things such as Baker Remote Storage and parking lot lighting. Each of these bills can be accessed on-line at the Granite State Electric website (www.granitestateelectric.com) with the account number.[13] The on-line service provides electricity use in kilowatt-hours for the previous 12 months. For each year reported, the yearly total for each of the 30 bills will need to be taken from the Granite website and entered into a spreadsheet. This process could be completed in a couple of hours. Once the data has been gathered, the totals can easily be added to the electricity totals already in the FO&M spreadsheet and converted to joules. The total amount of electricity use can then be calculated by summing the generated and purchased electricity for each year reported.

With the exception of #6 fuel oil, John Hoffman, Contracts Manager for the Office of Procurement and Auxiliary Services, purchases all of the fuels used at Dartmouth. #2 fuel oil, home-heating oil, is used to heat most of the properties leased to Dartmouth staff and students. Propane is used for heating, kitchen, and laboratory purposes. A blend of kerosene and diesel is used in the snow pumps and the mowers. Mid-grade gasoline is delivered to the Dartmouth service station, as well as to five smaller gasoline tanks around campus.[14]

Johnson & Dix (J&D) supplies all of Dartmouth's fuel needs except for #6 fuel oil, which is supplied by Sprague. As part of their service, J&D provides John Hoffman with any information he needs on fuel deliveries at no extra cost. For the purposes of a sustainability report, J&D can produce a "Fuel Usage Report" in any necessary configuration that takes about ten minutes per product. Fuel usage is measured in gallons, and for consistency with the GRI reporting format, the fuel totals would need to be converted to joules. Dartmouth has been buying #2 fuel oil, diesel, kerosene, and gasoline from J&D for over twenty years, and all of this data would be readily available for a sustainability report. However, the propane contract with J&D is just in its third season, and prior records are not accessible, as the two previous suppliers are out of business. Thus, reporting on Dartmouth's total amount of fuel usage would be limited to three previous years.

Data on gasoline use by the Dartmouth vehicle fleet is maintained by Sarah LaBombard (Inventory Operations in the Office of Procurement and Auxiliary Services). Any department with a Dartmouth vehicle has a key with an account number that grants access to the Dartmouth gas pump. Sarah LaBombard currently keeps track of these purchases; she estimates that about three hours are needed to compile a spreadsheet with gasoline totals for 1998 to 2003. Data further back than 1998 is not readily available and would take about a month to compile. For consistency with the GRI reporting format, the gas totals would need to be converted from gallons to joules.

Reporting a more thorough record of gasoline use would require more time. Occasionally the Dartmouth gas pump goes out of service, and the Co-op Service Station is used as a back-up. Sarah LaBombard only has records of the gasoline purchased from the Co-op for the past two years, and it would take her about a week to compile that data. In addition, the VOX Car Office has some record of off-campus gasoline purchases, but the office has just turned over to new personnel and this type of data will take much longer than a week to compile. This may be an item to revisit for more detailed analysis in subsequent reports.

FO&M does not keep a record of total energy use by the College. However, if the energy information described above were compiled, total energy use could easily be calculated from it. In producing a sustainability report for Dartmouth College, it would be important to distinguish between different types of total energy calculations. Total energy usage by the College includes steam, fuel, and total electricity use. However, the only energy sources that the College is actually responsible for burning are the variety of fuels used for campus needs and the mixture of fuel sources used by Granite State Electric to produce Dartmouth's purchased electricity. Both of these totals could be included in a sustainability report.

To report in terms of normalized measures (e.g., resource use per unit of output), total energy use per capita or per square foot building space could be calculated. The total campus population is a summation of the student and employee population. The total number of students can be found at http://www.dartmouth.edu/~oir/factbook/enrollments/index.html. This website contains the total number of enrolled students from 1997 to 2001. The total number of employees can be obtained from Barbara Johnson, Acting Vice President of the Office of Human Resources. Square footage numbers are slightly trickier to obtain. Jack Wilson, Associate Director of Facilities Planning, Facilities Planning Office, has square footage data for all the

buildings on campus, and Paul Olsen, Director of the Real Estate Office, has square footage totals for commercial properties and for leased space. Compiling these two totals may produce a fairly, but not completely, accurate square footage total. The producer of a sustainability report for Dartmouth College would need to make sure that all properties included in the energy totals are also accounted for in the square footage totals. Once the capita and square footage numbers are compiled, total energy use per capita and per square foot building space can be easily calculated.

EN4. Indirect energy use. Report on all energy used to produce and deliver energy products purchased by reporting organization (e.g., electricity or heat).

In order to most efficiently assess and analyze indirect energy use at Dartmouth College, it has been subdivided into the following sub-groups: purchased electricity, delivery of fuel oil, and the transport of other fuels.

Currently, the College purchases electricity from an unaffiliated local provider, Granite State Electric. Granite State supplies Dartmouth with 60% of its campus electricity or 24 million kilowatt-hours.[15] Granite State in turn receives its power from New England Power, whose primary fuel sources are 40% coal and 30% gas.[16] The remaining 30% comes from a combination of fuel types including nuclear, hydroelectric, wood and in some cases oil.[17] The cost and time associated with having Granite State provide information on exactly how much and what types of fuel are used annually for its Dartmouth contract have yet to be determined. Further, at the time of this report it remains unclear if this information is possible to obtain.

There are no records to date accounting for the energy expended to deliver #6 fuel oil to Dartmouth College. Fuel oil #6 is a residual fuel used to run the College's on-campus heating plant. Dartmouth contracts with Sprague Energy and receives regular shipments trucked in from Portsmouth, NH. Heating Plant manager William Riehl maintains trucking slips for all #6 fuel oil deliveries. He has electronic records of fuel oil delivery information dating back to June 1999. The spreadsheet details each delivery.[18] Records management has the delivery slips dating back to 1997; these are hardcopy delivery slips, so the information would have to be pulled from the tickets and entered into spreadsheets. Lastly, Riehl has consumption data going back to 1995. Assuming 7800 gallons per delivery and dividing into total burned each year

would yield a very good approximation of the amount of deliveries. This information could be used to approximate the amount of diesel fuel expended on delivery based on the standard capacity of each delivery truck, gas mileage and the route taken from Portsmouth, NH to Hanover, NH. This allows for accountability of indirect energy use from Dartmouth's direct vendor. This would actually be a fairly simple process to begin. Using an algorithm to relate the distance from Portsmouth to Hanover and the gas mileage of each supply truck, the amount of gas required to deliver one truck full of oil can be calculated and entered into a spreadsheet. These diesel figures would then need to be formatted as gallons per year and tons per year. Further conversions into joules, as per the GRI formatting should also be done to finalize the data. The times required to complete this data synthesis and formatting will vary due to the information available for particular dates:

- Estimate approximately 1hour to create the appropriate algorithm.
- Estimate 3 hours per year of data or12 hours to spreadsheet and convert the calculations from June 1999 to 2003.
- 1997-1999, estimate 3 hours per year of data to enter delivery slip data into spreadsheets, and an additional 5 hours per year of data to enter the calculations and conversions into a spreadsheet, total of 16 hours.
- 1995-1997, 1 hour for initial data collection and calculation, estimate 3 hours per year of data to enter delivery slip data into spreadsheets, and an additional 5 hours per year of data to enter the calculations and conversions into a spreadsheet, total of 17 hours.

The indirect energy costs to transport fuel purchases, besides #6 oil, have never been assessed to date. The additional fuels used by Dartmouth College include #2 home heating oil, gasoline, blends of kerosene and diesel and LP (liquid propane gas). John R. Hoffman, Contracts Manager of Procurement Services, is directly responsible for all purchasing of said fuels for Dartmouth College. The College contracts exclusively with Johnson and Dix for each of these. Obtaining indirect energy figures would be similar to the process with #6 fuel; however, it should be far less time consuming. Johnson and Dix maintain supply records for all fuel sold and delivered to the College. These records may be presented in hardcopy or in a computer file for the calendar year or fiscal year with relative ease and at no additional cost to

the College. Johnson and Dix can produce a fuel usage report in any configuration needed within 10 minutes.[19] The contracts for diesel, kerosene, #2 heating oil and gasoline are over 20 years old, and all of that data is available. The contract for LP is only 3 years old, and the two prior contractors for the College in propane have both gone out of business. While records are available, those prior to 2000 are not forthcoming. As for the remaining fuels, gasoline is delivered from Portland, ME or Albany, NY to Hanover and kerosene and diesel are sent either from White River Junction, VT or Lebanon, NH. The same type of algorithm as for fuel #6 would be used to relate the distances and the gas mileages of each supply truck. The amount of gas required to deliver one truck full of oil could then be calculated and entered into a spread sheet. These diesel figures would then have to be formatted in gallons per year and tons per year. Further conversions into joules, as per the GRI formatting, should also be done to finalize the data. It would take approximately:

- 1 hour for initial calculation
- 5 hours per year of data to put this in place for each fuel

Additional Indicators

The following are suggested as additional energy indicators in the GRI. They appear in this report to provide as much additional detail as possible to environmental indicator reporting.

EN17. Initiatives to use renewable energy sources and to increase energy efficiency.

A meeting with Frank Roberts, Director of Operations at Facilities, Operations, and Management, confirmed that Dartmouth does not keep comprehensive records of its many conservation initiatives.[20] It would take an estimated 3 hours for Frank Roberts and Bo Petersson, Assistant Director of Engineering and Utilities, to compile a list of initiatives from the recent past. The school has released Energy Conservation Project Summaries prepared by Facility Management Services consulting firm (A Division of Robert H. Fuller & Associates, INC.) in the past. The purpose of the summary is essentially to aid the College in achieving its objective of improving the processes of selecting, budgeting and scheduling projects relating to reasonable energy conservation measures in campus buildings.[21] While the report is very useful, it does not appear to differentiate between the projects that are simply proposals and those that

have actually been undertaken. The report highlights the primary recommendations and initiatives.

EN18. Energy consumption footprint (i.e., annualized lifetime energy requirements) of major products.

Report in joules.

This indicator appears inapplicable for the collegiate setting. Our research efforts have been unable to pinpoint any major products for which the College is responsible. The other energy performance indicators seem to sufficiently encompass the energy consumption footprint of the institution. Therefore, we believe that it would not be necessary to report on this additional indicator.

EN19. Other indirect energy use implications, such as organizational travel, product lifecycle, and use of energy-intensive materials.

According to Alison Dwan, Manager of Garber Travel's Corporate Office in Boston, the agency has been contracting with Dartmouth since March 4, 2002.[22] Due to this recent change, the travel office does not have adequate records for past organizational travel. It would take considerable effort to determine the total annual fuel use for organizational travel accurately. The office does have readily available data for the total distance traveled that they arrange annually for the College. A preliminary sustainability report could contain total distance traveled, and future reports could build off of this.

Additional Indicators for Dartmouth College

In order to mold the GRI into a report that addresses Dartmouth's specific energy concerns additional indicators beyond the GRI framework have also been considered. Specifically, energy use by building type (e.g., academic, administrative, residential and athletic) is an important indicator to include. It provides a simple way to monitor energy efficiency without being either laboriously detailed or too vague to be useful. The data is already fully available. Facilities Planning maintains spreadsheets of electricity and steam use per square foot by building type. The data format is BTUs per square foot for steam use, and kilowatt-hour per

square foot for electricity use. In order to attain GRI compliance the College must convert the data to joules per square foot per year. An estimated 3 hours per year would be required to update the system appropriately.

5.4 WATER

Water use is an important area of human interaction with the environment. The constant supply of clean water is essential to the operation of Dartmouth College, sustaining both its industrial systems and its human population. However, it is equally important to consider the effect of the institution's water use on the surrounding environment. It is essential that we evaluate and understand the elements of this relationship, and GRI provides appropriate guidelines for undertaking this task. There is one core indicator and three additional indicators for this aspect of environmental performance.

Water management at Dartmouth is a complex issue due to the fact that the Hanover Waterworks is 51% owned by the College and 49% owned by the town. It is managed by a 7-member board, 4 members of which are from the College. Therefore, Dartmouth is only partially responsible for the practices of the Waterworks. The following analysis of Dartmouth's water usage includes the Waterworks where appropriate.

Hanover's water supply comes from a series of 3 reservoirs on top of Balch Hill. These runoff-fed reservoirs are then chemically treated. Fluoride is added to help promote strong teeth. Sodium carbonate (soda ash) is added as a corrosion inhibitor. The soda ash raises the pH of the water, thus making the water less corrosive. This helps to reduce the leaching of lead and copper from household plumbing. Chlorine dioxide is used to disinfect the water prior to entering the distribution system. The chlorine dioxide removes bacteria and viruses that may be present in the water, making the water safe for human consumption. A more comprehensive analysis of water quality is hosted at the Hanover Waterworks' website.[23]

Waste water is sent to a treatment facility near the Pine Knoll Cemetery. Here the water is treated for particulate matter in settling tanks. Digestible wastes are removed through an aerobic digester. The effluent water stream is then treated with UV light and released into the Connecticut River. No tertiary treatment is provided to remove nitrates or phosphates from the effluent stream.

Several people were key contributors to this part of the report. The primary contact for water data is Frank Roberts of FO&M. Additional contacts include: William Barr, Facilities, Operations, and Management (Director of Fiscal and Auxiliary Services); John Dumas and Bill Mathews, Hanover Waste Water Facility.

Core Indicators

EN5. Total water use.

Total water usage for the institution is available in spreadsheet form from the Hanover Waterworks. The data is provided per building for every three months. Data for the past 5 years is available in this form. Data older than 5 years must be entered into a spreadsheet from individual buildings' bills. To find the total water usage for Dartmouth per year, all of these numbers would simply need to be summed. In order to reorder the data by building type per year, an additional 8 hours of work would be necessary. Water usage per capita could be determined by simply dividing the total water usage by the student and staff population.

Ground water quality in itself is not a tremendous concern for Dartmouth since none of the water comes from wells. However, water quality is well documented by the Waterworks in comprehensive documents for each of the last 10 or more years.

Additional Indicators

EN20. Water sources and related ecosystems/habitats significantly affected by use of water.

Include Ramsar-listed wetlands and the overall contribution to resulting environmental trends.

Ecosystem effects of water discharge are not currently quantified by any group, and it would require a significant time commitment to do so. A couple of areas could be isolated for further study. Eutrophication effects from nitrate and phosphate saturations from anthropogenic sources such as fertilizers should be more closely examined in both the Connecticut River and Occum Pond. At present neither the storm water system nor the water treatment facility provide tertiary treatment to remove nitrates and phosphates from the water. Occum Pond has 22 feet of

sludge and 5 feet of water, and near constant algae blooms.[24] The source of this problem could potentially be linked to the fertilizers used by local residents and the College golf course. Further investigation could be helpful.

There were no incidences found of hydro-thermal pollution because Dartmouth's co-generative power facility does not use river water to condense its effluent steam. Ecosystem effects from chlorinated water were also indeterminate at the present time.

Plant efficiency study was not comprehensively pursued. Possible indicators for a future study could include electric power usage by the Waterworks. At present, the Hanover Waterworks does not produce any methane from anaerobic digesters that could be used for power generation.

EN 21. Annual withdrawals of ground and surface water as a percent of annual renewable quantity of water available from the sources.

Breakdown by region.

Dartmouth draws its water supply from a series of three surface water fed reservoirs located in the vicinity of Balch Hill. However, no other quantitative information is included for this indicator due to difficulty communicating with the Hanover Waterworks. Hopefully future reports could include this information.

EN22. Total recycling and reuse of water.

Include wastewater and other used water (e.g., cooling water).

The amount of water recycled is not currently quantified, but one area can be highlighted. The co-generative steam and power plant on campus reuses all of its condensed steam in a closed loop system. However, some steam is used in evaporative cooling towers to operate air conditioning systems for certain buildings. This water is replenished on site. No other forms of water recycling were evident.

Additional Indicators for Dartmouth College

Eco (or Green) Initiatives

In 1997 the College undertook a comprehensive water conservation campaign and installed low flow showerheads, sink aerators, and low flush toilets in all of its residential facilities. The effects of this initiative may be present in the aforementioned data.

Currently the Hanover Waterworks is undertaking an initiative to implement a microfiltration system for effluent water. This initiative aims at improving the taste and turbidity of the water. A test system will be operational by the end of spring, and depending on the results, a full system will hopefully follow. This initiative could improve the quality of drinking water for the town and decrease the amount of chlorine necessary to add to the water.

The eco initiatives mentioned above and any other initiatives planned for the future should be included in a sustainability report for Dartmouth College.

Areas for improvement

Areas for improvement should also be included in a sustainability report for Dartmouth College. The most obvious area for water related improvement for the College would be to implement some type of tertiary waste water treatment to remove nitrates and phosphates from effluent water.

5.5 BIODIVERSITY

Biodiversity is an important measure of the health and longevity of any ecosystem. The ability to track changes in biodiversity is essential to understanding the impacts of various companies or universities and assessing changes that need to be made to maintain the highest level of diversity, in form and function, of a region's biota. The need for this information is becoming increasingly important at a time when biodiversity is declining significantly on a global scale, often due to human actions.

The GRI provides a good starting block for creating a standardized method of tracking biodiversity at Dartmouth. There are two core indicators and seven additional indicators for this

aspect of environmental performance. These are outlined below with regard to how they will fit into a Dartmouth produced report.

Overall, the biodiversity indicators are very broad and leave a lot of room for interpretation. Many of them are hard to define quantitatively and may just require summaries of Dartmouth's policies or initiatives. To produce the minimum amount of information needed to generate a report for the first time would require an estimated input of an individual employed half-time for half a year. Many of these indicators will be more time intensive for the first (or first few) reports until the process is more streamlined. However, it will also be necessary to broaden the information included in the report produced annually. The amount of time saved in streamlining the process will need to be put toward obtaining more quantitative and in-depth data on the impacts of the College on biodiversity. The more encompassing our report is, the more the College will benefit.

Core Indicators

EN6. Location and size of land owned, leased, or managed in biodiversity-rich habitats.

Dartmouth is located in the northern forests of New England, a very balanced and diverse ecosystem. This indicator should be applied to all lands in the scope of our report, rather than specifying certain areas as more or less rich in biodiversity than others. Information on all land owned, leased, or managed by Dartmouth is available from Paul Olsen, Director of the Real Estate Office on campus. The data is readily available and should not require more than an e-mail contact with the office annually to obtain and update it.

EN7. Description of the major impacts on biodiversity associated with activities and/or products and services in terrestrial, freshwater, and marine environments.

This seems like the most important and all encompassing indicator for biodiversity. It is also the area where Dartmouth is the most lacking in information. There is no solid source for this data. No office or individual on campus tracks the overall impacts of the College on biodiversity. Some of this information can be obtained from Robert Thebodo, Grounds Foreman in the Dartmouth Grounds Department (Robert.Thebodo@Dartmouth.edu). For a preliminary

report, Thebodo would be a good contact for a general statement or summary of the College's policy on conservation of biodiversity and how the activities at Dartmouth adhere to this policy. However, to produce a report with a complete analysis of this indicator would require a lot more time and investigation of the activities on campus and if and how they are altering the biodiversity of our land. It would be necessary to talk with professors that are very familiar with the region, especially those doing research relevant to the biota here. Talking with professors and other Dartmouth staff would require about two weeks of full time work. However, if there are holes in the information they can give then additional scientific studies will be required. The timescale required to obtain that information is several months of work, but it may be possible to incorporate it into a student or professor's research, which would then cut down on cost.

This indicator can be as in depth as the College can afford (in time and money), as it is a very broad area. However it is our recommendation that the College report very thoroughly on this, including specific quantified data tracking levels of biodiversity and definitive activities of the College that have altered these levels in any way. This obviously would require additional manpower (a rough estimate being, hiring someone part time to do the research, talk with people, and read about the Northeast). However, this does not need to be included in the very first report Dartmouth produces. It is expected that we will work up to this as the process is streamlined and the initial costs disappear.

Additional Indicators

EN23. Total amount of land owned, leased, or managed for production activities or extractive use.

This indicator is less applicable for a university whose main product is the education that they provide to students. Dartmouth is not involved in any major-scale production. In general, the land owned, leased, and managed by Dartmouth is not for extractive purposes. The one exception is the Second College Grant, located in Northern New Hampshire. Much of the timber required on campus comes from the trees at the Grant. The size of the Grant as well as annual harvest information can be obtained in several ways. Kevin Evans is the Director of Woodland Operations and can be contacted via email at Kevin.Evans@Dartmouth.edu. The information is

also contained in the Second College Grant Management Plan (2001). This report outlines the management approach and the role the grant plays for the College.

EN24. Amount of impermeable surface as a percentage of land purchased or leased.

Dartmouth currently has no data available for this indicator; it will all need to be compiled. This would most likely require a few weeks of full time work to generate.

EN25. Impacts of activities and operations on protected and sensitive areas.
(e.g., IUCN protected area categories 1-4, world heritage sites, and biosphere reserves).

Dartmouth does not have any protected or sensitive areas as defined by the GRI. However, it does have areas that can be considered sensitive or protected (The Second College Grant, Occum Pond, Moosilauke Ravine Lodge, and Boston Lot). The Second College Grant is the only one of these that has any information on the impacts of the College. Kevin Evans is the Director of Woodland Operations and can be contacted via email at Kevin.Evans@Dartmouth.edu for information about the Grant. The information is also contained in the Second College Grant Management Plan (2001). This report outlines the management approach and the role the grant plays for the College.

EN26. Changes to natural habitats resulting from activities and operations and percentage of habitat protected or restored.
Identify type of habitat affected and its status.

See EN27 below.

EN27. Objectives, programs, and targets for protecting and restoring native ecosystems and species in degraded areas.

Both EN26 and EN27 are similar to indicator EN25 in terms of data availability. There has not been a record of changes to natural habitats and therefore, no major initiatives for restoration. Some information can be obtained from Robert Thebodo, Grounds Foreman in the

Dartmouth Grounds Department (Robert.Thebodo@Dartmouth.edu). Again, this is something that should be tracked and will require more staff hours.

An important point to remember about the Northern forests is that they are overall very resilient and can regenerate easily, which is why there may not have been a visible need to monitor biodiversity in the past. However, it is very important to maintain the balance of College land and the surrounding forest.

EN28. Number of IUCN Red List species with habitats in areas affected by operations.

This data can be obtained at www.redlist.org. Currently this is not applicable to Dartmouth. It will need to be reviewed every year to see what new species have been added or removed from the list.

EN29. Business units currently operating or planning operations in or around protected or sensitive areas.

This indicator can be applied to the same areas as EN25 (the Second College Grant, Occum Pond, Moosilauke Ravine Lodge, and Boston Lot). There are areas that could be considered protected or sensitive. However, it would be beneficial to report on all operations that will impact the ecosystems currently in place (for example, all construction projects) rather than just those in "protected or sensitive" areas. Information on operations can be obtained from Frank Roberts, Director of Operations, Facilities, Management, and Operations (Frank.Roberts@Dartmouth.edu). More in-depth data is available from Jack Wilson, Associate Director of Facilities Planning, Facilities Planning Office (Jack.Wilson@dartmouth.edu).

Additional Indicators for Dartmouth College

Planting of exotic vs. native plants

The College currently has no policy regarding the introduction of non-native plants, which are one of the biggest threats to biodiversity in forests. The town of Hanover (Hanover Conservation Council) has been working on planting only native species in all public gardens in town. It would be very easy for the College to obtain information on how to implement a policy

regarding exotics. The HCC could work with the College to establish a landscaping/maintenance policy that decreases the risks associated with non-native species. This would only require a small push to establish a policy and might even decrease costs associated with importing exotic species for aesthetics.

5.6 EMISSIONS, EFFLUENTS, AND WASTES

Emissions of substances such as greenhouse gases, ozone-depleting substances, and urban pollutants are the cause of many current environmental problems. Greenhouse gases are believed to be the cause of global warming, an environmental problem that potentially holds many negative impacts for global society. Ozone-depleting substances, such as freons and chlorofluorocarbons (CFCs), are damaging the stratospheric ozone, the Earth's protective layer from the sun's ultraviolet rays. Urban pollutants, such as SOx and NOx, contribute to acid deposition and urban smog. Acid deposition has many negative impacts on forests and fish populations. Air pollution also causes human health problems, such as respiratory illnesses and exacerbations of asthma. Effluents of substances to ground water also have significant environmental and human health implications. Evaluating the solid waste stream is the last key to understanding a company or institution's direct impact on the surrounding environment. Tracking waste with a focus on the efficiency of recycling programs, hazardous waste disposal, and overall landfill or incineration helps to evaluate the degree of an institution's environmental impact.

Thorough monitoring of waste products is critical to the health of humans and ecosystems, locally, regionally, and globally. The GRI *Guidelines* provide a comprehensive framework for reporting on Dartmouth College's emissions, effluents, and solid waste. In this area, there are six core indicators and three additional indicators.

Core Indicators

EN8. Greenhouse gas emissions. (CO_2, CH_4, N_20, HFCs, PFCs, SF_6).

Report separate subtotals for each gas in metric tons and metric tons of CO_2 for each of the following:

- *Direct emissions from sources owned or controlled by the reporting entity*
- *Indirect emissions from imported electricity, heat, or steam*

Carbon dioxide (CO_2) emissions are the only direct greenhouse gas emissions that have been quantified at Dartmouth College. Frank Roberts, Director of Operations at Facilities, Operations, and Management (FO&M), has a carbon dioxide emissions analysis for the College from 1995 to 2002. However, this analysis is incomplete, as it includes only the carbon dioxide emitted from sources for which there is readily available data (#6 fuel oil consumption at the plant, purchased electricity for the main campus, and gasoline use by Dartmouth vehicles). The analysis does not contain the carbon dioxide emitted as a result of the College's use of #2 fuel oil, propane, kerosene, and diesel fuels, or of electricity use from the 30 smaller accounts with Granite State Electric. If indicator EN3 (Direct Energy Use) is completed, then this information can easily be incorporated into the carbon dioxide emissions analysis. The emissions would then need to be converted from pounds to metric tons for consistency with the GRI reporting format.

There is no readily available data on emissions of CH_4, N_20, HFCs, PFCs, and SF_6. Currently, there are no systems in place to measure the emissions of these gases. Both Mike Cimis, Chemical Safety Officer for the Office of Environmental Health and Safety (EHS), and Frank Roberts, Director of Operations at FO&M, believe that the College does not emit a significant amount of methane (CH_4). There is a system in place to measure NOx emissions from the power plant, however there is no such system in effect for nitrous oxide (N_20). Putting one in place would require significant time and effort. After consulting with individuals in FO&M and EHS, it is still unknown whether the College is an emitter of hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), or sulfur hexafluoride (SF_6). HFCs, PFCs, and SF_6 are generated in a variety of industrial processes,[25] and it seems unlikely that the College emits these substances. Further investigation into the presence of these substances would be required for a GRI report, but it may be an item to revisit for more detailed analysis in subsequent reports.

There is also no readily available data on indirect greenhouse gas emissions from imported electricity, heat, or steam. This would require taking the information compiled for indicator EN4 (Indirect Energy Use) and converting the amount of diesel fuel expended on the delivery of fuel products to Dartmouth into metric tons of carbon dioxide. These calculations might take a couple of hours to complete.

EN9. Use and emissions of ozone-depleting substances.

Report each figure separately in accordance with Montreal Protocol Annexes A, B, C and E in metric tons of CFC-11 equivalents (ozone-depleting potential).

According to Frank Roberts, Director of Operations at FO&M, there is no complete record of the use of ozone-depleting substances by the College, and to compile such a record could take a few months. The major uses of ozone-depleting substances on campus are for Thompson Arena, Dartmouth's hockey arena, and for three large chillers. There is no inventory of the minor uses of ozone-depleting substances for refrigerators and air conditioners currently present in the Residence Halls and administrative buildings. Frank Roberts of FO&M remarked that it would be helpful to have a refrigerant tracking system in place, not only for monitoring the amount of new refrigerators and air conditioners brought to Dartmouth, but also for ensuring the proper disposal of these items. Implementing this system would be time consuming, potentially taking from many weeks to a few months to survey the entire campus in order to get an accurate number of refrigerators and air conditioners. Even after the initial time investment, the inventory would need to be updated every year to account for the items brought in by new students and disposed of by old students.

Dartmouth is required by the New Hampshire Department of Environmental Services to report major releases of ozone-depleting substances. If there was a major leak at Thompson arena, for example, then the consequent emissions of any ozone-depleting substances would need to be reported to the NH Department of Environmental Services. However, no such releases of these substances have been significant enough to require reporting.

EN10. NOx, SOx, and other significant air emissions by type.

FO&M produces an annual report for the New Hampshire Department of Environmental Services for Dartmouth's Title V Air Permit. In compliance with state guidelines, the report details the College's nitrogen oxide (NOx), sulfur dioxide (SO_2), total suspended particulates (TSP), volatile organic compounds (VOC) and carbon monoxide (CO) emissions. The College contracts a third party consulting firm to organize all of the data that the school collects annually into a cohesive emissions report. It takes Dartmouth roughly 2 months to gather all of the data from the previous calendar year. In addition, the firm then requires approximately two months to produce the final report. The report presents the data in pounds per year and tons per year. The firm, ENSR provides these services for $1500.00 annually. In addition, the Medical School incinerator is responsible for some emissions of NOx, SOx, and CO, yet they are not currently monitored. Total volume combusted is monitored, so emissions data could be determined. The initial time required is three hours to establish a model equating gas emissions per hour of use with pounds combusted. Future annual time invested would be an hour.[26]

EN11. Total amount of waste by type and destination.

"Destination" refers to the method by which the waste is treated, including composting, reuse, recycling, recovery, incineration, or landfilling. Explain type of classification method and estimation method.

The waste stream leaving Dartmouth College is divided into three basic categories: that which is recycled, disposed in landfill, or composted. The recycling and composting programs of the College have achieved substantial success in terms of reducing what ends up in the landfill. Since the College has very detailed records of these programs, the increasing volumes of waste recycled and composted from year to year can be tracked.

Lisa Ashworth[27] at FO&M maintains an efficient, comprehensive database that accounts for virtually all of Dartmouth's solid waste stream. Through monthly maintenance of this database, she has compiled extensively detailed, precise information on all solid waste divided into specific categories. She keeps records on recycled cans, paper, glass, plastic, furniture,

florescent light bulbs, cardboard, newspaper, metal, clothing, bicycles, mattresses, transparencies, diskettes, etc. She also tracks all compost and landfill materials. Her database is so detailed and precise that essentially anything and everything in the solid waste stream is accounted for, divided into precise categories, and quantified by weight. Lisa Ashworth's information is easily available and user friendly; the time and cost of collecting this information for annual reports would be negligible.

EN12. Significant discharges to water by type.

Waste water quantity for the institution is a tricky issue, as it is almost entirely determined by the operation of the Hanover Waterworks. All of Dartmouth's waste water eventually ends up in the Connecticut River. The two main types of waste water are domestic/commercial waste water, which is treated at the waste water treatment facility described in section 5.4, and storm water, which is returned directly to the river through storm water run-off from drains and pipes. Storm water drains have settling pools to allow large particulate matter to settle before entering the river, but no other forms of treatment or effluent management are in place.

EN13. Significant spills of chemicals, oils, and fuels in terms of total number and total volume.

Significance is defined in terms of both size of the spill and impact on the surrounding environment.

The Office of Environmental Health and Safety has very accurate records for this environmental performance indicator. EHS has recorded all of the significant spills of chemicals, oils, and fuels, occurring on campus since 1998. From 1995 to 1998, the data is available but not as complete. Furthermore, the College has a strong spill response plan called an Integrated Contingency Plan (ICP). The ICP outlines specific procedures to follow in case of a spill. These guidelines are available to members of the Dartmouth community. Thus, while spills are infrequent and a proper contingency plan is in place, the data for this indicator is

readily available and in the proper GRI format through the Office of Environmental Health and Safety.[28]

Additional Indicators

EN30. Other relevant indirect greenhouse gas emissions.
(CO_2, CH_4, N_20, HFCs, PFCs, SF_6). Refers to emissions that are a consequence of the reporting entity, but occur from sources owned or controlled by another entity. Report in metric tons of gas and metric tons of CO_2 equivalent.

There is no readily available information regarding other relevant indirect greenhouse gas emissions by the College. One idea would be to look into the carbon dioxide emissions from the federal mail trucks that deliver mail to Dartmouth each day. According to Howard Durkee, supervisor of Dartmouth's Hinman Mail Center, two mail trucks make deliveries to Dartmouth every day, one of the trucks coming twice a day. Depending on the distance traveled by the trucks, this could be a significant source of carbon dioxide emissions. Further investigation would require contacting the federal postal service, and Howard Durkee believes that they will not want to release this type of information. As this is an additional indicator, it may not be necessary to include in a sustainability report for Dartmouth College

EN31. All production, transport, import, or export of any waste deemed "hazardous" under the terms of the Basel Convention Annex I, II, III,[29] and VIII.[30]

The hazardous material/waste stream at Dartmouth College is complex, in that a wide variety of labs and medical facilities use hazardous chemicals in their research and daily practices. Due to the wide variety of labs and the diverse projects undertaken, numerous chemicals and hazardous products are utilized. While all these are accounted for, the information is not compiled or collected in a central source or database.

Currently there is no protocol that researchers must follow when ordering chemicals. Dartmouth has several suppliers and orders are placed both collectively by departments and clusters of labs and individually by specific labs. Currently neither the suppliers nor Dartmouth

compiles hazardous waste import and export in a central database or tracking system, but work is already well underway to tabulate this type of waste. Within a year's time the goal is to have all hazardous waste accounted for in a database, and the more long-term goal over the next few years is to limit the use of hazardous waste by streamlining the procurement system. Dartmouth hopes to set up a gain sharing program with one supplier similar to those already in place in many major industrial companies. Such a system would allow for all hazardous waste to be accounted for prior to arrival through the supplier's central computer. It would allow for more precise orders so as to cut down on overall hazardous waste imports. Often a laboratory will only require a few grams of a specific chemical, but in the current ordering system suppliers will only provide that chemical in bulk quantities, thus leading to over-ordering. Furthermore, laboratories will be forced into purchasing more chemicals than needed due to substantial discounts on chemicals bought in bulk. This system of individual ordering is also inefficient for the College because many individual orders are placed by single labs instead of collective orders placed by several labs. With shipping often costing more than the actual products being purchased (as high as 70% of total cost), setting up a system allowing labs to coordinate collectively and make less frequent but more efficient orders would save the College substantial costs. A gain sharing program would give the College more control of its hazardous material imports and save money.[31] While it is likely within a year or so that all hazardous materials will be accounted for by the College, the feasibility of a gain-sharing program with a single supplier is somewhat uncertain.

While import of hazardous wastes is difficult to precisely quantify, export of hazardous waste is equally complicated. The volume of hazardous waste is currently tracked by the state of New Hampshire. The Office of Environmental Health and Safety estimates that it would take one hour to collect and report this data on an annual basis.[32] Dartmouth hires a private contractor to dispose of hazardous waste. Therefore, in order to determine the ultimate location of the College's hazardous waste, it would be necessary to involve the private contractors in this process. In order to successfully monitor both the quantities and location of hazardous waste disposal, it would be essential to work directly with private contractors to develop a tracking system. Dartmouth does have records of its hazardous waste disposed of internally. This hazardous waste is biomedical waste, which is incinerated on Dartmouth's campus. The Office of Environmental Health and Safety estimates one hour to collect and report this data.[33]

Dartmouth's import and export of hazardous waste is accounted for but is not compiled in one central source or database. The work required to go through all order forms and files regarding the procurement and disposal of hazardous materials would be substantial. The time and cost of developing such a system would be concentrated in the initial process of compiling old records and instituting a tracking system. Once a central protocol was established through which all researchers compiled ordering/disposal information to a central source, annual costs would be minimal, and existing employees could easily monitor such information. The main obstacle to overcome in order to track Dartmouth's hazardous waste is to compile past orders and to develop a comprehensive system in which all future orders and disposal records are kept and maintained. The need for such a tracking system is already apparent and will need to be developed soon regardless of whether a sustainability report is instituted. The only problem is the substantial cost and time commitment required to get an efficient tracking system up and running.

EN 32. Water sources and related ecosystems significantly affected by discharges of water and runoff.

See indicator EN20 in section 5.4.

5.7 SUPPLIERS

While the suppliers section of the GRI includes only one additional indicator, its content will likely help the reporting institution to move towards greater sustainability. This indicator does not consider the environmental impact of the actual products supplied to the institution. Rather, it assesses the process by which such products were created. Thus, the reporting institution is forced to take into account the environmental implications of its decisions to buy from a certain company.

Additional Indicators

EN 33. Performance of suppliers relative to environmental components of programs and procedures described in response to governance structure and management systems.

At present Dartmouth does not have sufficient data for this environmental indicator. The extent to which Dartmouth considers the environmental management practices of its suppliers is not quantifiable. However, if Dartmouth were to complete a sustainability report, this indicator would help to move the entire institution in a positive direction. This indicator would force the College to consider the environmental performance of all its suppliers, including electric, water, paper, or product suppliers, before offering to buy from them. There are some instances where this indicator already factors into the purchasing process, such as set specifications on cleaning products, paper that is processed without bleach, and coffee that is shade grown and sustainably managed and harvested. Overall, however, there is little study of the environmental background of Dartmouth's suppliers and of the processes used to create the products.[34] Thus, while collecting information on the environmental performance of suppliers would require a significant amount of time, the College would be reaching a higher level of sustainability.

5.8 PRODUCTS AND SERVICES

Presently in the US the growing consumer demand for easily accessible and convenient products and services could easily lead to environmental stress and damage. In order to completely meet the goal of sustainability, any organization that provides products and services must also be aware of the effects the production and use of these products and services may have on the environment. This aspect of environmental performance is more relevant to companies that provide their business to a large consumer population. In reference to a higher learning institution this indicator is not as relevant simply because of different goals and operations.

Core Indicators

EN14. Significant environmental impacts of principal products and services.
Describe and quantify where relevant.

This environmental performance indicator is most applicable to industry where the principal products and services are clearly defined. This indicator becomes less relevant for an educational institution. However, if Dartmouth was to follow the GRI, the College would still be responsible for this indicator. Dartmouth's principal products and services can be categorized as teaching, research, and community service. The environmental impacts of these products and services are minimal and rather impossible to quantify. It should be noted that despite the intangible nature of these products and services, the College is taking steps to reduce the environmental impacts of its operations. For example, the Office of Environmental Health and Safety monitors the efficiency of teaching and research endeavors with its waste management and minimization systems in place.[35] As another example, Central Stores offers academic departments and research labs materials with recycled components to use in their academic endeavors.[36]

EN15. Percentage of the weight of products sold that is reclaimable at the end of the products' useful life and percentage that is actually reclaimed.

"Reclaimable" refers to either the recycling or reuse of the product material or components.

Since Dartmouth does not sell material products, this indicator does not apply to this institution.

5.9 COMPLIANCE

This core indicator is essential for any institution concerned with its environmental performance. In fact, the title may be slightly misleading since the GRI is really asking for instances of non-compliance. By tracking instances of and fines for non-compliance with

environmental regulations, an institution can analyze its weaker areas of environmental management.

Core Indicators

EN16. Incidents of and fines for non-compliance with all applicable international declarations/ conventions/ treaties, and national, sub-national, regional, and local regulations associated with environmental issues.

Explain in terms of countries of operation.

Fortunately Dartmouth College has had few violations of national and state environmental laws. Records of these infrequent violations are kept. Compiling this information would require little time or cost. This estimate is minimal because Dartmouth complies with all national and state laws, and because extensive records are kept of the few violations which have occurred so as to ensure future compliance.[37]

5.10 TRANSPORT

Transportation can lead to a variety of negative impacts on the surrounding environment, including vehicle fuel spills, roads built through sensitive areas, and significant amounts of land paved for parking lots. Dartmouth College is an institution that relies on a relatively high volume of college-affiliated transportation to accommodate a multitude of its material, energy and water related needs. Furthermore, the College's location often results in transportation occurring over long distances within and beyond New Hampshire state boundaries. This is an indicator that will continue to gain importance and relevance to the College as it grows in the future. There is only one indicator for this aspect of environmental performance.

Additional Indicators

EN34. Significant environmental impacts of transportation used for logistical purposes.

In talking with Frank Roberts, Director of Operations at FO&M, there seem to be no significant environmental impacts of transportation currently occurring at Dartmouth College. There are some lesser impacts, however, that could be investigated and included in a sustainability report. For example, the amount of salt and sand deposited on College roads in the wintertime could be quantified and reported. Another issue that could be investigated is the drainage systems in Dartmouth parking lots and whether the storm water run-off presents any environmental problems.

A more quantifiable aspect of the environmental impact of transportation is the amount of land used for parking spaces. The GRI report put out by the University of Florida compared the total number of parking decals sold to the total number of spaces available on campus.[38] This type of information for Dartmouth College can be obtained from Parking Operations or from FO&M. Robin Guay, Parking Operations Coordinator in Parking Operations keeps yearly records of the number of registered cars and the number of available spaces. In addition, a report was put out in February of 2002, called *Dartmouth 10-Year Master Plan Circulation and Parking Report*, which can be obtained through FO&M. This report may have additional information on the impacts of parking.

5.11 OVERALL

This aspect of environmental performance examines the overall expenditures by an organization for environmental practices, procedures, and compliance. There is only one additional indicator in this category.

Additional Indicators

EN 35. Total environmental expenditures by type.

Explain definitions used for types of expenditures.

This additional indicator looks at environmental compliance by looking at a summary of all the previously identified expenditures classified as "environmental." In general, these expenditures include the costs of solid and hazardous waste disposal and management, of hazardous waste abatement programs, and of air and water pollution control and monitoring.[39] This indicator is general and allows for tremendous flexibility. Therefore, the College can begin by summarizing the costs that are already easily accessible through the Office of Environmental Health and Safety, and then move to a more comprehensive summary in future reports.

5.12 SUMMARY

We have found that the vast majority of data necessary to complete a GRI report is already available at Dartmouth. Most offices, particularly those on campus, have been very willing to cooperate in providing the raw data, and are genuinely excited to see a report of this scope at Dartmouth.

The GRI format is a largely appropriate sustainability reporting option for Dartmouth College. There are, however, a couple of areas where we have suggested deviation from the GRI format. As an academic institution, Dartmouth does not have some of the same concerns of an industrial or commercial company, and it may also seek to be a leader in other areas. For example, Dartmouth as an institution does not produce any volatile organic compounds (VOCs); however small amounts may be used in individual departments for laboratory or project uses. To inventory these "spot" uses is probably beyond the scope of the institution's report. Furthermore, commercial or industrial groups may be less willing to highlight areas where improvement is possible, whereas that is part of the mission of an academic institution. These changes are represented in the individual categories above and labeled "additional indicators for Dartmouth."

Overall, we did not experience any issues with data sensitivities. This is not a foreseeable problem for the generation of this chapter of the report. A large majority of

environmental data is already available at Dartmouth and will only require changes in format. Therefore, the work required to produce the report may be accomplished by the present staff at Dartmouth or Environmental Conservation Organization (ECO) interns, and additional staff may not need to be hired. This should greatly limit the costliness of the report. However, the indicators for which data is not readily available will be fairly effort intensive. Overall effort for each of the ten indicator groups has been estimated using staff-hours required for data collection and formatting. These estimates are presented in the table below.

Table 7: Environmental Indicator Time Estimates

Category	**Estimated Number of Hours**
Materials	20
Energy	35
Water	13
Emissions, Effluents, Waste	120
Biodiversity	100-200
Suppliers	40
Products/Services	2
Compliance	1

At Dartmouth College, certain departments manage different kinds of environmental data. One way to streamline the data collection required for a GRI report would be to reorganize the indicators into categories that are better aligned with the departments at Dartmouth. In assessing the availability of environmental data at Dartmouth, we divided the GRI indicators into the general categories of Energy, Materials, Water, and Biodiversity. All remaining indicators were then sorted into a relevant category. For example, water use and water effluents were evaluated together. We feel that this approach leads to easier collection of the data as well as a better understanding of the environmental issues. By combining cause and effect relationships, such as electricity use and subsequent SOx emissions, the entire system can be better understood. While we have reorganized our report to be consistent with the format of the GRI, we would suggest dividing the indicators into the following groups for data collection:

Table 8: Proposed Organization of Indicators

Category	Core Indicators	Additional Indicators
Energy	3, 4, 8-10	17-19, 30, 34
Materials	1, 2, 11, 13-16	31, 33, 35
Water	5, 12	20-22, 32
Biodiversity	6, 7	23-29

NOTES

[1] Global Reporting Initiative, *2002 Sustainability Reporting Guidelines*, http://www.globalreporting.org/guidelines/2002.asp, p48.
[2] Global Reporting Initiative, *2002 Sustainability Reporting Guidelines*, p36.
[3] Because we address both the core and additional indicators by category, the indicators are not presented in numerical order. However, all indicators are included and discussed.
[4] Global Reporting Initiative, *2002 Sustainability Reporting Guidelines*. The environmental indicators are described over pp49-51.
[5] Sarah Labombard, Inventory Operations Specialist, Procurement Services, interview, April 30, 2003
[6] Daniel Krawiec, Hanover Inn, email, May 13, 2003
[6] Beth DiFrancesco, Dartmouth Dining Services, email, May 2003
[7] Michael Cimis, Office of Environmental Health and Safety, Interview, April 28, 2003
[8] Sarah LaBombard, Inventory Operations Specialist, Dartmouth College Procurement and Auxiliary Services, interview, April 30, 2003
[9] William Hochstin, Materials Manager, Dartmouth College Procurement and Auxiliary Services, email May 9, 2003.
[10] Sarah LaBombard, Inventory Operations Specialist, Dartmouth College Procurement and Auxiliary Services, interview, April 30, 2003
[11] Environmental Studies 50 Report, *It's Not Easy Being Green*, 1997.
[12] Frank Roberts, Director of Operations at FO&M, personal communication, April 15, 2003.
[13] Frank Roberts, Director of Operations at FO&M, personal communication, April 22, 2003.
[14] John R.Hoffman, Contract Manager at Procurement Services, personal communication, April 16, 2003.
[15] Environmental Studies Report 50, "It's Not Easy Being Green," 1997, 41
[16] Environmental Studies Report 50, "It's Not Easy Being Green," 1997, 41
[17] Environmental Studies Report 50, "It's Not Easy Being Green," 1997, 41
[18] William Riehl, Heating Plant Manager, Dartmouth College Power Plant, email, 2 May, 2003
[19] John R. Hoffman, Contract Manager, Procurement Services, interview, 16 April, 2003
[20] Frank Roberts, Director of Operations, Facility Operations and Management, interview, 15 April, 2003.
[21] *Energy Conservation Summary*, executive summary, February 1998
[22] Alison Dwan, Manager of Boston Corporate Office, Garber Travel, email, 23 April, 2003
[23] http://www.hanovernh.org/twn_water.html
[24] Source: Robert Thebodo, Dartmouth College Building and Grounds Dept.
[25] United States Environmental Protection Agency, *Global Warming - Emissions*, http://yosemite.epa.gov/OAR/globalwarming.nsf/content/Emissions.html
[26] Michael Cimis, Environmental Health and Safety, email , 1 May, 2003
[27] Lisa Ashworth, Campus Civil Engineer & Solid Waste Manager, interview, April 17, 2003
[28] Michael Cimis, Environmental Health and Safety, Interview, April 28, 2003
[29] Annexes I, II, and III are defined at: http://waste.eionet.eu.int/definitions/annexes/hazardous
[30] Annex IV is defined at: http://waste.eionet.eu.int/definitions/disposal
[31] Michael Cimis, Environmental Health and Safety, Interview, April 28, 2003
[32] Michael Cimis, Environmental Health and Safety, Email, May20,. 2003
[33] Michael Cimis, Environmental Health and Safety, Email, May20,. 2003
[34] William Hochstin, Materials Manager, Dartmouth College Procurement and Auxiliary Services, email May 9, 2003.
[35] Michael Cimis, Environmental Health and Safety, Interview, Aril 28, 2003
[36] Sarah Labombard, Inventory Operations Specialist, Dartmouth Procurement and Auxiliary Services, interview, April 30. 2003
[37] Michael Cimis, Environmental Health and Safety, interview, April 28, 2003
[38] University of Florida Sustainability Indicators Report, August 2001, www.sustainable.ufl.edu.
[39] Micheael Cimis, Environmental Health and Safety, Email, May 20, 2003

CHAPTER 6:

Social Indicators

6.1 INTRODUCTION

This chapter outlines the information and data availability at Dartmouth College for each "social indicator" articulated by the Global Reporting Initiative (GRI). The "Social Performance" section of the GRI is divided into the following four subsections: (1) Labor Practices and Decent Work, (2) Human Rights, (3) Society, and (4) Product Responsibility. The process of gathering information for the social indicator section of the GRI was characterized by our need to relate GRI core indicators critically to a university context. Reference to Dave Newport's sustainability reporting work at the University of Florida[1] was indispensable to us during this interpretive process, as was the University of Michigan's prototype sustainability report.[2] It was also necessary to allow definitions of GRI terms to evolve in consultation with the "Economics Indicator" group's work; much of the material covered here overlaps with data accrued within that chapter.

The utilization of an implied working definition of "scope" also posed significant difficulties for the construction of this chapter. It was a consistent challenge to define provisional boundaries as to how the College's "operations" or "activities" would be characterized. This was especially difficult in the "Society" and "Human Rights" indicators sections, which called for descriptions of institutional policies that described monitoring systems and the results of monitoring that measured peripheral impacts of the College's activities.

A working methodology for approaching these tensions between the local and the global contexts were dealt with one indicator at a time. Our conclusive assessment of the way that Dartmouth College could approach the issue of scale and scope is most directly tackled in the conclusion of the Social Performance Indicators. We felt that this was the most appropriate order to introduce the compound perspectives engaged in defining "scale," as the interests of multiple and simultaneous "stakeholders" are addressed throughout this chapter within different indicators.

6.1.1 Relevant Offices and Contacts

To provide an overview of the main information sources that were utilized in compiling this chapter, it is helpful to define a few key institutional branches and campus resources that are responsible for gathering and analyzing institutional data. The table below, titled "Relevant

Offices and Contacts," does so. These offices make much of its information available in published and online sources. In order to gather the relevant information for the social indicators section, we corresponded or met with a number of different contacts and separate offices. We have provided the dates of such meetings in corresponding footnotes. Included in the table are the abbreviations of the offices used in the chapter.

Table 9: Social and Education Indicator Contacts

Abbreviation	Office	Contact (title)
OHR	Office of Human Resources	Barbara Johnson, Director
OGC	Office of General Counsel	Ellen Arnold, Director
OIR	Office of Institutional Research	Larry Litten, Director
OER	Office of Evaluation and Research	John Pryor, Director
OG&C	Office of Grants and Contracts	Nancy Wray, Director
	Tucker Foundation	Stuart Lord, Dean Jan-Roberta Tarjan, Associate Dean
	Dickey Center	Margot E. de L'Etoile, Staff
	Hopkins Center	Jay Cary, Staff
ORL	Office of Residential Life/Education	Martin W. Redman, Dean
OFIN	Office Fiscal Affairs	John King, Julie Dolan: Associate Vice President for Fiscal Affairs
OPRO	Office of Procurement Services	Gregory Husband, Director
OPR	Office of Public Relations	Kate Burke, Director
OIDE	Office of Institutional Diversity and Equity (formerly known as the Office of Affirmative Action)	Ozzie Harris, Director
ORM	Office of Risk Management	Henrietta S. Powers, Director
OEHS	Office of Environmental Health and Safety (responsible for Occupational Safety & Health)	Michael Blayney, Director

OADM/OFA	Office of Admissions/Financial Aid	Karl M. Furstenberg, Dean
REG	Registrar	Polly Griffin, Registrar
S&S	Office of Safety and Security	Rebel Roberts, Director

6.1.2 Data Formatting Summary

Much of the data in the Social Indicators section is collected by different institutional branches of the College and compiled within two main databases, in addition to Excel spreadsheets. These formats are SPSS database system, the Common Data Source (PDF tables, raw data in MS Excel), and MS Excel. Their accessibility and GRI-specific format availability is outlined below.

SPSS Database System

Much of the social indicator data of interest is collected by the College and can be found in a database format known as SPSS. SPSS is a statistical database program package that allows for raw numbers of all types to be categorized and organized for quick retrieval. The database program is used widely on campus by various offices, including the Office of Human Resources (OHR) and the Office of Evaluation and Research (OER).

SPSS is a user-friendly program that allows for quick retrieval of data in the format requested of it, including ratios, percentages, pie graphs, data-tables, and bar graphs. The GRI calls for data to be presented in one of these formats, so the time required to produce these data is much less than it would be were SPSS not in place. Currently, the College is in the second of three phases of implementation of the SPSS database system. Full implementation of the SPSS database system will occur at the beginning of the fall academic term of 2003.

Common Data Source System

The Common Data Source (CDS)—most relevant to the Educational Indicators— is a helpful starting point for gathering information regarding College statistics. It is conveniently located on the Dartmouth website, http://www.dartmouth.edu/~oir, allowing for easy access. This data is used by many offices on campus and by the various college guidebook companies. The Office of Institutional Research (OIR) publishes the CDS each year from data collected by

their office. However, the information is somewhat limited in terms of data needed for the GRI. For instance, the diversity statistics are only available for tenured faculty and not for the entire campus faculty. Another complication stems from the fact that the data is all in raw numbers, which would have to be converted into percentages. The information in the CDS is stored in MS Excel, so this conversion would be a minimal time commitment.

MS Excel

Microsoft (MS) Excel is a data-entry, spreadsheet program that allows for organization of data and quick output of comparative information based on that data. Through a strategic agreement with Microsoft, Excel is available to Dartmouth's campus at a reduced rate (information on this agreement can be found at http://www.dartmouth.edu/~store/sales/mscampus.html). The program allows for much of the information needed for a GRI report to be outputted easily.

6.1.3 Organization and Numbering System

The text of this chapter may be read in consultation with the accompanying table, available in Appendix C, which summarizes the availability, location, and hours needed to locate and transform the data to GRI-specified format. All indicators set forth by the GRI as "core" and "additional" are accounted for, and in cases where we felt complementary indicators could target the sustainability reporting needs specific to this university's setting, these were added to the relevant section and numbered accordingly. For example, where GRI core and additional indicators within the employment subheading of the Labor Practices and Decent Work subsection were labeled LA1, LA2, and LA12, respectively, the Dartmouth Supplementary Labor Practices and Decent Work Indicators under the employment subheading runs from DSLA1 to DSLA7 and continues from DSLA7 under the four remaining subheadings (Labor/Management Relations, Health and Safety, Training and Education, and Diversity and Opportunity) included in the Labor Practices and Decent Work subsection. For the Human Rights subsection, Dartmouth Supplementary Human Rights Indicators are numbered as DSHR#.

It is important to note that core, secondary, and supplementary indicators have been "interpreted" as to their relevancy in relation to institutions of higher education. For example, in

the Product Responsibility section, the GRI indicators ask about information relating to customers. In consultation with Larry Litten,[3] the director of the Office of Institutional Research, the decision was made to define customers as students. Where applicable, provisional definitions of GRI terms have been addressed within the description provided unto each indicator. In the following pages, each indicator will be addressed in order of their appearance within the GRI report. Where information about individual indicators can be gathered from identical sources, multiple and sequential indicators may be grouped together before a detailed explanation about data sources is described.

6.2 LABOR PRACTICES AND DECENT WORK

6.2.1 Introduction

In this section we deal with employment issues, labor and management relations, health and safety, training and education, and diversity and opportunity. The data is generally found in the records of the Office of Human Resources, the Office of Environmental Health and Safety, Office of Institutional Diversity and Equity, and the Office of Fiscal Affairs and Procurement Services. The information is readily available in either raw data or the more convenient SPSS format. Converting the information into the GRI standard requires minimal work when it is already in the SPSS format.

In this section, the GRI indicators, both core and additional, are labeled as LA followed by a number, such as 'LA5.' The indicators we added for Dartmouth that were not a part of the GRI are called 'Dartmouth Supplementary Labor Practices and Decent Work Indicators' and are labeled DSLA followed by a number, such as 'DSLA5.'

6.2.2 Employment

The employment indicators deal with issues that arise in reference to the workforce of the College, such as demographics of the workforce and benefits.

Core Indicators

LA1. Breakdown of workforce

Where possible, by region/country, status (employee/non-employee), employment type (full time/part time), and by employment contract (indefinite or permanent/fixed term or temporary). Also identify workforce retained in conjunction with other employers (temporary agency workers or workers in co-employment relationships), segmented by region/country.

Please see below "LA2" for explanation.

LA2. Net employment creation and average turnover

Segmented by Region/Country

The Office of Human Resources, currently directed by Barbara Johnson, gathers and publishes all information relating to Dartmouth College employment practices. The breakdown of the workforce, in terms of raw numbers, is compiled by the Office of Human Resources and inputted into the SPSS database system according to all the categories listed above.[4] The information is accessible upon request in the forms currently required by the GRI, including percentages, ratios, pie charts, bar graphs, and data tables (as described in the introduction section of this chapter, under the "SPSS" subheading). Currently, Dartmouth College breaks down its workforce by region according to zip code. Also, the numbers describing ethnic diversity of the workforce is incomplete. At this time, this information is only acquired and included in the OHR's SPSS database system if individual employees voluntarily provide the data. In order to make Dartmouth College compliant with this core indicator, employee information describing ethnic diversity would need to be made mandatory.

Additional Indicators

LA12. Employee benefits beyond those legally mandated

Contributions to health care, disability, maternity, education, and retirement

A description of Dartmouth College's policies concerning employee benefits is provided within staff handbooks that are published annually by the Office of Human Resources. They are titled "The Dartmouth College Non-Exempt Staff Handbook"[5] and "The Dartmouth College Exempt Staff Handbook."[6] Both are updated annually and available upon request from the OHR. The non-exempt/exempt status refers to the eligibility of staff to be compensated by the college for overtime (non-exempt) or not (exempt). The College is exempt from paying overtime to workers paid on a salary basis, and the College is non-exempt from paying overtime to workers paid on a wage basis. In order to comply specifically with this GRI additional indicator, these handbooks would need to qualify precisely how Dartmouth employee benefit policies meet and/or exceed minimal legal standards. Below we have quantified a number of policy and practice-specific indicators that we believe should be included in any Labor Practices and Decent Work section of a Dartmouth College sustainability report. The following "Dartmouth Supplementary" indicators were selected from the analogous indicator section in *Greening UF* and the University of Michigan's prototype sustainability report.

Dartmouth Supplementary Labor Practices and Decent Work Indicators

DSLA1. Employee retention rate

The development of the SPSS database system is currently in phase two of three. According to Director Barbara Johnson at the Office of Human Resources and Director John Pryor at the Office of Research and Evaluation,[7] the third and final phase of the system's development will be completed by the Fall of 2003. At this time, the raw data containing information on "employee retention rates" will be available for use.

DSLA2. Ratio of jobs offered to jobs accepted

Currently this information is not collected by any centralized facility. According to Barbara Johnson, Director of the Office of Human Resources, upon hiring staff, each individual department is required to fill out a survey. At this time, there is no question on the survey asking the ratio of jobs offered in relation to each position filled. Theoretically, it would be relatively simple and require minimum labor and materials to add such a question and to integrate and input the data in to the SPSS system.

DSLA3. Job satisfaction levels

Ranking of organization as employer in internal and external surveys

According to Johnson at the OHR, no internal or external surveys relating to the job satisfaction of Dartmouth College employees are currently performed. The labor and cost necessary to construct, distribute, and assess such a survey would not be excessive, as independent groups (such as publications and "watch dog" organizations) are willing to provide all materials and labor to gather and evaluate such data, provided that they have the rights to publish the information. Currently, from the information we were able to gather from Johnson, the College is not planning to implement such surveys, either independently or in relation with an independent survey group. However, if, in the future, such data become of interest to Dartmouth College, the survey mechanism and the sensitivity (public/private nature) of the data would most likely need to be approved by the Office of the General Council.[8]

DSLA4. Ratio of lowest wage to national legal minimum

This data is currently gathered by the Office of Human Resources and stored in the SPSS database system. It is available upon request and, again, could conceivably be automated to output the data by timeline according to GRI standards.

DSLA5. Ratio of lowest wage to local cost of living

This data is currently gathered by the Office of Human Resources and stored in the SPSS database system. It should be noted that Dartmouth College defines local as the states of New

Hampshire and Vermont. We conceive of a potential point of concern in relation to the College using this definition of local. It is understood that the residential area immediately surrounding the College, specifically the county of Grafton, is profoundly lacking in options for affordable housing. This is a complicated and historically fraught problem. Issues of class, zoning, urban planning, open space, and recent discourses on other college campuses calling for employees to earn a living wage have converged upon the question of what geographic area a college should consider to be local. Many full-time Dartmouth College employees live within a 45-minute to an hour and a half drive from Hanover, and commuting time is extended and more hazardous in the winter. Also, because parking permits in facilities closest to college buildings are usually reserved for faculty, administrators, and students, Dartmouth College employees must park between a mile and a mile and a half away from some of their places of work. For example, Collis Café employees begin early shifts near daybreak, well before parking shuttles begin to run, and late shift employees must walk back to their cars, often in bad weather, well after the shuttles have shut down. The spirit of any sustainability reporting endeavor would hopefully seek to address such issues of living wage with a more realistic and reflective definition of what the local scale means to the vast majority of Dartmouth College employees.

DSLA6. Health and pension benefits provided to employees

This information is available in full in the "Dartmouth College Non-Exempt Staff Handbook" and the "Dartmouth College Exempt Staff Handbook," both updated annually and available through the Office of Human Resources.

DSLA7. Wage distribution according to employee type

This information is collected by the Office of Human Resources and is accessible in the SPSS database system according to any temporal parameters requested.

6.2.3 Labor/Management Relations

The Labor/Management Relations indicators deal with the interface between the workforce and the employer, including union formation and forums for joint decision-making.

Core Indicators

LA3. Percentage of employees represented by independent trade union organizations or other bona fide employee representatives

Broken down geographically OR percentage of employees covered by collective bargaining agreements broken down by region/country

This information is collected by the Office of Human Resources and is accessible in the SPSS database system according to any temporal parameters requested.

LA4. Policy and procedures involving information, consultation, and negotiation with employees over changes in the reporting organization's operations

The Office of Human Resources is responsible for designing, regulating, implementing, and monitoring the mechanisms through which Dartmouth College communicates policy and procedural changes to its employees. In order to more thoroughly quantify the mechanisms in question, we have added below, in the "Dartmouth Supplementary Labor Practices and Decent Work Indicators" section, specific qualifications relating to such operations. Most of the Dartmouth Supplementary indicators detailing this information have been garnered from the University of Michigan or the University of Florida's sustainability reports.

Additional Indicators

LA13. Provision for formal worker representation in decision-making or management, including corporate governance

The formalized system through which Dartmouth College employee interests are represented in decision-making and management policies is known as the town meeting system.

The following information/description of the town meeting system was gathered from a meeting with Barbara Johnson at the Office of Human Resources.[9]

Dartmouth College worker participation in decision making, policy, restructuring, and governance issues are managed on an individual departmental basis within forums referred to as town meetings. When significant changes in infrastructure or governance arise, as it did during the budget cuts of 2002, information on policy changes is distributed by departments to College employees under its jurisdiction, and employee input to the changes are gathered during town meetings scheduled by department heads. These meetings are open, informal forums in which both exempt (salary paid) and non-exempt (wage paid) workers within the department are informed of policy and operation changes. Individual department heads, who run the meetings, compile input and suggestions from the workers. This information is passed back to the department or administrative office that was responsible for initiating the policy or operation changes. Input and suggestions are taken into consideration by the offices responsible, and changes are made according to their judgment. Altered policies, with possible incorporation of town meeting input, are sent back to individual departments which, again, schedule a town meeting that follows the release and distribution of policy-change information. Remaining employee suggestions are again compiled, sent back to the relevant office, and employee input from the second town meeting is incorporated at the office's discretion. This process continues until the College and departments believe there is a consensus on the needed changes. Such exchanges are, of course, governed by time constraints that institutional decision-making and management procedures are often subject. In the case of the budget cuts of 2002, multiple changes were made in the original policy following employee input gathered during town meetings.

The last part of LA13, referring to formal worker representation in corporate governance procedures, is not altogether clear to us. As far as we understand how issues of "corporate governance" relate to the institution of Dartmouth College, there is no formal *ex-officio* position through which College employees are represented on the Board of Trustees.

Dartmouth Supplementary Labor Practices and Decent Work Indicators

DSLA8. Staff forums and grievance procedures in place

For a description of staff forums, please see above, DSLA7, for an explanation of the town meeting system. Grievance procedures are regulated through the Office of Human Resources. If employees feel their grievances are not being adequately addressed at this level, Dartmouth College allows labor unions to act as legal representatives of Dartmouth College employees when such unions are elected as representatives by a simple majority of the relevant employees in a democratic election. Internal grievances handled by the OHR would not be made available to the public unless union representatives took legal actions against the College in a public arena, such as the courts.

DSLA9. Numbers and types of legal actions concerning anti-union practices

The Office of the General Council is responsible for collecting all information and data relating to legal actions concerning Dartmouth College and anti-union practices. If legal actions were brought against the College in a public arena, such as the court system, the office could release such information already part of the public record. However, in the case of *internal* records not yet or not ever brought by legal action into the public arena, the Office of the General Council would not release such information.

DSLA10. University responses to organizing at non-union facilities

This information is not currently compiled officially, but a record of such activity can be found in the Office of Human Resources (OHR) and the Office of the General Counsel (OGC). The record currently compiled only looks at instances when a union has been successful in their efforts to organize. To comply with GRI, these offices would have to work together to add a section about each time there is a failure to be well organized. This can be done fairly easily by adding this section to the already compiled word document and would take a few minutes of labor to write up.

DSLA11. Evidence of employee orientation to university mission

This indicator was added as a supplement because we believe that Dartmouth College would benefit, as its peer institutions have, from a more rigorous integration of the components of its three-part vision of education, research, and service into its operations. This integration can be more effectively promoted if there is a concrete institutional commitment towards making "service" an essential process of education *as well as* a goal of the education itself. Evidence of employee and student orientation to the service component of Dartmouth College's mission could be measured by an equal institutionalized presence of not-for-profit student recruitment programs, as there are currently corporate student recruitment programs.

DSLA12. Evidence of student/employee engagement in management decision-making

This indicator has been added to supplement the information given about the town meeting system in LA13, which brings together both exempt and non-exempt employees of the College. Institutional linkages between student-employee-administration for management decision-making processes exist to a degree. Student government organizations maintain a rapport and exchange information with administrative representatives, which offers some evidence of mutual engagement, but perhaps not to the extent that could make some decision making processes the most efficient. One recent example of the lack of substantive institutionalized mechanisms bridging the student-employee-administrative gap emerged during this year's "save the swim team" campaign, which showed some level of negligence on the part of administrative structures to give adequate notice to employees (coaches, etc) and students about large-scale re-orderings of college operations. Another possible way to demonstrate a institutional commitment towards fostering meaningful student-employee-administrative relations would be to ensure student and employee representative *ex-officio* positions on important decision-making college committees.

DSLA13. Changes in average years of education of workforce

This information is gathered by the Office of Human Resources and compiled in the SPSS database system, accessible on command.

6.2.4 Health and Safety

The Health and Safety indicators deal with the policies and practices that surround occupational safety and health of the workforce at Dartmouth College.

Core Indicators

LA5. Practices on recording and notification of occupational accidents and diseases

Including how they relate to the ILO Code of Practice on Recording and Notification of Occupational Accidents and Diseases

The Office of Environmental Health and Safety is responsible for constructing, implementing, and monitoring policies and procedures dealing with occupational safety and health. The office, currently directed by Michael Blayney, compiles its data in Microsoft Excel format. It would be readily available for use in GRI format with labor and materials expenditures proportional to the degree that data collection specifications (temporal, etc) would need to be standardized. The initial work of streamlining GRI-specific data collection could be easily implemented by a sustainability coordinator and thereafter become internalized within the operations of the OEHS.

LA6. Description of formal joint health and safety committees comprising management and worker representatives and proportion of workforce covered by any such committees

A complete description of formal joint health and safety committees with such a composition and the proportion of the workforce covered by them is available in full within worker's handbooks published annually by the Office of Human Resources for each individual department. This information is available upon request from the OHR.

LA7. Standard injury, lost day, and absentee rates and number of work-related fatalities, including subcontracted workers

This information is gathered by the Office of Environmental Health and Safety and compiled in Microsoft Excel format. Again, the data would be readily available for use in GRI format with labor and materials expenditures proportional to the degree that data collection specifications (temporal, etc) would be standardized/streamlined. The initial work of streamlining GRI-specific data collection could be easily implemented by a sustainability coordinator and thereafter become internalized within the operations of the OEHS.

LA8. Description of policies or programs, for the workplace and beyond, on HIV/aids

A description of these policies and programs is available within the "Dartmouth College Exempt Staff Handbook" and the "Dartmouth College Non-Exempt Staff Handbook" under the subheading "Insurance Policies." These publications are issued and available from the Office of Human Resources.

Additional Indicators

LA14. Evidence of substantial compliance with the ILO guidelines for occupational health management systems

The Office of Environmental Health and Safety is responsible for ensuring compliance with local, state, federal, and ILO occupational safety and health standards. The evidence of such compliance could be collected from the office in the form that the College feels is necessary, as the GRI does not specify a specific format.

LA15. Description of formal agreements with trade unions or other bona fide employee representatives covering health and safety at work and proportion of the workforce covered by any such agreements

The Office of Human Resources, currently directed by Johnson, keeps copies of all formal agreements and contracts signed between Dartmouth College and democratically elected

union representatives. The office has the raw data of workers who are covered by such agreements, and the labor/materials needed to determine the proportion of workforce covered by the agreements could be found in the SPSS database.

Dartmouth Supplementary Labor Practices and Decent Work Indicators

DSLA14. Reportable cases in current year that resulted in injury, absenteeism, and work-related fatalities including subcontracted workers

This indicator has been added to ensure that the specific information referred to in LA7 could be reported on an annual basis. The information is currently gathered by the Office of Environmental Health and Safety and compiled in Microsoft Excel format.

DSLA15. Investment per worker in illness and injury prevention

Currently this specific information is not available, but the indicator was thought to be an important one used by other universities in their sustainability reports. Theoretically, the Office of Environmental Health and Safety could calculate this data from information that is already collected and reported. It could be done by dividing the total investment in illness and injury prevention by the total number of workers. The labor/costs of such calculations would be minimal, but again, the data streamlining work of a sustainability coordinator could be essential in implementing a standardized set of calculations that would need to be made for GRI reporting, eventually making the production of the information part of the office's internal operations.

6.2.5 Training and Education

The 'Training and Education' indicators deal with employee development and continuing education programs of employees, as well as policies/programs that aid employees in their educational endeavors.

Core Indicators

LA9. Average hours of training per year per employee by category of employee

Senior management, middle management, professional, technical, administrative, production, and maintenance are examples

The Office of Human Resources currently gathers this data and compiles it into the SPSS database, available in GRI format upon accessing the system.

Additional Indicators

LA16. Description of programs to support the continued employability of employees and to manage career endings

A description of these programs is available within the "Dartmouth College Exempt Staff Handbook" and the "Dartmouth College Non-Exempt Staff Handbook" under the subheadings "Severance" and "Employee Development." These publications are issued and available from the Office of Human Resources.

LA17. Specific policies and programs for skills management or for lifelong learning

A description of these programs is available within the "Dartmouth College Exempt Staff Handbook" and the "Dartmouth College Non-Exempt Staff Handbook" under the subheading "Employee Development." These publications are issued and available from the Office of Human Resources.

6.2.6 Diversity and Opportunity

The Diversity and Opportunity indicators deal with the policies and practices of Dartmouth College in reference to the diversity of the workforce and the opportunities available to all peoples.

Core Indicators

LA10. Description of equal opportunity policies or programs, as well as monitoring systems to ensure compliance and results of monitoring

Equal opportunity policies may address workplace harassment and affirmative action relative to historical patterns of discrimination

A complete description of equal opportunity policies, programs, and monitoring systems is available within the yearly report of the Office Institutional Diversity and Equity, formerly known as the Office of Affirmative Action. Ozzie Harris currently directs it. As published text, the descriptive format would be acceptable within GRI standards. The labor/materials necessary to access this information would be minimal, requiring only that a centralized facility initially request and monitor all such textual data and compile it within the report.

LA11. Composition of senior management and corporate governance bodies, including the board of directors

Includes female/male ratio and other indicators of diversity as culturally appropriate

This information is available within the yearly report published by the Office of Institutional Diversity and Equity, formerly known as the Office of Affirmative Action, directed by Ozzie Harris. The data could be easily converted into a GRI-compatible format (numbers to ratios). The labor/materials necessary to access this information would be minimal. A centralized facility would need to initially request and monitor all such data and compile it within the report.

Dartmouth Supplementary Labor Practices and Decent Work Indicators

DSLA16. Mentoring programs for minorities – faculty and students

Please see below DSLA22 for explanation.

DSLA17. Discrimination-related litigation –frequency and type

This information is available within the yearly report published by the Office of Institutional Diversity and Equity, formerly known as the Office of Affirmative Action, directed by Ozzie Harris. As published text, the descriptive format would be acceptable within GRI standards. The labor/materials necessary to access this information would be minimal. A centralized facility would need to initially request and monitor all such data and compile it within the report.

DSLA18. Diversity, opportunity, and non-discrimination in relation to education and faculty employment – Also see Education Indicators section.

College policies articulating issues of diversity, opportunity, and non-discrimination in relation to education and faculty employment can be found within the "Dartmouth College Exempt Staff Handbook" and the "Dartmouth College Non-Exempt Staff Handbook" under the subheading "Employee Development," issued and available from the Office of Human Resources. They can also be found in the OIDE's yearly report. We describe the possibility of a more detailed account of the College's implementation of its diversity, opportunity, and non-discrimination policies within the Education Performance Indicators section of this report.

DSLA19. Percentage of women in senior executive, senior, and middle management ranks.

Please see below DSLA22 for explanation.

DSLA20. Percentage of women on Board of Trustees.

Please see below DSLA22 for explanation.

DSLA21. Ratio of ethnic minorities in senior executive, senior, and middle management ranks.

Please see below DSLA22 for explanation.

DSLA22. Percentage of ethnic minorities on Board of Trustees.

This information is available within the yearly report published by the Office of Institutional Diversity and Equity, formerly known as the Office of Affirmative Action, directed by Ozzie Harris. The data could be easily converted into a GRI-compatible format (numbers to ratios and percentages). The labor/materials necessary to access this information would be minimal. A centralized facility would need to initially request and monitor all such data and compile it within the report.

6.3 HUMAN RIGHTS

6.3.1 Introduction

In this section we are dealing with strategy and management, non-discrimination, freedom of association and collective bargaining, child labor, forced and compulsory labor, disciplinary and security practices, and indigenous rights. The data is generally found in the Office of Human Resources, especially in their "College Exempt and Non-Exempt Staff Handbook" and the Office of Fiscal Affairs and Procurement Services' records. The information is readily available in Word files or the more convenient SPSS format. Converting the information into the GRI standard requires minimal work when it is already in the SPSS format. The issues that arose in this section of GRI reporting were defining the terms of the operations of the College, as well as the associated issue and concept of scale. Such a discussion is addressed as it applies to individual indicators and at greater length in the conclusion of this chapter.

In this section, the GRI indicators, both core and additional, are labeled as HR followed by a number, such as 'HR5.' Indicators we added for Dartmouth that were not a part of the GRI are called 'Dartmouth Supplemental Human Rights Indicators' and are labeled as DSHR followed by a number, such as 'DSHR5.'

6.3.2 Strategy and Management

The Strategy and Management indicators address the policies that dictate the way the College spends and invests finances.

Core Indicators

HR1. Description of policies, guidelines, corporate structure, and procedures to deal with all aspects of human rights relevant to operations, including monitoring mechanisms and results.

State how policies relate to existing international standards such as the Universal Declaration and the Fundamental Human Rights Conventions of the ILO.

A description of the policies and procedures pertaining to the College's employment processes and how they relate to aspects of human rights and existing international standards can be found within the "Dartmouth College Exempt Staff Handbook" and the "Dartmouth College Non-Exempt Staff Handbook," issued by and available from the Office of Human Resources. As published text, the descriptive format of this specific part of the HR1 indicator would be acceptable within GRI standards. The labor/materials necessary to access this information would be minimal, requiring only that a centralized facility initially request and monitor this textual data and compile it within the report.

The more difficult issue with this indicator emerged when we looked for ways that Dartmouth College's human rights policies/procedures are practiced, monitored, and responded to in other areas of its operations, including investment, procurement, and supply chain decision making. These topics are addressed in the following indicators in this section.

HR2. Evidence of consideration of human rights impacts as part of investment and procurement decisions, including selection of suppliers/contractors.

The Office of Fiscal Affairs and the Office of Procurement Services are responsible for formulating and implementing methods and strategies to maximize financial gains from Dartmouth College's investment and procurement decisions. Julie Dolan is the Vice President for Fiscal Affairs at Dartmouth College and Gregory Husband is the Director of Procurement Services. From the information we were able to gather from Dolan during a meeting on April 21ST of this year, the methodology that dictates Dartmouth College's investment and

procurement decisions does not include direct and procedural consideration of possible human rights impacts.

There are convincing reasons why Dartmouth College would benefit from an investment methodology that took into account such impacts. However, encouraging investment and procurement accountability simultaneously lowers and heightens "risks" associated with liability. This is a much theorized and debated topic, and its scope is too great to address realistically the ethical, economic, and institutional complexities of the question in the context of this report.

It is true that Dartmouth College does not explicitly take possible human rights impacts into consideration when making investment and procurement decisions. It must be noted here that the definition of "human rights" as it applies to the GRI is more specifically defined below, in HR3. According to this provision, "human rights performance" refers to all aspects of human rights identified as GRI performance indicators, specifically, those pertaining to the economic, environmental, educational, and social impacts/activities of the College. Julie Dolan at the Office of Financial Affairs[10] was not able to articulate ways that College policy seeks to ensure that it does not, through its investment activities, indirectly facilitate or promote acts of human rights abuses. It is not realistic to expect that the College can or should be able to trace every dollar of its investments to its final destination, and to evaluate the possible "social" or "human rights" impacts of that investment decision, but it is similarly not realistic to assume that the College can wash its hands of its function as an investor completely.

Given the sensitivity of investment information, we assume that the Office of the General Council and the Board of Trustees would need to be involved in any substantial reformulation of investment policy or methodology. However, given the substantial risks associated with poor decision making in this area (remembering the divestment campaign of the 1980's), such a policy/methodology overhaul would not only contribute to Dartmouth College's economic sustainability as an institution of higher education, but would also add to Dartmouth College's legitimacy as a business. It could be perceived as a business that adheres to standards (written policies) that attempt to articulate a path towards social and environmental sustainability whose benefits may be diffuse, but nonetheless essential.

HR3. Description of policies and procedures to evaluate and address human rights performance within the supply chain and contractors, including monitoring systems and results of monitoring.

"Human rights performance" refers to the aspects of human rights identified as reporting aspects in the GRI performance indicators.

The Office of Procurement Services is responsible for contracting sellers, as well as for monitoring and evaluating the results of their supply chain buying decisions. On the Procurement Services website, on a page titled "Vendor Guide," http://www.dartmouth.edu/~purchase/Policies%20&%20Procedures/vendorguide.htm, the office posts "Dartmouth College's Policy on Affirmative Action and Equal Opportunity (nondiscrimination)," asking that "During the performance of this order or subcontract the Seller agrees" to the Affirmative Action and Equal Opportunity policies. According to this page, "All vendors or contractors must be in compliance with the above and submit a written statement confirming conformance at the time of bid solicitation." Also included on this page, under the heading "Facts and Objectives," is the following statement, that Procurement Services commits "To actively seek Small Businesses, Small Disadvantaged Businesses, and Women Owned Businesses to provide goods and services to the College," and "To promote fair, ethical, and legal trade practices."

This GRI indicator asks that processes of supply chain and contractor evaluation take into consideration all "aspects of human rights identified as reporting aspects in the GRI performance indicators." If it is the case that all vendors and contractors must submit a written statement confirming that they are in compliance with Dartmouth College's Affirmative Action and Equal Opportunity policies, and that, as stated on this page, "all materials or equipment procured by Dartmouth College for use by its employees must be in full compliance with Occupational Safety and Health Act requirements and regulations," we believe it can be agreed that such policies account for consideration of human rights performance issues relating to safety, health, labor relations, and nondiscrimination.

However, we have not been able to confirm that Procurement Services' policies and procedures account for the environmental aspect of human rights indicated by the GRI, nor is it clear that this office adequately and consistently monitors and enforces its policies. We feel that

further and more specified consideration of this indicator is necessary, and have addressed those concerns in defining additional Dartmouth Supplementary Human Rights Indicators.
As explained within the indicator HR3, a consideration of all aspects of human rights necessitates a monitoring mechanism that evaluates Dartmouth College's disparate operations in relation to how each affects categories of economic, environmental, and social indicators. These considerations are further elaborated above, in HR2.

Additional Indicators

HR8. Employee training on policies and practices concerning all aspects of human rights relevant to operations.

Include type of training, number of employees trained, and average training duration.

This information is available in the "Training and Development Handbook" issued annually by the Office of Human Resources. The data is available in the OHR database in SPSS format.

Dartmouth Supplementary Human Rights Indicators

DSHR1. Description of policies, guidelines, corporate structure, procedures, and monitoring systems in place to regulate investment and procurement decisions, to respond to results of monitoring, and to ensure investment transparency, accountability, and responsibility.

The Office of Financial Affairs does not operate under published policies and guidelines constructed specifically to regulate investment and procurement strategies and decisions in way that encourages investment responsibility for and accountability to human rights, social, environmental, and economic issues. The office is structured to maximize the College's economic gains with minimal consideration to how Dartmouth College's investment decisions impact human rights and the environment. We believe it is in the interest of the College to implement policies that seek to regulate such decisions, as a public report of this kind could lead to some negative press.

Currently all College investments are carried out by a third party that the College chooses depending on the area of investment. An example Julie Dolan gave was that if the College chose to invest in tech stocks, they would choose the 'best' organization to ask to invest money for the College in that particular area. As for a definition of 'best,' this was described to us as being chosen from the research that the College does into each area of investment and a close look at these companies' track records. After using this method of selection, communication is made with peer educational institutions to discuss these companies to see if they have worked well with them. Then, a decision is made. This process and the method for researching companies backgrounds would have to be put into written form by lawyers and would not only take time and money for approval by the trustees, but also a complete re-evaluation of how the College invests their endowment. Although not quantifiable, we would suspect that this step is very difficult and would best be done by the College Finance Office, in conjunction with the Office of the General Counsel.

6.3.3 Non-Discrimination

The Non-discrimination indicators deal with the policies and programs preventing discrimination.

Core Indicators

HR4. Description of global policy and procedures/programs preventing all forms of discrimination in operations, including monitoring systems and results of monitoring.

College policies articulating issues of diversity, opportunity, and non-discrimination in relation to education and faculty employment can be found within the “Dartmouth College Exempt Staff Handbook” and the “Dartmouth College Non-Exempt Staff Handbook” under the subheading “Employee Development,” issued and available from the Office of Human Resources. They can also be found in the Office of Institutional Diversity’s yearly report. This office, directed by Ozzie Harris, and its published reports function as the College’s monitoring system on issues relating to discrimination within its operations. Again, the question of scale

enters as a consideration of what scope the term operations is meant to refer to. The global policy of nondiscrimination is supposed to apply to all aspects of Dartmouth College's operations, yet there are no such procedures attempting to address issues of nondiscrimination in Dartmouth College's investment methodology. The possibility of implementing such policies is addressed above in HR2, DSHR2, and HR3, as such concerns relate to Procurement Services.

6.3.4 Freedom of Association and Collective Bargaining

The Freedom of Association and Collective Bargaining indicator deals with the College's policies pertaining to unionization.

Core Indicator

HR5. Description of freedom of association policy and extent to which this policy is universally applied independent of local laws, as well as description of procedures/programs to address this issue.

The Office of Human Resources is responsible for addressing and dealing with issues of freedom of association, but it does not function or make such decisions with reference to a written policy. The office operates from a working policy based on historical precedence and practice. Although Dartmouth College would be unable to provide an answer to this indicator presently, we believe it would be to the College's benefit to produce a universally applicable description of such a policy in order to avoid possible circumstances where a working policy could be unevenly enforced.

6.3.5 Child Labor

The Child Labor indicator deals with the College's policy on child labor.

Core Indicators

HR6. Description of policy excluding child labor as defined by the ILO Convention 138 and extent to which this policy is visibly stated and applied, as well as description of procedures/ programs to address this issue, including monitoring systems and results of monitoring.

This information can be found within the "Dartmouth College Exempt Staff Handbook" and the "Dartmouth College Non-Exempt Staff Handbook," issued and available from the Office of Human Resources. As published text, the descriptive format would be acceptable within GRI standards. The labor/materials necessary to access this information would be minimal, requiring only that a centralized facility initially request and monitor all such textual data and compile it within the report.

6.3.6 Forced and Compulsory Labor

The forced and compulsory labor indicators deal with the College's policies on forced and compulsory labor, as well as the situation of the employment of graduate students.

Core Indicators

HR7. Description of policy to prevent forced and compulsory labor and extent to which this policy is visibly stated and applied as well as description of procedures/programs to address this issue, including monitoring systems and results of monitoring.

See ILO Convention No. 29, Article 2.

Dartmouth College complies with all federal and state laws concerning the use of forced and compulsory labor. The Office of Human Resources, responsible for enforcing the College's labor policies, keeps copies of the public record (the court documents) that specify federal and state forced/compulsory labor laws. The OHR does not re-print these within their own internal publications and does not have monitoring systems designed specifically to address such issues, although the published procedures and policies of that office are entirely consistent with such

laws. If such public documents were converted into published text, such a descriptive format would be acceptable within GRI standards. The labor/materials necessary to do this would be minimal. The labor/materials necessary to transfer this information to a centralized facility responsible for constructing a sustainability report would also be minimal.

Dartmouth Supplementary Human Rights Indicators

DSHR2. Describe the "employment" of graduate students, their benefits, and utilization.

Graduate student affairs are administered under the Office of the Dean of the College. Graduate students are not considered to be "employees" of the college. They are considered as students who receive stipends, rather than as employees who are compensated for tasks of teaching. This is a distinction between Dartmouth and many larger universities. Graduate students are given some benefits. All information relating to their utilization is gathered by the Office of the Dean of the College, currently directed by Dean Larimore, and such a description would be readily available as long as this indicator were considered complete with a textual description. The labor/materials necessary to access this information would be minimal, requiring only that a centralized facility initially request and monitor all such textual data and compile it within the report.

6.3.7 Disciplinary Practices

The Disciplinary Practices indicators deal with internal discipline in relation to human rights violations.

Additional Indicators

HR9. Description of appeal practices, including, but not limited to, human rights issues.
Describe the representation and appeals process.

This information can be found within the "Dartmouth College Exempt Staff Handbook" and the "Dartmouth College Non-Exempt Staff Handbook," issued and available from the Office

of Human Resources. As published text, the descriptive format would be acceptable within GRI standards. The labor/materials necessary to access this information would be minimal, requiring only that a centralized facility initially request and monitor all such textual data and compile it within the report.

HR10. Description of non-retaliation policy and effective, confidential employee grievance system (including, but not limited to, its impact on human rights).

This information can be found within the "Dartmouth College Exempt Staff Handbook" and the "Dartmouth College Non-Exempt Staff Handbook," under the subheading "Grievances," issued and available from the Office of Human Resources. As published text, the descriptive format would be acceptable within GRI standards. The labor/materials necessary to access this information would be minimal, requiring only that a centralized facility initially request and monitor all such textual data and compile it within the report.

6.3.8 Security Practices

The Security Practices indicator deals with the human rights training of security personnel.

Additional Indicators

HR11. Human rights training for security personnel.

Include type of training, number of person's trained and average training duration.

The Office of Safety and Security gathers and compiles this information in its own database. Their records include officers' names and the specific training they have received, a description of training programs, and the number of hours it required. Their data is assembled on a Microsoft Excel spreadsheet and the labor/materials necessary to transfer that data to sustainability report would be minimal. It would only require the amount of time and paper necessary to copy information from the Office of Safety and Security's database into the physical sustainability report.

6.3.9 Indigenous Rights

The Indigenous Rights indicators deal with human rights issues specific to indigenous people within the local scope of the campus, as well as the operational interface between the College and indigenous people on a greater scale.

Additional Indicators

HR12. Description of policies, guidelines, and procedures to address the needs of indigenous people.

This includes indigenous people in the workforce and in communities where the organization currently operates or intends to operate.

Dartmouth College has no written policies, guidelines, or procedures that address the specific needs of indigenous peoples employed by the College or those indigenous communities that maybe be impacted by the scope of the College's activities/operations at local and global levels. Currently, according to Johnson at the Office of Human Resources, indigenous needs fall under those protected by the College's policies articulating issues of diversity, opportunity, and non-discrimination in relation to employment and procurement, found within the "Dartmouth College Exempt Staff Handbook" and the "Dartmouth College Non-Exempt Staff Handbook," issued and available from the Office of Human Resources. Nondiscrimination policies and monitoring results can also be found in the Office of Institutional Diversity's yearly report.

That said, it maybe to the College's benefit to develop policies and procedures that specifically address the needs of indigenous people. Such a development may require significant labor and materials, specifically in any preliminary research phase, where a working definition of indigenous peoples would need to be established, as well as what kind of policies could be designed specifically to address their needs.

HR13. Description of jointly managed community grievance mechanisms/authority.

Dartmouth College does not currently operate a jointly managed system that seeks to address community grievances. Community relations are managed and monitored through the

Office of Public Relations, currently directed by Kate Burke. It is conceivable that such a joint mechanism could be beneficial to the College's social sustainability, particularly because the College employs such a high percentage of people from the local community.

Dave Newport, the sustainability coordinator at the University of Florida, spoke with us about this indicator. The anecdote he recounted that emphasized the importance of jointly managed grievance systems had to do with a decision the university had made about energy use that had significant environmental and social impacts on the surrounding community. That University exists in a much more populated municipal district than Dartmouth College does, but the socioeconomic differentiation between the side of the city that the UF campus is located in and the socioeconomic privilege that the town of Hanover has in relation to neighboring towns is similar in nature. In their effort to maintain positive community relations, the University of Florida has recently initiated the operation of a community relations office that is located off-campus, in a part of the city where many of the University's impacts are felt but where its benefits do not accrue.

Such a jointly managed and accessible office could possibly be of benefit to Dartmouth College, though it is also plausible that, given the differences in population and geographic orientation between the institutions, the benefits of a separate office could be attained through an extension of the existing Office of Public Relations. This extension could come in the form of added policies and programming or personnel.

HR14. Share of operating revenues from the area of operations that are redistributed to local communities.

Currently there is no data available on this subject. It is possible that the development of a jointly managed authority that functioned as a liaison between the activities of the College and that of the community could be responsible for collecting this type of data. The benefits of such a mechanism are further described in the explanation of HR13.

Dartmouth Supplementary Human Rights Indicators

DSHR3. Supply data on the sources of income, public and private, that are redistributed to local communities and link these monies to community spending.

Again, there is currently no data available on this subject, but the Office of Public Relations is now working to gather this information. They do not have a timeline specifying a date that they predict their assessment will be complete, but according to the director at the OPR, it is conceivable that the information will be accessible by the time that an actual enactment of a sustainability reporting process would come underway. Again, a "jointly managed" authority that functioned as a liaison between the activities of the College and that of the community could also administer the labor/materials necessary to complete and maintain this database. Other possible benefits of institutionalizing such a position are discussed in "HR13" and HR14.

6.4 SOCIETY

6.4.1 Introduction

In this section we deal with community issues, bribery and corruption, political contributions, and competition and pricing. The data is generally found in the Office of Public Relations, the Office of the General Counsel and the Office of Fiscal Affairs and Procurement Services' records. The information is readily available in Word document format or less frequently the more convenient SPSS format. Converting the information into the GRI standard requires minimal work when it is already in the SPSS format.

In this section, the GRI indicators, both core and additional, are labeled as SO followed by a number, such as SO5. Indicators we added for Dartmouth that were not a part of the GRI are called Dartmouth Supplemental Society Indicators and are labeled DSSO followed by a number, such as DSSO5.

6.4.2 Community

The Community indicators deal with the interface between the College and the local community that College operation affects. These indicators also deal with mechanisms in place functioning to maintain productive dialogue between these groups.

Core Indicators

SO1. Description of policies to manage impacts on communities in areas affected by activities, as well as description of procedures/ programs to address this issue, including monitoring systems and results of monitoring.

Include explanation of procedures for identifying and engaging in dialogue with community stakeholders.

The first part of answering this indicator is to identify the definition of what are the College's activities. We recommend that activities be defined as education, research, service, employment, procurement, and investment, which is spoken about at length in the introduction. From the information we gathered we were able to acquire only some specifics at the local level and none at the global level. Ultimately, these are not solely on either the local or global level, but there are intertwined impacts that Dartmouth College has on various communities. As for the information we gathered that was local to the Dartmouth physical campus, the Office of Public Relations (OPR) and the Office of Procurement Services (OPS) keep that data. OPR and OPS stores information about policies to manage impacts on the local communities in Word documents. The more global information is not currently collected, which we speak at length about in HR2 and HR3, and DSHR2. Although we did not have the global information readily available, we see Dartmouth College as a global educational leader and global issues cannot be ignored. These more global issues will be specifically addressed in a Dartmouth-supplemental indicator.

Additional Indicators

SO4. Awards received relevant to social, ethical, and environmental performance.

These awards would go through the Office of Public Affairs (OPA), headed by Laurel Stavis. This information is regularly released to the public in press releases and can be obtained from OPA upon request in Word format. The time required for GRI formatting would be minimal.

Dartmouth Supplementary Society Indicators

DSSO1. Description of policies to manage impacts on communities in areas affected by Dartmouth College's investment, procurement, and supply chain activities, as well as description of procedures/ programs to address this issue, including monitoring systems and results of monitoring.

The information for supply chain activities and procurement is available in HR3. Although the information is not very comprehensive, there are major impacts taken into account. The investment is part of the global impacts we spoke about in SO1 and HR2 and HR3. Although the information is not readily available, this information is important to have and led to the addition of this supplementary indicator.

6.4.3 Bribery and Corruption

The Bribery and Corruption indicator deals with policies to address bribery and corruption within the College organization.

Core Indicators

SO2. Description of the policy, procedures/management systems, and compliance mechanisms for organizations and employees addressing bribery and corruption.

Include a description of how the organization meets the requirements of the OECD Convention on Combating Bribery.

There is no written policy to address bribery or corruption. To comply with GRI, a policy, procedure/management systems, and compliance mechanisms on bribery and corruption would have to be written, probably by lawyers. This could be done by the Office of the General Counsel (OGC) and would be a one-time cost to have published as text. As published text, the descriptive format would be acceptable within GRI standards. The labor/materials necessary to access this information would be minimal, requiring only that a centralized facility initially request and monitor all such textual data and compile it within the report.

6.4.4 Political Contributions

The Political Contributions indicators deal with the mechanism of donation and the amount of money donated by the College to political parties and organizations.

Core Indicators

SO3. Description of policy, procedures/management systems, and compliance mechanisms for managing political lobbying and contributions.

Please see below SO5 for explanation.

Additional Indicators

SO5. Amount of money paid to political parties and institutions whose prime function is to fund political parties or their candidates.

Dartmouth College's official policy is not to contribute to political organizations. For a definition of "political organizations" as it applies to this written policy, descriptions can be found in the Office of the General Counsel (OGC) and is available in a Microsoft Word document, accessible upon request. The descriptive format would be acceptable within GRI standards. The labor/materials necessary to access this information would be minimal, requiring only that a centralized facility initially request and monitor all such textual data and compile it within the report. Since there are no contributions, SO5 is zero.

6.4.5 Competition and Pricing

The Competition and Pricing indicators deal with the way the College handles competition in relation to other educational institutions.

Additional Indicators

SO6. Court decisions regarding cases pertaining to anti-trust and monopoly regulations.

In a meeting with the director of the Office of the General Counsel Ellen Arnold, she indicated that this question was irrelevant to the college/university setting, but that court decisions and laws change, so this could become relevant at any time. If it were to become relevant, they would be a matter of public record and could be found in the Office of General Counsel. As published text, the descriptive format would be acceptable within GRI standards. The labor/materials necessary to access this information would be minimal, requiring only that a centralized facility initially request and monitor all such textual data and compile it within the report.

SO7. Description of policy, procedures/management systems, and compliance mechanisms for preventing anti-competitive behavior.

There is currently no policy about preventing anti-competitive behavior except for the NCAA and Ivy League policies, which can be found in Word format in the Office of the General Counsel (OGC). As published text, the descriptive format would be acceptable within GRI standards. The labor/materials necessary to access this information would be minimal, requiring only that a centralized facility initially request and monitor all such textual data and compile it within the report. In light of the admissions issue that occurred with Yale and Princeton last year, it may be in the College's best interest to write a Dartmouth-specific policy for preventing anti-competitive behavior. This would require writing a policy, probably by a lawyer. The Office of the General Counsel could do this.

6.5 PRODUCT RESPONSIBILITY

6.5.1 Introduction

In this section we deal with customer health and safety, products and services, advertising, and respect for privacy. When we speak of customers, we are referring to the students who are buying their education. The data is generally found in the Office of Residential Life and Education, the Office of Safety and Security, the Office of Public Relations, the Office of the General Counsel, Office of Admissions, the Registrar's Office, the Dean's Office, and the Office of Research and Evaluation's records. The information is readily available in either Excel or the more convenient SPSS format. Converting the information into the GRI standard requires minimal work when it is already in the SPSS format.

In this section, the GRI indicators, both core and additional, are labeled as PR followed by a number, such as PR5. Indicators we added for Dartmouth that were not a part of the GRI are called Dartmouth Supplemental Product Responsibility Indicators and are labeled DSPR followed by a number, such as DSPR5.

6.5.2 Customer Health and Safety

The Customer Health and Safety indicators deal with the health, safety, and education of the student body.

Core Indicators

PR1. Description of policy for preserving customer health and safety during use of products and services, and extent to which this policy is visibly stated and applied, as well as description of procedures/programs to address this issue, including monitoring systems and results of monitoring.

Explain rationale for any use of multiple standards in marketing and sales of products.

The Office of Residential Life/Education (ORL) and the Office of Safety and Security (S&S) address these issues. Both offices have policies about preserving the health and safety during the students' (customers') educational (product) residence at the College. These policies can be found in the respective offices mission statements, which are available at http://www.dartmouth.edu/~security/proctor.html (S&S) and http://www.dartmouth.edu/~orl/resed.html (ORL).

The application of these policies can be seen in the programs that both offices have in place, in terms of health, safety, and education on these both topics. A copy of these programs is compiled each year by the respective offices and is available upon request. For monitoring, these are spelled out in the S&S website above and in the ORL website above. This information is already in the format that GRI requires. In order to gather these policies together to produce a GRI-compliant report, Dartmouth College would need to provide the additional labor and materials necessary to compile this available information. The part about the multiple standards in marketing and sales is not applicable to the college/university setting.

Additional Indicators

PR4. Number and type of instances of non-compliance with regulations concerning customer health and safety, including the penalties and fines assessed for these breaches.

These numbers are available for those instances when non-compliance finds its way into a public arena. They are available in the Office of the General Counsel (OGC). The numbers requested are currently available in Excel format, although Dartmouth does not currently publish them. The type of instance is not in these Excel worksheets and would have to be typed in from the original court proceedings. To streamline this process, a row or column could be added into the Excel sheet for this purpose. It would be a one time process. To make them available for a GRI report, it would take a person in the OGC to print these out in pie chart/bar graph, with type of instance as the separating factor. Since the infrastructure is in place for something like this, the cost of this process in mostly in an added task, i.e. time.

PR5. Number of complaints upheld by regulatory or similar official bodies to oversee or regulate the health and safety of products and services.

Not applicable to College/University setting

PR6. Voluntary code compliance, product labels or awards with respect to social and/or environmental responsibility that the reporter is qualified to use or has received.

Include explanation of the process and criteria involved.

The voluntary code compliance and product labels are not applicable to College/University setting. Although Dartmouth College has not received any awards for these in the last few years, these sorts of awards are kept, as they are won, by the Office of Public Relations (OPR). They are organized as press releases and can be found as such in OPR. The explanation of the process or criteria involved would have to be attained from the organization that gave the award. These two processes, compilation of the press releases and attaining the

criteria/process used for evaluation, would take contact time with the organization and processing time for OPR to produce a master list. The infrastructure for this is already in place in their office.

6.5.3 Products and Services

The Products and Services indicators deal with the product (education) provided by the College.

Core Indicators

PR2. Description of policy, procedures/management systems, and compliance mechanisms related to product information and labeling.

Not applicable to College/University setting

Additional Indicators

PR7. Number and type of instances of non-compliance with regulations concerning product information and labeling, including any penalties or fines assessed for these breaches.

Not applicable to College/University setting

PR8. Description of policy, procedures/management systems, and compliance mechanisms related to customer satisfaction, including results of surveys measuring customer satisfaction.

Identify geographic areas covered by policy.

Currently, the College does not have a written description of their policy, procedures/management systems, or compliance mechanisms related to customer satisfaction, but they do actively seek out and measure customer satisfaction, the data of which is stored in

SPSS format and readily available in the Office of Research and Evaluation (ORE). To comply with GRI on this indicator, a policy would have to be written down about how and when customer satisfaction is measured. This can be done by the ORE, and would have to be approved by the Office of General Counsel (OGC). This policy would also have to be updated as theories on measuring customer satisfaction change. The part of this indicator relating to geographic region is not applicable to the college/university setting.

6.5.4 Advertising

The Advertising indicators deal with the way the College makes decisions in their way to advertise.

Additional Indicators

PR9. Description of policies, procedures/management systems, and compliance mechanisms for adherence to standards and voluntary codes related to advertising.
Identify geographic areas covered by policy.

The Office of the General Counsel (OGC) mentioned to our group that the only regulations that the College has to follow are those that the NCAA and the Ivy League has in place.[11] These descriptions can be found in the OGC, as well as the Office of Admissions (OADMIN). The compliance mechanism is also in these offices. These descriptions of both the policy and compliance mechanism are in word documents and would require an e-mail of these word documents for compliance with the GRI.

PR10. Number and types of breaches of advertising and marketing regulations.

The Office of the General Counsel (OGC) would keep records of these instances, were they to occur. None have been encountered over the last five years. When they occur, a report is filed, and is a public document, making it available from the OGC for use in a GRI report. The format of these would be in that of court documents or official press releases from the NCAA/Ivy League offices. Time would be required to extract the type of breach that was found,

although it would be a very limited amount of time. This process could be streamlined if an Excel spreadsheet could be put together that would collect the number and type of breach that occurred. Each time a breach would occur, it would be collected in this Excel worksheet. This would require the making of a worksheet.

6.5.5 Respect for Privacy

The Respect for Privacy indicators deal with the policies the College has in place to assure student privacy.

Core Indicators

PR3. Description of policy, procedures/management systems, and compliance mechanisms for consumer privacy.

Identify geographic areas covered by policy.

There are four main offices that would have to provide this information. These are Dick's House, the Office of Admissions (OADMIN), the Registrar's Office, and Dean's Office, both first year and upper class students. Each of these offices has a privacy policy that is appropriate for their respective roles in the College. They provide these policies on request and are in the student handbook. These are kept by the individual offices in word files and can be compiled from there.

Additional Indicators

PR11. Number of substantiated complaints regarding breaches of consumer privacy.

These data are unavailable unless they are brought to a public arena. For these, the information can be found in the Office of the General Counsel (OGC) and are already compiled in the form (raw number of breaches) requested by the GRI. To obtain this information, the OGC would be contacted and they would find the number in their Excel database. For full compliance

with GRI, all substantiated complaints would have to be collected. This does not follow with the College's current policy on internal investigations and would not be approved by the OGC.

6.6 SUMMARY

The most difficult problem, which we encountered a number of times and addressed within the explanation of individual indicators, is that of the definition of scale and scope. This problem was particularly of note in the Human Rights (HR) and Social (SO) indicator sections, in which the GRI asks the institution to address the impacts its activities or operations have on the social and human rights spheres. In our own attempts at breaking down the branches of policy and decision-making within the College and assessing how each relates to possible social and human rights impacts, we have compiled a short list of the overlapping scopes that appear to be of concern within this chapter. They are (1) employment, (2) procurement, and (3) investment, (4) education, (5) research, and (6) service. The first three are dealt with in this section, while the next three are examined in the Education Indicators, found in Chapter 7. We have sought to determine institutional impacts in relation to each of these scales, as well as how they operate interdependently. The introduction to the Social Performance Indicators section of the GRI report reads as the following[12]:

> The social dimension of sustainability concerns an organization's impacts on the social systems within which it operates. Social performance can be gauged through an analysis of the organization's impacts on stakeholders and the local, national, and global levels. In some cases, social indicators influence the organization's intangible assets, such as its human capital and reputation.
>
> Social performance measurements enjoy less of a consensus than environmental performance measurements. Through its consultative process, GRI has selected indicators by identifying key performance aspects surrounding labor practices, human rights, and broader issues affecting consumers, community, and other stakeholders in society. . ..
>
> Many of the social issues that are the subject of performance measurement are not easily quantifiable, so a number of social indicators are qualitative measures of the organization's systems and operations, including policies, procedures, and management practices. These indicators relate not to general, overarching policies... but to specific, narrowly defined social aspects such as forced or compulsory labor, or freedom of association. . ..

It is clear that the sustainability concepts targeted by the GRI are intended to contextualize the operations and activities of an institution/business within the scope of a global setting. It would not do justice to this intent if our analysis of the College within these indicators were only to address the local setting that the vast majority of the data directly refers to. In compiling this report, we did not come across an institutionalized mechanism that was constructed in such a way that the impacts of the college's activities were assessed on anything but an immediate scale. Such a lens might not be applicable to much of the data referred to in this section; nonetheless, we believe the spirit of a sustainability report would require that the college critically analyze the ways in which its investment methodology could have social and human rights impacts beyond the local level.

It is true that Dartmouth College does not explicitly take possible human rights impacts into consideration when making investment and procurement decisions. It must be noted here that the definition of human rights as it applies to the GRI is more specifically defined above, in HR3. According to this provision, human rights performance refers to all aspects of human rights identified as GRI performance indicators, specifically, those pertaining to the economic, environmental, educational, and social impacts and activities of the College. Julie Dolan at the Office of Financial Affairs[13] was not able to articulate ways that College policy seeks to ensure that it does not, through its investment activities, indirectly facilitate or promote acts of human rights abuses. It is not realistic to expect that the college can or should be able to trace every dollar of its investments to its final destination, and to evaluate the possible social or human rights impacts of that investment decision, but it is similarly not realistic to assume that the college can wash its hands of its function as investor completely.

Given the sensitivity of investment information, we assume that the Office of General Council and the Board of Trustees would need to be involved in any substantial reformulation of investment policy or methodology. However, given the substantial risks associated with poor decision-making in this area, such an overhaul of policy and methodology would not only contribute to Dartmouth College's economic sustainability as an institution of higher education but would also add to Dartmouth College's legitimacy as a leading force in making positive changes. Dartmouth College adheres to standards (written policies) that attempt to articulate a

path towards social, economic, environmental, and educational sustainability whose benefits may be diffuse, but essential nonetheless.

Overall, the Social Performance Indicators section of a sustainability reporting initiative would not require an immense amount of institutional labor or materials. Much of the information is readily available from already-institutionalized data collection systems. More than anything, the compilation of a GRI report would require an institutional commitment to taking the risks that could present themselves by such a release of these data for the benefits of gaining feedback and demonstrating the kind of accountability that only a certain amount of exposure can bring. In our interviews with different offices, we found that many of them were interested and would be receptive to the reporting process. The only concrete point of contention within these indicator sections is the apparent lack of institutional transparency concerning the College's investment and supply chain decision-making and monitoring policies and systems. The question of scale would always need to be in the minds of the people who would ultimately be responsible for releasing the report.

The implementation of the full GRI report will require much time and effort because of the lack of articulated policies in certain fields as previously described. Although estimation is extremely difficult, we have attempted to estimate times for each of the four sections, outlined in the chart below.

Table 10: Social Indicator Time Estimates

Category	**Estimated Number of Hours**
Labor Practices and Decent Work	59-77
Human Rights	24-96
Society	33-79
Product Responsibility	18

NOTES

[1] *Greening UF*, 2002, p30-34.
[2] *University of Michigan Prototype Sustainability Report*, June 2002, p29-42.
[3] Larry Litten, personal contact, 04/22/03
[4] Barbara Johnson, personal contact, 04/24/03
[5] Non-Exempt handbook, July 1998, pg. 36-56.
[6] Exempt handbook, July 1998, pg. 30-50.
[7] Personal communication- Director John Pryor 04/22/03
[8] Ellen Arnold, personal contact, 05/01/03
[9] Barbara Johnson, personal contact, 04/21/2003.
[10] Julie Dolan, personal contact, 04/21/2003
[11] Ellen Arnold, personal contact, 05/01/03
[12] pg. 51-52, Sustainability Reporting Guidelines, GRI, 2002.
[13] Julie Dolan, personal contact, 04/22/03

CHAPTER 7:

Education Indicators

7.1 Introduction

In Dartmouth's mission statement the goal of the institution is to combine, "the best features of an undergraduate liberal arts college with the intellectual vitality of a research university".[1] The Global Reporting Initiative (GRI) report, which is geared towards the business world, does not currently address educational issues. Since Dartmouth College's goal is to provide its students with an unparalleled educational experience, as well as to be a world class research institution, to neglect educational and research issues would make a potential GRI report incomplete. Therefore, educational indicators are supplemental to a GRI report in the college/university setting. Dave Newport, the sustainability coordinator at the University of Florida, first suggested these in his University of Florida GRI report. He also proposed college/university setting-specific GRI guidelines. These suggestions have been adapted to be relevant to Dartmouth College, and are currently the only proposed indicators that pertain to education.

In this section, we address faculty issues, applicants, financial aid, student body, student and gender specific space, undergraduate and graduate education, campus safety, curriculum, and service. The data is generally found in the Office of Institutional Research, the Office of Undergraduate Admissions, the Office of Financial Aid, the Students Activities Office, the Office of Grants and Contracts, the Office of Public Affairs, the Tucker Foundation (which serves as the center for service), the Dickey Center for International Understanding, the Office of Residential Life and Education, and the Office of Safety and Security records. The contacts in these offices can be found in the contacts table of the Social Indicators as found in section 6.1.1. The majority of the information in this section is readily available in Excel, Microsoft Word, or the more convenient SPSS format.

7.1.1 Data Formatting Summary

Much of the data in the Education Indicators section is collected by different institutional branches of the college and compiled within three main databases. These formats are SPSS

database system, the Common Data Source (PDF tables, raw data in MS Excel), and MS Excel. Their accessibility and GRI-specific format availability is outlined below.

SPSS Database System

Much of the social indicator data of interest is collected by the College and can be found in a database format known as SPSS. SPSS is a statistical database program package that allows for raw numbers of all types to be categorized and organized for quick retrieval. The database program is used widely on campus by various offices, including the Office of Evaluation and Research (OER).

SPSS is a very user-friendly program that allows for quick retrieval of data in the format requested of it, including ratios, percentages, pie graphs, data-tables, and bar graphs. The GRI calls for data to be presented in one of these formats, so that the time required to produce these data is much less than it would be were SPSS not in place. Currently, the College is in the second of three phases of implementation of the SPSS database system. Full implementation of the SPSS database system will occur at the beginning of the fall academic term, 2003.

Common Data Source System

The Common Data Source (CDS) is a helpful starting point for gathering information regarding college statistics. It is conveniently located on the Dartmouth website[2] allowing for easy access. These data are used by many offices on campus and by the various college guidebook companies. The Office of Institutional Research (OIR) publishes the CDS each year from data collected by their office. However, the information is somewhat limited in terms of data needed for the GRI. For instance, the diversity statistics are only available for tenured faculty and not for the entire campus faculty. Another complication stems from the fact that the data is all in raw numbers, which would have to be converted into percentages. The information in the CDS is stored in MS Excel, so this conversion would be a minimal time commitment.

MS Excel

Microsoft (MS) Excel is a data-entry, spreadsheet program that allows for organization of data and quick output of comparative information based on that data. Through a strategic

agreement with Microsoft, Excel is available to Dartmouth's campus at a reduced rate (information on this agreement can be found at the computer sales website[3]. The program allows for much of the information needed for a GRI report to be outputted easily.

7.1.2 Organization and Numbering System

The text of this chapter may be read in consultation with the accompanying table, available in Appendix B, which summarizes the availability, location, and hours needed to locate and transform the data to GRI-specified format. Since there are no GRI specific indicators for education, the indicators in this section are solely Dartmouth specific. In the following pages, each indicator will be addressed. When the data gathering techniques and sources are identical, multiple indicators may be grouped together. All indicators are labeled as Dartmouth supplementary educational indicators. They follow sequentially with the prefix "DSED" followed by a number, such as 'DSED5.' All indicators in this section have been modified and derived from the University of Florida's GRI report, the University of Michigan's sustainability report, or David Newport's university specific GRI. Other universities' resources utilized in developing this section are discussed in the Background section of this report.

7.2 FACULTY

The Faculty indicators relate to the welfare of the faculty population of the College workforce.

Dartmouth Supplementary Education Performance Indicators

DSED1. Quality of faculty -- % with a terminating degree

Please see below DSED6 for explanation

DSED2. Number of classes taught by faculty who does not have a terminating degree over the course of the year.

Please see below DSED6 for explanation.

DSED3. Diversity of faculty – i.e. type of professor (full, associate, etc)

Please see below DSED6 for explanation.

DSED4. Gender diversity of faculty

Please see below DSED6 for explanation.

DSED5. Ethnic diversity of faculty

Please see below DSED6 for explanation.

DSED6. Percent of women faculty and faculty of color within each category of professor-type, including tenured, tenure track, and non-tenure tracked

These data are all collected and published by the Office of Institutional Research (OIR), currently chaired by Larry Litten. These can be found on their website[4] as a part of the Common Data Source (CDS). These data are stored in OIR in Excel format, which is much easier to work with than the PDF version found on the website. OIR publishes the CDS each year from data collected by that office. The information available from tenured faculty concerning ethnic diversity is consistently available. However, ethnic diversity information is considered "optional" for other faculty members. This current policy would need to be changed in order for all information to become available for report. The most efficient way for these data to be collected would be to modify the current method of surveying departments about their faculty staff on an annual basis. The labor/materials necessary to gather this information could be considered minimal. There is already a mechanism in place – a survey sent out to departments – that is constructed to gather information about faculty demographics. In order to compile the specific information not already included in the survey, such as ethnic diversity information for non-tenured faculty, those questions would need to be added to the survey and new documents printed.

The Office of Institutional Diversity and Equity, currently chaired by Ozzie Harris, might be the best place to gather this information. There are sensitive and conflicting methodologies by which diversity standards are defined, and this office would likely be the most informed and able resource to deal with this topic.

7.3 UNDERGRADUATE APPLICANTS

The Undergraduate Applicants indicators deal with demographic information available about Dartmouth College's applicant pool.

Dartmouth Supplementary Education Performance Indicators

DSED7. Number of students applying and trend over last 7 years

Please see below DSED9 for explanation.

DSED8. Incoming first-year GPA, ACT, and SAT scores

Please see below DSED9 for explanation.

DSED9. Average GPA

The Office of Institutional Research (OIR) and the Office of Admissions (OADMIN) currently compile these data jointly. These numbers are readily available upon request from these offices and are currently compiled in an Excel database, the format of which would appropriate for sustainability reporting.

7.4 FINANCIAL AID

The Financial Aid indicators deal with the financial aid information of students of the College.

Dartmouth Supplementary Education Performance Indicators

DSED10. Cost of attending Dartmouth College

Please see below DSED13 for explanation.

DSED11. Amount of Financial Aid provided by College – breakdown of free money versus loans

Please see below DSED13 for explanation.

DSED12. Amount of money in scholarships brought in per year by students

Please see below DSED13 for explanation.

DSED13. Undergraduate and graduate tuition costs vs. equality of access to financial aid

The Office of Financial Aid (OFA), currently directed by Carl Furstenberg, compiles and processes these data. These numbers are readily available upon request from these offices and are currently compiled in an Excel database, the format of which would be appropriate for sustainability reporting. Release of the information requested for questions numbered DSED10, DSED11, and DSED12 does not have any foreseeable sensitivity. It is possible, however, that the information requested in DSED13 may be considered somewhat sensitive data. Its disclosure is at the discretion of the Office of Financial Aid. We believe, however, that this question, DSED13, is an important indicator of the institution's commitment to providing access to financial aid that is competitive with the aid offered by its peer institutions and that reflects the institution's goal to maintain a truly diverse student body, which, for the benefit of all Dartmouth students, should include both ethnic, gender, and socioeconomic diversity.

DSED14. Average debt from attending Dartmouth after graduation

This information is not currently compiled, but could conceivably be calculated from data already available from the Office of Financial Aid. The office currently tracks the parent and student loans that each Dartmouth student uses to pay tuition. These existing numbers could be used to calculate the average debt incurred by students at the time of graduation. The most efficient form for such calculations to be acquired would be for a person to annually incorporate the relevant equation ("total student plus parent loans incurred by graduating students" divided by "total number of graduating students") into the Excel database that the loan information is already stored in. The labor/materials involved to do this would be minimal.

7.5 UNDERGRADUATE STUDENT BODY

The Student Body indicators deal with societal information in relation to the student population of the College.

Dartmouth Supplementary Education Performance Indicators

DSED15. Breakdown of graduate/undergrad students

Please see below DSED29 for explanation.

DSED16. Regional diversity, including international students

Please see below DSED29 for explanation.

DSED17. Gender diversity

Please see below DSED29 for explanation.

DSED18. Gender diversity trends over last 7 years

Please see below DSED29 for explanation.

DSED19. Religious diversity

Please see below DSED20 for explanation.

DSED20. Religious diversity trends over the last 7 years

Information regarding trends in religious diversity is not currently gathered on a consistent basis. Preliminary data are sometimes (optionally) provided on incoming student surveys and college application/admission forms. We do not recommend that such data become required for incoming students to provide. So for the purposes of this supplementary portion of the report, this information, as it has been voluntarily provided, is already available in the Excel database of the Office of Admissions, currently directed by Karl Furstenberg.

DSED21. Ratio of public schools to private schools to parochial (High School)

This information is currently compiled and available by the Office of Admissions, directed by Karl Furstenberg, in an Excel database, a format appropriate for sustainability reporting.

DSED22. Ethnic diversity

This information is currently gathered and compiled in an Excel database by the Office of Institutional Research, directed by Larry Litten. It is available upon request in this format, appropriate for sustainability reporting.

DSED23. Ethnic diversity trends over last 7 years

Annual ethnic diversity raw data is currently gathered and compiled in an Excel database by the Office of Institutional Research, directed by Larry Litten. It is available upon request in this format, and in order to quantify 7-year-trend data, an appropriate equation would need to be integrated into the Excel database. The labor/materials required to make this information available for sustainability reporting would be minimal.

DSED24. Undergraduate enrollment by family income

This information is currently gathered and compiled in an Excel database by the Office of Institutional Research, directed by Larry Litten. It is available upon request in this format, appropriate for sustainability reporting.

DSED25. Undergraduate graduation rate over last 7 years.

This indicator was determined by the percent of graduates six years after a class's initial enrollment

Annual graduation rate raw data is currently gathered and compiled in an Excel database by the Office of Institutional Research, directed by Larry Litten. It is available upon request in this format, and in order to quantify 7-year-trend data, an appropriate equation would need to be integrated into the Excel database. The labor/materials required to make this information available for sustainability reporting would be minimal.

DSED26. Retention rates by gender and ethnicity

This information is currently gathered and compiled in an Excel database by the Office of Institutional Research, directed by Larry Litten. It is available upon request in this format, appropriate for sustainability reporting.

DSED27. Graduation rates by gender and ethnicity

This information is currently gathered and compiled in an Excel database by the Office of Institutional Research, directed by Larry Litten. It is available upon request in this format, appropriate for sustainability reporting.

DSED28. Number of students suspended over the last 7 years

Please see below DSED 29 for explanation.

DSED29. Frequencies and types of incidents that lead to suspension

This information is currently gathered and compiled by the First Year Deans' office and the Upperclass Deans' Office. Bethanne Tillotson, Executive Assistant to the Dean of Upperclass Students, has provided the following information[5]. Marcia Kelly, the Director of Judicial Affairs, should also be contacted in the case that these data are sought. Suspensions have been noted in the Banner Student System for the past 6 years, so DSED28's 7 year data is not readily available in an accessible format, but in the case that it was (if a sustainability report were compiled in years to come), we have been told that the data "may or may not be available for release to the public." We would classify it, therefore, as sensitive information, and its release would likely be contingent on the decision of Marcia Kelly, the Director of Judicial Affairs.

Academic Honor Principle and Conduct suspensions are reported annually to the community by the Judicial Affairs Office. This annual report can be found on their website[6] and includes information that is currently released. For more detailed descriptions of the types of incidents that can lead to suspension, please refer to the Green Pages of the Student Handbook[7]. The report released by the Judicial Affairs Office, entitled "Annual Report to the Community of the Dartmouth Undergraduate Disciplinary System including the Committee on Standards and the Organizational Adjudication Committee" reports on "total disciplinary cases" and differentiates "suspension-level cases" according to those cases adjudicated under the category of violations of the "academic honor principle" or "other conduct" which, in turn, is

differentiated into appropriate categories of "Frequencies and types of incidents that lead to suspension." The annual report is accessible from the above-mentioned link, in a Microsoft World document, which includes tables and descriptions, a format that would, if sensitivity were found to allow publication, be appropriate for Dartmouth College's sustainability reporting needs.

7.6 SPACE

The Space indicators deal with the amount of space on campus allotted for various purposes.

Dartmouth Supplementary Education Performance Indicators

DSED30. Amount of College-controlled space on campus

Please see below DSED31 for explanation.

DSED31. Amount of student-controlled space on campus

Differentiations in the terms of categories that define college and student controlled space are not readily accessible and would likely best be developed and defined by coordination and cooperation among administrators in the Office of Residential Life, currently directed by Marty Redman, the Office of the Dean of the College, currently directed by Jim Larimore, and the Coed, Fraternity, Sorority, Undergraduate Society, and Senior Society Administration (CFSUGSSA)[8]. With the considerable variation between college-controlled spaces, which range in categorization from college-owned but student-controlled to privately-owned but college-controlled, we are, at this point, unable to set forth working provisional definitions to qualify the existing data available.

However, the data that is available and relevant is controlled and distributed to some extent by The Office of Residential Life[9] who provides some materials and behavior guidelines for some college-controlled spaces.

**Please refer to the description of the indicator below, DSED32, for a more detailed discussion of this indicator in relation to the next indicator, which asks about the amount of male-only and female-only space on campus.

DSED32. Amount of male-only and female-only space on campus

Spaces defined by the Office of Residential Life as being part of "Residential Communities" are coed overall, and single-sex by room. Some residence halls have single-sex floors. Dartmouth College Common Data Set describes that 83% of all undergraduates live in "college-owned, college-operated, or college-affiliated housing;" these definitions (though not explicitly described) do not necessarily include categories of college and student controlled non-residential space. The ORL webpage refers to residence halls, special interest and academic affinity units, College-owned undergraduate society, fraternity, or sorority houses, and privately-owned but college-operated or affiliated facilities. Such definitions of categories need to be delineated before this indicator can be reported on, as we discussed earlier in indicator number DSED31.

The square-footage of college-recognized (either owned, operated, or affiliated) CFS (Greek) houses would constitute the bulk of "the amount of male-only and female-only space on campus," or the institutionalized gender-exclusive spaces, which this indicator refers to. Cassie Barnhardt and Deborah Carney, both Deans in the Office of Residential Life, are specifically responsible for assessing the affairs of the CFS System. Their knowledge would be helpful in constructing a working definition of what student-controlled and male-only and female-only would mean in relation to Dartmouth's campus. Below, we discuss possible social sustainability issues surrounding the information that is already available in the locations we discussed above. Intermediate calculations from raw data provided within the Common Data Set have been made for the purposes of this report's evaluation of this indicator's specific relevance to the context of Dartmouth College.

Jim Larimore, currently the Dean of the College, distributed an email to "CFS and Undergraduate Society Presidents" on August 15, 2001 that described some reasons for the differences in application of college policy towards CFS and Undergraduate Society housing. Below is an excerpt:

> Participation in most student organizations is open to any student with an interest in the focus and activities of a particular group. This reflects one of Dartmouth's core academic values--that such opportunities for learning and interaction should be as openly available as possible. A relatively small number of organizations… apply standards… as a qualification for membership. Students in CFS organizations have been granted the unique privilege to select or reject other students as members according to subjective criteria.
>
> The second principle is that housed CFS organizations are a part of the College's overall residential system. CFS houses are not, as some have tried to argue, somehow apart from or outside of the College's residential system. In fact, it is their recognition as part of the residential system that makes it possible for more than three unrelated people to live in CFS and Undergraduate Society houses, the limit that would otherwise apply under a Hanover zoning ordinance. That does not mean that these houses are the same as other types of student housing. Nor does it imply that they should be. The recent proposal from the GLC, for instance, commented on the responsibilities often assumed by CFS organizations and, by extension, their members, that exceed what is expected of students living in some other types of campus housing. That is appropriate given that selective residential organizations also enjoy unique privileges.

According to the Common Data Set (CDS)[10] in 2002, just over half of Dartmouth's undergraduate student population was male (51%). The CDS reports that 24% of that male student population belongs to fraternities and 22% of all female students belong to sororities.[11] Male fraternity members, then, comprise only 12% of Dartmouth's total undergraduate population. However, this 12% has control of 60% of residential CFS organizations. There are currently nearly twice as many male-only fraternity houses as there are female-only sorority houses, possibly close to twice as much "male controlled student space" as "female controlled" on the Dartmouth College's campus, which could possibly be construed as an inequitable practice.

These issues, which deal with equity and access of college resources along lines of gender, race, and class, highlight ways we believe Dartmouth College could benefit from the process of sustainability reporting. Ideally, the College would offer materials, information, and data that could allow the institution to ask difficult questions about how its policies and practices relate to its stated goals as a coeducational institution of higher education.

It is possible that information about access to gender-exclusive space could be somewhat sensitive. However, we believe that the processing of this information, though not immediately available, would be essential to any truly introspective sustainability report. There are reviews of the available information, provided in html format on the Office of Residential Life (ORL)[12] and the Coed, Fraternity, Sorority, Undergraduate Society, and Senior Society Administration (CFSUGSSA)[13] websites.

7.7 GRADUATE EDUCATION

The Graduate Education indicators deal with societal information in relation to the graduate student population and their specific educational needs.

Dartmouth Supplementary Education Performance Indicators

DSED33. Graduate Program Applicants (numbers of students applied)

Please see below DSED36 for explanation.

DSED34. Graduate Program Enrollment

Please see below DSED38 for explanation.

DSED35. Costs of graduate educations

Please see below DSED36 for explanation.

DSED36. Total graduate program minority enrollment

This information is currently compiled by and available from the Office of Institutional Research (OIR), currently directed by Larry Litten. It is available according to the individual graduate schools (Graduate Arts and Sciences, Dartmouth Medical School, Thayer Engineering, and Tuck Business) on the OIR's website[14].

DSED37. Total graduate program international student enrollment

Please see below DSED38 for explanation.

DSED38. Gender Diversity

This information is currently compiled by and available from the Office of Institutional Research (OIR), currently directed by Larry Litten. It is available according to the individual graduate schools (Graduate Arts and Sciences, Dartmouth Medical School, Thayer Engineering, and Tuck Business) on the OIR's website[15].

7.8 CAMPUS SAFETY

The Campus Safety indicators deal with safety, security, and education on these topics on campus.

Dartmouth Supplementary Education Performance Indicators

DSED39. Campus Crime Rates

Please see below DSED40 for explanation.

DSED40. Crime by violation type

This information is available through the Office of Safety and Security (S&S) in the Clery Act (freedom of safety information act), which all colleges and universities publish each year about campus safety. These data are available at the Clery Act website[16] and in Excel format upon request to S&S, currently directed by Rebel Roberts. The Excel format has raw numbers that can be outputted in a format appropriate for a sustainability report. The numbers reported on the website already provide the number and type of crime requested.

DSED41. Crime Prevention

Including types of education, places to go, procedures in place, etc.

These are available through the Office of Safety and Security (S&S), the Office of Residential Education (ORL), and Student Activities Office (COSO, Ruth Morgan). Each of

these offices keeps track of crime prevention procedure and education on campus. They are readily available from these offices by request, are in Word format, and are currently in a format appropriate for sustainability reporting needs.

7.9 CURRICULUM

The Curriculum indicators deal with the education of students and the courses available to them.

Dartmouth Supplementary Education Performance Indicators

DSED42. Available Courses pertaining to sustainability.
This section includes total number of sustainability courses as well as their percent values relating to all the courses offered each year. Furthermore, the number of students enrolled in sustainability-related courses and their percentage of the student body.

Please see below DSED43 for explanation.

DSED43. Administrative Support.
This includes number and percent of departments and colleges including sustainability curriculum, sustainability courses included in general education requirement, existence of available sustainability-related majors and minor

Data is not currently collected for either of these indicators. A working definition of sustainability concepts and sustainability-related courses would be the first part of a process that would need to be established to comply with this section. One way to find this information would be to ask the various department heads to define what sustainability means in their field and how it relates to the classes taught in their field at Dartmouth. From this, a general consensus can be reached as to a working definition of sustainability education. This definition could then be used to create a survey that would ask these two questions. This would take a significant amount of time, since collaboration of this type is difficult. This sort of project would have to be headed by a sustainability coordinator, who would have to define this information as well as request it from individual departments. The University of Florida opted to include a few key

words in their search engine, and the courses that included these key words were counted toward the total number. Dartmouth could follow this model, and do this part of the project without another employee being added.

7.10 RESEARCH

The Research indicators deal with categories and characterization of research funded and performed by Dartmouth College and its faculty members, including graduate school faculty.

Dartmouth Supplementary Education Performance Indicators

DSED44. Grants-Total revenues from grants and contracts specifying sustainability-related research

Please see below DSED46 for explanation.

DSED45. Publications and Products

Published research with focus on sustainability related issues

Please see below DSED46 for explanation.

DSED46. Programs and Centers

Number and function of centers on campus providing sustainability-related research or services

The College does not currently collect this information. These sorts of information in general are found in the Office of Grants and Contracts (OGC), currently directed by Nancy Wray. OGC collects similar data, but does not collect them in terms of sustainability. Currently, the information gathered by OGC is available at their website[17]. This document only has titles of the projects and no descriptions. To compile descriptions, this would require going into each file and judging whether the project is investigating sustainability issues, a definition that would have

been formed during the process described in DSED43. It would likely be a job for a sustainability coordinator to determine whether the project could be defined as a sustainability project. To streamline this labor-intensive process, the OGC could add to its report a box containing a question asking the researcher whether the research could be considered to provide "sustainability-related research or services." Within this box, containing the question, the *definition* of such research or services, provided by the sustainability coordinator (or another equipped staff member) could be stated and then, at the discretion of the individual researcher obtaining the grant, the question could be marked "yes" or "no." This would then make the job of OGC to collect and compile this information as part of its yearly report. This cost would be minimal, since a survey is already sent out, and the labor/materials required to make such a change would only be that of obtaining the working definition for "sustainability-related research or services" (from a Sustainability Coordinator or another qualified staff member) and adding this definition/question to the current survey that is already sent out. These costs would be minimal, only involving the addition of one question to the existing survey. This could be added to the surveys of all researchers, whether they are considered undergraduate, graduate faculty or researcher.

7.11 SERVICE

The Service indicators deal with amount and type of service performed by Dartmouth College staff, faculty, and undergraduate and graduate student populations.

Dartmouth Supplementary Education Performance Indicators

DSED47. Community Activity and Service.

Include student, faculty, and staff contributions to community development and service, partnerships for sustainability with educational, business, and government entities at the local level, and quantity and composition of student groups focusing on one aspect of sustainability.

Please see below DSED48 for explanation.

DSED48. Service Learning.

Include existence and strength of service learning programs and total faculty, staff, students involved in service learning projects

There currently is not a centralized facility from which this information can be gathered or compiled. The definition of service learning itself is provisional, but such definitions are in use, as certain institutional branches currently operate what they consider to be service-learning programs. Specifically, information about how individual Dartmouth College organizations define their academic-affiliated programs to be service-based can be found in text or html format (appropriate for sustainability reporting, but as of now incomplete) within the following offices: the Office of Residential Life (ORL), currently directed by Marty Redman, has a webpage entitled "Campus Resources" that defines a category of "Involvement Opportunities." These links include "Peer Education Programs," "Office of Student Life," which is currently directed by Holly Sateia, and the "Tucker Foundation," currently directed by Dean Stuart C. Lord. Numerous programs that define themselves as functioning within a service-learning framework operate out of these offices. More information about them can be found at the Tucker Foundation's website[18] and on the "Offices of the Dean of the College" website, which contains links to campus organizations under the Dean of Student Life and the Center for Women and Gender, currently directed by Giavanna Munafo. These offices also operate service learning – type programming and projects. The Dickey Center for International Understanding, currently directed by Michael Mastanduno, also provides financial and institutional support and services to undergraduate students, graduate students, and faculty who wish to integrate specifically international service into their academic curriculums. Some of the graduate schools have separate organizations that run service-learning projects and programs. For example, Dartmouth Medical School has a Community Service Committee[19] that sponsors 14 student-run projects, ranging from conducting health education in local prisons to working with area elders, with Planned Parenthood, and with the Upper Valley Wilderness Response Team. The "Dartmouth Partners in Community Service" organization coordinates efforts between undergraduates,

alumni, and non-profit organizations in the community and nationally to encourage service learning-type internships and participation. The Student Employment Office also functions to set up undergraduate work-study students with community service employers, some of which operate from a service learning-type of framework[20]. Many staff and faculty members are an integral part of service-learning programs and contribute considerable materials and labor, but their information is not currently available.

Information describing the total faculty, staff, and students involved in such varied service learning programs and projects is not currently gathered. At this time, it is necessary to discuss the differences between DSED47 and DSED48. The category of community activity and service (DSDED47) is defined to operate specifically on the local scale, while that of service learning (DSED48) is defined as operating on both local and global scales.

Obviously, many of these programs, projects and offices will overlap in their scope and resource-base. The process of compiling the vast and diverse contributions in these two overlapping areas would require a significant amount of institutional resources, but it could also greatly benefit the college. As was discussed in the Social Indicators section of this report, any definition of sustainability, and therefore sustainability-focused community activity and service, (DSED47) would need to include some working combination of the precepts of educational, environmental, social, economic, research, and service sustainability and learning. We are not prepared to offer a provisional definition of how such services and activities should be defined, but we would suggest that the work of a sustainability coordinator could offer considerable expertise in this area and could work institutionally to access and explore current uses of the definition and possible ways such sustainability concepts could be further integrated into the programs and policies of the college.

The Office of Public Affairs (OPA), currently directed by Laurel Stavis, is interested in conducting some sort of compiling project in order to assess and be able to report on the service and service learning relationship that Dartmouth College staff, faculty, employees, and students have to the immediate local community. The Tucker Foundation and the Dickey Center for International Understanding focus specifically on the relationship that Dartmouth College students and faculty have to the national and global communities. It is not known whether or not the later two organizations would be interested in compiling exhaustive data and information. We do not feel equipped to make a provisional estimation of the required time the development

of such mechanisms and data-collection would take, but we estimate that it would probably not be possible for the OPA to undertake such a process unless the bulk of the database streamlining, resource networking, and overall compilation could be performed by either a sustainability coordinator or a short-term (less than 1 year) part-time employee in OPA.

7.12 Summary

Estimated below are the total hours it would take to compile the data for each of the ten education indicator sections. It was difficult for us in many cases to determine how long it would take. For these uncertain cases, we have estimated a range.

Table 11: Education Indicator Time Estimates

Category	**Estimated Number of Hours**
Faculty	6
Undergraduate Applicants	3
Financial Aid	4 - 34
Undergraduate Student Body	14 - 24
Space	3
Graduate Education	6
Campus Security	4
Curriculum	2 - 42
Research	1- 31
Service	7

The Education Indicators are an important component of GRI reporting in the College or University setting. In particular, the process of producing answers to these indicators could serve to individualize the concepts of sustainability reporting as it specifically relates to the Dartmouth College context. These indicators ask questions about the relationship between the College's policies and practices in areas such as a commitment to diversity, equity, and the extent to which sustainability concepts are integrated into the facilities and institutional organization of the

College. Most of the information in this indicator section is readily available or can be made readily available from data the College already collects. For that which is not readily available, we suggest that the experience of a sustainability coordinator could be invaluable during this process. However, we also believe that if the college is not able to make such a commitment, that the spirit of the remaining questions should still hold. This missing definition is one which should be considered in the minds of this institution's administrators, deans, and directors as they decide ways in which to ensure that the education this college provides will provide for the needs of present generations without compromising the ability of future generations to meet their own needs.

Dave Newport, sustainability coordinator for the University of Florida, shared an insight with us about his profession during the interview we had with him. He said that the better he did his job, the sooner he would lose it. In other words, the profession of a sustainability coordinator is premised on the assumption that the process of reporting itself will require initial additional labor, but that if successful, the process would eventually become institutionalized to the extent that no centralized staff member would needed. The people who already work with the data would be given the most efficient means to gather and compile it. The offices in charge of developing policies would be charged with constructing those that are currently lacking.

By far, the most difficult problem we encountered in the construction of this section was in response to those indicators that asked information about how the College approached issues of sustainability concepts in education and research and service learning. Neither the GRI, nor the Dave Newport college/University-specific GRI, provides a provisional definition of these categories. We believe its absence provides an opportunity for Dartmouth College to be introspective and reflective about the ways in which it will choose, in the future, to develop its institutional commitment towards the particular definition of sustainability that it constructs. This institution's experience of compiling and maintaining a sustainability report and its contingent definitions of sustainability could act as the very lens through which this college's operations and activities will be assessed and contextualized from a local to a global scale, an action that is especially essential in this age of globalization and the widespread lack of corporate accountability.

NOTES

[1] Dartmouth College web site http://www.dartmouth.edu/deancoll/handbook/handbook4.html.
[2] http://www.dartmouth.edu/~oir,
[3] http://www.dartmouth.edu/~store/sales/mscampus.html
[4] http://www.dartmouth.edu/~oir
[5] Bethanne Tillotson, personal contact, 5/22/2003.
[6] http://www.dartmouth.edu/~uja/community/index.html
[7] http://www.dartmouth.edu/%7Edeancoll/handbook/handbook12.html#wp1086627
[8] http://www.dartmouth.edu/~orl/cfsc.html
[9] http://www.dartmouth.edu/~orl/demo2/housing/index.html
[10] http://www.dartmouth.edu/~oir/pdfs/cds2002_03.pdf
[11] http://www.dartmouth.edu/~oir/pdfs/cds2002_03.pdf, (Dartmouth College Common Data Set)
[12] http://www.dartmouth.edu/~orl/demo2/housing/index.html
[13] http://www.dartmouth.edu/~orl/cfsc.html
[14] http://www.dartmouth.edu/~oir/factbook/finances/grad_tuition.html
[15] http://www.dartmouth.edu/~oir/factbook/enrollments/index.html
[16] http://www.dartmouth.edu/~security/clery/index.html
[17] http://www.dartmouth.edu/~osp/FY02_Rpt-Web%20Version.pdf
[18] http://www.dartmouth.edu/~tucker/website.html
[19] http://www.dartmouth.edu/dms/admissions/community_service.shtml
[20] http://www.dartmouth.edu/~seo/student/employers.html

CHAPTER 8:

Final Recommendations

8.1 INTRODUCTION

In this chapter we will explore all the possible actions Dartmouth could take concerning a sustainability report and outline the relative costs and benefits of each. Then we will make recommendations for how to proceed with implementation.

Looking at the big picture, Dartmouth has three general options: producing a form of GRI, producing another type of report, or doing nothing. We have enumerated the benefits Dartmouth will accrue from reporting and strongly recommend that Dartmouth push forward with some type of reporting. The task of the Provost and Vice President, then, is to weigh the costs and benefits of the different reporting options outlined in Chapter 3 and summarized here.

8.2 NON-GRI OPTIONS

First we look at two non-GRI options: an environmental report and a self-constructed triple bottom line report.

We advise against doing an ad hoc style environmental report like the University of Vermont. Dartmouth would miss the unique advantage of a sustainability report's triple bottom line. These include benefits in all of the categories in Chapter 2. For detailed analysis of benefits lost, see Section 8.3. Moreover, Dartmouth would lose the benefits of standardization. By doing an environmental report that is not in GRI format, Dartmouth cannot compare itself to other institutions nor guarantee thoroughness.

Then there is the option to employ one's own sustainability report, combining elements of environmental, social, and economic reporting. For example, Dartmouth could produce an SA 8000 report and implement an ISO 14001-certified environmental management system. In doing so, the College would get some of the benefits of increased transparency, but it would lose out on many of the benefits of a single report like GRI. Benefits to institutional management are predicated on one integrated report. Benefits of reputation and differentiation assume a high profile, single document. Even elements of risk reduction, financial benefits, and exposure of good social practices rely on integration between the three elements of sustainability reporting.

A final disadvantage of the non-GRI reporting options listed above is the increasing prominence of GRI. As it will likely be the standard for corporate and higher education

sustainability reporting in the future, not selecting GRI now could cost the College more in the long run. Eventually it may have to significantly reinvest in its reporting to make the switch to GRI.

8.3 GRI OPTIONS

As laid out in Chapter 2, GRI is the preferred reporting type. This is due to four major factors: it is governed by a committee comprised of stakeholders from different sectors, including economic, environmental, social and accounting interests; endorsed by the United Nations Environmental Program; attempts to go above and beyond the traditional reporting concerns; and emphasizes standardization. However, producing a Full GRI report may prove too costly for Dartmouth, at least at the outset. Therefore, we refrain from complete endorsement of a Full GRI. Dartmouth's decision makers will ultimately choose what type of report to employ based on the financial commitment they would like to make and what benefits they are willing to forgo.

In the chart below, we summarize the costs and benefits relative to the Full GRI of the different GRI options outlined in Section 3.4. To quickly summarize that section, a Full GRI includes all indicators detailed in Chapters 4 through 7; a Fragmented GRI excludes some of the most time-consuming data to gather; a Full GRI without Education leaves out the indicators detailed in Chapter 7; a Full GRI with Altered Scope limits the report to the four colleges, excluding all of Dartmouth's non-campus, managed properties (not included in the table); and an Environmental Report simply includes only those indicators detailed in Chapter 5.

The costs are based on student interns doing the collection, because we realize it is unlikely that a staff person would be hired to coordinate the reporting. Also, it was difficult in a lot of cases to estimate the hours. The range of a time estimate indicates its certainty. Moreover, these are meant to be relative estimates, giving the reader an idea of how these reports play out comparatively. Times are not meant to be a guide for compiling a GRI. More discussion of student interns and how to improve time estimates is included in Section 8.4. Lastly, the benefits listed are the benefits of sustainability reporting as laid out in Chapter 2. The bolded text denotes the benefits lost by producing that type of GRI as opposed to the Full GRI.

Table 12: Comparing the Benefits of Reporting Options

TYPE	COST (hours)	BENEFITS LOST (in bold)
Full GRI	Economic: 90-110 Environmental: 300-350 Social: 200-380 Education: 80-170 Total: 670-1010	All benefits enumerated in Chapter 2 are captured.
Fragmented GRI	Economic: 20 Environmental: 140 Social: 100 Education: 50 Total: 310 Savings compared to Full GRI: 360-700	**Reputation and Differentiation** ***Dartmouth as a Leader in Environmental Practices*** ***Differentiation for Recruiting Students, Faculty, and Staff*** ***Brand Preservation and Bolstering*** ***Exposure of Good Social Practices*** **Institutional Management** ***Streamlining Management and Intra-Inst. Communication*** *Managing Existing Sustainability Initiatives* ***Institutional Adaptability*** ***Stakeholder Interaction and Input*** **Financial Benefits** *Cost Reduction* ***Revenue Opportunities*** Risk Reduction *Preserving Research Partnerships* *Avoiding Socially Irresponsible Investments and Decisions* *Avoiding Regulatory Fines*
Full GRI without Education	Economic: 90-110 Environmental: 300-350 Social: 200-380 Total: 590-840 Savings compared to Full GRI: 80-170	**Reputation and Differentiation** *Dartmouth as a Leader in Environmental Practices* ***Differentiation for Recruiting Students, Faculty, and Staff*** ***Brand Preservation and Bolstering*** ***Exposure of Good Social Practices*** Institutional Management *Streamlining Management and Intra-Inst. Communication* *Managing Existing Sustainability Initiatives* *Institutional Adaptability* *Stakeholder Interaction and Input* Financial Benefits *Cost Reduction* *Revenue Opportunities* **Risk Reduction** ***Preserving Research Partnerships*** *Avoiding Socially Irresponsible Investments and Decisions* *Avoiding Regulatory Fines*

Only Environ. Indicators Full	Environmental: 300-350 Total: 300-350 Savings compared to Full GRI: 370-660	**Reputation and Differentiation** *Dartmouth as a Leader in Environmental Practices* ***Differentiation for Recruiting Students, Faculty, and Staff*** ***Brand Preservation and Bolstering*** ***Exposure of Good Social Practices*** **Institutional Management** ***Streamlining Management and Intra-Inst. Communication*** *Managing Existing Sustainability Initiatives* ***Institutional Adaptability*** ***Stakeholder Interaction and Input*** **Financial Benefits** *Cost Reduction* ***Revenue Opportunities*** **Risk Reduction** ***Preserving Research Partnerships*** ***Avoiding Socially Irresponsible Investments and Decisions*** *Avoiding Regulatory Fines*
Only Environ. Indicators Fragmented	Environmental: 140 Total: 140 Savings compared to Full GRI: 530-860	**Reputation and Differentiation** *Dartmouth as a Leader in Environmental Practices* ***Differentiation for Recruiting Students, Faculty, and Staff*** ***Brand Preservation and Bolstering*** ***Exposure of Good Social Practices*** **Institutional Management** ***Streamlining Management and Intra-Inst. Communication*** *Managing Existing Sustainability Initiatives* ***Institutional Adaptability*** ***Stakeholder Interaction and Input*** **Financial Benefits** *Cost Reduction* ***Revenue Opportunities*** **Risk Reduction** ***Preserving Research Partnerships*** ***Avoiding Socially Irresponsible Investments and Decisions*** *Avoiding Regulatory Fines*

For a full discussion of what was left out in the Fragmented and Altered Scope, as well as a breakdown of hours, see Appendix E.

8.3.1 Full GRI

Costs

It is estimated that the Full GRI would take 670-1010 hours to complete. The Social and Education Indicators are tricky to estimate because we are not aware of the processes and politics in negotiating the release of some sensitive data. Economic and Environmental were able to produce a narrower range, but even in their case, it was difficult to estimate for data that are not already being compiled by Dartmouth.

Benefits

The Full GRI would capture all the benefits enumerated in Chapter 2.

8.3.2 Fragmented GRI

Costs

The Fragmented GRI leaves out data that is time-consuming to obtain. This greatly reduces the associated costs, bringing time for data collection down to 310 hours. The estimate is much more certain than with Full, because most of the data to be included in the Fragmented GRI is already compiled or reported on in some fashion. Thus, the costs are associated with gathering and converting to a common format, not researching and politicking.

Benefits

Dartmouth would lose out on a number of reputation and differentiation benefits. The environmental indicators are not as thorough. For the most part, off campus data are excluded, such as indirect energy use, impacts on holdings like Occum Pond and the Second College Grant, and environmental impacts of suppliers. For Dartmouth to be viewed as a leader in environmental practices it is important for the College to be monitoring these.

Additionally, some benefits to differentiation and brand bolstering are lost. The University of Florida was the first school to do a Fragmented GRI. Dartmouth can no longer capture the reputation benefits of being the first to release a form of GRI. Though it would still

do well for Dartmouth's reputation to release any form of GRI, a Full GRI would be the most newsworthy and garner the most attention.

We highlighted the institutional management advantage, because, as Tuck ’03 Paul Ligon says, “what gets measured gets managed.” By measuring less with a Fragmented report, Dartmouth would not be managed to its full potential. A Fragmented GRI still reports on the majority of indicators, so this impact could be seen as slight. However, bear in mind that those data which are hard to gather and thus omitted are such because Dartmouth does not already report or compile them. By including them in a GRI, Dartmouth would get extra managerial information.

The revenue benefits are predicated on Dartmouth being proficient in GRI. A Fragmented report is less credible to those seeking collaboration or consulting with Dartmouth.

Risk reduction and exposure of good social practices benefits are preserved. These are categories Dartmouth is already reporting on or is willing to include in a GRI, thus they are not affected by the exclusions in Fragmented.

8.3.3 Full GRI without Education Indicators

Costs

Cutting Education saves 80-170 hours, approximately fifteen percent of the total time to do the Full GRI. This option does not provide as significant a cost savings as Fragmented or Environmental Only.

Benefits

The benefits lost fall under the rubric of reputation and differentiation. Dartmouth would lose an opportunity to showcase its curriculum and research in sustainability. Similarly, present and potential research partners may be interested in the details of Dartmouth’s educational offerings, and excluding this indicator may limit the potential of those relationships.

8.3.4 GRI Environmental Indicators Only

Costs

Doing only the environmental section would take 300-350 hours. An additional option would be to do only the environmental part of a Fragmented report, taking only 140 hours, the least costly of the options presented in the chart above.

Benefits

Dartmouth maintains the benefits of promoting its environmental practices. It would also be able to manage its existing sustainability initiatives, discover cost savings, and avoid regulatory fines, all benefits that are wholly concerned with environmental practices.

All other benefits are lost; they are based on reporting economic, social and educational indicators, as well as environmental.

8.3.5 Full GRI with Altered Scope

The Full GRI with Altered Scope was left out of the table because all indicators groups found it more costly to shrink the scope. For environment, it made some of the indicators inapplicable and others time-consuming to compile. Likewise, economic indicators 6 and 8 actually would take more time, as the data would need to be reformatted. Finally, social and education concluded that altering scope is "not a viable option for Dartmouth's reporting needs."

8.4 FUTURE STEPS

Regardless of what form of GRI Dartmouth decides to employ, we advise the following next steps.

The Office of Institutional Research, the Vice President, or the Provost should hire an intern to beta test data collection. This could also be done as an independent study in environmental studies. This trial run should be coordinated by the OIR.

A beta test would consist of attempting to collect a fraction of the indicators. Twenty-five percent of the indicators would be a good start. This exercise serves three purposes. First, the student could check to see how accurate our time estimates are. If they are verified, then we

would have a good estimate of how much total time it would take to do one of the GRI options. Second, it would test if a student is capable of collecting these data. Ideally, implementation of any form of GRI would come without hiring additional staff. Testing a student's capability assesses the feasibility of having a set of interns complete the entire report. Third, it tests the Office of Institutional Research's capacity as an organizing entity for when the real report is constructed.

The student would write up a report analyzing the findings regarding the three purposes above that would serve as a corollary to this report. It would be presented to the Offices of the Provost and the Vice President. Being better informed as to the costs of data collection and reporting, Dartmouth could make a better decision as to what form of GRI to pursue.

APPENDIX A:

Economic Indicator Tables

Direct Economic Indicators

Customers

Core Indicators

	Is the data readily available?	*Where does the data come from?*	*What format is the data in?*	*How many hours and/or people did it take to get the data?*	*What is required to convert the data into GRI format?*
EC1. Net Sales					
- Tuition and fees (net of allowances reported elsewhere in the form)	Yes	IPEDS	Excel	This process is performed regardless every year for the Fed. Government (100-250 hours). Cost little to report for GRI	It would be in this format already after reporting it to the federal government each year.
Government appropriations (Dartmouth has none)	Yes	IPEDS	Excel	This process is performed regardless every year for the Fed. Government (100-250 hours). Cost little to report for GRI	It would be in this format already after reporting it to the federal government each year.
Government grants and contracts (Federal, State, Local)	Yes	IPEDS	Excel	This process is performed regardless every year for the Fed. Government (100-250 hours). Cost little to report for GRI	It would be in this format already after reporting it to the federal government each year.
- Private gifts, grants, contracts	Yes	IPEDS	Excel	This process is performed regardless every year for the Fed. Government (100-250 hours). Cost little to report for GRI	It would be in this format already after reporting it to the federal government each year.

-Contributions from affiliated entities	Yes	IPEDS	Excel	This process is performed regardless every year for the Fed. Government (100-250 hours). Cost little to report for GRI	It would be in this format already after reporting it to the federal government each year.
- Other revenue	Yes	IPEDS	Excel	This process is performed regardless every year for the Fed. Government (100-250 hours). Cost little to report for GRI	It would be in this format already after reporting it to the federal government each year.
- Investment return	Yes	IPEDS	Excel	This process is performed regardless every year for the Fed. Government (100-250 hours). Cost little to report for GRI	It would be in this format already after reporting it to the federal government each year.
- Sales and services of educational activities (net of allowances)	Yes	IPEDS	Excel	This process is performed regardless every year for the Fed. Government (100-250 hours). Cost little to report for GRI	It would be in this format already after reporting it to the federal government each year.
- Independent operations revenue	Yes	IPEDS	Excel	This process is performed regardless every year for the Fed. Government (100-250 hours). Cost little to report for GRI	It would be in this format already after reporting it to the federal government each year.

- Other (total from another page minus all entries on this page)	Yes	IPEDS	Excel	This process is performed regardless every year for the Fed. Government (100-250 hours). Cost little to report for GRI	It would be in this format already after reporting it to the federal government each year.
- Total (taken from another page)	Yes	IPEDS	Excel	This process is performed regardless every year for the Fed. Government (100-250 hours). Cost little to report for GRI	It would be in this format already after reporting it to the federal government each year.
EC2. Geographic breakdown of markets					
Larry Litten from Institutional Research said we can report 100% of this data, therefore no cost. Also, in September of 2003 the Office of Development Administration will have compiled a report on financial donations and pledges organized by region. There will also be no cost for this procedure.					

Supplies					
Core Indicators					
	Is the data readily available?	*Where does the data come from?*	*What format is the data in?*	*How many hours and/or people did it take to get the data?*	*What is required to convert the data into GRI format?*
EC3. Cost of all goods, materials and services purchased					
Dartmouth as a whole	Yes	Office of Procurement	Dollars	15 minutes to write code to have the computer extract the appropriate data from the Oracle Financial database	Nothing
Arts & Sciences	Yes	Office of Procurement	Dollars	15 minutes to write code to have the computer extract the appropriate data from the Oracle Financial database	Nothing
Tuck School of Business	Yes	Office of Procurement	Dollars	15 minutes to write code to have the computer extract the appropriate data from the Oracle Financial database	Nothing
Thayer Engineering School	Yes	Office of Procurement	Dollars	15 minutes to write code to have the computer extract the appropriate data from the Oracle Financial database	Nothing

Diana Medical School	Yes	Office of Procurement	Dollars	15 minutes to write code to have the computer extract the appropriate data from the Oracle Financial database	Nothing
Facilities, Operations & Management	Yes	Office of Procurement	Dollars	15 minutes to write code to have the computer extract the appropriate data from the Oracle Financial database	Nothing
Dartmouth Dining Services	Yes	Office of Procurement	Dollars	15 minutes to write code to have the computer extract the appropriate data from the Oracle Financial database	Nothing
Locally sold and non-locally sold, for any of the schools/departments	Yes	Office of Procurement	Dollars	15 minutes to write code to have the computer extract the appropriate data from the Oracle Financial database	Nothing
Purchased from small, minority, or women-owned businesses, for any of the schools/departments	Yes	Office of Procurement	Dollars	15 minutes to write code to have the computer extract the appropriate data from the Oracle Financial database	Nothing
Recyclables and non-recyclables, for any of the schools/departments	No	Individual vendors, collected by the Office of Procurement	Dollars	Depends on vendor, around 2 weeks minimum per vendor	Nothing

Reusable and non-reusable, for any of the schools/departments	No	Individual vendors, collected by the Office of Procurement	Dollars	Depends on vendor, around 2 weeks minimum per vendor	Nothing
Compostables and non-compostables, for any of the schools/departments	No	Individual vendors, collected by the Office of Procurement	Dollars	Depends on vendor, around 2 weeks minimum per vendor	Nothing
EC4. Percentage of contracts that were paid in accordance with agreed terms, excluding agreed penalty agreements					
Greg Husband from Procurement says that Dartmouth can report 99%, therefore no reporting costs					
Additional Indicators					
	Is the data readily available?	*Where does the data come from?*	*What format is the data in?*	*How many hours and/or people did it take to get the data?*	*What is required to convert the data into GRI format?*
EC11. Supplier breakdown by organization and country					
Top 10 suppliers by money spent by Dartmouth	Yes	Vendor Activity Summary file in the Office of Procurement	Already in list format	Less than one hour	Nothing
Percentage of revenue coming from Dartmouth for the top 10 suppliers	No	Individual vendors on the top 10 list	N/A	Depends on vendor, estimated 2 weeks minimum per vendor, if available at all	Nothing

Employees					
Core Indicators					
	Is the data readily available?	*Where does the data come from?*	*What format is the data in?*	*How many hours and/or people did it take to get the data?*	*What is required to convert the data into GRI format?*
EC5. Total payroll and benefits (including wages, pension, other benefits and redundancy payments) broken down by country or region					
Expenses on Professors' Benefits	Partially	Human Resources	Aggregate dollars spent by type of benefit.	High collection time	Given the current accounting practices, only the aggregate expense on benefits are available
Hours of Professors' Training	partially	Human Resources and individual departments	Hours spent in each training program offered by HR.	High Individual departments must be contacted.	Only aggregate numbers are available for the Human Resources Training programs.
Expenses on Administration's Salaries	Yes	Human Resources	Dollars	Depending on when the data was needed, ranges from a few hours to a few days.	nothing
Expenses on Administration's Benefits	Partially	Human Resources	Aggregate dollars spent by type of benefit.	High collection time	Given the current accounting practices, only the aggregate expense on benefits are available
Hours of Administrators' Training	partially	Human Resources and individual departments	Hours spent in each training program offered by HR.	High Individual departments must be contacted.	Only aggregate numbers are available for the Human Resources Training programs.

Expenses on Staff Salaries	Yes	Human Resources	Dollars	Depending on when the data was needed, ranges from a few hours to a few days.	nothing
Expenses on Students' Salaries	Yes	Human Resources	Dollars	Depending on when the data was needed, ranges from a few hours to a few days.	nothing
Expenses on Students' Benefits	Partially	Human Resources	Aggregate dollars spent by type of benefit.	High collection time	Given the current accounting practices, only the aggregate expense on benefits are available
Hours of Students' Training	partially	Human Resources and individual departments	Hours spent in each training program offered by HR.	High Individual departments must be contacted.	Only aggregate numbers are available for the Human Resources Training programs.
Expenses on Retirees' Salaries	Yes	Human Resources	Dollars	Depending on when the data was needed, ranges from a few hours to a few days.	nothing

Providers of Capital					
Core Indicators					
	Is the data readily available?	*Where does the data come from?*	*What format is the data in?*	*How many hours and/or people did it take to get the data?*	*What is required to convert the data into GRI format?*
EC6. Distributions to providers of capital broken down by interest on debt and borrowings, and dividends on all classes of shares, with any arrears of preferred dividends to be disclosed					
Students	yes	Julie Dolan VP (Fin)	Dollars	Less than one hour	Nothing
Alumni	yes	Rita Johnson (Gifts)	Dollars	Less than one hour	Nothing
Equity Mkts.	Yes	Jon King (Endowment)	Dollars	Less than one hour	Nothing
Debt Mkts.	Yes	Julie Dolan VP (Fin)	Dollars	Less than one hour	Nothing
International	Yes	Julie Dolan VP (Fin)	Dollars	Less than one hour	Nothing
EC7. Increase/decrease in retained earnings at end of period					
Pledges	Yes	Jon King (Endowment)	Dollars	Less than one hour	Nothing
Funding for Student Loans	Yes	Mike Wagner (Loans)	Dollars	Less than one hour	Nothing
Life Income and Annuities	Yes	Diane Houle (Accounting)	Dollars	Less than one hour	Nothing
Endowment	Yes	Jon King (Endowment)	Dollars	Less than one hour	Nothing
Total Net Assets (this is the only section required by the GRI)	Yes	Financial Annual Report	Dollars	Less than one hour	Nothing

Public Sector					
Core Indicators					
	Is the data readily available?	*Where does the data come from?*	*What format is the data in?*	*How many hours and/or people did it take to get the data?*	*What is required to convert the data into GRI format?*
EC8. Total sum of taxes of all types paid broken down by country					
Federal (Income)	Yes	Julie Dolan VP (Fin)	Dollars	Less than one hour	Nothing
State (Sales)	Yes	Julie Dolan VP (Fin)	Dollars	Less than one hour	Nothing
Local (Property)	Yes	Julie Dolan VP (Fin)	Dollars	Less than one hour	Nothing
EC9. Subsidies received broken down by country or region - DOES NOT APPLY					
EC10. Donations to community, civil society, and other groups broken down in terms of cash and in-kind donations per type of group					
	Is the data readily available?	Where does the data come from?	What format is the data in?	How many hours and/or people did it take to get the data?	What is required to convert the data into GRI format?
Habitat for Humanity donations of goods and money	Yes	Student Organization	Dollars and Materials	2-3 hours. Student organization must be contacted	Possibly converting the value of materials into dollar amounts.
On-going Tucker Programs donations of goods and money	Partially	15- 20 Student Organizations	Dollars and Materials	Approximately 50 hours. Each organization must be contacted.	Possibly converting the value of materials into dollar amounts.
Special Events donations of goods and money	Yes	Student Organizations sponsoring events	Dollars and Materials	Approximately 8 hours. Each organization must be contacted.	Possibly converting the value of materials into dollar amounts.
Greek Houses donations of goods and money	Yes	Cassie Barnhard Assistant Dean of Residential Life	Dollars and possibly Materials	Less than 1 hour	Possibly converting the value of materials into dollar amounts.

Other sources of donations of goods and money	Partially	Listen Center Hopkins Center Procurement Office Dartmouth Organic Farm Traveling Service Programs	Dollars and possibly Materials	Approximately 15 hours. Each organization must be contacted.	Possibly converting the value of materials into dollar amounts.
EC12. Total spent on non-core business infrastructure development - DOES NOT APPLY					

Indirect Economic Indicators					
Additional Indicators					
	Is the data readily available?	*Where does the data come from?*	*What format is the data in?*	*How many hours and/or people did it take to get the data?*	*What is required to convert the data into GRI format?*
EC13. The organization's indirect economic impacts.					
This data is collected annually and is available in the Office of Institutional Research.					

APPENDIX B:

Environmental

Indicator Tables

Materials					
	Is the data readily available?	*Where does the data come from?*	*What format is the data in?*	*How many hours and/or people did it take to get the data?*	*What is required to convert the data into GRI format?*
Core Indicators					
EN1. Total materials use other than water by type. Provide definitions used for types of materials. Report in metric tons, kilograms, or volume.					
Total paper use	Mostly	Most paper comes through Central Stores. Paper is also used by the copy center and by the mail system (DPMS)	Volume purchased per year per account	The data exists in the purchasing records for Central Stores	While most of the data is in purchasing records, a few hours would be needed to organize the data in to volumes per year
Total paper products used	Mostly	Central Stores, DDS and the Hanover Inn purchase all paper products and have this data	Purchasing records of amount and type of material ordered per account	The data exists in the purchasing records of these three entities	Several hours to collect all the data and total the volumes of all the types of products used
Total paper use per capita	Mostly	Central stores purchasing	Volumes of paper/paper products purchased by account		Divide total volume by total people using the paper
Total food use (amount purchased)	Basically, just a matter of adding past monthly purchases together	Beth DiFrancesco, in charge of all DDS ordering	It is basically in monthly food orders which are quantified by weight.		
Total organic food use versus conventional	No, very little organic food is purchased though, aside from organic farm and some topside products	Beth DiFrancesco			
Total solid pesticide use	Somewhat, need to talk with Bill Hochstin further	Bill Hochstin, reports to IPM	"I can send their reports from the IPM Council which will detail the amounts of pesticides		

			used but a ‘bait station’ is noted as such and I don't think I'll be able to give you the weight of the amount of active ingredients in each bait station and then multiplied by the number of stations. These are sealed plastic units that a mouse can get into and take a bite of pesticide enclosed. The compost that we use as an "amendment" doesn't meet the definition of fertilizer and wouldn't be included in the report you seek. However we could give you the amount of fertilizers purchased by Grounds and the golf course.”		
Total liquid pesticides use	mostly	Bill Hochstin, reports to IPM council	“The liquids that we do use are measured in ounces of active ingredients or as a percentage of a mix, for example one quart of chemical X was used in Y% concentrate. I think the best way might be to get the total number of ounces of mixed product used.” Another point is that this would include the Hanover Country Club		

			and many comparable schools won't own their very own golf course.		
Total fertilizer use					
EN2. Percentage of materials used that are wastes (processed or unprocessed) from sources external to the reporting organization. Refers to both post-consumer recycled material and waste from industrial sources. Report in metric tons, kilograms, or volume.					
Percentage of paper produced from post consumer waste (recycled)			Not sure if this indicator really applies to an educational institution (need to find out if it means products we use or produce) if necessary, we can find out from procurement services the percentage post consumer waste in products that the college buys		
Chlorine content of paper	Yes	Wendy Flanders, procurement specialist	No chlorine, only hydrogen peroxide. More information on supplier's website, www.kimberly-clark.com		
Chemicals in fertilizers used					

Energy					
	Is the data readily available?	*Where does the data come from?*	*What format is the data in?*	*How many hours and/or people will it take to get the data?*	*What is required to convert the data into GRI format?*
Core Indicators					
EN3. Direct energy use segmented by primary source. Report on all energy sources used by the organization for its own operations as well as for the production and delivery of energy products (e.g., electricity and heat) to other organizations. Report in joules.					
Energy use segmented by source					
Generated electricity at Dartmouth College Heating Plant	Yes	FO&M (Frank Roberts)—Dartmouth College Heating Plant Year End Totals spreadsheet. Data goes back to 1995.	Reported in kWh for the calendar year.	Readily available	Convert kilowatt-hours to joules for each year reported.
Purchased electricity from Granite State Electric	Mostly	Dartmouth College Heating Plant Year End Totals spreadsheet has a total for purchased electricity that contains the two main electric bills for the East and West sides of campus. About 30 other small electric bills are not in that total and can be obtained on-line at www.granitestateelectric.com with the account number.	Electricity data in the FO&M spreadsheet is reported in kWh for the calendar year. 30 other small electric bills are reported in kWh.	May take a couple hours to compile data back to 1995.	Convert to joules for each year reported.
Total electricity use at Dartmouth	Mostly	Requires compilation of generated and purchased electricity data described above.		Readily available	Add together generated and purchased electricity for each year reported.
Steam generation at Dartmouth College Heating Plant	Yes	FO&M (Frank Roberts)—Dartmouth College Heating Plant Year End	Reported in hundreds of pounds.	Readily available	Convert hundred pounds to joules for each year reported.

		Totals spreadsheet. Data goes back to 1995.			
Oil consumption by Dartmouth College Heating Plant	Yes	FO&M (Frank Roberts)—Dartmouth College Heating Plant Year End Totals spreadsheet. Data goes back to 1995.	Reported in gallons.	Readily available	Convert gallons to joules for each year reported.
Other fuels					
Dartmouth vehicle gasoline use	Mostly	Procurement Svcs, Inventory Ops (Sarah LaBombard)—has records of gasoline used by all departments.	Reported in gallons/time for the calendar year.	Sarah estimates it will take her 3 hours to compile a spreadsheet of gas totals for FY 98 to FY 03.	Convert gallons to joules for each year reported.
#2 fuel oil, propane (LP), kerosene, diesel, and other gasoline use	Mostly	Procurement Svcs, Contract Manager (Rick Hoffman)—fuel deliveries. #2 fuel oil, kerosene, diesel, and gasoline records go back 20 years. LP records only go back 3 years.	Gallons of fuel delivered over the calendar year.	Johnson & Dix provides info as part of service. Will only take a 15 to 20 minute phone call to J&D.	Convert all fuels to joules for each year reported.
Total energy use	No	Requires compilation of energy data described above, specifically #6 fuel oil consumption, purchased electricity, and other fuel use.		If calculations above are completed, then this info is readily available	Report in joules.
Total energy use per capita	No	Student population can be found at http://www.dartmouth.edu/~oir/factbook/enrollments/index.html. Employee numbers can be obtained from Barbara Johnson in payroll.		Readily available	Divide total energy use by the campus population for each year reported. Report in joules per capita.
Total energy use per sq. ft. building space	No	Jack Wilson in Facilities Planning has campus square footage numbers.		May take a few weeks to track down square	Divide total energy use by the total square footage for each year

		Other square footage (e.g., for rental properties) will come from the Real Estate Office.		footage numbers for off-campus properties.	reported. Report in joules per square foot.
EN4. Indirect energy use. Report on all energy used to produce and deliver energy products purchased by the reporting organization (e.g., electricity or heat). Report in joules.					
Purchased electricity from Granite State Electric	No	Granite State Electric	Have the overall fuel %s Prefer to have exact figures for Dartmouth		
Delivery of fuel oil #6 for Dartmouth College Heating Plant	No	Bill Riehl at FO&M has trucking slips for fuel oil #6 deliveries from Sprague.	Data: - #of deliveries - gallons of gasoline/diesel	1999-2003 ~12hrs 1997-1999 ~16hrs 1995-1997 ~17hrs	Convert gallons of gasoline used to truck the oil to Dart mouth into joules.
Transport of other fuels	No	Procurement Services—Gasoline comes from Portland, ME or Albany, NY. Other fuels come from White River Junction, VT or Lebanon, NH.	Data: - # of deliveries - gallons of gasoline/diesel	~ 1 hr initial calculation ~ 5 hrs per year of data	Convert gallons of gasoline used to truck the fuels to Dartmouth into joules.
Additional Indicators					
EN17. Initiatives to use renewable energy sources and to increase energy efficiency.	No	FO&M (Frank Roberts and Bo Peterson)	FO&M does not keep a record of the energy efficiency projects that Dartmouth has done. FO&M did have an outside company perform energy conservation audits. Those projects could be implemented.	~3 hrs past 2 years	FO&M would need to make list of energy efficiency projects completed at Dartmouth for each year reported.
EN18. Energy consumption footprint (i.e., annualized lifetime energy requirements) of major products.		*Indicator not applicable to Dartmouth	-	-	-

EN19. Other indirect energy use and implications, such as organizational travel, product lifecycle, and use of energy-intensive materials.	No Distance traveled is readily available	Garber Travel's Corporate Office Manager - Alison Dwan	Data only will be since March 2002 -begin with miles or kilometers traveled		Calculate fuel use based on travel. Convert to gallons of fuel.
Additional Indicators for Dartmouth					
Energy use by building type (e.g., academic, administrative, residential, athletic facilities)	Yes	Facilities Planning—spreadsheet of electricity and steam use per sq. ft. by building type.	Steam use reported in BTUs per sq. ft. Electricity use reported in kWh per sq. ft.	Already available	Convert into joules per sq. ft.

Water					
	Is the data readily available?	*Where does the data come from?*	*What format is the data in?*	*How many hours and/or people did it take to get the data?*	*What is required to convert the data into GRI format?*
EN5. Total Water Use					
Total Water Use	Yes	Hanover Water Works via Frank Roberts	The data is in cubic ft. and also in dollars for each building.	Raw data already compiled by Hanover water works by building. All accounts need to be summed.	The CuFt need to be summed for all accounts. 1 hour.
Water use by building type	Yes	Hanover Water Works via Frank Roberts	The data is in cubic ft. and also in dollars for each building.	Raw data already compiled by Hanover water works by building.	Buildings need to be grouped by type. Each type needs to be summed for a total. 8 hours.
Water use per capita	Yes	Hanover Water Works via Frank Roberts	The data is in cubic ft. and also in dollars for each building.	Already compiled by Hanover water works by building.	Divide total use by number of people at Dartmouth. 10 Minutes.
Ground Water Quality	Yes	Hanover Waterworks website	The document explains all criteria for drinking water pollutants, acceptable levels and current levels	Already compiled annually	Fine in present form
Waste Water Quantity	Yes (but metered by water usage)	Hanover Water Works via Frank Roberts			
Compliance with state and federal regulations	Yes	Frank Roberts	Multitude of current permits and protection plans	For gross qualitative assessment, 15 minutes	One paragraph summation with a couple of examples such as construction site runoff and industrial oil precautions

Additional Indicators					
EN20. Water sources and related ecosystems/habitats significantly affected by use of water.	No	Hanover Waterworks	The ecosystems affected inflow and outflow from the water systems are known, but the specific effects are not.	None, the information is on the Hanover waterworks website.	The general system and its inflow source and effluent discharge areas are identified in the general summary for the water indicators. No additional time necessary.
EN21. Annual withdrawals of ground and surface water as a percent of annual renewable quantity of water available from the sources.	No		Annual rainfall within the Hanover reservoir watershed was not found.		Perhaps an estimate could be compiled from rainfall data average for the area multiplied by the area of the watershed. Approx. 5 hours.
EN22. Total recycling and reuse of water.	Yes	Frank Roberts	Qualitative description	One short conversation with Frank.	Quantitative measurements are not available. However, general descriptions of water recycling from heating and cooling systems are described in the text of the Water indicators section. No additional time necessary.
Additional Indicators for Dartmouth					
Eco initiatives undertaken	Yes	Frank Roberts	Informal discussion	For gross qualitative assessment, 15 minutes	One paragraph summation with a couple of examples such as water filtration system
Areas for Improvement	Evolving				

Biodiversity					
	Is the data readily available?	*Where does the data come from?*	*What format is the data in?*	*How many hours and/or people did it take to get the data?*	*What is required to convert the data into GRI format?*
Core Indicators					
EN6. Location and size of land owned, leased, or managed in biodiversity rich habitats.	Yes	Paul Olsen Real Estate Office		Just an email	Nothing additional
EN7. Description of the major impacts on biodiversity associated with activities and/or products and services in terrestrial, freshwater, and marine environments. This is where we need someone who can be looking into this data yearly and keeping track of the impacts of the college. There is no one source to get this information from. Bob Thebodo has some information, however the data is not in a format that is suitable for the GRI.					
Additional Indicators					
EN23. Total amount of land owned, leased, or managed for production activities or extractive use.	This is not entirely applicable to Dartmouth. The second college grant applies, data for this is available	Kevin Evans – Director of Woodland Operations. Also can be found in the Second College Grant Management Plan (2001)	In the management plan it is in written format.	A phone call or a few minutes reading the document.	None
EN24. Amount of impermeable surface as a percentage of land purchased or leased.	This data is not available. It will all need to be compiled.				
EN25. Impacts of activities and operations on protected and sensitive areas. (e.g., IUCN protected area categories 1-4, world heritage sites, and biosphere reserves).	No (except for the Second College Grant) No info on Occum Pond, Boston Lot, or Moosilauke. Also no record of what areas to consider "protected or	Kevin Evans has the data for the Second College Grant	It is in written form in the Management Plan for the Grant.	The report is already written. To compile the data for the other areas/define what areas should also be considered will take additional man-hours.	

	sensitive"				
EN26. Changes to natural habitats resulting from activities and operations and percentage of habitat protected or restored. Identify type of habitat affected and its status.	No. Limited information available from Bob Thebodo in Grounds.				
EN27. Objectives, programs, and targets for protecting and restoring native ecosystems and species in degraded areas.	In northern forests, regeneration is huge, very resilient. No big risk of land degradation.	However, there is no data available for this indicator.			
EN28. Number of IUCN Red List species with habitats in areas affected by operations.	N/A				
EN29. Business units currently operating or planning operations in or around protected or sensitive areas.	Yes	Facilities Planning Office – Jack Wilson			
Additional Indicators for Dartmouth					
Planting of exotic vs. native plants	No (college has no policy on this and therefore no one tracking it)	Can talk with Jim Hornig (President of Hanover Conservation Council)			Need a position that examines the plants used each year at Dartmouth.

Emissions, Effluents, and Waste					
	Is the data readily available?	*Where does the data come from?*	*What format is the data in?*	*How many hours and/or people will it take to get the data?*	*What is required to convert the data into GRI format?*
Core Indicators					
EN8. Greenhouse gas emissions. (CO_2, CH_4, N_2O, HFCs, PFCs, SF_6). Report separate subtotals for each gas in metric tons and in metric tons of CO_2 equivalent.					
Direct emissions from sources owned by the reporting entity.	Only for CO_2	FO&M (Frank Roberts)—CO_2 emissions analysis from 1995 to 2002. Includes emissions from #6 fuel oil use at Dartmouth College Heating Plant, purchased electricity for the main campus, and gasoline use by Dartmouth vehicles.	CO_2 emissions are reported in pounds.	Mostly readily available	Need to add in CO_2 emissions from other fuel use and from 30 smaller electric accounts with Granite State. Convert pounds to metric tons.
Indirect emissions from imported electricity, heat, or steam.	No	Requires compilation of data for indicator EN4 (indirect energy use).		A couple of hours for calculations	Requires calculations from indirect energy use (gallons of diesel fuel) to metric tons of CO_2.
EN9. Use and emissions of ozone-depleting substances. Report each figure separately in accordance with Montreal Protocol Annexes A, B, C and E in metric tons of CFC-11 equivalents (ozone-depleting potential).	No	FO&M can provide information for Thompson Arena and chillers. Fridge and air conditioner use by the College will need to be surveyed.		An inventory of the use of ozone-depleting substances could take many weeks to a few months.	Results of inventory will then need to be converted to metric tons of CFC-11 equivalent.
EN10. NOx, SOx, and other significant air emissions by type. Include emissions of substances regulated under: -local laws and regulations	Yes => No =>	FO&M (Frank Roberts)—annual emissions report Medical school incinerator emissions	Emissions of NOx, SOx, particulates, carbon monoxide, etc. are reported in pounds/year and metric	~4 months annual for emissions report ~3 hrs initial and	Units already in pounds/ year and tons/year

			tons/year	1 hr annual for incinerator report	
EN11. Total amount of waste by type and destination. **"**Destination refers to the method by which the waste is treated, including composting, reuse, recycling, recovery, incineration, or landfilling. Explain type of classification method and estimation method. (all values annual based on such and such year)	Yes	Lisa Ashworth	Measured in tons every month	Negligible hours, already part of Lisa Ashworth's job as campus solid waste manager	Just a matter of adding each monthly total together to get annual amount
Total amount solid waste	Yes	Lisa Ashworth	Measured in tons every month	Negligible hours, already part of Lisa Ashworth's job as campus solid waste manager	Just a matter of adding each monthly total together to get annual amount
- Total amount solid waste sent to landfill - Percent of solid waste diverted from landfill - Waiting to find out more about where construction debris goes, and where compacted trash eventually goes - Total amount of compost	Yes	Lisa Ashworth	0 (still need to confirm this)	Negligible hours, already part of Lisa Ashworth's job as campus solid waste manager	Just a matter of adding each monthly total together to get annual total
Total amount solid waste incinerated	Yes	Lisa Ashworth	Measured in tons every month	Negligible hours, already part of Lisa Ashworth's job as campus solid waste manager	Just a matter of adding each monthly total together to get annual total

Total amount of wood not composted (and sent to landfill or compactor?)	Yes	Lisa Ashworth	Measured in tons every month, recorded by specific type of waste and date when disposed	Negligible hours, already part of Lisa Ashworth's job as campus solid waste manager	Just a matter of adding each monthly total together to get annual total
Total amount of universal waste Universal waste is recycled. It includes lamps, batteries, ballast PCB, ballast non PCB, electronics	Yes	Lisa Ashworth	Measured in tons every month	Negligible hours, already part of Lisa Ashworth's job as campus solid waste manager	Just a matter of adding each monthly total together to get annual total
Total amo unt of furniture disposed of (if not reused, then how?)	Yes	Lisa Ashworth	Measured in tons every month	Negligible hours, already part of Lisa Ashworth's job as campus solid waste manager	Just a matter of adding each monthly total together to get annual total
Total amount of recycled material • Amount of aluminum cans recycled • Amount of white paper recycled • Amount of cardboard recycled • Amount of #8 news recycled • Amount of glass recycled • Amount of plastic recycled • Amount of metals recycled	Yes	Lisa Ashworth	# per year found on college grounds	Negligible hours, already part of Lisa Ashworth's job as campus solid waste manager	Just a matter of adding each monthly total together to get annual total
Number of tires	Yes	Lisa Ashworth	Measured in tons every month	Negligible hours, already part of Lisa Ashworth's job as campus solid waste manager	Just a matter of adding each monthly total together to get annual total
• Amount of used clothes recycled • Amount of CDs/ diskettes recycled					

• Amount of bicycles recycled • Amount of mattresses recycled • Amount of C&D debris recycled • Amount of laser cartridges recycled • Amount of transparencies recycled					
EN12. Significant discharges to water by type					
EN13. Significant spills of chemicals, oils, and fuels, in terms of total number and total volume significance is defined in terms of both size of the spill and impact on the surrounding environment	Yes	Michael D. Cimis	Measured and reported, not necessarily in uniform units	Negligible hours, involves looking over records of past spills	Should be fairly easy to convert to GRI
Amount of hazardous substances spilled					
Additional Indicators					
EN30. Other relevant indirect greenhouse gas emissions. (CO_2, CH_4, N_20, HFCs, PFCs, SF_6). Refers to emissions that are a consequence of the reporting entity, but occur from sources owned or controlled by another entity. Report in metric tons of gas and metric tons of CO_2 equivalent.	No. Do not know of any other relevant indirect GHG emissions.				
EN31. All production, transport, import, or export of any waste deemed "hazardous" under the terms of the Basel Convention Annex I, II, III, and VIII.	No	Michael D. Cimis	While there are records of all items purchased they are not compiled in a central location	Time intensive to get a comprehensive tracking system up and running, but the general need for a tracking system is already recognized	Labor intensive to convert to GRI format, at least originally
Percentage of solid waste that is hazardous	Not really	Michael D. Cimis	While there are records of all items purchased they are not compiled in a central location,	Time intensive to get a comprehensive tracking system	Labor intensive to convert to GRI format, at least originally

			hazardous waste is exported by private contractors	up and running, but the general need for a tracking system is already recognized	
Amounts of different types of hazardous solid waste **Destination?**	Not really	Michael D. Cimis	While there are records of all items purchased they are not compiled in a central location. Bio-medical waste which is incinerated is tracked by the College	Time intensive to get a comprehensive tracking system up and running, but the general need for a tracking system is already recognized	Labor intensive to convert to GRI format, at least originally
Hazardous chemicals by type and use and disposal methods					
EN32. Water sources and related ecosystems/habitats significantly affected by discharge of water and runoff.					

Suppliers					
	Is the data readily available?	*Where does the data come from?*	*What format is the data in?*	*How many hours and/or people will it take to get the data?*	*What is required to convert the data into GRI format?*
Additional Indicators					
EN33. Performance of suppliers relative to environmental components of programs and procedures described in response to governance structure and management systems section.	no	Central Stores	Central Stores maintains a list of suppliers to the College, but this is not exactly the data that the indicator asks for	Several hours of additional research to examine each supplier's environmental performance	Further research and definition of the indicator with respect to an environmental institution.

Products and Services					
	Is the data readily available?	*Where does the data come from?*	*What format is the data in?*	*How many hours and/or people will it take to get the data?*	*What is required to convert the data into GRI format?*
Core Indicators					
EN14 Significant environmental impacts of principal products and services	This indicator is not very applicable to an educational institution. For the services that the college does provide, there is little quantifiable data available	Environmental Health and Safety, Purchasing, and campus environmental clubs have information on environmental initiatives taken to minimize the college's environmental impact.	This data is not quantifiable as applied to an educational institution	-	-
EN15 Percentage of the weight of products sold that is reclaimable at the end of the products' useful life and percentage that is actually reclaimed. "reclaimable" refers to either the recycling or reuse of the product material or components	This is not very applicable since the college does not focus on production as a commercial industry would	-	-	-	-

Compliance					
	Is the data readily available?	*Where does the data come from?*	*What format is the data in?*	*How many hours and/or people will it take to get the data?*	*What is required to convert the data into GRI format?*
Core Indicators					
EN16 Incidents of and fines for non-compliance with all applicable international declarations/ conventions/ treaties, and national, sub-national, regional, and local regulations associated with environmental issues. Explain in terms of countries of operation	yes	Michael D. Cimis	Records kept of all past violations	Just a matter of retrieving files	nothing
Records of non-compliance					

Transport					
	Is the data readily available?	*Where does the data come from?*	*What format is the data in?*	*How many hours and/or people will it take to get the data?*	*What is required to convert the data into GRI format?*
Additional Indicators					
EN34. Significant environmental impacts of transportation used for logistical purposes.	There is no record of significant environmental impacts. There are records of parking data.	Information on parking can be obtained from Parking Operations or Bill Barr in FO&M.	Number of parking spots available on campus. Number of registered cars.	Parking records are readily available.	Nothing

Overall					
	Is the data readily available?	*Where does the data come from?*	*What format is the data in?*	*How many hours and/or people will it take to get the data?*	*What is required to convert the data into GRI format?*
Additional Indicators					
EN35. Total environmental expenditures by type.					

APPENDIX C:

Social Indicator Tables

LABOR PRACTICES AND DECENT WORK

Employment

	Is the data readily available?	*Where does the data come from?*	*What format is the data in?*	*How many hours and/or people did it take to get the data?*	*What is required to convert the data into GRI format?*
Core Indicators					
LA1. Breakdown of workforce, where possible, by region/country, status (employee/non-employee), employment type (full time/part time), and by employment contract (indefinite or permanent/fixed term or temporary). Also identify workforce retained in conjunction with other employers (temporary agency workers or workers in co-employment relationships), segmented by region/country.					
Breakdown of workforce where possible by: gender diversity, status (employee/non-employee), employee type, employee contract, employees retained by other employees, region	Yes	In OHR database	Raw data	Information can be accessed immediately upon request	Labor and materials necessary in order to automate the SPSS database system to access raw numbers (already available) and output the information in the format requested by the GRI. In this case, the GRI only requests a "breakdown" of the work\force. UFU used pie charts and bar graphs. The college defines regional by zip code instead. Either form is currently available immediately upon access to SPSS.

Breakdown of workforce where possible by ethnic diversity	Yes, partially	It is volunteered by employees willing to divulge the information	Same as above	Same as above	Same as above except completed numbers would require compulsory that all employees will provide information on their ethnicity
LA2. Net employment creation and average turnover segmented by region/country.					
Net employment creation and average turnover by zip code	Yes	In OHR database	In raw numbers	Information can be accessed immediately upon request	Labor and materials necessary in order to automate the SPSS database system to access raw numbers (already available) and output the information in the format requested by the GRI. In this case, the GRI only requests a "breakdown" of the work\force. UFU used pie charts and bar graphs. The college defines regional by zip code instead. Either form is currently available immediately upon access to SPSS.

Additional Indicators					
LA12. Employee benefits beyond those legally mandated. (e.g., contributions to health care, disability, maternity, education, and retirement)					
Contributions to health care, disability, maternity, education, and retirement	Yes, partially	In OHR database	In the annual staff handbook as well as the database	Effort required to ascertain what Dartmouth policies exceed minimum requirements	Handbooks need to qualify precisely how Dartmouth employee benefit policies meet and/or exceed minimal legal standards
Dartmouth Supplementary Labor Practices and Decent Work Indicators					
DSLA1. Employee retention rate.	Yes, in the Fall 2003	In OHR database	Raw numbers	Effort required to turn raw numbers into format	Unavailable due to the fact this is not included in GRI format
DSLA2. Ratio of jobs offered to jobs accepted	No	Nowhere	Would be raw numbers	Essentially would only require adding one question to current survey	Same as above
DSLA3. Job satisfaction levels ranking of organization as employer in internal and external surveys.	No	Nowhere	Would be standardized lists	Actually easy as watch dog organizations would be willing to do the labor provided that they can publish the findings. There would be sensitivity issues	Same as above
DSLA4. Ratio of lowest wage to national legal minimum.	Yes	In the OHR database	Already found in the SPSS format	Would be relatively easy to transform into automated format if coordinated by	Same as above

				sustainability coordinator	
DSLA5. Ratio of lowest wage to local cost of living.	Yes	In OHR database	Already in SPSS format	Definition of what is local needs to be addressed as well as making the system automated	Same as above
DSLA6. Health and pension benefits provided to employees.	Yes	In the OHR's Dartmouth College Non-Exempt Staff Handbook	Information should be available at the offices records	Somewhat labor intensive initially to convert everything to automation	Same as above
DSLA7. Wage distribution according to employee-type.	Yes	In the OHR database	In SPSS format	When the specific parameters are decided, it will take minimal effort to get it standardized	Same as above

Labor/Management Relations

	Is the data readily available?	*Where does the data come from?*	*What format is the data in?*	*How many hours and/or people will it take to get the data?*	*What is required to convert the data into GRI format?*
Core Indicators					
LA3. Percentage of employees represented by independent trade union organizations or other bona fide employee representatives broken down geographically OR percentage of employees covered by collective bargaining agreements broken down by region/country.					
Employees represented by independent trade union organizations	Yes	In the OHR database	In SPSS format	Fairly easy, just implement automation in the first year since it is found in the SPSS format	That some one will specify what output is needed from year to year
LA4. Policy and procedures involving information, consultation, and negotiation with employees over changes in the reporting organization's operations (e.g., restructuring).					
Policy and procedures involving information, consultation, and negotiation with employees over changes in the reporting	Yes	The OHR has a policy Documented	In OHR records	Some work would be needed transferring the information as well as articulating Dartmouth's stance on the issue	As published text, the descriptive format would be acceptable within GRI standards. The labor/materials necessary to access this information would be minimal, requiring only that a centralized facility initially request and monitor all such textual data and compile it within the report."
Additional Indicators					
LA13. Provision for formal worker representation in decision making or management, including corporate governance.					

Provision for formal worker representation in decision making or management	Yes	The OHR 's town meeting system	The college has a provision known as the town meeting where complaints can be voiced although the employees have no representation on the board of trustees	No clear answer depending on the interpretation of what the GRI requires as opposed to what Dartmouth has in place	Same as above
Dartmouth Supplementary Labor Practices and Decent Work Indicators					
DSLA8. Staff forums and grievance procedures in place.	Yes	The OHR 's town meeting system	Same as above	Same as above	Not available since not currently part of the GRI
DSLA9. Numbers and types of legal actions concerning anti-union practices.	No	The Office of the General Council would be responsible for the records	However, if they had gone to trail they are on public record, but if they are only available internally, they would no be released	How long it would take to gathering publicly available information and put it into GRI format	Same as above
DSLA10. University responses to organizing at non-union facilities.	No	Potentially in the OHR records	OHR would need to keep track of not only the successful labor organizations starts, but also the failures.	Once this was accomplished it would be easy to write up	Same as above
DSLA11. Evidence of employee orientation to University mission.	No	No	There is a need to make sure that all employees as well as students understand and follow all the parts of the mission	New monitoring would need to be in place in order to make sure it is being adhered to	Same as above

DSLA12. Evidence of student/employee engagement in shaping management decision making.	No	No	Effort required to put cooperation and communication links in place and put it into a recordable format	As published text, the descriptive format would be acceptable within GRI standards. The labor/materials necessary to access this information would be minimal, requiring only that a centralized facility initially request and monitor all such textual data and compile it within the report."	Same as above
DSLA13. Changes in average years of education of workforce.	Yes	In OHR's database	In the SPSS format	The information is easily accessible in the database, and would require minimal effort to obtain	Same as above

Health and Safety					
	Is the data readily available?	*Where does the data come from?*	*What format is the data in?*	*How many hours and/or people will it take to get the data?*	*What is required to convert the data into GRI format?*
Core Indicators					
LA5. Practices on recording and notification of occupational accidents and diseases, and how they relate to the ILO Code of Practice on Recording and Notification of Occupational Accidents and Diseases.					
Practices on recording and notification of occupational accidents and diseases, and how they relate to the ILO Code of Practice	Yes	The Office of Environmental Health and Safety	Excel	A fairly easy conversion with when using the services of a sustainability coordinator	Easily convertible into the specified format
LA6. Description of formal joint health and safety committees comprising management and worker representatives and proportion of workforce covered by any such committees.					
Description of formal joint health and safety committees comprising management and worker representatives and proportion of workforce covered by any such committees	Yes	In the OHR worker's handbooks	In word format	You would need a sustainability coordinator transferring the information	Take the information and transfer it into GRI format
LA7. Standard injury, lost day, and absentee rates and number of work					
Standard injury, lost day, and absentee rates and number of work	Yes	Office of Environmental Health and Safety	Excel	The need for a sustainability coordinator to streamline the activities	Streamline the gathering to fir GRI specifications
LA8. Description of policies or programs (for the workplace and beyond) on HIV/AIDS.					
Description of policies or programs (for the workplace and beyond) on HIV/AIDS	Yes	The OHR's College Exempt Staff Handbook	Word format	Same as above	Same as above

Additional Indicators					
LA14. Evidence of substantial compliance with the ILO Guidelines for Occupational Health Management Systems.					
Evidence of substantial compliance with the ILO Guidelines	Yes	Office of Environmental Health and Safety's records	Word format	Same as above	Not specified
LA15. Description of formal agreements with trade unions or other bona fide employee representatives covering health and safety at work and proportion of the workforce covered by any such agreements.					
Description of formal agreements with trade unions or other bona fide employee representatives covering health and safety at work and proportion of the workforce covered	Yes	The OHR records	In SPSS format	Minimal effort since everything is already automated	Streamlining by adapting to GRI guidelines
Dartmouth Supplementary Labor Practices and Decent Work Indicators					
DSLA14. Reportable cases in current year that resulted in injury, absenteeism, and work-related fatalities (including subcontracted workers).	Yes	Office of Environmental Health and Safety	Excel	Minimal effort	Is not a part of the GRI
DSLA15. Investment per worker in illness and injury prevention**.**	No	Would be located in the Office of Environmental Health and Safety records	Would be found in word format	Gathering the necessary information as well as dividing the total investment in illness and injury prevention by the total number of workers	Same as above

Training and Education					
	Is the data readily available?	*Where does the data come from?*	*What format is the data in?*	*How many hours and/or people will it take to get the data?*	*What is required to convert the data into GRI format?*
Core Indicators					
LA9. Average hours of training per year per employee by category of employee. (e.g., senior management, middle management, professional, technical, administrative, production, and maintenance).					
Senior management, middle management, professional, technical, administrative, production, and maintenance	Yes	In the OHR's records	Available in the SPSS format	Minimal effort required for conversion	Just translating the numbers into the GRI specifications
Additional Indicators					
LA16. Description of programs to support the continued employability of employees and to manage career endings.					
Description of programs to support the continued employability of employees and to manage career endings.	Yes	In the OHR's Dartmouth College Exempt Staff Handbook	Word files	Streamlining the information to fit the GRI criteria, which would require the sustainability coordinator's attention	Same as above
LA17. Specific policies and programs for skills management or for lifelong learning.					
Specific policies and programs for skills management or for lifelong learning	Yes	In the OHR's Dartmouth College Exempt Staff Handbook	Word files	Same as above	Same as above

Diversity and Opportunity					
	Is the data readily available?	*Where does the data come from?*	*What format is the data in?*	*How many hours and/or people will it take to get the data?*	*What is required to convert the data into GRI format?*
Core Indicators					
LA10. Description of equal opportunity policies or programs, as well as monitoring systems to ensure compliance and results of monitoring. Equal opportunity policies may address workplace harassment and affirmative action relative to historical patterns of discrimination.					
Description of equal opportunity policies or programs	Yes	Office Institutional Diversity and Equity's annual report	Word files	Minimal effort to initially streamline the information and then oversee its yearly collection	GRI accepts text descriptions
LA11. Composition of senior management and corporate governance bodies (including the board of directors), including female/male ratio and other indicators of diversity as culturally appropriate.					
Composition of senior management and corporate governance bodies	Yes	Office Institutional Diversity and Equity's annual report	Same as above	Same as above	Same as above
Dartmouth Supplementary Labor Practices and Decent Work Indicators					
DSLA16. Mentoring programs for minorities – faculty and students.	Yes	Office Institutional Diversity and Equity's annual report	Word files	Minimal effort to initially streamline the information and then oversee its yearly collection	Not part of the GRI format
DSLA17. Discrimination-related litigation – frequency and type.	Yes	Office Institutional Diversity and Equity's annual report	Same as above	Same as above	Same as above

DSLA18. Diversity, opportunity, and non-discrimination in relation to education and faculty employment – see "Education Performance Indicators" section.	Yes	In OHR's Dartmouth College Exempt Staff Handbook	Same a above	Same as above	Same as above
DSLA19. Percentage of women in senior executive, senior, and middle management ranks.	Yes	Office of Institutional Diversity and Equity's yearly report	Word files	Minimal effort to convert into the GRI format	Same as above
DSLA20. Percentage of women on Board of Trustees.	Yes	Office of Institutional Diversity and Equity's yearly report	Same a above	Same a above	Same as above
DSLA21. Ration of ethnic minorities in senior executive, senior, and middle management ranks.	Yes	Office of Institutional Diversity and Equity's yearly report	Same a above	Same a above	Same as above
DSLA22. Percentage of ethnic minorities on Board of Trustees.	Yes	Office of Institutional Diversity and Equity's yearly report	Same a above	Same a above	Same as above

HUMAN RIGHTS

Strategy and Management

	Is the data readily available?	*Where does the data come from?*	*What format is the data in?*	*How many hours and/or people will it take to get the data?*	*What is required to convert the data into GRI format?*
Core Indicators					
HR1. Description of policies, guidelines, corporate structure, and procedures to deal with all aspects of human rights relevant to operations, including monitoring mechanisms and results. State how policies relate to existing international standards such as the Universal Declaration and the Fundamental Human Rights Conventions of the ILO.					
Description of policies, guidelines, corporate structure, and procedures to deal with all aspects of human rights relevant to operations, including monitoring mechanisms and results	Yes	In the OHR's Dartmouth College Exempt Staff Handbook" and the "Dartmouth College Non-Exempt Staff Handbook	Word files	The labor/materials necessary to access this information would be minimal, requiring only that a centralized facility initially request and monitor all such textual data and compile it within the report	GRI allows for descriptive format, which is already accomplished
HR2. Evidence of consideration of human rights impacts as part of investment and procurement decisions, including selection of suppliers/contractors.					
Evidence of consideration of human rights impacts as part of investment and procurement decisions	No	Would be known at the Office of Fiscal Affairs and the Office of Procurement Services	Not available	Impossible to ascertain	Not available
HR3. Description of policies and procedures to evaluate and address human rights performance within the supply chain and contractors, including monitoring systems and results of monitoring. "Human rights performance" refers to the aspects of human rights identified as reporting aspects in the GRI performance indicators.					

Human rights performance	Yes	The Office of Procurement Service's web site	In word format	Minimal effort, although considerable effort might be needed to make sure that the guidelines stated on the website are followed.	As published text, the descriptive format would be acceptable within GRI standards. The labor/materials necessary to access this information would be minimal, requiring only that a centralized facility initially request and monitor all such textual data and compile it within the report."
Additional Indicators					
HR8. Employee training on policies and practices concerning all aspects of human rights relevant to operations. Include type of training, number of employees trained, and average training duration.					
Include type of training, number of employees trained, and average training duration	Yes	In the OHR's Training and Development Handbook	In SPSS format	Minimal effort to converting into the GRI format	Same as above
Dartmouth Supplementary Human Rights Indicators					
DSHR1. Description of policies, guidelines, corporate structure, procedures, and monitoring systems in place to regulate investment and procurement decisions, to respond to results of monitoring, and to ensure investment transparency, accountability, and responsibility.	No	There are currently no published policies regarding this matter	NA	Time it would take to articulate and write down the policies as well as additional time required for the investments	NA

Non-Discrimination					
	Is the data readily available?	*Where does the data come from?*	*What format is the data in?*	*How many hours and/or people will it take to get the data?*	*What is required to convert the data into GRI format?*
Core Indicators					
HR4. Description of global policy and procedures/programs preventing all forms of discrimination in operations, including monitoring systems and results of monitoring.					
Description of global policy and procedures/programs preventing all forms of discrimination in operations	Yes	In the OHR's Training and Development Handbook	In a word file	The issues pertains mainly to the issue of scope, which needs to be defined before a time approximation can be made	NA

Freedom of Association and Collective Bargaining					
Core Indicators					
HR5. Description of freedom of association policy and extent to which this policy is universally applied independent of local laws, as well as description of procedures/programs to address this issue.					
Description of freedom of association policy and extent to which this policy is universally applied independent of local laws	No	Is currently based on precedent in the OHR	Not available	Time required to write out and convert policy into the GRI format	Not available

Child Labor					
	Is the data readily available?	*Where does the data come from?*	*What format is the data in?*	*How many hours and/or people will it take to get the data?*	*What is required to convert the data into GRI format?*
Core Indicators					
HR6. Description of policy excluding child labor as defined by the ILO Convention 138 and extent to which this policy is visibly stated and applied, as well as description of procedures/ programs to address this issue, including monitoring systems and results of monitoring.					
Description of policy excluding child labor as defined by the ILO Convention 138 and extent to which this policy is visibly stated and applied	Yes	In OHR's Dartmouth College Exempt Staff Handbook" and the "Dartmouth College Non-Exempt Staff Handbook	Word files	The labor/materials necessary to access this information would be minimal, requiring only that a centralized facility initially request and monitor all such textual data and compile it within the report	As published text, the descriptive format would be acceptable within GRI standards. The labor/materials necessary to access this information would be minimal, requiring only that a centralized facility initially request and monitor all such textual data and compile it within the report."

Forced and Compulsory Labor					
	Is the data readily available?	*Where does the data come from?*	*What format is the data in?*	*How many hours and/or people will it take to get the data?*	*What is required to convert the data into GRI format?*
Core Indicators					
HR7. Description of policy to prevent forced and compulsory labor and extent to which this policy is visibly stated and applied as well as description of procedures/programs to address this issue, including monitoring systems and results of monitoring. See ILO Convention No. 29, Article 2.					
Description of policy to prevent forced and compulsory labor	Yes	In OHR's records	Word document	Dartmouth complies with all state and national laws, which would require minimal effort to transfer to fit the GRI specifications	NA
Dartmouth Supplementary Human Rights Indicators					
DSHR2. Describe the "employment" of graduate students, their benefits, and utilization.	Yes	In OHR's Dartmouth College Exempt Staff Handbook" and the "Dartmouth College Non-Exempt Staff Handbook	Word files	The labor/materials necessary to access this information would be minimal, requiring only that a centralized facility initially request and monitor all such textual data and compile it within the report	As published text, the descriptive format would be acceptable within GRI standards. The labor/materials necessary to access this information would be minimal, requiring only that a centralized facility initially request and monitor all such textual data and compile it within the report."

Disciplinary Practices					
	Is the data readily available?	*Where does the data come from?*	*What format is the data in?*	*How many hours and/or people will it take to get the data?*	*What is required to convert the data into GRI format?*
Additional Indicators					
HR9. Description of appeal practices, including, but not limited to, human rights issues. Describe the representation and appeals process.					
Description of appeal practices	Yes	In OHR's Dartmouth College Exempt Staff Handbook" and the "Dartmouth College Non-Exempt Staff Handbook	Same as above	Same as above	Same as above
HR10. Description of non-retaliation policy and effective, confidential employee grievance system (including, but not limited to, its impact on human rights).					
Description of non-retaliation policy and effective	Yes	In OHR's Dartmouth College Exempt Staff Handbook" and the "Dartmouth College Non-Exempt Staff Handbook	Same as above	Same as above	Same as above

Security Practices					
Additional Indicators					
HR11. Human rights training for security personnel. Include type of training, number of persons trained, and average training duration.					
Human rights training for security personnel	Yes	The office of Safety and Security	In a word file and excel spreadsheet	Minimal effort to convert to GRI specifications	NA

Indigenous Rights					
	Is the data readily available?	*Where does the data come from?*	*What format is the data in?*	*How many hours and/or people will it take to get the data?*	*What is required to convert the data into GRI format?*
Additional Indicators					
HR12. Description of policies, guidelines, and procedures to address the needs of indigenous people. This includes indigenous people in the workforce and in communities where the organization currently operates or intends to operate.					
Description of policies, guidelines, and procedures to address the needs of indigenous people	No	Would be in the OHR records	NA	Significant effort especially to define indigenous people and then apply GRI guidelines	NA
HR13. Description of jointly managed community grievance mechanisms/authority.					
Description of jointly managed community grievance mechanisms/authority	No	Would be handled by the Office of Public Relations	NA	Significant effort to set up common practices, which would require possibly a new position such as a sustainability coordinator	NA
HR14. Share of operating revenues from the area of operations that are redistributed to local communities.					
Share of operating revenues from the area of operations that are redistributed to local communities.	No	Would be handled by the Office of Public Relations	NA	Significant initial effort, but then system would become automated	NA
Dartmouth Supplementary Human Rights Indicators					
DSHR3. Supply data on the sources of income, public and private, that are redistributed to local communities and link these monies to community spending.	No	Would be handled by the Office of Public Relations	NA	Office is currently working to gather this information, but then after completion should require minimal effort to sustain	NA

SOCIETY					
Community					
	Is the data readily available?	*Where does the data come from?*	*What format is the data in?*	*How many hours and/or people will it take to get the data?*	*What is required to convert the data into GRI format?*
Core Indicators					
SO1. Description of policies to manage impacts on communities in areas affected by activities, as well as description of procedures/ programs to address this issue, including monitoring systems and results of monitoring. Include explanation of procedures for identifying and engaging in dialogue with community stakeholders.					
Description of policies to manage impacts on communities in areas affected by activities	No	Would be in the office of Procurement	NA	The local area is possible with considerable effort, however, the global is too large in scope to define	NA
Additional Indicators					
SO4. Awards received relevant to social, ethical, and environmental performance.					
Awards received relevant to social, ethical, and environmental performance	Yes	The Office of Public Affairs	Word document	Minimal effort	NA

Dartmouth Supplementary Society Indicators					
DSSO1. Description of policies to manage impacts on communities in areas affected by Dartmouth College's investment, procurement, and supply chain activities, as well as description of procedures/ programs to address this issue, including monitoring systems and results of monitoring.	No	Would be in the office of Procurement	NA	Needs to be defined before scope can be determined	NA

Bribery and Corruption					
	Is the data readily available?	*Where does the data come from?*	*What format is the data in?*	*How many hours and/or people will it take to get the data?*	*What is required to convert the data into GRI format?*
Core Indicators					
SO2. Description of the policy, procedures/management systems, and compliance mechanisms for organizations and employees addressing bribery and corruption. Include a description of how the organization meets the requirements of the OECD Convention on Combating Bribery.					
Description of how the organization meets the requirements of the OECD Convention on Combating Bribery.	No	Would be in the Office of the General Counsel	NA	Large initial cost before it becomes automated	NA

Political Contributions					
Core Indicators					
SO3. Description of policy, procedures/management systems, and compliance mechanisms for managing political lobbying and contributions.					
Description of policy, procedures/management systems, and compliance mechanisms for managing political lobbying and contributions	Yes	The Office of the General Counsel	Word document	Minimal effort transferring data	NA
Additional Indicators					
SO5. Amount of money paid to political parties and institutions whose prime function is to fund political parties or their candidates.					

Amount of money paid to political parties and institutions whose prime function is to fund political parties or their candidates	Yes	The Office of the General Counsel	Word document	Minimal effort transferring data	NA

Competition and Pricing					
	Is the data readily available?	*Where does the data come from?*	*What format is the data in?*	*How many hours and/or people will it take to get the data?*	*What is required to convert the data into GRI format?*
Additional Indicators					
SO6. Court decisions regarding cases pertaining to anti-trust and monopoly regulations.					
Court decisions regarding cases pertaining to anti-trust and monopoly regulations	No	The Office of the General Counsel	NA	Irrelevant in a college setting	NA
SO7. Description of policy, procedures/management systems, and compliance mechanisms for preventing anti-competitive behavior.					
Description of policy, procedures/management systems, and compliance mechanisms for preventing anti-competitive behavior	Yes	The Office of the General Counsel	Word document	Would require an initial effort to adapt to GRI guidelines, but after would require minimal effort to compile the data	NA

PRODUCT RESPONSIBILITY

Customer Health and Safety

	Is the data readily available?	*Where does the data come from?*	*What format is the data in?*	*How many hours and/or people will it take to get the data?*	*What is required to convert the data into GRI format?*
Core Indicators					
PR1. Description of policy for preserving customer health and safety during use of products and services, and extent to which this policy is visibly stated and applied, as well as description of procedures/programs to address this issue, including monitoring systems and results of monitoring. Explain rationale for any use of multiple standards in marketing and sales of products.					
Description of policy for preserving customer health and safety during use of products and services	Yes	The Office of Residential Life and Education	Word files	Gathering the missing information should require minimal effort	NA
Additional Indicators					
PR4. Number and type of instances of non-compliance with regulations concerning customer health and safety, including the penalties and fines assessed for these breaches.					
Number and type of instances of non-compliance with regulations concerning customer health and safety	Yes	In the office of the General Counsel	Excel	Minimal effort	NA
PR5. Number of complaints upheld by regulatory or similar official bodies to oversee or regulate the health and safety of products and services.					

Number of complaints upheld by regulatory or similar official bodies to oversee or regulate the health and safety of products and services.	Not applicable to college	Not applicable to college	Not applicable to college	Not applicable to college	Not applicable to college
PR6. Voluntary code compliance, product labels or awards with respect to social and/or environmental responsibility that the reporter is qualified to use or has received. Include explanation of the process and criteria involved.					
Voluntary code compliance, product labels or awards with respect to social and/or environmental responsibility	Not applicable to college	Not applicable to college	Not applicable to college	Not applicable to college	Not applicable to college

Products and Services					
	Is the data readily available?	*Where does the data come from?*	*What format is the data in?*	*How many hours and/or people will it take to get the data?*	*What is required to convert the data into GRI format?*
Core Indicators					
PR2. Description of policy, procedures/management systems, and compliance mechanisms related to product information and labeling.					
Description of policy, procedures/management systems, and compliance mechanisms related to product information and labeling	Not applicable to college	Not applicable to college	Not applicable to college	Not applicable to college	Not applicable to college
Additional Indicators					
PR7. Number and type of instances of non-compliance with regulations concerning product information and labeling, including any penalties or fines assessed for these breaches.					
Number and type of instances of non-compliance with regulations concerning product information and labeling, including any penalties or fines assessed for these breaches	Not applicable to college	Not applicable to college	Not applicable to college	Not applicable to college	Not applicable to college
PR8. Description of policy, procedures/management systems, and compliance mechanisms related to customer satisfaction, including results of surveys measuring customer satisfaction. Identify geographic areas covered by policy.					

Description of policy, procedures/management systems, and compliance mechanisms related to customer satisfaction, including results of surveys measuring customer satisfaction. Identify geographic areas covered by policy	No	Some information is available in the Office of research and Evaluation	SPSS format	A policy would have to be written down about how and when customer satisfaction is measured	NA

Advertising					
Additional Indicators					
PR9. Description of policies, procedures/management systems, and compliance mechanisms for adherence to standards and voluntary codes related to advertising. Identify geographic areas covered by policy.					
Description of policies, procedures/management systems, and compliance mechanisms for adherence to standards and voluntary codes related to advertising	Yes, partially	In the Office of the General Counsel	Word documents	These descriptions of both the policy and compliance mechanism are in word documents and would require an e-mail of these word documents	NA
PR10. Number and types of breaches of advertising and marketing regulations.					
Number and types of breaches of advertising and marketing regulations	Yes	In the Office of the General Counsel	Word documents	Time would be required to extract the type of breach that was found, although it would be a very limited amount of time	This process could be streamlined if an Excel spreadsheet could be put together that would collect the number and type of breach that occurred

Respect For Privacy					
	Is the data readily available?	*Where does the data come from?*	*What format is the data in?*	*How many hours and/or people will it take to get the data?*	*What is required to convert the data into GRI format?*
Core Indicators					
PR3. Description of policy, procedures/management systems, and compliance mechanisms for consumer privacy. Identify geographic areas covered by policy.					
Description of policy, procedures/management systems, and compliance mechanisms for consumer privacy	Yes	Dick's House, the Office of Admissions (OADMIN), the Registrar's office, and Dena's office, both first year and upper class students	Word documents	They provide these policies on request and are in the student handbook. These are kept by the individual offices in word files and can be compiled from there	NA
Additional Indicators					
PR11. Number of substantiated complaints regarding breaches of consumer privacy.					
Number of substantiated complaints regarding breaches of consumer privacy	Yes	In the Office of the General Counsel	Excel	number up in their Excel database. For full compliance with GRI, all substantiated complaints would have to be collected.	This does not follow with the College's current policy on internal investigations and would not be approved by the OGC

APPENDIX D:

Education Indicator Tables

Faculty					
	Is the data readily available?	*Where does the data come from?*	*What format is the data in?*	*How many hours and/or people will it take to get the data?*	*What is required to convert the data into GRI format?*
Dartmouth Supplementary Education Performance Indicators					
DSED1. Quality of faculty -- % with a terminating degree	Yes	OIR's website	Excel	Readily available	There is no GRI format since this is not included in the original GRI report, but following the Florida example pie charts can be used effectively
DSED2. Number of classes taught by faculty who does not have a terminating degree over the course of the year	Yes	OIR's website	Excel	Readily available	Same as above
DSED3. Diversity of faculty – i.e. type of professor (full, associate, etc)	Yes	OIR's website	Excel	Readily available	Same as above
DSED4. Gender diversity of faculty	Yes	OIR's website	Excel	Readily available	Same as above
DSED5. Ethnic diversity of faculty	Yes	OIR's website	Excel	Readily available	Same as above
DSED6. Percent of women faculty and faculty of color within each category of professor-type, including tenured, tenure track, and non-tenure tracked	Yes	OIR's website	Excel	Readily available	Same as above

Applicants					
	Is the data readily available?	*Where does the data come from?*	*What format is the data in?*	*How many hours and/or people will it take to get the data?*	*What is required to convert the data into GRI format?*
DSED7. Number of students applying and trend over last 7 years	Yes	The OIR and Office of Admissions records	Excel	None	The data is already in the GRI format
DSED8. Incoming first-year GPA, ACT, and SAT scores	Yes	The OIR and Office of Admissions records	Excel	None	The data is already in the GRI format
DSED9. Average GPA	Yes	The OIR and Office of Admissions records	Excel	None	The data is already in the GRI format that would be appropriate.

Financial Aid					
	Is the data readily available?	*Where does the data come from?*	*What format is the data in?*	*How many hours and/or people will it take to get the data?*	*What is required to convert the data into GRI format?*
Dartmouth Supplementary Education Performance Indicators					
DSED10. Cost of attending Dartmouth College	Yes	Office of Financial Aid (OFA)	Excel	None	The data can readily be turned into the GRI format
DSED11. Amount of Financial Aid provided by College – breakdown of free money versus loans	Yes	Office of Financial Aid (OFA)	Excel	None	The data can readily be turned into the GRI format
DSED12. Amount of money in scholarships brought in per year by students	Yes	Office of Financial Aid (OFA)	Excel	None	The data can readily be turned into the GRI format
DSED13. Undergraduate and graduate tuition costs vs. equality of access to financial aid	Yes	Office of Financial Aid (OFA)	Excel	None	The data can readily be turned into the GRI format
DSED14. Average debt from attending Dartmouth after graduation	Yes	Office of Financial Aid (OFA)	Excel	Approximately two minutes to add the new equation	All information is available, but it would need to be amassed by changing excel slightly

Student Body					
	Is the data readily available?	*Where does the data come from?*	*What format is the data in?*	*How many hours and/or people will it take to get the data?*	*What is required to convert the data into GRI format?*
Dartmouth Supplementary Education Performance Indicators					
DSED15. Breakdown of graduate/undergrad students	Yes	In the OIR records	Excel	Switching the data into pie charts is a very easy task requiring minimal effort	Done by taking the requested numbers that have been collected over the last 7 years and compiling them into bar graphs
DSED16. Regional diversity, including international students	Yes	In the OIR records	Excel	Same as above	Same as above
DSED17. Gender diversity	Yes	In the OIR records	Excel	Same as above	Same as above
DSED18. Gender diversity trends over last 7 years	Yes	In the OIR records	Excel	Same as above	Same as above
DSED19. Religious diversity	Yes, partially	In the Admissions records for those who responded	Excel	Same as above	Same as above
DSED20. Religious diversity trends over the last 7 years	Yes	In the Admissions records for those who responded	Excel	Same as above	Same as above
DSED21. Ratio of public schools to private schools to parochial (High School)	Yes	In the Admissions records for those who responded	Excel	Same as above	Same as above
DSED22. Ethnic diversity	Yes	In the OIR records	Excel	Same as above	Same as above
DSED23. Ethnic diversity trends over last 7 years	Yes	In the OIR records	Excel	Same as above	Same as above
DSED24. Undergraduate enrollment by family income	Yes	In the OIR records	Excel	Same as above	Same as above

DSED25. Undergraduate graduation rate over last 7 years	Yes	In the OIR records	Excel	Switching the data into pie charts is a very easy task requiring minimal effort	Done by taking the requested numbers that have been collected over the last 7 years and compiling them into bar graphs
DSED26. Retention rates by gender and ethnicity	Yes	In the OIR records	Excel	Same as above	Same as above
DSED27. Graduation rates by gender and ethnicity	Yes	In the OIR records	Excel	Same as above	Same as above
DSED28. Number of students suspended over the last 7 years	Yes	In the first year and last year dean's office	Some of it in Excel	The data that is available can be switched into pie charts	Same as above
DSED29. Frequencies and types of incidents that lead to suspension	Yes	In the first year and last year dean's office	Some of it in Excel	Switching the data into pie charts is a very easy task requiring minimal effort	Same as above

Space					
	Is the data readily available?	*Where does the data come from?*	*What format is the data in?*	*How many hours and/or people will it take to get the data?*	*What is required to convert the data into GRI format?*
Dartmouth Supplementary Education Performance Indicators					
DSED30. Amount of College-controlled space on campus	No	Office of Residential Life would be responsible with collaboration with the Dean of the College	None currently available because of lack of definition	Spaces would have to be surveyed, which the ORL does every two years.	This is the format requested by the GRI
DSED31. Amount of student-controlled space on campus	No	Office of Residential Life would be responsible with collaboration with the Dean of the College	None currently available because of lack of definition	Spaces would have to be surveyed, which the ORL does every two years.	This is the format requested by the GRI
DSED32. Amount of male-only and female-only space on campus	Yes, partially	ORL's website	Word	Spaces would have to be surveyed, which the ORL does every two years.	This is the format requested by the GRI

Graduate Education					
	Is the data readily available?	*Where does the data come from?*	*What format is the data in?*	*How many hours and/or people will it take to get the data?*	*What is required to convert the data into GRI format?*
Dartmouth Supplementary Education Performance Indicators					
DSED33. Graduate Program Applicants (numbers of students applied)	Yes	On OIR's web site	Excel	Less than one workday to compile the new information	This data could then be documented in the GRI format
DSED34. Graduate Program Enrollment	Yes	On OIR's web site	Excel	Same as above	Same as above
DSED35. Costs of graduate educations	Yes	On OIR's web site	Excel	Same as above	Same as above
DSED36. Total graduate program minority enrollment	Yes	On OIR's web site	Excel	Same as above	Same as above
DSED37. Total graduate program international student enrollment	Yes	On OIR's web site	Excel	Same as above	Same as above
DSED38. Gender Diversity	Yes	On OIR's web site	Excel	Same as above	Same as above

Campus Safety					
	Is the data readily available?	*Where does the data come from?*	*What format is the data in?*	*How many hours and/or people will it take to get the data?*	*What is required to convert the data into GRI format?*
Dartmouth Supplementary Education Performance Indicators					
DSED39. Campus Crime Rates	Yes	S&S office	Excel	Transforming it into GRI format will take a minimal time	Website already transfers the numbers into GRI format
DSED40. Crime prevention	Yes	S&S office	Word	Already in the GRI format	Website already transfers the numbers into GRI format
DSED41. Crime by violation type	Yes	S&S office	Excel	Transforming it into GRI format will take a minimal time	Website already transfers the numbers into GRI format

Curriculum					
	Is the data readily available?	*Where does the data come from?*	*What format is the data in?*	*How many hours and/or people will it take to get the data?*	*What is required to convert the data into GRI format?*
Dartmouth Supplementary Education Performance Indicators					
DSED42. Available Courses. This includes number and percent relative to total of courses taught each year related to sustainability concepts and number of students enrolled in sustainability-related courses	No	Potentially all the department heads, although it is not being collected currently.	Not being collected	Very time consuming, as well as requiring a sustainability coordinator to stream line the collection of data	A definition would be required for this to work
DSED43. Administrative Support. This includes number and percent of departments and colleges including sustainability curriculum, sustainability courses included in general education requirement, existence of available sustainability-related majors and minor	No	Potentially all the department heads, although it is not being collected currently.	Not being collected	Very time consuming, as well as requiring a sustainability coordinator to stream line the collection of data	A definition would be required for this to work

Research					
	Is the data readily available?	*Where does the data come from?*	*What format is the data in?*	*How many hours and/or people will it take to get the data?*	*What is required to convert the data into GRI format?*
Dartmouth Supplementary Education Performance Indicators					
DSED44. Grants-Total revenues from grants and contracts specifying sustainability-related research	No	On the Office of Grants and Contracts' web site has similar information	None	Not a great time investment since the issue could be streamlined by adding an extra check in the box whether the project is sustainable or not	The Office could then compile the data, and send it out with their regular report
DSED45. Publications and Products-Published research with focus on sustainability related issues	No	On the Office of Grants and Contracts' web site has similar information	None	Same as above	Same as above
DSED46. Programs and Centers-Number and function of centers on campus providing sustainability-related research or services	No	On the Office of Grants and Contracts' web site has similar information	None	Same as above	Same as above

Service					
	Is the data readily available?	*Where does the data come from?*	*What format is the data in?*	*How many hours and/or people will it take to get the data?*	*What is required to convert the data into GRI format?*
Dartmouth Supplementary Education Performance Indicators					
DSED47. Community Activity and Service. Include student, faculty, and staff contributions to community development and service, partnerships for sustainability with educational, business, and government entities at the local level, and quantity and composition of student groups focusing on one aspect of sustainability.	Yes, partially	Complied by the following offices: Office of Residential Life (ORL), the Tucker Foundation, and the Dickey Center for International Understanding	Lists of clubs, but not of specific information	Activities would have to be qualified as to which is within bounds of the criteria. But some activities fall outside its bounds.	NA
DSED48. Service Learning. Include existence and strength of service learning programs and total faculty, staff, students involved in service learning projects	Yes, partially	Complied by the following offices: Office of Residential Life (ORL), the Tucker Foundation, and the Dickey Center for International Understanding	Lists of clubs, but not of specific information	Activities would have to be qualified as to which is within bounds of the criteria. But some activities fall outside its bounds.	NA

APPENDIX E:

Estimated Time Costs
For Data Collection

Economic Indicators

For estimated total times, we took the totals from the table in our chapter summary and added a range based our estimate of uncertainty. Economic indicators are relatively easy to get a handle on, so a range of plus/minus ten hours was factored in to each option. Altered scope ended up being more time-consuming, so we did not bother to total it. By dropping indicator EC10, we saved approximately 85 hours. The Fragmented GRI estimates are much more certain, therefore no range is included.

Full GRI: 90-100
Fragmented GRI: 20

EC1- Net Sales:

Full GRI: 1 hour. The data involved in this indicator have been broken down according to the IPEDS format which Dartmouth is required to submit to the Federal Government annually. Every year a staff member obtains the institutions data which takes anywhere from 100-250 hours. However this information must be gathered already for the federal government so the data would be readily available in the format we specified in the GRI with little cost.

Fragmented GRI: This indicator should not be left out of a potential fragmented GRI, because the College must compile the information for the IPEDS regardless. Also, this information serves as a basis on which to compare Dartmouth to other relevant institutions, and thus it seems relevant to any sort of Sustainability Reporting.

Altered Scope: Changing the scope does not affect this indicator.

EC2 - Geographic Breakdown of Markets:

Full GRI: 1 hour. Dartmouth can obtain these data from the student information systems by country of citizenship and can aggregate the data by region or list the top X countries. Also available this September from the office of Development Administration will be report including any financial and or pledges donated to the college organized by region. This information will be readily available in September with few associated costs.

Fragmented GRI: This data will all be readily available and complete in September of 2003, so there appears no reason not to include it.

Altered Scope: Changing the scope does not affect this indicator.

EC3- Costs of all Goods, Materials and Services Purchased

Full GRI: 3 hours. The total costs for goods and services for Dartmouth in a given year are readily available in the office of procurement. An estimated 15 minutes would be

needed for each individual breakdown of costs, outlined in our version of the GRI (i.e., total of tuck school of business purchases from the local area only.) Estimated time for anticipated twelve breakdowns is three hours.

Fragmented GRI: This indicator should not be left out in a potential fragmented GRI, because the data is readily available.

Altered Scope: The scope can be easily altered just be deciding how to breakdown the costs and leaving out the more detailed levels, all while still complying with the full GRI.

EC4- Percentage of Contracts that Were Paid in Accordance with Agreed Terms, Excluding Agreed Penalty Arrangements

Full GRI: 1 hour. This data is readily available, at no dollar cost and little time cost.

Fragmented GRI: This indicator should not be left out in a potential fragmented GRI, because the data is readily available.

Altered Scope: Changing the scope does not affect this indicator.

EC5-Total Payroll and Benefits:

Full GRI: 5 hours. The data is readily available from the Payroll Office. Some of the data that we thought would be most useful broken down by stakeholder is only available in aggregate numbers, so some time may be needed to determine the best way to present this information. The payroll office seemed willing to generate a report containing the requested information or include the information with their regular reporting.

Fragmented GRI: Because of the ease of obtaining the data, we recommend including this in a fragmented GRI

Altered Scope: Changing the scope does not affect this indicator.

EC6 - Providers of Capital:

Full GRI: 2 hours. Information for this section is readily available in data prepared for the annual financial report. Costs are low, involving only minimal data organizational time input.

Fragmented GRI: This information should not be left out of a fragmented GRI, because the data are already released.

Altered Scope: Narrowing the scope will make this information more difficult to obtain. More research and data organization is necessary to separate information from each school.

EC7 - Increase/Decrease in Retained Earnings in a Given Period:

Full GRI: 2 hours. Full GRI guidelines require only the Total Net Assets change in a given period. This information is gathered annually and published directly in the annual financial report.

Fragmented GRI: The data are already released and easy to obtain, so we advise including this indicator.

Altered Scope: Changing the scope does not affect this indicator.

EC8 - Total Sum of Taxes Paid:

Full GRI: 1 hour. This information is readily available in the annual financial report. The proposed matrix breakdown for this section also directly corresponds to information, Julie Dolan of Treasury, has available. Therefore, costs are low.

Fragmented GRI: Due to high data availability, it does not make much sense to exclude EC7, an essential component of liability balance from the GRI report.

Altered Scope: By narrowing the scope, costs will increase. Extra time is required to dissect collective information. Data sources may need to be contacted again. However the information is readily available and will only require additional manipulation for this kind of a report.

EC9 - Not Applicable.

EC 10- Donations to Community:

Full GRI: Because exact accounting records are not kept on donations made by the college and college organizations, individual organizations must be contacted. This leads to a high time input for information gathering. Once the information is obtained, donations of actual goods may need to be translated into a dollar amount, further raising the time input. Michael Ricci, Assistant to the Dean at Tucker, informed me that his staff cannot take on the extra responsibility of data gathering, so the EC10 will require work either by interns or a sustainability coordinator.
Estimation of Person Hours to complete EC10: approx. 85

Fragmented GRI: Due to the lack of accounting practices by the college for community donations this indicator is fairly time intensive. I recommend cutting it from the fragmented GRI

Altered Scope: Changing the scope does not affect this indicator.

EC11 - Supplier Breakdown by Organization and Country:

Full GRI: Like EC3 and EC4, this data is exists in the Office of Procurement and there is no cost whatsoever to collect it. However, we have enhanced this indicator for Dartmouth and it could take an estimated three hours to contact the top ten suppliers and request the necessary data needed to fulfill such demands. It would then be up to each vendor to reply and report the information, if available. There are no costs, or additional staff requirements.

Fragmented GRI: This indicator should not be left out in a potential fragmented GRI, because the data is readily available. However, leaving out the section of this indicator regarding percentage of revenue coming from Dartmouth for each top ten supplier would save approximately three hours of staff time.

Altered Scope: Changing the scope does not affect this indicator.

EC12 – Not Applicable

EC 13 - Indirect Economic Impacts:

Full GRI: This data is collected annually by the office of Institutional Research at commencement concerning each student's plan for the upcoming year and their estimated salary. There would be no costs associated with this indicator

Fragmented GRI: Since this indicator is an Additional Indicator, it is not necessary to complete it in order to be in compliance with the GRI in the first place. However, there are no costs associated with acquiring the data itself, therefore there seems to be no reason it should be left out.

Altered Scope: Changing the scope does not affect this indicator.

Environmental Indicators

For estimated total times, we took the totals from the table in our chapter summary and added a range based our estimate of uncertainty. Because some of the data for environmental indicators are not yet compiled in any form at Dartmouth, it was difficult to ascertain the certainty of these totals. Therefore, a range of plus/minus twenty-five hours was factored in to each option. Altered scope ended up being more time-consuming, so we did not bother to total it. The Fragmented GRI estimates are much more accurate, as they include data that is already available.

Full GRI: 300-350
Fragmented GRI: 140

Materials:

Full GRI: 20 hours. Based on the central stores estimate that it would take an afternoon and then multiplied by the four areas: Central Stores, Dartmouth Dining Services, Hanover Inn, and Environmental Health and Safety. Also, once EHS implements the new system of tracking all incoming chemicals/similar materials, this time requirement should go down significantly.

Fragmented GRI - To cut down on time, Dartmouth could change the definition of the indicator. Rather than report on all materials, we could isolate certain products like other schools. Just paper and paper products, for example.

Altered Scope: Doesn't save any time, since these four areas are already ordering materials for the college as a whole.

Energy:

Full GRI: 35 hours.

Fragmented GRI: 18 hours by dropping EN4.

Altered Scope: No time savings.

Water:

Full GRI: 13 hours. All of the core indicators for Water Use are available. It required approximately 3 hours cumulatively for the individual departments to locate and provide the raw data. A total of 10 hours of work are necessary to convert this raw data into GRI format.

Fragmented GRI: 5 hours. By removing water usage by building type, Dartmouth could save 8 hours of data collection. The raw data collection does not change however in this alteration.

Altered Scope: No time savings.

Biodiversity:

Full GRI: 100 – 200. Very difficult to estimate, because Dartmouth does not currently compile the necessary data.

Fragmented GRI: 60 – 120 hours. Drop EN24: starting from scratch for this one, so harder to compile. Drop EN25 and EN26: complicated to get information. Dropping these three would take 1/3 of the time off of data collection.

Altered Scope: This would actually make some of the indicators inapplicable, namely EN25 and EN26. It would minimize the biodiversity section quite noticeably and really

take away from the most important aspects of this part of the report (we would not be reporting on items such as Occum Pond, the Grant, Boston Lot, etc.).

Emissions, Effluents and Wastes:

Full GRI: 120 hrs for 10 separate indicators. This is a very large category and will be one of the more time-consuming to complete fully, so the amount of hours required comes as no surprise.

Fragmented GRI: 24 hours. Dropping 9, 30 and 32 eliminates 96 hrs. These are too complicated to gather the data with little overall impact or significance in return. Note that all of the waste indicators would be kept, as they only amount to 24 hrs of time to get the data and the results are highly significant for sustainability reporting.

Altered Scope: 130 hours. This presents some difficulties. For the emissions data in particular this would require staff to tease out the data limited to just the four colleges from reports that include all Dartmouth properties, especially true for EN10, in turn creating more work. Our expectation is that the time required would surpass the full GRI.

Suppliers:

Full GRI: 40 hours.

Fragmented: 0 hours. Drop EN33, the only indicator in this section.

Altered Scope: No time savings.

Products and Services:

Full GRI: 2 hours.

Fragmented: No change.

Altered Scope: No time savings.

Compliance:

Full GRI: 1 hour.

Fragmented GRI: No change.

Altered Scope: No time savings.

Transport:

Full GRI: 1 hour.

Fragmented GRI: No change.

Altered Scope: No time savings.

Social Indicators

For estimated total times, we took the totals from the table in our chapter summary and added a range based our estimate of uncertainty. Uncertainty is very high because of the lack of articulated policies in certain fields. Therefore, a range of 180 hours is necessary if we are to realistically consider how much effort would be required to compile a report. The Fragmented GRI estimates are much more accurate, as they include data that is already available and for which there are clearly articulated policies.

Full GRI: 200-380 hours
Fragmented GRI: 100 hours

The Fragmented GRI leaves out indicators DSLA10, HR13, HR14, DSHR1, SO1, and DSSO1.

Education Indicators

For estimated total times, we took the totals from the table in our chapter summary and added a range based our estimate of uncertainty. Uncertainty is very high because of the lack of articulated policies in certain fields. Therefore, a range of ninety-five hours is necessary if we are to realistically consider how much effort would be required to compile a report. The Fragmented GRI estimates are much more accurate, as they include data that is already available and for which there are clearly articulated policies.

Full GRI: 80-170 hours
Fragmented GRI: 50 hours

The Fragmented GRI leaves out indicators DSED13, DSED25, and DSED29.

APPENDIX F:

Resource Working Group Projects

Purchasing Projects

Completed:

Recycled Paper — One of the RWG's first initiatives as a group (summer/fall 1996) was to encourage a College-wide shift to recycled paper. The Procurement Services Department made this possible through a bulk purchase of recycled stock, which made recycled paper affordable. This paper contained 30% post consumer recycled material. Computing Services and Design, Printing and Mailing Services assisted the effort by running tests of recycled paper in printers and copiers on campus and assuring users of its acceptability. In a survey completed by Procurement Services after this initiative was in place, 85% of the respondents found recycled paper satisfactory.

Plastic Bags — In 1996-97, Dartmouth Recycles and Procurement Services changed the composition and specification of plastic bags that are used on campus. Dartmouth has gone from 2 mil to 1.2 mil bags and has a closed loop recycling program with the bag manufacturer.

Thermometer Swap — In 1999, the Office of Residential Life (ORL) and Environmental Health and Safety collaborated on a thermometer swap, where students, faculty, and staff had the opportunity to bring mercury thermometers in and trade them for a digital thermometer. Another swap was held the following year.

Certified Wood — The issue of certified wood was brought to the RWG in 1997 by Dartmouth student Jennifer Ratay '97. ORL, Procurement Services, the Facilities Planning Office, and the College Forester researched certified wood extensively and developed a project using certified wood for new student room furniture. For McCulloch Hall, Dartmouth purchased about 275 sets of furniture from a local manufacturer in Lisbon, NH made of wood harvested from Dartmouth land. At the Dartmouth Skiway, Dartmouth used wood from the College Grant for the timber frame. The College's own forests were certified in 1999.

Design, Printing and Mailing Services (DPMS) — The department uses state-of-the-art high-speed digital devices which provide high quality printing at affordable rates and reduces the need for individual departments to purchase their own devices. When departments place orders for new copying devices, DPMS first makes sure that the department is aware of existing college services and the savings of not buying their own equipment. Digital devices that are available on campus further reduce waste because DPMS can charge the same low rate for small jobs and large jobs, and can store files, which allows departments to order only the number of copies they require (as they will not get any savings by ordering in mass, and they will be able to easily get more copies as needed.)

In Progress:

Recycled Paper — Since the RWG's initial push for recycled paper, new varieties have been developed which use a higher percentage of recycled material and do not get jammed in copiers and printers. Several offices are currently testing paper with higher recycled content, some of which is 100% post consumer recycled material.

Carpeting on Campus — Facilities Operations & Management and Procurement Services are working on standardizing carpeting on campus. This is a challenging issue, Dartmouth is pursuing carpet that is partially or entirely made of recycled material.

Ongoing:

Paint — Facilities Operations & Management has done tests in campus buildings on a variety of manufacturer's paints in search of a high quality no-VOC or low-VOC paint that can be used in almost all interior applications. They found a wide range of quality in the products they were looking for, but settled on a high quality product that is working very well, Benjamin Moore ECO Spec, no-VOC paint. The only places in which oil-based or epoxy paint are still used are areas of very high traffic (floors or handrails), heavy moisture (laboratory and showers) and high temperature applications (radiators and steam pipes). The exteriors of older buildings are still painted with oil based products, but all new wood exterior surfaces are painted with latex with lower VOC emissions.

Efforts By Procurement Services — Procurement Services continues to investigate more environmentally conscious products. Low level mercury bulbs have become standard issue and when they are replaced, they are recycled. All printers, copiers, fax, and computing equipment are specified and purchased with at least "Energy Star" EPA ratings. Dartmouth is working on providing shade-grown organic coffee for all dining facilities. The possibility of increasing the amount of post-consumer recycled paper in all standard copier paper from 30% to over 50% is also being examined, as well as possibly having this paper be manufactured without the use of chlorine. Through contract, the recycling of construction and demolition debris has become standard practice for our contractors and staff. Additionally, Dartmouth has supported the creation of a volunteer group of computer experts that revives and upgrades older surplus equipment and then provides this equipment to local not-for-profits and schools. Finally, used wooden pallets are sold, removing them from the waste stream.

Energy Projects

Completed:

Torchiere Style Halogen Lamp Ban — After learning of the fire hazards as well as the high energy cost of halogen lamps, the RWG worked with the Office of Residential Life to ban torchiere-style halogen lamps on campus as of fall term 1997. At the same time, the RWG discussed the fact that ceiling lighting in residence halls should be increased, and Residential Life implemented this for fall 1997. A team from Facilities Operations and Management, Residential Life, and Procurement Services also worked on lamp replacement issues.

Energy Conservation in the New Skiway Lodge — The Facilities Planning Office actively planned this new facility with both energy conservation and building performance issues as a key priority. The process was able to achieve: a carefully designed and constructed building envelope comprised of wall, window, door and roof systems that are extremely energy efficient; a heating and ventilation system designed to respond incrementally to heating and ventilation needs based on building occupancy; exterior cladding materials made from certified wood products; a timber structural frame made in part from certified wood grown on Dartmouth College property; and new wood furniture throughout the dining areas made from certified wood grown on Dartmouth College property.

In Progress:

Light switch stickers — 1,000 light switch stickers urging people to turn off unused lights were installed by spring 2002. The stickers are part of a larger energy conservation campaign, which is

still being designed. The effectiveness of these stickers is being gauged, and more stickers will go up if they are deemed to be helpful.

Vending machines — A device is being tested that activates lighting and cooling in vending machines when they are approached by a potential user; reduced power is used by the machines at other times.

Ongoing:

Energy Conservation Measures — Facilities Operations & Management routinely does studies of Energy Conservation Measures (ECMs) for the campus. These studies identify a number of projects on campus that have energy-saving potential resulting in paybacks. Facilities Operations & Management works with the Treasurer's office to secure funding for all ECMs that have reasonable paybacks of ten to twelve years or less.

Computing Conservation Measures — The RWG is working with Computing Services to develop guidelines for the campus on turning off computers and conserving energy, particularly overnight, on weekends, and on vacations. In 1997, a Dartmouth Recycles intern, Lee Bronsnick '99, coordinated a mailing to departmental administrators urging them to turn off computers, monitors and printers. In addition, administrators were encouraged to use the energy savings functions (sleep or shut-down modes) that come with their computer systems. Beginning with the Class of 2003, Computing Services included a default start-up screen in its pre-formatted computer systems sold to incoming students that promotes energy conservation and reminds students to shut down computers when not in use. Computing Services is also working on a screensaver that will be distributed during the campus conversion to Windows urging computer turn-off when not in use and the inclusion of energy-saving information in the conversion training sessions. Plans also call for a script that will turn off Windows computers after backups. Effective communication on how to conserve energy when using computing equipment will be an ongoing process.

Energy Auditing and Environmental Construction of New Buildings — For some time Dartmouth has committed itself to performing energy audits of all new buildings. This began with the Moore psychology building. Dartmouth also has worked with an environmental consultant, Mark Rosenbaum, on a number of projects to include more environmental consciousness in design. These include the new Skiway lodge, Whittemore Hall, and McCulloch Hall. In the fall of 2000, Dartmouth committed itself to being even more proactive in this area by pledging to follow LEED standards and by employing an energy/sustainability consultant with each building project. This will begin with all new buildings, starting with new residential facilities. Facilities Operations and Management has also created a student intern position to analyze energy data and suggest areas for potential savings.

Residence Halls and Energy Savings — The RWG worked with student interns to implement an energy savings campaign "Save Power and Receive Cash" (SPARC) in the residence halls. SPARC is run with students through the Office of Residential Life and rewards student residence halls for success in conserving energy. This campaign could be extended to the rest of the campus.

The Dartmouth Fleet — Facilities Operations & Management and Procurement Services are collaborating on how to better use and organize the Dartmouth fleet of rental vehicles. The Tucker Foundation cars will be added to the fleet in order to enhance efficiency by better using the cars during term breaks. A Transportation Demand Management System is being implemented to provide cash incentives to people who live more than .75 miles from campus and

surrender their parking permits. Two hybrid cars have also been incorporated into the Dartmouth fleet.

Miscellaneous Projects

Completed:

Centralized Mailing/Elimination of Postage Meters — In 1997, the RWG convened a team from College Printing & Mailing, the Hinman Post Office and Facilities Operations & Management to centralize more of Dartmouth's mailing functions and to cut down on the number of postage meters on campus. Dartmouth realizes savings of approximately $20,000 per year from this initiative.

Bicycles on Campus — Since 1998, the RWG has enabled an annual pick-up on campus of abandoned bicycles. These collected bicycles are held until their owners are found, and if owners cannot be identified, they are donated to Windsor prison to be refurbished for charity. Facilities Operations & Management also has joined with the Town of Hanover's Recycling Committee since 1999 in a special biannual collection of bicycles which also are refurbished by the prison.

Water Conservation— Facilities Operations & Management completed a water conservation project at Dartmouth in 1998, particularly focusing on retrofitting fixtures in the residence halls to conserve water. Retrofitting was completed in December 1997, and since then Dartmouth has reduced water consumption in the modified buildings by 17.5% resulting in savings of approximately $50,000. Future projections of savings indicate that the payback for this project will be just over 5 years, as anticipated.

Towel Racks in the Residence Halls — In 1999, Jesse Foote '01 noticed in North Fayerweather that the residents of the 3rd floor would fill two trashcans with paper towels twice a week. Jesse talked to Woody Eckels, Director of Residential Operations and a member of the RWG, about the possibility of putting up towel hooks in the residence hall bathrooms. The towel bars were put up in North Fayerweather and decreased waste to one quarter of its original amount. The towel hooks were completely built and installed by spring 1999: students volunteered to assemble them (they used recycled plastic lumber for the backings and worked in the Hop with power drills from the woodshop), and delivered them to ORL headquarters. ORL then installed the hooks in every bathroom on campus, increasing the paper towel savings campus-wide.

Dining Services — By putting napkins on tables instead of in dispensers, Dining Services has already saved 500,000 napkins (as of spring 1998). Efforts will continue to conserve in this area. By composting all food waste, Dining Services has shut down several garbage disposals, thereby reducing water, sewage, electricity, and maintenance expenses.

Public Printing — In 1999, Computing Services hired its first Public Printing intern, Alan Cheng '03, to identify strategies, develop publications and signage, and initiate other projects to help reduce Public Printing waste. An event was held at Collis in early 2000 to demonstrate the volume of waste that accumulates in a year - boxes were stacked to represent the one million sheets of paper per year that are never picked up, and information was provided on how other schools charge for public printing (it is still no-cost at Dartmouth), and students were asked to sign a petition to support finding new ways to reduce the amount of waste at the Public Print window. A duplex printer was placed into service in February 2001 as a public printing option, and - if selected as the student's destination printer - will significantly reduce the paper used.

In Progress:

Meetings with Students and Faculty — Members of the RWG meet with faculty and students from time to time to inform them of RWG activities and to get feedback. These meetings have included ENVS faculty, engineering faculty, other faculty, and ECO students. Beginning in fall 1999, two faculty members and two students (one graduate and one undergraduate) joined the RWG as members.

Visits to Environmental Projects at Peer Campuses — The RWG also plans visits to projects at peer schools from time to time, such as the environmental studies building at Middlebury College and the new building at Vermont Law School.

Organic Farm — The RWG has supported the work of the Dartmouth organic farm, which has expanded its scope and developed more and more of a curricular focus linked to the Environmental Studies Program.

Student Internships — RWG member offices have funded a growing number of student internships designed to contribute to sustainability efforts at Dartmouth. At this writing, 17 internships exist, in the following departments: Environmental Health and Safety, Facilities Operations & Management, Computing Services, Residential Life, Facilities Planning, Procurement Services, Office of the Provost, and Dining Services.

Public Printing: GreenPrint — Currently, a new printing system called GreenPrint is being put into place which is drastically reducing printing waste. Print jobs are queued as in the old system, but printing does not occur until the user goes to a "release station" and inputs a password. Thus, no cover sheets are needed, and if students forget to pick up their jobs, no paper is wasted. This is expected to save approximately two million sheets of paper each year. GreenPrint stations are currently available in Berry and Collis, and are planned in a number of locations all over campus.

Environmental Homepage — The RWG intern, Jesse Foote ‘01, is working on a webpage that will serve as Dartmouth’s environmental homepage. It will have information on recycling, composting, green building, and many other areas of environmental concern. It will also contain links to all of Dartmouth’s environmental groups.

Ongoing:

ECO Tours — Bill Hochstin has been working with the Environmental Conservation Organization to put together tours for 6th-8th graders of Dartmouth facilities that deal with waste, recycling and composting. The first tour was conducted on April 23, 2003. Additional tours for on- and off-campus groups are being explored.

APPENDIX G:

Declarations and Charters

Halifax Declaration Actions Proposed

- To ensure the voice of the university be clear and uncompromising in its ongoing commitment to the principle and practice of sustainable development within the university, and at the local, national and global levels.

- To utilize the intellectual resources of the university to encourage a better understanding on the part of society of the inter-related physical , biological and social dangers facing the planet Earth.

- To emphasize the ethical obligation of the present generation to overcome those current malpractice's of resource utilization and those widespread circumstances of intolerable human disparity which lie at the root of environment unsustainability.

- To enhance the capacity of the university to teach and practice sustainable development principles, to increase environmental literacy, and to enhance the understanding of environmental ethics among faculty, students and the public at large.

- To cooperate with one another and with all segments of society in the pursuit of practical capacity-building and policy measures to achieve the effective revision and reversal of those current practices which contribute to environmental degradation, to South-North disparities an the inter-generational inequity.

- To employ all channels open to the university to communicate these undertakings to United Nations Conference on Environmental Development (UNCED), to governments and to the public at large.

Talloires Declaration Actions Proposed

- Use every opportunity to raise public, government, industry, foundation, and university awareness by publicly addressing the urgent need to move toward an environmentally sustainable future.

- Encourage all universities to engage in education, research, policy formation, and information exchange on population, environment, and development to move toward a sustainable future.

- Establish programs to produce expertise in environmental management, sustainable economic development, population, and related fields to ensure that all university graduates are environmentally literate and responsible citizens.

- Create programs to develop the capability of university faculty to teach environmental literacy to all undergraduate, graduate, and professional school students.

- School deans and environmental practitioners to develop research, policy, information exchange programs, and curricula for an environmentally sustainable future.

- Establish partnerships with primary and secondary schools to help develop the capability of their faculty to teach about population, environment, and sustainable development issues.

- Work with the U.N. Conference on Environmental and Development, the U.N. Environment Program, and other national and international organizations to promote a worldwide university effort toward a sustainable future.

- Establish a steering committee and a secretariat to continue this momentum and inform and support each other's efforts in carrying out this declaration.

Swansea Declaration Actions Proposed

- To urge universities of the Association of Commonwealth Universities (ACU) to seek, establish and disseminate a clearer understanding of sustainable development - "development which meets the needs of the present without compromising the needs of future generations" - and encourage more appropriate sustainable development principles and practices at the local, national and global levels, in ways consistent with their missions.

- To utilize resources of the university to encourage a better understanding on the part of governments and the public at large of the inter-related physical, biological and social dangers facing the planet Earth, and to recognize the significant interdependence and international dimensions of sustainable development.

- To emphasize the ethical obligation of the present generation to overcome those practices of resource utilization and those widespread circumstances of intolerable human disparity which lie at the root of unsustainable environmental practices.

- To enhance the capacity of the university to teach and undertake research in sustainable development principles, to increase environmental literacy, and to enhance the understanding of environmental ethics within the university and with the public at large.

- To co-operate with one another and with all segments of society in the pursuit of practical and policy measures to achieve sustainable development and thereby safeguard the interests of future generations.

- To encourage universities to review their own operations to reflect best sustainable development practices.

- To request the ACU Council urgently to consider and implement the ways and means to give life to this declaration in the mission of each of its members and through the common enterprise of the ACU.

University Charter for Sustainable Development Actions Proposed

- Institutional commitment
    - Universities shall demonstrate real commitment to the principle and practice of environmental protection and sustainable development within the academic milieu.

- Environmental ethics
    - Universities shall promote among teaching staff, students and the public at large sustainable consumption patterns and an ecological lifestyle, while fostering programs to develop the capacities of the academic staff to teach environmental literacy.

- Education of university employees
    - Universities shall provide education, training and encouragement to their employees on environmental issues, so that they can pursue their work in an environmentally responsible manner.

- Programs in environmental education
    - Universities shall incorporate an environmental perspective in all their work and set up environmental education programs involving both teachers and researchers as well as students - all of whom should be exposed to the global challenges of environment and development, irrespective of their field of study.

- Interdisciplinarity
    - Universities shall encourage interdisciplinary and collaborative education and research programs related to sustainable development as part of the institution's central mission. Universities shall also seek to overcome competitive instincts between disciplines and departments.

- Dissemination of knowledge
    - Universities shall support efforts to fill in the gaps in the present literature available for students, professionals, decision-makers and the general public by preparing information didactic material, organizing public lectures, and establishing training programs. They should also be prepared to participate in environmental audits.

- Networking
    - Universities shall promote interdisciplinary networks of environmental experts at the local, national, regional and international levels, with the aim of collaborating

on common environmental projects in both research and education. For this, the mobility of students and scholars should be encouraged.

- Partnerships
    - Universities shall take the initiative in forging partnerships with other concerned sectors of society, in order to design and implement coordinated approaches, strategies and action plans.

- Continuing education programs
    - Universities shall devise environmental educational programs on these issues for different target groups: e.g. business, governmental agencies, non-governmental organizations, the media.

- Technology transfer
    - Universities shall contribute to educational programs designed to transfer educationally sound and innovative technologies and advanced management methods.

APPENDIX H:

Glossary of Acronyms

Note: Acronyms followed by an asterisk (*) are Dartmouth-specific.

ACU	Association of Commonwealth Universities
AUCC	Association of Universities and Colleges of Canada
BTU	British Thermal Unit
CDS	Common Data Source
CEPCO*	Committee on Environmental Policies for College Operations
CER	Corporate Environmental Report
CERES	Coalition for Environmentally Responsible Economies
CFC	Chlorofluorocarbons
CH_4	Methane
CIME	Committee on International Investment and Multinational Enterprises
CIP	Corporate Involvement Program
CO	Carbon Monoxide
CO_2	Carbon Dioxide
COSO*	Committee of Student Organizations
CPET	Center for Pre-collegiate Education and Training (University of Florida)
CRE	Association of European Universities
DDS*	Dartmouth Dining Services
DEN*	Dartmouth Environmental Network
DOGA*	Dartmouth Organization for Global Awareness
DVA*	Dartmouth Vegetarian Alliance
ECO*	Environmental Conservation Organization
EHS*	Office of Environmental Health and Safety
ENVS*	Environmental Studies
EPA	Environmental Protection Agency
ESD*	Environmental Studies Division (Dartmouth Outing Club)
FO&M*	Facilities Operation and Management
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
GRI	Global Reporting Initiative
HCC	Hanover Conservation Council
HFCs	Hydrofluorocarbons
IAU	International Association of Universities
ICP	Integrated Contingency Plan
ID	Identification
ILO	International Labor Organization
IPEDS	Interagency Postsecondary Education Data System
ISO	International Organization for Standardization
J & D	Johnson & Dix
LP	Liquid Propane
MBA	Masters in Business Administration
ME	Maine
MNE	Multinational Enterprises
MS	Microsoft
N_2O	Nitrous Oxide

NCP	National Contact Point
NH	New Hampshire
NO_X	Nitrogen Oxides
NY	New York
OADM*	Office of Admissions
ODA*	Office of Development Administration
OECD	Organization for Economic Cooperation and Development
OER*	Office of Evaluation and Research
OFA*	Office of Financial Aid
OFIN*	Office Fiscal Affairs
OG & C*	Office of Grants and Contracts
OGC*	Office of the General Counsel
OHR*	Office of Human Resources
OIDE*	Office of Institutional Diversity and Equity
OIR*	Office of Institutional Research
OPR*	Office of Public Relations
OPRO*	Office of Procurement Services
ORE*	Office of Real Estate
ORL*	Office of Residential Life
ORM*	Office of Risk Management
OSHA	Occupational Safety and Health Administration
PDF	Portable Document Format
PFCs	Perfluorocarbons
RAD*	Rape Aggression Defense
RWG*	Resource Working Group
S&S*	Office of Safety and Security
SAI	Social Accountability International
SARS	Severe Acute Respiratory Syndrome
SF_6	Sulfur Hexafluoride
SO_2	Sulfur Dioxide
SO_X	Sulfur Oxides
SPSS	Statistical Package for the Social Sciences
TNC	The Nature Conservancy
UF	University of Florida
UN	United Nations
UNCED	United Nations Conference on Environmental Development
UNEP	United Nations Environment Program
USNWR	U.S. News & World Report
UV	Ultraviolet
UVM	University of Vermont
VOC	Volatile Organic Chemicals
VT	Vermont

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