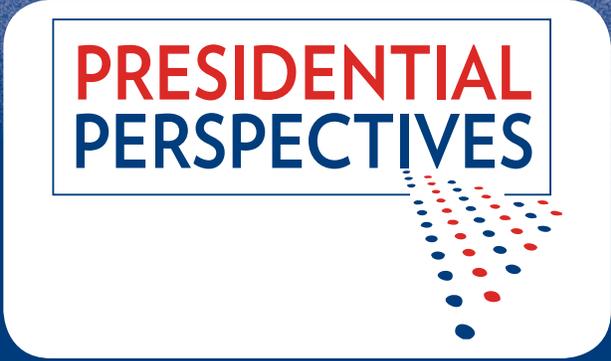


PRESIDENTIAL PERSPECTIVES



A HIGHER EDUCATION
PRESIDENTIAL THOUGHT
LEADERSHIP SERIES

2013-2014 Series:

Elevating Sustainability Through Academic Leadership

CHAPTER

5

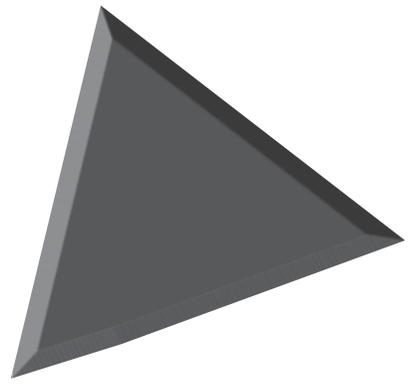
Preparing Students for the
Sustainable Future

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PRESIDENTIAL PERSPECTIVES

Preparing Students for the Sustainable Future



Gloria Cordes Larson, JD: President of Bentley University

Until recently, when President Obama proposed a sweeping plan to reduce greenhouse gas emissions through executive actions, climate change has received very little attention at the federal level.

But business is being much more proactive.

A survey of more than 3,000 global executives by the *MIT Sloan Management Review* and The Boston Consulting Group found that more than 70 percent of companies have now “placed sustainability permanently on their management agendas.” The survey also revealed that two-thirds of the responding companies believe that addressing sustainability issues is a competitive necessity in the 21st century.

Educating future business leaders in sustainability has become critical, and as the president of a business university that incorporates equal parts liberal arts, I’m hearing this from corporate leaders more and more.

Sustainability at Bentley

At Bentley University, we take a highly integrative approach to preparing our students for work in a resource-constrained world—one that consists of classroom teaching, the support of a dynamic career services office, and hands-on learning using our campus as a “living lab.” An open and engaged Facilities Management Department allows our students to participate in Bentley’s operational sustainability efforts, including our aggressive steps to reduce our carbon footprint. Through their work on our campus environmental initiatives, students are able to apply what they learn in the classroom to “real world” challenges. With the support of the career services team, which is reaching out to sustainable business and clean energy companies, students are increasingly landing internships and jobs in this sector.

“*We don’t necessarily need scientists, but please give us business undergraduates and MBAs who are literate in science and energy and conversant in systems-thinking.*”





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In addition to classroom and hands-on learning offerings, Bentley tries to walk the talk every day when it comes to sustainability and campus operations. For example, since we conducted our baseline study in 2008, we've reduced our carbon footprint by 50 percent through a combination of energy efficiency projects, the purchase of wind power, and creative student initiatives to engage the campus in energy conservation efforts.

As a result, Bentley has received many accolades for our operational sustainability efforts, including being named Northeast-10 Champion by the EPA for our wind power purchase and being listed in the *Princeton Review's* "Guide to 322 Green Colleges" for the third year in a row.

As Bentley's president, I try to walk the talk as well through a seat on the Steering Committee for the American College and University Presidents' Climate Commitment and as a gubernatorial appointee on the Board of the Massachusetts Clean Energy Center.

Although our efforts represent a holistic approach, for the purposes of this article I will focus on how an integrated sustainability curriculum and hands-on learning can translate into meaningful work after graduation.

Polishing Essential Sustainability Skills

Business leaders are repeatedly saying: "We don't necessarily need scientists, but please give us business undergraduates and MBAs who are literate in science and energy and conversant in systems-thinking."

These are exceedingly valuable tools for future executives who will have to manage in an uncertain world punctuated by large-scale climate disruptions, vast infrastructure rebuilding, a sweeping migration to non-petroleum-based transportation and energy systems, and constant demands for greater energy efficiency in every business and industry.

Not surprisingly, millennial college students, who are or soon will be in the job market, are echoing business leaders by demanding that universities provide curriculum that is focused on sustainability.

Higher Education Has Responded

Indeed, a recent research study conducted by the Council of Environmental Deans and Directors of the National Council for Science and the Environment indicated that there has been a jump in the number of schools hosting interdisciplinary environmental and sustainability programs since 2008—a 29 percent increase in general course offerings; a 37 percent increase in degree-granting programs; and a 57 percent increase in sustainability-related majors.

The challenge, of course, is determining what should be taught—and *how* it should be taught—so that students of sustainability are well prepared for what awaits them upon graduation.



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Teaching Sustainability Problem-Solving

At Bentley we work to practice and teach the triple-bottom line—people, planet, profit. We’re deploying an approach to sustainability that integrates environmental science literacy with a study of complex, multi-disciplinary problems across the curriculum including climate change, energy, and resource scarcity.

Thanks to a grant from the National Science Foundation, for example, we recently designed a case study titled, “Will Corn Ethanol Fuel U.S. Energy Needs?” The case study was developed for use in a number of different disciplines, including natural sciences, accountancy, economics, finance, political science, and geography. The same team of professors is currently working to design a similar common exercise using natural gas hydraulic fracturing data.

The goal in both instances is not to teach students a particular solution, but rather to give them a capacity for complex problem solving by recognizing the very complicated, multi-disciplinary, and interconnected nature of regional and global sustainability challenges.

This comes through in Bentley’s Earth, Environment, and Global Sustainability Liberal Studies Major concentration and our newly minted Sustainability Science Major—both of which are combined with a student’s business studies. These majors are housed in Bentley’s Natural and Applied Sciences Department, which has worked diligently to reach across curricular lines by partnering with faculty in business departments in an effort to weave sustainability further into the business curriculum. Armed with solid business knowledge and an understanding of the complexities of natural resource use, students in these majors are entering the workforce with skills needed to manage and grow 21st century companies.

Getting Ready For Sustainability Careers

In addition to Bentley’s sustainability curriculum, we also talk about getting our students who are studying traditional business disciplines ready for the key sustainability jobs of the next few decades. To do so requires providing them with the knowledge and skills that business leaders tell us are essential for future growth.

Economics Majors—The heart of economics is dealing with scarcity of resources, so it is natural for economics majors to gravitate to a career where they are evaluating environmental policies and regulations. For example, the Environmental Protection Agency (EPA) hires many large consulting firms to conduct economic analysis for the study of existing policies and the development of new ones. Students majoring in economics with a passion for sustainability issues can put their skill set to use through environmental and public policy consulting roles.

Accounting Majors—Sustainability auditing and verification is the assessment of an organization’s sustainability metrics and reporting practices by a third party. This field is growing rapidly, as many organizations begin to quantify and report their environmental and social impacts as well as their plans to reduce those impacts. Organizations hire sustainability auditors to confirm that they are accurately reporting these impacts and action steps and to assure that their metrics are appropriate.

Finance Majors—Alternative energy and energy efficiency finance is the use of financial mechanisms to spread the upfront costs of renewable energy and energy efficiency projects over the course of the project’s lifetime. Energy finance overcomes the hurdle of high upfront costs by providing the necessary capital to develop the project, then capturing the profit from the energy savings by entering into an agreement with the developer. This field is particularly appealing today for solar project financing.



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Management Majors—Organizational change consulting represents one of the largest opportunities in the sustainability marketplace. As more companies realize that green business is good business, there will be an increasing need for people who understand how sustainability works and how it can be applied to individual organizations to create value. Skilled managers are needed to implement changes in organizations to enact best practices around energy and resource conservation, waste reduction, and supply chain efficiencies; and develop a culture that embraces sustainability as a way of increasing profitability, improving the environment, and enhancing quality of life.

There is also a specific need for project managers to coordinate green building projects and alternative energy projects. This is one of the best ways for business majors to break into the alternative energy and green building development fields.

Math Majors—Today, risk management must deal with emerging environmental risks. Risk managers need to anticipate these risks and develop appropriate actuarial analyses that lead to risk mitigation and financing strategies. Many insurance companies are beginning to incorporate the risk of climate change-related disasters into their insurance premiums, as the number of large-scale climatic events increases.

Computer Information Systems Majors—A growing trend in the sustainability market is the creation of software programs that help organizations understand their environmental impacts and achieve their sustainability goals. These programs range from applications that model the greenhouse gas emissions of an organization to products that allow an organization to monitor, in real time, how much energy it is using and what that energy costs.

Gaining Insight into the Private Sector’s Sustainability Challenges

Finally, we believe that hands-on learning is one of the best ways to prepare our students for the brave new world of sustainability. Our Office of Sustainability offers students the opportunity to put what they’ve learned in the classroom to work on our campus. The office employs four interns and coordinates 30 student volunteers to assist with the implementation of Bentley’s sustainability initiatives.

Students have also had the opportunity to put their sustainability know-how to work for local companies, including the Westin Boston Waterfront hotel. Serving as sustainability auditors and consultants, our students reviewed the hotel’s operations and made suggestions for improvements in energy and water efficiency, waste diversion, and marketing of the hotel’s sustainability commitment to guests.

Bentley offers experiential learning opportunities through the curriculum, as well. One example is our program in Ghana. The primary goal of The Ghana Project is to create mutually beneficial relationships as “partners in learning” with NGOs located in Ghana. These partnerships enable us to contribute to sustainable economic development in Ghana in exchange for rich learning experiences for students and the greater Bentley community. Approximately 30 students visit Ghana through classes every year. The experience provides students with a cross-cultural context for learning about the role and responsibility of business in economic development; alternative business models, including social enterprises that use profits for social good; the value of their business skills in addressing social issues; and the challenges of inter-cultural communication and cooperation.



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Our students who couple sustainability studies with a business major and “real-world” experience are increasingly landing internships and full-time jobs in this sector. Demand among students for jobs in sustainable business has increased considerably. We have responded by creating a “Global Sustainability Advisory Board,” which is a partnership between the Office of Sustainability, faculty members, the Office of Career Services, and sustainable and clean tech companies. This has allowed us to expand employment opportunities and to ensure that we are appropriately preparing our students for work in the environmental arena. This partnership has proved to be a key success formula at Bentley for securing jobs for our graduates and can serve as a model for other universities.

In the end, the most realistic way to enrich and enhance sustainability in the twenty-first century may be through the growing relationship that is currently taking hold between business and higher education. Companies are asking that we prepare our students thoughtfully and effectively in this area. And now it’s up to colleges and universities to deliver on this request. It’s a huge opportunity, and it shouldn’t be missed.

My thanks to Amanda King, Director of Sustainability and Special Advisor to the President, for her assistance with this chapter.



Gloria Cordes Larson, JD, joined Bentley University as its president in July 2007 after a prestigious career as an attorney, public policy expert, and business leader. During Larson’s tenure, the institution has reached a number of milestones and established new programs focused on the value of a business education. Larson has overseen Bentley’s most recent innovation — a studio-based, 11-month, global MBA program that places special emphasis on honing students’ individual leadership style and change management skills while working on diverse teams and across cultures. She also launched the Center for Women and Business at Bentley in 2011, with a mission to advance shared leadership among women and men in the corporate world and to develop women business leaders.

Before joining Bentley, Larson was widely recognized for her significant influence in economic policy at the state and federal level. She was co-Chair of the Government Strategies Group at Foley Hoag, LLP just prior to joining the university. Leading up to her private law practice, Larson worked in the public sector for several decades, serving as Secretary of Economic Affairs under Massachusetts Governor William Weld, and Deputy Director of Consumer Protection at the Federal Trade Commission.