



What factors determine whether or not American public universities take advantage of opportunities to reduce greenhouse gas emissions, especially when doing so is likely to save them money?
A theoretical case study of the University of California, Santa Barbara

Universities could play a significant part in tackling global warming, not only because of their individual contributions of greenhouse gases (GHGs), but also, even more significantly, because of the role universities play in educating and shaping future citizens. But, as large organizations, universities have complex decision processes which can often lead to missed opportunities. This led us to our question:

What factors determine whether or not American public universities take advantage of opportunities to reduce GHG emissions, especially when doing so is likely to save them money?

Background

Campus Climate Neutral I (CCN I), a 2006 Donald Bren School of Environmental Science and Management Group Project, encouraged the University of California, Santa Barbara (UCSB), to become a leader in addressing the causes of climate change. The group conducted a GHG emissions inventory of the campus and recommended several GHG mitigating measures, including upgrading heating, ventilation, and air conditioning (HVAC) systems and installing energy-efficient fume hoods. CCN I concluded that UCSB, by implementing the group’s recommendations, would reduce emissions while saving money at the same time. For example, CCN I calculated that UCSB, by committing to climate neutrality in 2006, could save a net present value of \$4.3 million by the year 2020.

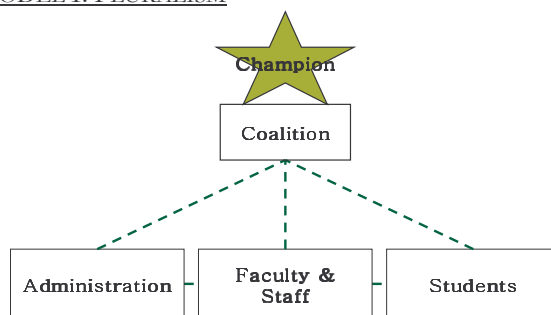
CCN I’s findings did not, however, lead to much University action. The fact that UCSB administrators did not initially act on CCN I’s recommendation to commit to GHG reductions that would benefit both society and UCSB led to the central question for our group, CCN II.

Methods

To uncover the factors that influence the relevant decision-making process, we conducted a case study of UCSB. We first researched the literature and identified several theoretical models or lenses to explain the behavior of large organizations.

Next, we selected three different lenses—pluralism, bureaucratic politics, and external pressures—as those most relevant to public universities. Each lens focuses on specific factors in the university decision-making process:

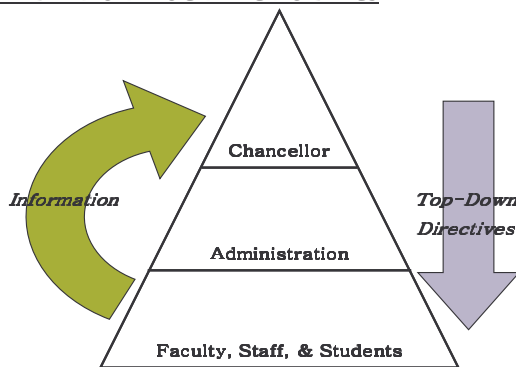
MODEL I: PLURALISM



Model Characteristics:

- Multiple stakeholders
- Champions
- Coalitions

MODEL II: BUREAUCRATIC POLITICS

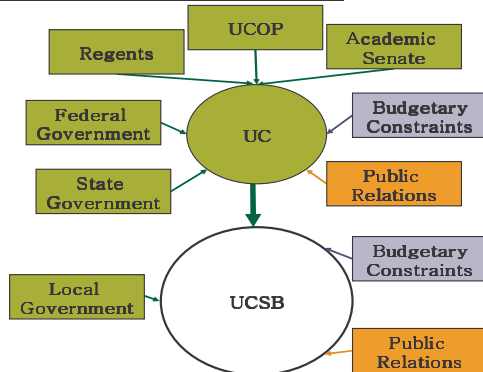


Model Characteristics:

- Hierarchical decision structure
- High emphasis on process
- Path dependence
- Risk aversion



MODEL III: EXTERNAL PRESSURES



Model Characteristics:

- Influence of the system structure
- Budgetary constraints
- Public relations

Using multiple models enables us to distinguish how the various decision-making frameworks operate and influence UCSB.

To answer our question and understand the decision-making process more concretely, we analyzed three different decisions involving GHGs at UCSB:

1) CCN I:

In the Spring of 2006, CCN I presented their conclusions on money-saving measures for reducing UCSB GHG emissions to senior administration, members of the Subcommittee on Sustainability, and the Campus Planning Committee (CPC). The CPC has not yet voted on whether or not to commit to a GHG emissions reduction target.

2) LEED SILVER:

In February 2004, Chancellor Yang approved a policy establishing the LEED (Leadership in Energy and Environmental Design) Silver standard for all new UCSB buildings beginning July 1, 2004.

3) LEED PORTFOLIO:

In November 2006, UCSB committed to participate in the pilot phase of the U.S. Green Building Council's LEED Portfolio Performance Program.

We gathered information about each decision by conducting interviews and reviewing campus documents. We then applied our lenses to the decisions, looking for the presence and strength of the

theoretical decision-making factors predicted by each theoretical model.

Results

We tabulated and evaluated the results of the analyses to identify the most influential factors in a decision:

- Champions
- Coalitions
- High emphasis on process
- Risk aversion
- Budgetary constraints

This process also revealed several determinants not predicted by the theoretical models:

- Campus culture
- Issue-attention cycle
- Issue framing
- Power or position of the proponent

Not only did we find factors outside our theoretical lenses, but also, we did *not* find some factors expected on the basis of our literature review. From the research literature, we anticipated organizational arthritis (rigidifying effects due to the layering of rules and regulations) and private funding sources would have more impact on decision making than we actually observed in our case study.

Discussion

Of the nine factors (five highlighted by our lenses and four outside our lenses), our analysis revealed four to be most significant. They are, in order of importance:

1. Champions
2. Coalitions
3. Issue framing
4. Power or position of the proponent

To determine these findings, we looked for common threads throughout the decisions made and for those components absolutely necessary to move the decision from inception through implementation. The presence or absence of and approach to each of these factors in related decision-making processes can help explain whether or not and why a university addresses its GHG emissions.

All of our findings can be generalized to an extent since all nine of the significant factors could apply to American public universities. However, UCSB and the University of California (UC) system feature some characteristics that may limit the direct applicability of our results. Unlike other major public research



universities, UCSB employs a system of shared governance and is a constitutionally designated public trust. With shared governance, faculty members participate in guiding the operation and management of the university. Although all UC campuses employ shared governance, the faculty at UCSB is unusually powerful. This creates a strong need at UCSB to include faculty as part of coalitions and as potential champions. The UC public trust designation keeps UC free of direct political influence, and State funding is allocated by the UC Regents rather than State legislators. This is important as it relates to budget constraints. In addition, because UCSB is one of ten campuses in the UC system, neither UCSB nor any other individual UC school makes decisions without considering how these decisions might impact the other schools in the system and the system as a whole. Finally, campus culture varies between universities. This affects which policies will succeed and also influences how policies should be framed.

Policy Implications

Our findings have implications for policy makers and stakeholders pushing for policies to reduce GHG emissions at American public universities. This is particularly true since the benefit alone of savings to the university has proven an insufficient incentive. In general, university decision-making structures rely on the broad participation of stakeholders and on consensus. American public universities typically do not change course easily as they are designed to “weather” various financial and political conditions rather than avoid or subvert them as smaller, more nimble organizations might attempt to do. Efforts to change or introduce policy need to recognize these major characteristics in order to increase the likelihood that universities will take advantage of opportunities to reduce GHGs.

With an emphasis on consensus and a flat decision-making structure, a university chancellor (or president) is not likely to lead the GHG charge. Unlike the role of a CEO at a for-profit company, which calls for a quick response to market shifts and a willingness to dictate bold, new policies, a large part of a chancellor’s job includes satisfying on- and off-campus stakeholders, mediating, and consensus building. University boards look for such conciliatory skills when hiring a chancellor. Usually, the personality types of university and corporate leaders are quite different. Taking bold, unilateral actions could

jeopardize a chancellor’s job security. It follows that decreasing participation and increasing centralization in university decision-making processes could increase decision-making efficiency, but not necessarily lead to policy implementation.

The faculty of American public universities is important both in recruiting a champion and in forming a coalition. However, it is not always easy to get faculty members on board. Among research, teaching commitments, and publishing pressures, they have little time to devote to extra activities. Although, on paper, service is one of the criteria by which faculty are evaluated, in reality, it takes a low priority. Faculty members will not reach tenure sooner by serving on a committee. Therefore, they have little incentive to get involved. Working to increase the weight of university service in faculty evaluation criteria could make it more attractive, or perhaps simply more feasible or acceptable, for faculty members to take the time to get involved.

The strain on university budgets influences GHG-related decisions as well. Funding strongly determines which decisions are considered. State and federal funding do not meet the costs of running a public university. With increasing enrollment and inadequate increases in public funding, the unfunded gap is growing by an increasing amount each year. Universities are not free from concern with the bottom line, which influences the policies they are willing to consider. Even policies that would bring savings in the longer term must often take money from another area initially. Thus, any proposed campuswide policy will prompt stakeholders to ask, “How does this affect me?” Certain campus sectors, then, may not support emissions-reduction policies, not because they don’t believe in reducing GHGs, but rather because they are reluctant to divert limited funds to issues not essential to their activities. Providing adequate funding for higher education could encourage schools to practice their values and provide important outside-the-classroom lessons on addressing climate change.

Recommendations

Based on our case study, we offer the following recommendations to other groups working to reduce GHG emissions at their universities:

1. Follow a decision from inception to implementation. It is important to understand



- both the written and unwritten rules of the university decision-making structure in efforts to change policy.
2. Recruit a powerful champion. An issue has more weight when someone who wields influence supports it.
 3. Form a broad coalition. Coalitions are instrumental in building momentum behind the issue from different campus sectors, and, because they represent broad support of the issue, they help university leaders fend off criticism.
 4. Frame the issue in the language of the university. Writing and talking about the proposal in language that suits the campus culture enhances the way university constituents view the issue.
 5. Set a practical emissions target. Start with realistic, campus-appropriate goals in order to achieve real action toward reducing emissions.
 6. Secure additional funding. Since budgetary constraints are an ongoing concern, seeking financial resources from private sources or a student fee-based revolving fund, for example, may be helpful for successfully implementing GHG reduction measures.
 7. Assign the responsibility of reducing GHGs to someone on campus. Incorporating the issue into a job description ensures GHG reduction measures will be considered over time.

Conclusion

While they are not nimble, universities are not completely resistant to making changes in order to reduce GHG emissions. Although decision making at universities is often a labyrinthine and sluggish process due to the emphasis placed on procedures, consensus building, and layered rules and regulations, based on findings at UCSB, American public universities do not appear to be “arthritic.” These conditions, however, limit the capacities of universities to engage in social innovation. Universities, unlike corporations, are not designed to respond quickly to market shifts; university decision-making processes are not structured to move quickly, but rather incorporate “planned slowness.” Universities are not necessarily the birthplaces of social innovation they are commonly believed to be.

Efforts to change university policies can succeed, but only when those promoting change understand how

the decision-making processes work and work with the system. Strategic use of champions, coalitions, issue framing, and power or position can push issues through the system more efficiently. More case studies could identify additional factors and add to the robustness of or refine these results. We wish all CCN groups success in applying our results to persuade policy makers at their universities to make the sound decision of reducing campus GHG emissions.