STARS
(Sustainability Tracking, Assessment & Rating System)
Action Research Team

Education for Sustainable Living Program
Institute of the Environment
University of California, Los Angeles

Winter & Spring 2009

Team Leader: Isis Krause

Team Members: Angela Forero, Janou Gordon,
Varun Mehra, Jonty Pretzer

Stakeholder: Nurit Katz,
Sustainability Coordinator at UCLA

Table of Contents:

Contact Information:

Isis Krause   isiskrause@ucla.edu

Angela Forero   apfm85@ucla.edu

Janou Gordon   janou.gordon@gmail.com

Varun Mehra   vmehra813@gmail.com

Jonty Pretzer   jonty_pretzer@yahoo.com

UCLA has been advancing sustainability on campus for many years, as can be seen through the Southern California Environmental Report Cards put out by the Institute of the Environment and the Climate Action Plan. The recent appointment of Nurit Katz as Sustainability Coordinator ensures and exemplifies UCLA's commitment to sustainability. UCLA has not yet completed a Sustainability Assessment, and this is key to figuring out where UCLA stands across all measurements of sustainability: environment, equity, and economy. The Association for the Advancement of Sustainability in Higher Education recently created a guideline for higher education institutions to compare themselves against each other on their sustainability efforts through a rating system. This guideline is the Sustainability Tracking, Assessment, and Rating System (STARS). Researching 16 other universities, comparable to UCLA in size and structure, we found STARS to have many merits and be the best option for UCLA's sustainability assessment. UCLA's Campus Sustainability Committee formally decided STARS would be used to measure sustainability on UCLA's campus. Through a grant of $32,000 from The Green Initiative Fund, 7 student interns (5 Undergraduate, 2 Graduate) were hired to complete the assessment during Summer 2009, under the guidance of Nurit Katz. STARS was in a pilot phase in the past, but this Fall 2009 STARS will be available for all universities to utilize. From the data gathered during Summer 2009, UCLA will be able to complete the first Sustainability Assessment scrutinizing all areas of campus, including curriculum, research, building, dining services, materials & waste minimization, purchasing, transportation, investment, sustainability infrastructure, community relations, and diversity.

Introduction & Objectives:

While sustainability has only recently become a mainstream topic for students across California and the nation, much has been done to advance sustainability at UCLA for quite some time. In 2004 the Chancellor's Advisory Committee on Sustainability was created after a request made by the California Student Sustainability Coalition. From that starting point, sustainability has been blossoming at UCLA ever since, including a Sustainability Coordinator, the Climate Action Plan, and many student initiatives. With all this, UCLA would like to add a Sustainability Assessment as another accomplishment. This assessment would provide baseline information on a campus-wide basis and provide future endeavors with a platform to begin from. The STARS Action Research Team looked at how UCLA could best realize the goal of a sustainability assessment. Working with Sustainability Coordinator Nurit Katz as our stakeholder proved key, as she knew exactly which direction we should take and was able to continually take our suggestions and utilize them as the quarters progressed.

Initial Conditions:

As the Institute of the Environment continues to expand its reach into activities that work to sustain UCLA's impact on the environment, our Action Research Team made the liaison between UCLA's sustainability committee and the IOE. Approximately six months ago, UCLA's sustainability committee hired its first sustainability coordinator, Nurit Katz. This new position solidifies the work of many of the action research teams working towards a sustainable campus, especially our team.

Since 1998 the IOE has released yearly climate impact report cards called the "Southern California Environmental Report Card" in which researchers assess several elements of the environment. Each report card up to the year 2006 contained elements such as Air Quality,

Sustainable Building, and Innovations in Environmental Monitoring. As of Fall 2008, the report cards have been issued quarterly. The quarterly report card focuses on one issue per report such "California's Green Market Geography". The report cards reflected behavior related to each specific criterion including status reports and future recommendations. The report cards are vital to gaining a better understanding of what kind of progress is being made towards a cleaner interaction between human society and various environmental systems. Even though a report card exposes various elements of environmental health, the report cards are often subjective assessments that make suggestions but do not enforce changes in behavior and in general, do not set fixed goals. Although the report cards do not enforce changes, they have catapulted the need for an affirmative action towards changing behaviors and which has led to the creation of the Climate Action Plan (CAP).

As of February 5th, 2009, one of the highly anticipated moves towards a campus wide sustainability effort, the Climate Action Plan (CAP), was initiated. The main purpose of this plan was to bring together many departments fragmented across the UCLA campus to aggregate greenhouse gas (GHG) emissions and to set benchmarks to mitigate these emissions. Some of the more basic and explicit goals included reaching year 2000 GHG levels by 2014 and year 1990 levels by 2020. This benchmark will enable UCLA to focus on a goal that is both achievable through not only staff and faculty, but students as well.

Some of the primary drivers for reaching the goals of the CAP include student housing, transportation, and energy departments although all aspects of the University's operations are also considered. One important and significant contribution to sustainability involves energy consumption, which has dropped by 16% from the year 2000 to 2007 even as the square footage of UCLA has increased by 33%. Nonetheless, there have been additional efforts to reduce GHG

emissions through fleet transportation alternative fuel usage; incorporation of LEED certified buildings, and implementation of compact fluorescents and lighting motion sensors.

While the CAP works to accelerate GHG mitigation, a greater push is necessary to create a sustainable campus. The push for creating a sustainable campus has opened dialog between students, faculty and staff in the common goal to achieve a better working and study environment. Through this dialog the participants have a better understanding of how to achieve such goals. In addition to dialog at UCLA, stakeholders of other Universities provided information across the continental United States that assisted our group in deciding how to approach the idea of a larger more comprehensive assessment.

Many educational institutions across the nation have already been shifting towards sustainable practices, to save money, increase moral, provide a safe and equitable study and working environment, and to reduce their impacts on the resources the environment provides. Therefore a sustainability assessment that includes sustainable activity transparency, methods and data exchange for achieving goals and recognition for achieving such goals is necessary. A viable and recognizable sustainability assessment is vital for UCLA to remain a highly competitive and progressive research university.

Data Overview:

In order to check where UCLA stands among other campuses in terms of sustainability, we decided to look at 16 different universities and the ways in which they went about completing their sustainability assessment. After surveying schools of similar size and structure, the evidence pointed into the direction of STARS, a program under AASHE: The Association for the Advancement of Sustainability in Higher Education. After we gathered our data on a number of schools and their methods for conducting a campus-wide sustainability assessment, we then

proceeded to do further background research on the STARS assessment and the AASHE organization to make sure this was the right fit for UCLA Sustainability. AASHE was founded in 2001 out of the need for a common, central, and nationwide campus sustainability organization. It is run by representatives of universities to promote sustainability throughout higher education, and serves as a model for schools across the country. AASHE has a number of developed programs, including the American College and University Presidents Climate Commitment. It's newest and most popular program, STARS, has gained popularity and recognition around the country as one of the first and most comprehensive campus sustainability assessments. AASHE has grown into a very reputable organization, whose programs and initiatives are well-known and used, and is now commonly regarded as the spearheading and leading organization in sustainability at the level of higher education.

The different schools we chose to look at offered a well-rounded view of the STARS assessment. Although they are all large universities, each offered unique perspectives that combine to give a comprehensive base for evaluating STARS. STARS, which stands for Sustainability Tracking Assessment and Rating Systems, enables campuses to have a uniform and transparent foundation for sustainability. With the introduction of STARS, schools across the nation will now be able to gage and rank their sustainability progress as compared to other schools. Before the creation of STARS, there was no uniform or standardized form of measurement created in terms of universities and colleges and their sustainability practices. STARS enables schools to compare themselves to other schools as it every campus uses the same reporting method and scale, something that hadn't existed before.

STARS is similar to a LEED indicator checklist at a school-wide level. It's completed and measured through the process of assigning and receiving credits in different categories,

aiming to progress each school towards sustainability - accounting for ecology, economy and equity (E3) practices. Over 90 colleges and universities are current participants in the STARS pilot program. The three major credit categories (with the subcategories listed) for STARS are as follows:

Education and Research
- Co-Curricular Education
- Curriculum
- Faculty and Staff Development and Training
- Research

Operation Credits
- Buildings
- Dinning Services
- Energy and Climate
- Grounds
- Materials, Recycling and Waste Minimization
- Purchasing
- Transportation

Administration and Finance Credits
- Investment
- Planning
- Sustainability Infrastructure
- Community Relations and Partnerships
- Diversity, Access and Affordability
- Human Resources
- Trademark Licensing

Within the STARS assessment, it is important to understand and differentiate tier one and tier two credits. Tier One credits tend to focus on sustainability outcomes and are worth one or more points. Tier Two credits tend to focus on strategies institutions have adopted to move toward sustainability and are worth less than one point.

Survey Data from 16 Universities:

The 16 universities we surveyed include major universities such as Harvard and Columbia University, as well a several in the UC system including UC Santa Barbara and UC

San Diego. These UC schools are particularly helpful as they experience many of the same local environmental problems, and they serve as a gauge for what UCLA can accomplish on a similar budget and with similar policies. Additionally, University of Florida has members on the AASHE board or directors which gives an inside perspective into the STARS program. The complete list of universities surveyed includes:

1.	University of Washington	30,790 undergraduate
2.	University of Texas, Austin	37,459 undergraduate
3.	University of Florida	50,000 undergraduate
4.	University of Michigan	26,083 undergraduate
5.	University of Virginia	13,617 undergraduate
6.	University of Oregon	20,376 undergraduate
7.	Harvard University	6,700 undergraduate
8.	Columbia University	24,923 undergraduate
9.	Stony Brook University	23,997 undergraduate
10.	Arizona State University	64,394 undergraduate
11.	Ohio State University	34,480 undergraduate
12.	California State University, Fresno	18,000 undergraduate
13.	Michigan State University	32,588 undergraduate
14.	UC Irvine	22,122 undergraduate
15.	UC Santa Barbara	18,429 undergraduate
16.	UC San Diego	22,706 undergraduate

From the surveys, our data results include

1.Who completed the assessment at the school

2. How long it the assessment took to complete

3. What type of assessment was used.

Who Conducted the University's Environmental Assessment?

Bar chart showing the number of universities by who conducted the assessment: Outside Consultants (3), Students (5), University Staff (13), Other (1). Y-axis ranges from 0 to 14.
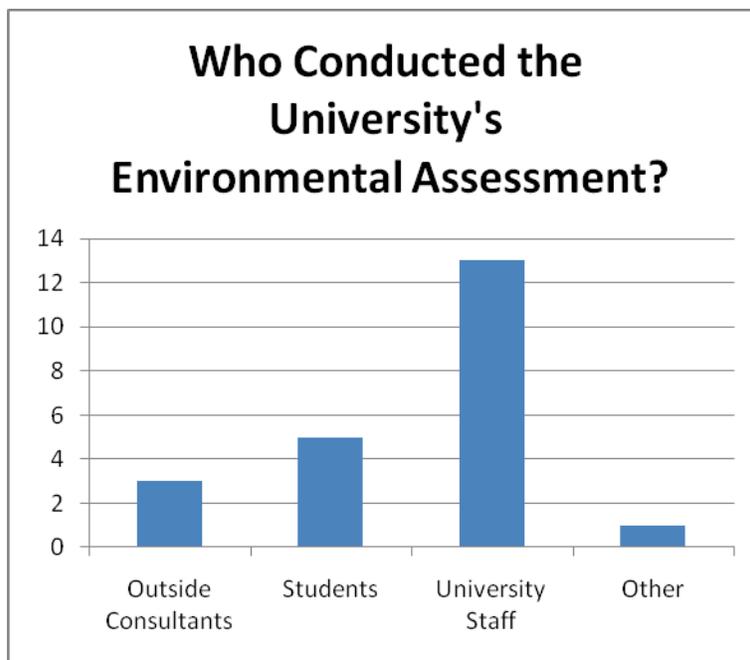
This graph illustrates how different schools went about assessing their surveys and who performed the assessments. As the graph shows, University Staff conducted most of the assessments. Speaking with sustainability coordinators many commented that university staff, professionals and those highly educated in environmental sustainability would be able to answer the necessary questions and make the assessment official. Using staff also forces everyone involved in the situation to engage in conversation. Moreover, many schools felt these conversations were critical in understanding how to move forward and what areas were most pressing to address. Some schools also utilized students as part of conducting the sustainability assessments. Involving students in this process can help motivate the student body to participate in the process as well as give an incentive to faculty to get involved and respond to the students' eagerness to complete the survey. Consultants were not widely used for various reasons, either due to financial costs or lack of awareness in using outside environmental consultants. Overall, response from universities showed that a combination of groups including qualified faculty and motivated students was the best method to completing an assessment. Three universities used outside consultants, including: University of Texas, Austin used a Green House Gas Consultant, Cal State Fresno used CTG Energetics, UC San Diego used URS International.

Assessment Process
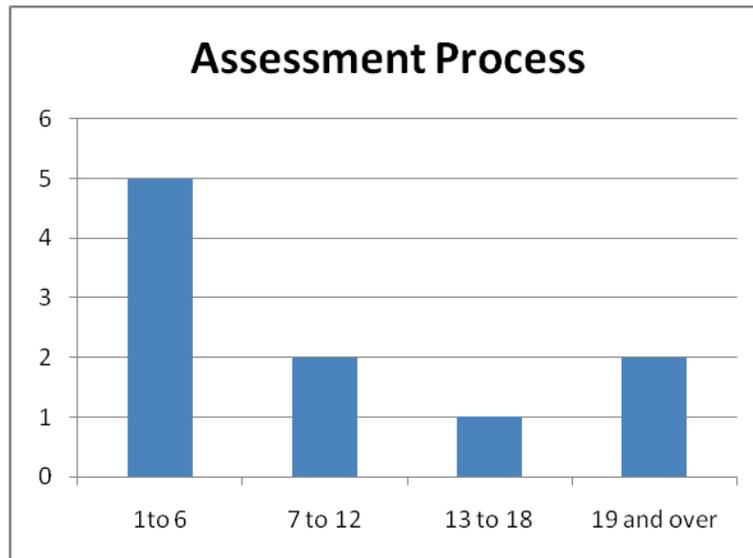
The assessment process ranged in the length of time it took to complete STARS or other sustainability assessments. The average assessment duration was 10.2 Months, though this is skewed to the high end because of the few assessments that took over 19 months. More importantly, five universities completed their assessments in fewer than 6 months. Two of those schools used the STARS pilot program. Five other schools took longer than 6 months. The time range depends on the number of people working on the assessment and whether they are working full time on the project or not. A few schools started from scratch when it came to their assessments, essentially creating their own assessment in the process. These schools were the ones taking over 19 months as they had more overhead logistics to deal with before being able to gather sustainability data. Not all 16 schools surveyed are represented here as not all had completed an assessment, or some hadn't fully completed it yet. Also, some schools are ongoing in their efforts of completing a sustainability assessment, whether it is STARS or another assessment.

Stars as sustainability Assessment
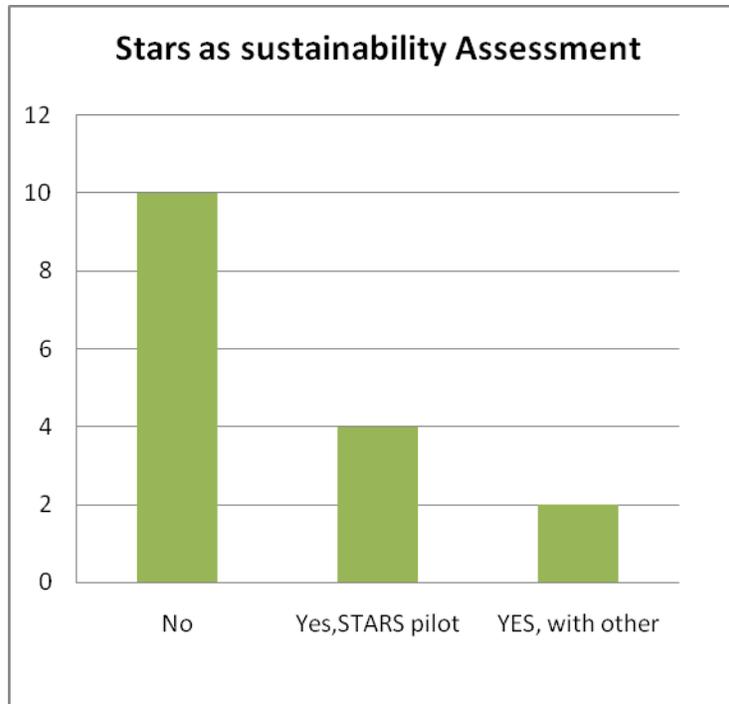
Many schools in fact did not use STARS. We were surprised by this, as we felt STARS is very comprehensive and the leading campus sustainability assessment tool. However, this is largely due to the fact that STARS is still in its Pilot Phase, and therefore only open to a certain number of schools to complete. Many universities decided that they would wait until STARS 1.0 is released in Fall 2009. Many recognized that STARS still has some weaknesses and they felt the Fall 2009 version would improve on these shortcomings. On the AASHE website there is a Feedback Document where any university could give their comments and suggestions on how to improve STARS for the Fall 2009 release. The 142 page Feedback Document can be found on the AASHE website under the "STARS" tab in the "Programs" section. We summarized the document to shorten it, please see Appendix B.

We also found out that many schools used their own metrics or decided to have an internal assessment as a base, even though they felt STARS was a good starting point. Many campuses thought the conversations that came out of creating your own metrics was extremely

valuable to conducting their assessment because it forced them to look into individual departments and see what different individuals thoughts were.

<u>*Research Methodology:*</u>

The main resource we used was the website for the Association for the Advancement of Sustainability in Higher Education (http://www.aashe.org/). All the information regarding STARS is on this website, as well as contact information and many resources for other schools completing sustainability assessments. UCLA is an affiliated university with AASHE and therefore anyone with an "@ucla.edu" email address can become an AASHE member and view all areas of the website as well as areas not shared with the public. Under "Resource Center" the "Campus Sustainability Profiles" tab gives overviews and links to sustainability reports over 80 universities, and our team utilized this list several times throughout the research. The STARS portion of the website can be found under the "Programs" tab. STARS 0.5 is the most current version and is the one used and referenced to throughout this paper.

To complete our survey, we used the website www.qualtrics.com. The survey is attached, please see Appendix A.

<u>*Recommendations & Conclusions:*</u>

Different approaches to Sustainability from an administrative standpoint:
Sustainability Assessment work is allocated in various ways in the different universities, by involving various departments in the University system. Sustainable measures are taken by way of a Sustainability Coordinator, Environmental Departments, or integrated in various departments as opposed to one sustainability department. With the current economic crisis, many schools are facing hiring freezes in which entire positions are eliminated. This has had a huge affect on positions related to sustainability. Additionally, the ongoing budget crisis creates more

work for individual jobs. The increased workload means less time for outside research on sustainability. Also, internal pressure from a specific department head has more weight than an outsider, such as a sustainability coordinator in terms of integrating sustainability principles. UC Irvine uses an integrated approach in which each department has sustainability standards that are built into the system. This way, instead of answering to a sustainability department, they answer to their own specific supervisors. For example, the transportation department has its own sustainability requirements that they enforce, instead of campus wide sustainability standards. This is an interesting approach that provides more specific standards and is especially useful in times of a budget crisis in which it is difficult to create new positions. A combination of both a sustainability coordinator along with established sustainability standards within each department would be a good way to balance both administrative approaches, and possibly a way forward for UCLA (especially after the sustainability assessment is completed).

Other Helpful Information:

For the assessment process, the majority of the sustainability coordinators recommended talking to each department about assessment and asking questions about how their department works before completing STARS. During the assessment process, a tracking contact list should be created in order to contact the people involved, in the case of data correction or clarification.

The majority of the universities just focused on the environmental aspects of the assessment since they didn't have information to complete the social or economic aspects. For example UC schools do not track financial donors and therefore were unable to get any information on endowments.

Most of the universities assigned the assessment to 1-3 people. This group then divides

the categories and contact search department to discuss and audit their practices. They work closely with every department, discuss their actions, and give feedback in order to have immediate change. UCLA recently created working groups for different aspects of sustainability, and this follows along this vein.

For our information collection, UCLA should collect information routinely and make sure it is current. STARS gives a good baseline, but past users also highly recommend open dialogue amongst departments along with creating metrics specific to your university. STARS is not an end all be all, and should be observed as a developing model, certain things can be changed or improved or added, but overall it gives a good baseline criteria points. However, the program should be customized to individual concerns and regional indicators since many aspects of STARS are too specific and inapplicable to certain universities.

Implementing STARS at UCLA:

The ultimate question is why do we need a sustainability assessment for UCLA, let alone STARS in particular? There are a number of reasons for having STARS: Firstly, there is no other standard and comprehensive way to measure and compare an institution's improvement in the realm of sustainability over time. STARS sets meaningful sustainability goals and will allow UCLA to identify strategies for achieving those goals. In addition, implementing STARS at UCLA will allow our campus to gain recognition and put us on the map as a leader of campus sustainability in the country. STARS also allows participating schools to share and compare information with other institutions, to better ourselves and the environment as a whole. Lastly, with the STARS assessment in place at UCLA, it will allow our institution to track our progress in all departments of the school over time.

We were able to present our findings on STARS and campus sustainability assessments to UCLA's Sustainability Coordinator, Nurit Katz, and the Sustainability Committee. Eventually, they voted that STARS was the most comprehensive and widely accepted assessment for UCLA to proceed with its campus-wide sustainability assessment. When STARS 1.0 is released in fall 2009, all colleges and universities are invited to participate and earn a rating, and UCLA will be amongst this group. STARS ratings, once completed, will be valid for three years, and after three years, UCLA will be required to submit a new report in order to claim a new STARS rating.

Overall, not only does STARS give a solid foundation in measuring UCLA's campus sustainability practices, it also highly recommends open dialogue amongst departments along with creating metrics specific to UCLA. STARS is not necessarily the perfect and personalized sustainability report, and it should be observed as a developing national model for sustainability assessments, certain things can and will be changed or improved or added as time progresses. Completing all of this will undoubtedly be a challenge, as this will be UCLA's first official attempt at completing a campus-wide sustainability report.

The Green Initiative Fund (TGIF):

Upon determining that STARS would be the assessment program used, it was decided that students would be used as a main component for gathering data. Fortunately, UCLA has a program perfectly fit to fund this type of research, The Green Initiative Fund (TGIF). TGIF was the first green fee created by students of the UC in the spring of 2006 at UC Santa Barbara. The fund was created with a charge to "reduce the University's impact on the environment." Students voted to pay $2.60 per quarter, contributing approximately $182,000 a year towards TGIF. In the

Spring of 2008, UCLA followed suit with its own TGIF campaign. Passage of the referendum creates over $200,000 per year available to groups aiming to reduce UCLA's impact on the environment. Projects can focus on issues such as climate change, renewable energy and educating the campus community on sustainability. As TGIF funds are specifically allocated for student projects, the STARS summer intern position is an ideal use of TGIF money, and we were grateful to be approved for a $32,000 grant to fund the summer internship program. 5 Undergraduates and 2 Graduate students will receive a 10-week stipend for their work on this assessment. Their job for the summer is to gather all information regarding operations, classes, facilities, organizations, and programs related to sustainability at UCLA. The interns will research and work with people from all departments on campus to complete the comprehensive STARS assessment, under the guidance and knowledge of Nurit Katz.

Our work as an Action Research Team is just the beginning in the process towards successfully implementing STARS, and with the help of TGIF, this research will continue and the interns can begin completing the STARS assessment this summer. Completing the STARS assessment is a crucial element to establishing UCLA as a sustainable campus. UCLA is already on a clear path towards sustainability and a thorough assessment like STARS will fill need for a foundation of where we currently stand, and will help give a clear direction of where and how to move forward in the future.

Qualtrics Survey:

Please help us by filling out this brief survey about your sustainability assessment and planning process. Thank you so much for taking the time to share and collaborate with us. Please let us know if there is anyway we can help you or any information from our campus that would help you in your sustainability programs.
Nurit Katz
UCLA Sustainability Coordinator
Nkatz@facnet.ucla.edu
(310) 206-6667

First Name
Last Name
Title
University
Email
Would you like us to email you the results of this survey when it is completed?
    Yes/No
Does you campus have a sustainability plan?
    Yes/No
Did you campus conduct a sustainability assessment?
    Yes/No
Who conducted the assessment? (you may choose more than one)
    Outside Consultants
    Students
    University Staff
    Other
If you used an outside consultant, would you recommend them to other campuses?
    Yes/No
Please enter the contact information for the consultant you used and any notes:

Are you familiar with STARS?
    Yes/No
Did you use/are you in the process of using STARS in your campus sustainability assessment?
    Yes, we were a STARS pilot
    Yes, used STARS exclusively (but not a pilot)
    Yes, in addition to other metrics
    No
Would you recommend STARS to other campuses?
    Yes/No
Stars Feedback:

Approximately how many months did your assessment take?
Please tell us any other helpful information about the assessment and planning process. Did you include social indictors as well as environmental? Did you form working groups? If so for how many areas? Anything you would have done differently if you had the chance to do it over? Etc.

Review of the STARS 0.5 Feedback:

Common points made for "Overall Comments":
Good:
- Provides a lot of excellent guidance in a lot of areas for applying sustainability throughout universities and colleges across the country
- Comprehensive and broad in focus.
- It allows transparent peer review processes
- Format is easy to follow and direct. Guidance clarifies what is needed to get credits

To Improve:
- The efforts that an institution must put into gathering data is overwhelming and the rating process might be too long
- STARS' introduction of Sustainability should better describe how and why sustainability practices should be connected to the school's activities
- Land use patterns should be considered in many STARS' credits ratings since it is a key role in sustainability practices
- Should consider more social justice components
- Scoring should be different for Operations since it requires different kind of administration and finance
- The format of the document should be edited for a printer-friendly version and then recycled when no longer needed
- Should recommend who should conduct the reporting. Should the school hire a person or let students do it?

Common points made for "STARS 0.5 Front Matter":
- The three legs of Sustainability (Ecology, Economy and Equity) should be clearly defined and represented equally in the credits.
- STARS should implement a parallel scoring/rating system for the social /economic credits, and one for the environmental credits, where AASHE makes
- Clear that a point in one cannot be cross‑referenced or treated as equivalent to a point in the other. Institutions could then opt to complete the assessments that are most meaningful or
- Feasible for their institution type and structure.
- If AASHE keeps other non‑environmental sustainability issues in the STARS rating system, universities should be given the option of participating in only the
- Environmental sustainability categories and receive a rating only on environmental sustainability. Or just choose one of the three legs that best work on that specific school

Common points made for "STARS Ratings, Logistics, and Participation Guidelines":

RATINGS
- Tier I and Tier II should be better defined to make the rating more clear and their weights should be consistent in the case that Tier I should weight more in the total of points.
- Currently, credit assignments to one of the other of these categories seem somewhat

arbitrary. Additionally, Tier I and Tier II credits do not fall cleanly into the two categories as described.
- Point Allocation Problems occur in credits that are not weighted appropriately against other credits (either too much or too little), in terms of the points awarded for an action or the points possible, according to a more objective understanding of meaningful sustainability performance.
- Institutions should still receive credit for the efforts they have made to truly assess their sustainability.
- Some points require tremendous time and financial investment, others much less.

APPLICABILITY & RATINGS
- What is a truly, fully sustainable campus? Is there a model campus? Since each campus is different, would it be comparing apples to oranges?
- Ratings should consider individual (campus) innovation and creativity in problem solving in light of particular campus-related issues (budget cuts, liberal arts vs. research schools). Also, whether or not the campus has provided detailed rating info in a given year. This may more accurately reflect overall efforts & results on campuses over time (vs. efforts involved to complete a complex rating form)
- Those should do ranking & judging familiar with campus greening efforts (as compared to, say, business or municipal approaches) to retain the ranking's credibility among administrators, faculty & students.

Common points made for "STARS Reporting Guidelines":
- Institutional Boundaries: This section should require each institution to consider the broader context upon which their campus exerts influence. For example, an institution should not only consider the activities within its boundaries, but should also consider the surrounding area from which faculty, staff, and students commute.
- Time frame: To avoid confusion reporting period should be clearly labeled, using the academic year convention (e.g. '2007-2008'), not the accounting/fiscal year convention

Common points made for "STARS Introductory Institutional Information"
Basic Information:
- Consider including a table with info on Basic Geography/Ecology for the school – i.e. weather, climate, soils, bioregion, local environmental impacts (and perhaps responsibilities). This would encourage consideration of these factors in self-assessment.
- Consider including information about the institution such as demand (applications) relative to capacity, income relative to expenses, debt levels relative to income. Inclusion of these measures not only provide a general perspective on sustainability, but will be important to having credibility with, and encouraging the engagement of, the financial officers and many trustees.

Facilities Infrastructure:
- There is a big difference between private and public colleges and universities when it comes to buildings and upkeep. Designation should include a category that says:

State‑owned or private buildings.
- Difficulty in counting total number of buildings and percentage of buildings (should consider size and area)

Common points made for "Education and Research Credits"
- In general the STARS framework misses a few key aspects that would drive continuous improvement and collaboration – which should be included. For example credits could be added for campuses that have put ongoing staff training programs in place to support continuous learning and transformation of operational practices. That is to say that STARS would ideally recognize proactive efforts to institutionalize continuous improvement and collaboration. Campus culture should also be included, as well as fostering community, creativity, interdisciplinary dialogue among faculty
- Another suggestion is for an initial focus on something much more fundamental than coursework. For Sustainability on Campus we should work on Pre‑Curricular Issues; there are prerequisites that should be in place before the work of active teaching begins. Before the advent of courses on sustainability, every university should publish and promote guidelines for sustainable behavior on the part of its students, faculty, and staff. These guidelines ideally would be part of the honor code of the university.

Common points made for "Co-Curricular Education":
- Missing a very important and large organizational segment, should include Student Affairs or Student Center division that guides all the various student groups and activities on campus.
- A "Student" section should be added to recognize those students who engage in a campaign to make the campus and its policies and practices more sustainable. Students should be given a lot more credit for being systems thinkers and creating system-shifting projects.

ER Credit 1: Student Sustainability Outreach Program
- This credit is only oriented to peer‑to‑peer education. It should be more flexible with the documentation needed and don't request that the outreach program have a website to get the credit, but rather it be encouraged. Also, the program should recognize sustainability related leadership around a non‑curriculum-based initiative.

ER Credit 2: Sustainability-Related Competition
- Should be change to Contest of Competition since a cooperative approach might be to see the total change toward sustainability without pitting one group against each other. The value of collaboration and creating a win‑win is more aligned with sustainability.

ER Credit 3: Sustainability in New Student Orientation
- Great to get students involved in sustainability as soon as possible
- What is meant by "prominently"? Some of the struggles we face in the pilot program are in trying to determine if we meet the criteria—how much is enough for the credit?

Co-Curricular Education: Tier Two Credits

- Urban campuses vs. rural campus. The geography of the campus should be taken into account. For example, urban campuses or those in desert communities, where land and water is an issue, may find it difficult to operate significant campus organic gardens. It will be good to have other activities on the menu that make sense on those campuses.
- For the newspaper, the credit should be worded to reflect that sustainable coverage is encouraged as opposed to ensuring that space is allocated away from potentially newsworthy stories of the day.
- Why do the sustainable cafés have to be student run? What makes it better that the café be student‑run? What if it's not a café, but a different establishment serving food/beverages? This should be reframed
- Perhaps consider a credit for: Sustainability‑related events, i.e. Campus Sustainability Day, Earth Day, speakers, films, fairs, site visits, etc.

Common points made for "Curriculum":
- There is a focus on the number of sustainability related courses. However, what defines sustainability related course is left up to the definition of the university or specific person filling this information out. It is better to clearly define what that means. Also there should be a higher number of points for sustainability related or more importantly "focused" curriculum programs‑ minors, concentrations, and majors than just courses.
- At least the intro courses in each discipline should mention the discipline's possible and existing contributions to a more sustainable future. You might give some points for a program or major, but the most points should come when all undergraduates become literate about our sustainability challenges and engaged in the solutions.
- While universities should seek to ensure they have courses that address sustainability, they should also be encouraged to examine their existing curriculum to see if they have courses with content that undermines or provides flawed advice that would misdirect societal efforts towards achieving sustainability (i.e. the introductory economics curriculum).
- It is not enough to add curriculum that addresses sustainability, or to integrate sustainability into some portions of existing curriculum, if these useful steps are undermined elsewhere on campus by curriculum that in effect is anti‑sustainability.

ER Credit 4: Sustainability Course Identification
- Indicate the % of course material that must be sustainability related to be included ‑ focused vs. related. 20% 50% 70% 90%?
- Service learning projects around sustainability should be included. Does course work improve community? Activities in which students are applying sustainability skills in the campus and surrounding communities should be rewarded.
- Need some specific measures for determining if a course qualifies, such as % of course focus, types of assignments and readings, does it meet an eco-literacy requirement?

ER Credit 5: Sustainability-Focused Academic Courses
- Why 4% of coursework focusing on sustainability is the perfect amount to dedicate to

this topic area (or 25% of course components). It should be all 100% [of courses should be sustainability‑focused] – since sustainability touches on ALL aspects of life and thus, education/curriculum ‑‑ a 'truly sustainable' university would recognize this 4% is far too low for full/highest points, full points should be 80% minimum.
- AASHE needs to clarify what counts as sustainability focused courses. Schools have very different definitions of sustainability‑‑some schools could accrue more points for a more inclusive definition.

ER Credit 6: Sustainability-Related Academic Courses
- AASHE needs to clarify what counts as sustainability‑related courses. The difference between the two (focused vs. related) is almost impossible to pin down, and we'd recommend scrapping the distinction altogether. Either a course should be considered, or not ‑ "focused" and "related" are just too nebulous, and subject to opinion and the whims of proposers or reviewers.
- There would need to be more specific guidelines for what constitutes a credit worthy course.

ER Credit 7: Sustainability Courses by Academic Department
- This is probably a good credit because it measures how well sustainability is integrated across the curriculum
- "Sustainability courses" isn't meaningfully defined

ER Credit 8: Academic Sustainability Courses by Student Credit Hours
- This credit has some problems for large schools. It would be impossible for us to figure out how many student credit hours were taken during a given semester or year (This credit does not specify if it is looking per semester or year, but those numbers will be different every semester.)
- Schools should get points for offering options and info, but not for student choices about sustainability. Perhaps student behavior and choices should be a different section.
- ER Credit 8 excessively duplicates ER Credits 5 and 6.

ER Credit 9: Sustainability-Focused Undergraduate Academic Program
- It doesn't make sense to measure how many students are involved, as universities aren't particularly responsible for that. Rather, funding or some other way of measuring support would be better. Student percentage participation is a false indicator for a successful program.

ER Credit 10: Sustainability Graduation Requirement
- AASHE needs to clarify what counts as a sustainability course for this credit.
- Some schools have 1‑credit courses that all students are required to take. Does such a course count the same as a full 3‑ or 4‑credit course?
- STARS should favor "available" and "encouraged" offerings over mandatory coursework. Sustainability should not appear to be mandated to students, or the entire

process <u>may</u> lose some of its appeal.

ER Credit 11: Sustainability-Focused Graduate Academic Program
- Should count sustainable classes instead of the whole program.
- All graduate students should be exposed to sustainability in multiple courses so diffusion throughout the curricula plus a graduation requirement should be worth a lot more credits for graduates (and undergraduates).

ER Credit 12: Sustainability Study Abroad Program
- Instead of "abroad", you may consider "off‑campus" to capture local actions that have international/global implications.
- Also consider ONLY if the study‑abroad program is climate‑neutral
- This would probably be a stronger Tier II credit unless AASHE can justify such program's significant impact on furthering sustainability goals.

ER Credit 13: Non-Credit Sustainability Courses
- Percentage based credits can be tricky. Non‑credit and certificate courses are offered based on demand for the course.
- Institutions often have very small non‑credit programs. Please justify why this is meaningful enough to be a Tier I credit or perhaps move to Tier II.

ER Credit 14: Sustainability-Focused, Non-Academic Certificate Program
- The language of this credit is a bit vague. This might be a good credit to list examples but not limit it to those examples.

ER Credit 15: Curricular Engagement
- Important to show the relationship between service learning and sustainability rather than just assuming it is there. The two fields have different learning goals and methods; they can be complementary but not necessarily.

ER Credit 16: Sustainability Literacy Assessment
- Sample evaluation tools should be provided by AASHE
- If they have coursework on sustainability and students pass, assume literacy. Seems like this credit is redundant. Data collection can take place in sustainability courses.

Common points made for "Faculty and Staff Development and Training":
- What is needed is not the motivation but the skills to apply sustainability in one's own field‑ given the variety of responsibilities campus managers have.
- What is needed is an "across the board training" in sustainability, using funds that campuses usually do allocate for professional development of staff.

ER Credit 17: Incentives for Developing Sustainability Courses
- Incentives are important. We should support any effort toward integrating sustainability in courses, even if it begins with just modules.
- Consider a credit for Incentives provided for developing service learning courses, especially with a sustainability theme.

ER Credit 18: Sustainability in New Employee Orientation
- Give Examples of desired behaviors / participation at multiple levels so that at orientation a connection is made with each individual, rather than someone else's program.

ER Credit 19: Employee Peer-to-Peer Sustainability Outreach Program
- Further refine the scope of outreach programs. Give examples of what kind of outreach programs are counted.
- Expand credit to include any "ongoing network" as opposed to single event or campaign

RESEARCH
- Consider a review board that would evaluate the merit of research agendas toward sustainability goals.

ER Credit 20: Research Inventory
- These inventories are hard to do and can take a lot of staff time at a big institution.
- Having some definitions would really be helpful.

ER Credit 22: Faculty Involved in Sustainability Research
- "Total number of faculty members" is a problematic term – does it include part-time faculty? Lecturers? Non-tenure track people?
- Needs to be in % or ratio.
- Sustainability research needs to be defined!
- Percentages are much, much too low 3 points should be awarded to 80% and more.

ER Credit 23: Departments Involved in Sustainability Research
- Suggest tighter scale here: 0-10% for one point, 11-25% for 2 pts, over 25% for 3 points.

ER Credit 24: Internal Funding for Research and ER Credit 25: External Funds for Research
- Percentages are too low.
- These should be kept as percentages and it should not be required to list actual dollar amounts.

ER Credit 26: Interdisciplinary Research
- Interdisciplinary research may or may not be a good indicator of sustainability research. What exactly does interdisciplinary research have to do with sustainability and furthering sustainability goals?
- It is highly variable and very difficult to track.

Common points made for "Operations Credits":
- All of these actions must be imparted to the students. If students are not made aware of green purchasing, LEED buildings, fair-trade coffee, etc., the culture of

sustainability is not trickling down to the future leaders of this planet. They don't just know things intuitively, we need to find venues for sharing and teaching, and not just through a website they may never visit or a committee or club they will never join. And there needs to be STARS credits for finding and implementing those means!

- USGBC suggests that AASHE indicate, within all relevant credits, where there is overlap with LEED prerequisites and credits. As identified by USGBC, some relevant credits are: OP Credit 3, OP Credit 4, OP Credit 5, OP Credit 9, OP Credit 10, OP Credit 11, OP Credit 13, and OP Credit 16. We believe that it is extremely important for AASHE to ensure that campus decision makers understand that by achieving LEED certification on their campus, they can also achieve all of the aforementioned and other STARS operations credits

OP Prerequisite 1: Recycling Program
- Need to define/differentiate compost, paper, plastic, glass, styrofoam, etc. – and assess compliance.
- Should consider waste diversion, reducing, reusing and composting besides inside/outside recycling bins some campuses haven't been able to start a glass-recycling program due to barriers concerning safety, cost and not viable option for glass recycling in the area.

OP Credit 1: New Construction, Renovations, and Commercial Interiors
- This credit should award more points for new construction that considers the location of the building
- Applying LEED certification is too expensive
- Are there other building rating systems that are similar to LEED that could also be included? LEED shouldn't be the only scorecard. We need to include other Green Building schemes including the State of Minnesota, NYC, etc
- Credits could be given to institutions raising awareness on LEED principles, and/or offering related training or educational programs.
- If you haven't built a building you can't get credits here. Shouldn't you get EXTRA credits for not building any buildings? No new buildings means no new emissions.

OP Credit 2: Building Operations and Maintenance
- Suggest giving more points for LEED‑EB buildings, since these pts are so hard to accomplish and represent so much institutional investment.
- The points jump from any portion of the institution's buildings (1 pt) to at least 10% (2 pts). It seems like there should be a different threshold for large campuses.

OP Credit 3: Potable Non-Irrigation Water Consumption Reduction
- What about including in this credit recognition for schools that are reusing rainwater on site or treating water on site for non‑irrigation water uses?
- OP3 is currently measured against 2000‑1. I would suggest it be 2000‑1 or most current year with available data. It may be difficult to track 2000 data down. There could be data problems generated with accurate data on irrigation versus non‑irrigation.

OP Credit 4: Green Cleaning Service
- Instead of meeting the certification criteria of "Green Seal", participants should be given an option to document their own innovative program. Many campuses are not 100% compliant so may need to give 1 if 25‑50% of cleaning products is GS certified and 2 if 75%.

Buildings: Tier Two Credits
- The list of Building: Tier 2 credits are weak. There could be a lot more there, especially in terms of process like preventative maintenance, control strategies, energy management program that optimizes a number of things.
- Consider stating more clearly what percentage of buildings would be enough to get the credit.

Common points made for "Dining Services":
- Missing point in rating college/university dining, i.e. organic/fair trade/MEAT/seafood certification (not sanctioned by Food Alliance and Organic Certified Food)
- No policy for regulating sustainable food products at colleges
- No accounting for minimizing food waste
- Doesn't take into account "Green Dining" or purchasing local food/produce

Common points made for "Energy and Climate":
- Some schools have a combined heat/power system that should be awarded a category of credit.
- Energy usage reduction isn't given enough points compared to other STARS categories
- Something of this magnitude should have a Portfolio Manager overseeing Energy Usage.
- Schools are in different climates - how do you take into account the fact that some schools need to heat/cool more than others? Maybe we should combine HDD + CDD for total usage.
- School's that increase efficiency at higher rates than others aren't compensated so in points in STARS
- Adding point/credit for Greenhouse Gas Emissions Inventory

Common points made for "Grounds":
- Add points for permaculture/native landscaping
- No monitoring of storm/rainwater drainage
- Have STARS add a pesticide/fertilize monitoring policy

Common points made for "Materials, Recycling, and Waste Minimization":
- Lots of discrepancies over what types of things should be included: coffee cups, production of universities' own biofuel, double-sided printing, requiring custodians to recycle as part of their contract.
- Should award more points for schools that reuse and renovate buildings rather than demolishing old ones entirely

- Document doesn't clarify what types of hazardous wastes are being monitored
- In terms of waste minimization, only gives credit for tracking and disposing waste, not reducing the amount of waste
- Food waste minimization and Composting should be higher priorities and isn't present in the Tier Two Credits in this category

Common points made for "Purchasing":
- Main complaint is that there is no way to give points/recognition for purchasing products that are also produced in a sustainable/environmentally-aware manner. I.e. with low shipping costs, manufacturing with minimal harm to the environment.
- Furniture purchasing - isn't necessarily specific enough with all the different types of furniture to include (carpeting, flooring, etc.)

Common points made for "Transportation":
- What if college/institution doesn't need students to commute to campus due to convenience of residence halls? Does that get sustainability credits?
- Different areas have different mass-transit systems than others.

Common points made for "Administration and Finance Credits":
- How do you judge private donations for sustainability? I.e. bigger research universities may be able to receive funding from large corporations while smaller schools can't obtain that funding...will that be used to judge points in STARS?
- Redefining Sustainability Committee to the likes of Sustainability Governance. Need professionals, high-levels of reporting, and voices from different campus groups. Don't need oversight, more like implementation and policy-making.

Common points made for "Investment":
- Schools should be accounted for all types of investment. There are lots of undisclosed types of investment not transparent to the student-body.
- More guidance on what are negative types of investment.

Common points made for "Planning":
- Master/Strategic Planning needs to be more well defined, as each school uses it's own terminology.
- Give credit to schools plans that are cohesive with the city's planning in which they reside
- Credit for schools that offer opportunities for staff/students to get involved in the sustainability process.

Common points made for "Sustainability Infrastructure":
- Need to take into account that some universities have more spending ability/larger budgets...maybe adjust credit proportionally based on school?
- Hard to measure the results of Inter-Campus Sustainability in terms of points.
- Emphasize colleges/universities that are geographically close in terms of doing more for sustainability versus universities that aren't in close proximity.

Common points made for "Community Relations and Partnerships":
- Student hour levels are very low (2 hours).
- Vague when STARS states it will give credit to students who do significant amount of community service in a time period. Need specific points for hours within a time frame.
- What about students that take part in volunteering with NGO's, PeaceCorps, or Americorps? How is that measured?

Common points made for "Diversity, Access, and Affordability":
- Diversity should be a prerequisite and doesn't necessarily deserve point values.

Common points made for "Human Resources":
- Very little legitimacy in terms of what is and isn't important in the human resources section.
- Points for wellness programs, drug and alcohol policies, and faculty/staff unions.
- Institutions that self-evaluate their sustainability on campus through surveys to students and staff should be accredited points for doing so. (Employer Satisfaction Survey)

Common points made for "Trademark Licensing":
- Should be going along with the globally recognized Fair Trade guidelines for points in STARS.
- Objections to inclusion of the Fair Labor Association in STARS.