VICE CHANCELLOR’S
SUSTAINABILITY ADVISORY
COMMITTEE MEETING

MAY 6, 2010
Sustainability Research Inventory Capstone
Elizabeth Blayney, Jena Collier, Allie Efland,
Kristen Fromal, Kelsie Grabert
AGENDA

Purpose & AASHE STARS

Research Methods

Findings/Results

Obstacles & UNC and Beyond

Next Steps & Recommendations
CAPSTONE ASSIGNMENT

- To compile an inventory of UNC sustainability related research
- Companion to 2009 curriculum inventory
- Benefits
  - Entire campus community
  - Aid and stimulate future research and collaborations
  - Provide feedback to AASHE STARS rating system

Purpose

AASHE STARS Research Challenges Next Steps Questions
CURRICULUM VS. RESEARCH

Curriculum Inventory
- Establish description of sustainability
- Which courses involve sustainability?
  - Undergraduate/Graduate bulletins, surveys, websites

Research Inventory
- Use of curriculum database
- Research databases, department websites, emails, surveys
- Ambiguity involving research and faculty designations
AASHE STARS Credits
Credit 15: Sustainability Research Identification

- Part 1: Sustainability Definition
- Part 2: Identify Research Initiatives
- Part 3: Make Inventory Public
What is Sustainability?

- Described by Spring 2009 capstone group
- Defined and approved by group of qualified faculty
- “Sustainability is an interdisciplinary field focusing on the dynamic relationship between the environment, economy, and society. Sustainable systems preserve and advance social equity, economic prosperity, and the healthy functioning of ecological systems now and in the future.”
SUSTAINABILITY RELATED RESEARCH CREDITS

Credit 16:
Faculty Involved in Sustainability Research

Enter values as indicated below to calculate points earned for this credit:
Points will be calculated automatically when data are entered in the STARS online reporting tool.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Multiply</th>
<th>Faculty Members Conducting Sustainability Research</th>
<th>Divide</th>
<th>Total Number of Faculty Members</th>
<th>Equals</th>
<th>Points Earned</th>
</tr>
</thead>
<tbody>
<tr>
<td>40</td>
<td>×</td>
<td></td>
<td>÷</td>
<td></td>
<td>=</td>
<td>(Up to 10 available)</td>
</tr>
</tbody>
</table>
Contact: Chris Eilers, Department of Institutional Research

2,650 Faculty members
- Academic and Research
- Assistant, Associate and Full Professors
- Adjunct Professors
- Lecturers
- Excluded Clinical Faculty
Credit 17: Departments Involved in Sustainability Research

Enter values as indicated below to calculate points earned for this credit:
Points will be calculated automatically when data are entered in the STARS online reporting tool.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Multiply</th>
<th>Departments that Conduct Sustainability Research</th>
<th>Divide</th>
<th>Total Number of Departments that Conduct Research</th>
<th>Equals</th>
<th>Points Earned</th>
<th>(Up to 6 available)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>×</td>
<td>_______</td>
<td>÷</td>
<td>_______</td>
<td>=</td>
<td>(Up to 6 available)</td>
<td></td>
</tr>
</tbody>
</table>
RESEARCH METHODS

How we collected names and research interests for our database.
Research Decision Diagram

Purpose

AASHE STARS

Research

Challenges

Next Steps

Questions
RAMSeS

- Search research proposals
  - Investigator
  - Sponsor
  - Department

- Returned proposals within a date range
  - Title
  - PI and supporting investigators
  - Funding: source/amount
  - Project status
  - Start/End dates
### Purpose

- AASHE STARS

### Research

- **Proposal Number**: 07-2202
  - **Title**: NRSA Brandon Aragona Fellow, Dopamine, accumbers signaling & classical conditioning
  - **PI**: Careyll, Regina
  - **Other Personnel**: Aragona, Brandon
  - **Award Admin Dept Ho**: 3258
  - **Award Admin Dept**: Psychology
  - **PI Home Dept Ho**: 3258
  - **PI Home Dept**: Psychology
  - **Sponsor Type**: Federal
  - **Sponsor**: National Institute on Drug Abuse

- **Proposal Number**: 07-2295
  - **Title**: Graduated Recovery Intervention for Early Schizophrenia
  - **PI**: Penn, David
  - **Other Personnel**: Perkins, Diana
  - **Award Admin Dept Ho**: 3258
  - **Award Admin Dept**: Psychology
  - **PI Home Dept Ho**: 3258
  - **PI Home Dept**: Psychology
  - **Sponsor Type**: Federal
  - **Sponsor**: National Institute of Mental Health-NIH

- **Proposal Number**: 07-2299
  - **Title**: Improving the Assessment of Juvenile Bipolar Spectrum Disorders
  - **PI**: Youngstrom, Eric
  - **Other Personnel**: Youngstrom, Jennifer
  - **Award Admin Dept Ho**: 3258
  - **Award Admin Dept**: Psychology
  - **PI Home Dept Ho**: 3258
  - **PI Home Dept**: Psychology
  - **Sponsor Type**: Federal
  - **Sponsor**: National Institute of Mental Health-NIH

- **Proposal Number**: 07-2304
  - **Title**: Dimethylribose and Fat...
Collaborative Research to Map Community Vulnerability and Resilience: Synthesizing Global Change Impacts in Alaska

This project will advance our understanding of how biophysical and socio-economic forces interact to produce community vulnerability over time and space. We will analyze climate projections in association with social indicators to identify patterns in community vulnerability across the State of Alaska. The Arctic is undergoing rapid and abrupt climate change causing disruptions in ecosystem services, weather patterns, and access to natural resources. At the same time, equally rapid and abrupt social change is disrupting human systems due to development, resource management, and dependency on fossil fuels. This combination of environmental and social change, which we call simply “global change,” seriously challenges the long-term sustainability of arctic communities – some of which have persisted for millennia. Some Alaskan villages have demonstrated remarkable resilience to these challenges while others have progressively declined or even disappeared over the last 50 years. Vulnerability characterizes the difficulty of a society to cope with and adapt to change.

Researcher: Colin West
Department: Anthropology
COLLEXIS

- Search by keyword, department, or investigator
- Database is not yet comprehensive, most health-related departments are updated
COLLEXIS CONTINUED...

- Details on research interests, devices used, publications, contact information, etc.
DEPARTMENT WEBSITES

- Used to check the current status of faculty, contact information
- Helpful for gaining an understanding of the scope of research in the field

Purpose
AASHE STARS
Research
Challenges
Next Steps
Questions
UNC’s Institute for the Environment Website

- Search engine of faculty working on environmental topics
  - Name
  - Department
  - Keyword
  - Topic
  - Region of study
- Links to personal or department website
I.E. WEBSITE CONTINUED...

Search by Name:

NOTE: you don't need to type the entire name, just a few letters. Example: Typing "Jo" will return Jones, Joseph, etc.

First Name: 
Last Name: 

Search

List all Environmental Faculty or click on a letter below:
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Search by Unit/Department:

--- No Department selected ---
Ackland Museum
Albemarle Ecological Field Site
Anthropology
Applied Mathematics Program

Select multiple by holding down the "Ctrl" key

Search

Search by Research Interest:

The Institute has assembled a database of faculty arranged by research interest. To view faculty associated with the following research interest, check the box next to the research interest and then click the "Submit" button. You may check as many boxes as you would like.
PERSONAL CONTACT AND SURVEYS

- Extended only when:
  - Searches and websites were exhausted AND
  - Information in Sustainability Database was missing for entry
- Emails, surveys, phone calls
PERSONAL CONTACT: SURVEYS

Which of the following faculty are involved or have been involved in sustainability research within the last THREE YEARS (with sustainability defined as: “an interdisciplinary field focusing on the dynamic relationship between the environment, economy, and society. Sustainable systems preserve and advance social equity, economic prosperity, and the healthy functioning of ecological systems now and in the future.”)?

- Joanne Hershfield
- Michele Tracy Berger
- Karen M. Booth
- E. Jane Burns
- Emily Susan Burrill
- Barbara J. Harris
- Tanya L. Shields
- Silvia Tomášková
- Annegret Fauser
- Other (please specify)
Professor ____,

My name is ________, and I am a part of an ENST capstone group at UNC working with Cindy Shea, Director of UNC’s Sustainability Office. The client for this project is the Vice Chancellor’s Sustainability Advisory Committee. We are using STARS (Sustainability Tracking Assessment and Rating System), offered by the Association for the Advancement of Sustainability in Higher Education (AASHE) — a nationwide program dedicated to assessing sustainability in institutions of higher education while providing tools and resources to help them become more sustainable. AASHE STARS involves reviewing all aspects of a university, from research and education to grounds and buildings.

My initial research has indicated it is likely you are conducting sustainability research. If this is the case, would you please provide the years between 2007-present that you have been conducting sustainability research? The information you provide will be entered into a database for others interested in sustainability research can query.

A group of UNC faculty has defined sustainability as “an interdisciplinary field focusing on the dynamic relationship between the environment, economy, and society. Sustainable systems preserve and advance social equity, economic prosperity, and the healthy functioning of ecological systems now and in the future.”

I appreciate your time and thank you in advance for your cooperation. I will gladly call you in a week if email is not your preferred method of communication.
SOURCES FOR DATABASE ENTRIES

- Collexis: 12.5%
- Department Websites: 5.2%
- Personal Contact: 3.8%
- RAMSeS: 1.4%
- IE Website: 77.0%

*Note: Some information gathered from more than one source*
RESEARCH DECISION DIAGRAM: REVIEW

Purpose
AASHE STARS
Research
Challenges
Next Steps
Questions
FINDINGS/RESULTS

Number of faculty included in the sustainability database and corresponding credits.

29
# Statistics for Departments in the College of Arts and Sciences

<table>
<thead>
<tr>
<th>Department</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American Studies</td>
<td>1</td>
</tr>
<tr>
<td>Anthropology</td>
<td>12</td>
</tr>
<tr>
<td>Biology</td>
<td>12</td>
</tr>
<tr>
<td>Biomedical Engineering</td>
<td>3</td>
</tr>
<tr>
<td>Chemistry</td>
<td>19</td>
</tr>
<tr>
<td>City and Regional Planning</td>
<td>17</td>
</tr>
<tr>
<td>Communication Studies</td>
<td>2</td>
</tr>
<tr>
<td>Computer Science</td>
<td>1</td>
</tr>
<tr>
<td>Economics</td>
<td>2</td>
</tr>
<tr>
<td>Geography</td>
<td>12</td>
</tr>
<tr>
<td>Geological Sciences</td>
<td>8</td>
</tr>
<tr>
<td>Islamic Studies</td>
<td>1</td>
</tr>
<tr>
<td>Marine Sciences</td>
<td>7</td>
</tr>
<tr>
<td>Mathematics</td>
<td>7</td>
</tr>
<tr>
<td>Pathology</td>
<td>1</td>
</tr>
<tr>
<td>Philosophy</td>
<td>1</td>
</tr>
<tr>
<td>Political Science</td>
<td>3</td>
</tr>
<tr>
<td>Public Policy</td>
<td>6</td>
</tr>
<tr>
<td>Physics</td>
<td>7</td>
</tr>
<tr>
<td>Romance Languages</td>
<td>1</td>
</tr>
<tr>
<td>Sociology</td>
<td>18</td>
</tr>
</tbody>
</table>

**Purpose**

**AASHE STARS**

**Research**

**Challenges**

**Next Steps**

**Questions**
### Statistics for Professional Schools and The Institute for the Environment

<table>
<thead>
<tr>
<th>School</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>School of Government</td>
<td>8</td>
</tr>
<tr>
<td>School of Information and Library Science</td>
<td>2</td>
</tr>
<tr>
<td>Institute for the Environment</td>
<td>9</td>
</tr>
<tr>
<td>Kenan-Flagler Business School</td>
<td>5</td>
</tr>
<tr>
<td>School of Medicine</td>
<td>30</td>
</tr>
<tr>
<td>School of Nursing</td>
<td>6</td>
</tr>
<tr>
<td>Gillings School of Public Health</td>
<td>67</td>
</tr>
<tr>
<td>School of Journalism and Mass Communication</td>
<td>3</td>
</tr>
<tr>
<td>School of Law</td>
<td>12</td>
</tr>
<tr>
<td>School of Social Work</td>
<td>6</td>
</tr>
<tr>
<td>School of Education</td>
<td>4</td>
</tr>
</tbody>
</table>
NUMBERS

- Faculty Conducting Research
  - College of Arts and Sciences: 136
  - Professional Schools and I.E.: 152
  - TOTAL: 288

- Total AASHE STAR Points Earned
  - 10.5 out of 19
NUMBERS

Distribution of Research at UNC

- Arts and Sciences
- Professional Schools

Percentage of AASHE STARS Credits

- UNC Points
- Uncaptured Points
Part One: Adopting a Definition of Sustainability Research
• Scoring: 1 point
• UNC Points Earned: 1 point

Part Two: Identifying Sustainability Research
• Scoring: 1 point
• UNC Points Earned: 1 point

Part Three: Makes Sustainability Research Inventory Publicly Available Online
• Scoring: 1 point
• UNC Points Earned: 1 point
CREDIT 16 RESULTS: 10 POINTS AVAILABLE

- **Factors for Scoring**
  - AASHE STARS Calculation Factor: 40
  - Faculty Members Conducting Sustainability Research: 288
  - Total Number of Faculty Members: 2,650

- Percent of Faculty Members Conducting Sustainability Research: 10.9%

- UNC Points Earned: 4.35 or 4 points
CREDIT 17 RESULTS: 6 POINTS AVAILABLE

- Factors for Scoring
  - AASHE STARS Calculation Factor: 8
  - Departments that Conduct Sustainability Research: 35
  - Total Number of Departments that Conduct Research: 81

- Percent of Departments that Conduct Sustainability Research: 43.2%

- UNC Points Earned: 3.45 or 3.5 points
**Organization of Database in Excel**

- **Documentation Sheet**
  - Creates user friendly database that is easy to navigate

- **Sorted By**
  - Department
  - Last name
  - Funding source
  - College of Arts and Sciences
  - Professional Schools
OBSTACLES

Problems encountered and overcome during the research process.
SEARCH PROCEDURE MODIFICATIONS

- Research Documentation
  - Variation among departments
  - Required modification of search procedure

- Ambiguities or language barriers
  - Led to further investigation

- Personal Contact
  - Department
  - Individual researcher
UNIVERSITY CONTACTS

- Utilization of contacts within UNC
  - Knowledge of research
  - Used to fill in gaps

- Communication and time restraints
  - Dependent on the college or university
  - Dependent on time and number of people
Undocumented Research

- Size and diversity of UNC faculty
  - Types of faculty
  - Professional schools + College of Arts and Sciences

- Research not documented
  - In databases or on department websites
  - Non-response to personal contact
UNC AND BEYOND

How our university can be compared to other colleges and universities.
Sustainability Related Research

Research Universities (UNC)
- Many professional schools
- Sustainability research dwarfed by clinical research
- Percentage small compared to Liberal Arts Colleges

Small College (Other)
- Most Sustainability related research occurs in Colleges of Arts and Sciences
- Easier to identify sustainability research
- Limited professional and clinical research
EXTERNAL FUNDING

- UNC-Chapel Hill Total: $716 Million

- School of Medicine: $349.6 Million (48.8%)

- Few School of Medicine faculty conduct sustainability research
RESEARCH TEAM

- **Students**
  - Split tasks increased rigor
  - Verify concerns about definition based on individual interpretation
  - Massive amount of time

- **Employee/Staff**
  - Over-counting research projects because of too soft a definition of sustainability
  - Glossing over distinctions > incorrect representation
NEXT STEPS

Recommendations for AASHE and spreadsheet development.
RECOMMENDATIONS TO AASHE

- Clearer AASHE guidelines and definitions
  - Who is “faculty”? What is sustainability related?
  - Decisions left to project managers: leads to inconsistencies

- Make project manageable for large institutions
  - Different sizes of faculty
  - Who is responsible for compiling the database?
Next Steps

Continue to develop sustainability research inventory through investigation of University resources

Post database on Sustainability Website

Enter data into AASHE STARS Reporting Tool
THANK YOU

- Cindy Shea, Director of UNC's Sustainability Office
- Elizabeth Shay, Research Associate and Lecturer at the Institute for the Environment
- Andy Johns, Associate Vice Chancellor of Operations
- Francinia McKeithan
AND THANK YOU!
Are there any questions at this time?