

ASSESSING GENERAL ATTITUDES TOWARDS SUSTAINABILITY POLICIES  
AMONG KEY STAKEHOLDERS IN HIGHER EDUCATION

A Thesis  
by  
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## **Abstract**

### **ASSESSING GENERAL ATTITUDES TOWARDS SUSTAINABILITY POLICIES AMONG KEY STAKEHOLDERS IN HIGHER EDUCATION**

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This study investigated, through the use of semi-structured interviews, the general attitudes and perceptions held by key stakeholders at Appalachian State University (AppState) towards sustainability policies. Key stakeholders were determined by their relationship to directives and initiatives stated in Appalachian State's Strategic Plan, a five year, overarching directional policy that includes an emphasis on sustainability. The Strategic Plan outlines many goals and includes evaluation metrics that are largely quantitative. This study aimed to balance this quantitative data with a qualitative investigation centered on the effective implementation of policy.

Individuals from two operational departments at the university were included in the sample, including administrative staff, middle management staff, and logistical staff from each unit. This sample of participants was complemented by a sample of faculty and academic administrators holding similar positions in across multiple academic departments. These samples provided for both an in-depth and a broader-reaching analysis of perception and attitudes at the university. Data analysis coincided with data collection, with interview questions and coding schemes being updated throughout data collection based on new information and developing themes.

Overall, faculty and staff expressed pride, ownership, and understanding of goals in many of the sustainability related initiatives on campus. One theme expressed was that these efforts were largely built upon momentum already in place within their respective departments, and were thus not initiated or driven by the Strategic Plan. In fact, the Strategic Plan represented more of a culmination of all these separate efforts and gave higher level administrators the mandate and backing to enact more change within their departments. This study also helped to identify current barriers to sustainability policy implementation at AppState, including concerns about cost/return on investment issues and student buy-in/acceptance of programs. The findings in this study will be used to inform the development of further studies of sustainability policy at AppState, such as the planned faculty and staff sustainability literacy assessment.

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## CHAPTER 1: INTRODUCTION

Evaluation of sustainability policies in regards to economic, environmental, and social factors in institutions of higher education is critical to not only determining success of ongoing initiatives but also to providing precedents for further programs to be developed. “Education for sustainable development currently enjoys huge momentum” (Kagawa, 2007, p. 317), but validation of initiatives and feedback loops will be necessary to further advance education for sustainable development and sustainability policy in higher education.

“Usually, [in higher education] sustainability indicators measure environmental rather than social or economic variables” (Velazquez, Munguia, & Sanchez, 2005, para. 25) In order for institutions to truly achieve sustainability goals, such as those outlined in Appalachian State University’s *2014-2019 Strategic Plan: Envisioning a Just and Sustainable Future* (Appalachian State University [ASU], 2014), multiple mechanisms will need to be used to provide rigorous and thorough evaluations. Additionally, validation measures for these policies should incorporate all three major facets of sustainability: environmental, social, and economic. General attitudes and perceptions of stakeholders towards sustainability policies should be included in such assessments as an indicator of how social dispositions may influence effective implementation of sustainability policy in higher education.

### **Statement of the Problem**

Appalachian State University (App State) needs to evaluate the effectiveness of its self-imposed sustainability goals, particularly as spelled out in the 2014-2019 Strategic Plan, which is the overarching university strategic planning policy (ASU, 2014). The Strategic Plan’s six directives have outlined the first layer of evaluation through tools such as longitudinal sustainability literacy assessments, greenhouse gas inventories, carbon net neutrality goals, the

Association for Advancement of Sustainability in Higher Education's (AASHE) Sustainability Tracking Assessment and Rating System (STARS), and waste reduction goals. However, these assessments do not necessarily provide the total picture of stakeholders' ability to apply the principles of sustainability (Kagawa, 2007). More to the point, things like strategic directives, sustainability targets, and evaluation mechanisms at universities do not necessarily evaluate how stakeholders interpret sustainability policies or their individual attitudes towards those policies (Stern, Dietz, Abel, Guagnano, & Kalof, 1999). Furthermore, current metrics do not fully investigate how these perceptions affect implementation of those sustainability policies (Stern, et al., 1999).

App State and other higher education institutions that have adopted similar goals need to include investigations of general attitudes and personal beliefs into evaluations of their sustainability policies in order to more fully understand the results of implementation, as well as to better craft policies that will motivate activism among stakeholders (Anderson, Shivarajan, & Blau, 2005). Although a number of frameworks and assessment tools are being researched and developed for determining perceptions and for evaluating curriculum learning outcomes of student populations at universities, a review of literature has shown that assessments of faculty, staff, and administrator attitudes and perceptions are lacking (Buckler & Creech, 2014; Dovers, 2005; Rowley, Lujan, & Dolence, 1997).

### **Purpose of the Study**

The goal of this research was to investigate the general attitudes and perceptions of a sample of key stakeholders regarding sustainability policies on the AppState campus. For purposes of this study, key stakeholders were faculty, staff, and administrators whose job responsibilities include crucial elements for implementation of larger university sustainability policies. These positions include, but are not limited to, facilities operators, department chairs,

program directors, student engagement officers, human resource managers, business affairs managers, and others. Through this study I hoped to determine the knowledge, attitudes, and perceptions of these key stakeholders about the Strategic Plan in order to inform effective implementation of sustainability policies.

In the 2014-2019 Strategic Plan, Appalachian State University has adopted high-level sustainability goals which have been translated into policies, initiatives, and programs. These policies will be evaluated by a variety of methods as described previously. A planned faculty and staff sustainability literacy assessment to be distributed by the AppState Office of Sustainability will investigate employees' attitudes, knowledge, and behaviors. My research had three aims: (a) to assist in preliminary development of the faculty and staff sustainability literacy assessment, (b) to complement findings from the faculty and staff sustainability literacy assessment, and (c) to delve deeper into understanding why attitudes are held and how perceptions are developed. Answering the "whys" of personal attitudes related to sustainability and identifying barriers to implementation of policy will contribute to current and on-going sustainability assessments at AppState.

### **Research Questions**

Two questions guided this research:

1. What are the general attitudes towards, and perceptions of, sustainability initiatives among key stakeholders at Appalachian State University?
2. How might these general attitudes influence implementation and/or evaluation of sustainability initiatives at AppState?

### **Limitations of the Study**

This research was carried out at a university whose primary planning document is sustainability-oriented and whose student population is known to be active in the environmental

movement. Student involvement in high-profile national academic competitions, quantified student engagement activities described in the STARS report (Association for Advancing Sustainability in Higher Education [AASHE], 2015), the resoundingly high approval by students supporting the renewable energy fee paid by students, and results from the 2015 student sustainability literacy survey all support the claim that AppState's student population is active and invested in environmental conservation and sustainability. The dynamic described between key stakeholders' general attitudes and subsequent policy execution at this campus would be hard to compare to other universities that lack an overt emphasis on sustainability in the language and evaluation metrics of their mission statements, or to universities that lack a student population active in the environmental movement.

Sample size was limited to individuals from selected organizational areas on the AppState campus who were considered to be key stakeholders among faculty, staff, and administrators. Individuals who were identified as playing critical roles in decision making and policy implementation or in carrying out these policies were targeted. In reality, all stakeholders play some role in the culture of sustainability on campus, and there are likely important interactions between different groups' perceptions. To build a full picture, all stakeholder groups' general attitudes would need to be assessed.

### **Significance of the Study**

The AppState Strategic Directives have clearly-defined quantitative validation metrics for sustainability curricula, energy consumption, sustainability literacy, and many other key indicators of sustainability progress. However, social factors and their relationship to sustainability policies are under-scrutinized in the directives. This research may provide insight into a possible connection between social attitudes and policy success, and also to an understanding of the elements that contribute to why attitudes are held. This study will help

inform the development of the faculty and staff sustainability literacy assessment that will further investigate faculty and staff knowledge, behaviors, and values on campus.

Developing a well-rounded understanding of the campus population and its relationship to sustainability policy will aid in policy design, implementation, and validation. Policy enforcement and follow-through has also been identified as crucial to successful implementation of sustainability initiatives (Velazquez et al., 2005). Studies like this are needed because higher education institutions should be crafting sustainability policies that can be implemented by stakeholders who hold a wide range of personal attitudes, much in the way multinational corporations craft operating policies to ensure effectiveness at all levels of the hierarchy (Anderson et al., 2005).

## CHAPTER 2: REVIEW OF LITERATURE

### **Institutional Culture and Commitment to Action**

The institutional culture within an organization can lay the foundations for success or can doom an organization to failure. Through exhaustive interviews, surveys, and case studies of businesses around the U.S., researchers Terrence Deal and Allan Kennedy identified elements of corporate culture and individuals who greatly contributed to an organization's success. Three major categories of indicators were developed: Values, Heroes, and Rites and Rituals (Deal & Kennedy, 1982). "A strong culture is a system of informal rules that spells out exactly how people are to behave most of the time" (Deal & Kennedy, 1982, p.15).

In further explaining these categories, Deal and Kennedy wrote "shared values form the fundamental character of [an] organization, the attitude that distinguishes them from all others" (Deal & Kennedy, 1982, p. 23). Values are often explicitly stated in corporate mission statements, university strategic plans, or other types of master plans, but they affect decision making by all employees. "Down-the-line managers make marginally better decisions, on average, because they are guided by their perception of shared values" (Deal & Kennedy, 1982, p.33). Assessing stakeholder buy-in to shared core values or an institutional mission is a key to determining organizational performance (Deal & Kennedy, 1982).

The sustainability movement is still emerging and defining itself. Lack of cohesive definitions and widely adopted frameworks have made comparative analysis of programs and organizational structures difficult. Assessing shared values of an organization can be critical since strong cultural values will influence individual behavior and judgments.

Deal and Kennedy also categorized corporate cultures into four types, with each having clear functional differences (Deal & Kennedy, 1982). These four categories are described in Table 1. Each culture type is determined by two qualifiers: high versus low risk, and fast versus slow feedback. Level of risk is determined by the degree of liability employees have on projects or decisions compared to liability held by the company/employer. Speed of feedback is determined by how quickly an employee knows whether a project has succeeded or whether a decision was the most appropriate one. For instance, most stock brokerage firms are classified as the “tough-guy/macho culture” because decisions made on buying or selling certain stocks could have serious financial repercussions for an employee, and often the decisions’ success or failure is known within a few days (Deal & Kennedy, 1982).

**Table 1.** *The Four Organizational Culture Types* (adapted from Deal & Kennedy, 1982)

	<b>High – Risk</b>	<b>Low - Risk</b>
<b>Fast Feedback</b>	Tough-Guy/Macho Culture	Work Hard/Play Hard Culture
<b>Slow Feedback</b>	Bet-Your-Company Culture	Process Culture

Each culture type has strengths and weaknesses and can be more effective in one situation than another. Most public institutions fall under the process culture, in which stakeholders rarely take on large risk and results of individual actions are often unseen or delayed (Deal & Kennedy, 1982). Categorizing the culture type at AppState will aid in understanding workplace dynamics and reasons behind the rate of change within the university. Defining culture type will help explain and quantify level of motivation toward action by stakeholders while determining whether this level of motivation is due more to workplace environment or to individual attitudes.

## **Sustainability Policy in Higher Education**

“Higher education initiatives that seek outcomes related to environmental sustainability are extremely diverse,” according to Shephard (2008, p.87). These initiatives may include making business decisions relating to energy conservation or recycling; leadership of, or influence on, local/national/international networks; implicit and explicit intentions to inform and influence groups to behave in a particular manner; and more (Shephard, 2008).

Sustainability-related programming and planning can range in scope from broad, overarching institutional vision statements to focused efforts such as divisional purchasing policies that give preference to low environmental impact products. The point is that, with such a breadth of topics, stakeholders, and sectors covered by sustainability initiatives, the assessment tools for these programs must be just as diverse and multi-layered.

The United Nations declared the years from 2005 to 2014 to be the Decade for Education of Sustainable Development (DESD). This shows, and emphasizes, a recognized relationship between academia and implementation of effective sustainability-related changes. Part of the mission statement for the DESD initiative reads: “This educational effort will encourage changes in behavior that will create a more sustainable future in terms of environmental integrity, economic viability and a just society for present and future generations” (United Nations Educational, Social and Cultural Organization [UNESCO], 2009, para. 1). The United Nations stipulated that UNESCO would head and be responsible for this initiative. Frameworks for implementation, development, system support, and evaluation were documented and set up and target regions and populations were identified (UNESCO, 2009). Three major evaluation dates were determined; the first two evaluation dates, 2007 and 2009, primarily focused on further data collection on this topic, with a third and final holistic evaluation date of 2014 (UNESCO, 2009). Further definition of the problem and demographics



on populations early in the DESD allowed for program revisions in the latter half. Among the 2007 and 2009 evaluation frameworks and reports was a list of 14 qualifiers for something to be considered an indicator of education for sustainable development. Two of the 14 are related to the organizational structure and attitudes, and are listed below:

Does the indicator address the carrying capacity of the community's human capital -- the skills, abilities, health and education of people in the community? Is the indicator understandable to and useable by its intended audience?  
(Sustainable Measures, 2010, para. 4 & 10)

As mentioned previously, a final report was published by UNESCO in 2014 outlining the accomplishments of the DESD as well as providing suggestions for future efforts (UNESCO, 2014). Of the four major categories describing the accomplishments of the umbrella program, one was "Importance of stakeholder engagement for ESD" (UNESCO, 2014, p. 6), providing further evidence of why evaluation of attitudes and perceptions of stakeholders is needed. A challenge listed in this same report is the need for more work in institutionalizing education for sustainable development, and argues that garnering more political support for education for sustainable development will aid in policy implementation (UNESCO, 2014, p. 8).

Other issues were explicitly identified by the evaluation framework, in hopes of providing context for the development of indicators (UN Decade for Education of Sustainable Development [UN DESD], 2005). Some of these concerns revolved around holistic implementation of policy in academia, with one stated concern being the "number of countries which promote/ address ESD through a whole-school or whole-institutional approach" (UN DESD, 2005, p. 20).

Non-profit organizations have developed around sustainability in higher education, including the Association for Advancement of Sustainability in Higher Education (AASHE).

Member institutions of AASHE receive standardized evaluation metrics, access to support networks, and discounts on annual conventions held by AASHE (AASHE, 2015). Policy development workshops are offered at the annual conference, and the Sustainability Tracking, Assessment, and Rating System (STARS) allows for information sharing on policy successes and policy documentation (AASHE, 2015). Now with over 700 reporting institutions, AASHE is not only helping to standardize evaluation of sustainability initiatives but is also aggregating data from participants to show a more complete picture of the sustainability landscape in higher education (AASHE, 2015).

### **Strategic Planning at Higher Education Institutions**

Strategic plans developed by universities aim to “better [align] the college or university with its environment” (Goldman & Salem, 2015, p. 4). The nature of education is changing with the information age, demographic shifts, and the global marketplace and thus the traditional planning methods used by education are no longer effective (Rowley, Lujan, & Dolence, 1997). Strategic planning techniques offer shorter iterations, higher granularity of goals, and specified action items, unlike mission statements, which tend to be vaguer or more general. “Specifically, strategic planning methods can help guide senior management, as well as empower middle management, while aligning their everyday activities to the institution’s broad aims” (Goldman & Salem, 2015, p. 1).

Rowley et al. (1997) explain the function of strategic planning more fully: “By delineating what is needed to fulfill the institution’s purpose and role, planning allows the institution to set short-term priorities and establish operational objectives that it believes will lead to desired achievements on a year-to-year basis” (p. 31). Successful planning in higher education must be custom-tailored to each university; although frameworks can be shared, the language, structure, and scope of goals must be decided upon through co-opting within the institution (Rowley et al.,

1997). Co-opting is the process of allowing all employees/stakeholders to contribute to the planning process in order to increase policy buy-in and acceptance (Rowley et al., 1997). Rowley and colleagues observed that, besides having a plan developed through co-opting, “the key for many is to find a niche, an anchoring point that reflects the college or university’s unique character” (Rowley et al., 1997, p. 26).

However, even having an adopted strategic plan is no guarantee of success (Rowley, 2001). “Less-than-stellar results are due at least in part to a lack of appreciation by [campus leaders and strategic planners] that strategic planning in colleges and university is significantly different from strategic planning in business” (Reis, 2001, para. 3). Because they typically have less defined goals than for-profit business ventures, a university’s use of strategic planning is rather more about the process, and about galvanizing stakeholders to contribute and be active (Ginsberg, 2011). “The plan is not a blueprint for the future. It is, instead, a management tool for the present” (Ginsberg, 2011, para. 13).

Shortcomings of strategic plans can come from both internal and external sources. The Rand Corporation’s proposed framework for strategic plan evaluation emphasizes the need to directly tie key performance indicators to strategic goals, as well as “ensuring that resources are aligned to the strategic plan” (Goldman & Salem, 2015, p. 9). Key performance indicators can include quantitative evaluations, such as greenhouse gas inventories, while other qualitative measures remain less developed. External pitfalls can come from an administration’s use of the strategic plan as a “substitute for action,” by causing the illusion of progress through a multitude of committees and meetings (Ginsberg, 2011). Another pitfall is new administrators using the strategic plan as a way to establish authority, to show staff and faculty that they have the “best” vision for the university (Ginsberg, 2011).

## **Appalachian State University's 2014-2019 Strategic Plan**

Every five years the Chancellor at AppState, along with the Board of Trustees, the University Planning and Priorities Council (UPCC), and others create a strategic plan that encompasses a university vision statement and strategic goals for university operations, academics, and policies at the university (ASU, 2014). This type of overall strategic plan is common among universities. The most recent iteration of AppState's strategic plan was released in 2014 by then Chancellor Kenneth Peacock. The overall university vision, according to the Strategic Plan, is stated as follows: "Inspired by the ideal of a sustainable community, we seek to deliver the Southeast's best comprehensive, progressive education" (ASU, 2014, p. 3). Through explicit directives and general guidance this umbrella policy has elicited or supported a great number of sustainability initiatives that were created or were already in place in order to meet the campus's sustainability goals and visions. These initiatives include Zero Waste Stadium, Carbon Neutrality by 2050, Local APPetite, Don't Throw it Away / The BIG Sale, composting operations, the Renewable Energy Initiative, establishment of a Sustainability Fellowship position, biodiesel production, and building automated control systems, among others.

It should be noted though, that many of these efforts were currently underway prior to development of the Strategic Plan. The Strategic Plan represented a culmination of many of these efforts and served as a high profile opportunity to reinforce sustainability as an institution-wide commitment. It helped to make the case for allocating resources to current initiatives and provided a mandate for further actions on the listed initiatives as well as on new projects.

The Strategic Plan not only acts as a mission statement but also outlines how progress will be measured. The current evaluation mechanisms listed in the Strategic Plan include STARS category goals for achievement scores, waste diversion goals, transportation goals, renewable

energy production goals, and student sustainability literacy rate improvement targets (ASU, 2014).

### **Assessment of Sustainability on Campuses**

With a wide variety of policy types, timelines, and scopes comes an equally diverse set of related impacts and evaluations. “Claiming effectiveness of [a sustainability] initiative is very difficult because [of] the lack of performance indicators” (Velazquez et al., 2005, p. 368). This literature review has revealed little agreement on indicators for general attitudes of university faculty or staff regarding sustainability. Most assessments and surveys reviewed focused on retention or understanding of sustainability concepts; many of these were adapted from the concept definitions laid out in questionnaires by Dawe, Jucker, and Martin (2005), which sought to establish a uniform language in sustainability curricula, rather than investigating perceptions and social stances. Sustainability literacy assessments and other survey-based assessments of selected populations often “focus on cognitive skills of knowledge rather than on affective outcomes of values, attitudes and behavior” (Shephard, 2008, p. 87).

AASHE STARS, which has been described above, has been increasingly adopted by North Carolina universities and the UNC System because of its all-encompassing scope and detailed reporting system. This adoption of a common rating system has allowed for better information and program sharing between schools in the UNC system and promotes best practice adoption by participants. It has also allowed progress to be tracked at a much more granular level with quantitative data whose sources are revealed, and with reports being submitted between every one to three years. STARS also provides a competitive avenue for schools with higher-than-normal scores, which can be used for recruitment purposes. STARS can also help schools identify areas that need improvement in sustainability aspects.

## Sustainability Assessment Tools and Methods

Sustainability assessment on campus has been driven by external commitments from the university towards collaborative goals as well as by internally imposed goals and deadlines. External commitments, like the American College and University Presidents' Climate Commitment (ACUPCC)<sup>1</sup>, are national registries and reporting frameworks that our Chancellors have signed onto along with hundreds of other colleges (Second Nature, 2015). These external commitments hold no monetary incentives and result in no fines if goals are not met, but rather encourage participation through collaborative events and communication. These external commitments also do little to help with development of on-campus programming and implementation plans.

On the other hand, internal commitments, goals, and deadlines are largely set in response to the external commitments of which universities are signatories. An example is Appalachian's "Climate Action Plan" (CAP), which was developed in response to our commitments to the ACUPCC and Second Nature. The CAP lays out intermediate deadlines, greenhouse gas emission goals, and implementation details for initiatives to accomplish these goals (Appalachian State University, Office of Sustainability, 2010). Currently, AppState is in the second of three phases of its CAP, called "The Foreseeable Tomorrow," which focuses on infrastructure upgrades, fuel mix, and cultural/behavioral change (Appalachian State University, Office of Sustainability, 2010, p. 4).

The internal commitments have become responsibilities of a mix of groups, from assigned departments to volunteered faculty and staff. Carrying out assessment and evaluation methods often involves collaboration between groups. Reporting data are often held by

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<sup>1</sup> In 2015, the ACUPCC largely dissolved and was replaced by almost identical commitments through a program known as "Second Nature."

departments such as the Physical Plant, Institutional Research Assessment and Planning, Human Resources, and student engagement offices (e.g., Appalachian and the Community Together [ACT]; Center for Student Involvement and Learning [CSIL]; and the Greek Life Offices), whereas the data are collected, compiled, and analyzed by individual faculty and staff who have been tasked with or who have volunteered to take on these responsibilities. Largely, evaluation metrics set by the university are not explicitly built into position responsibilities.

However, some commitment evaluation responsibilities have been more explicitly laid out and backed by state offices such as the North Carolina State Energy Office and the Utility Savings Initiative (USI). These energy audits are required to be reported yearly; to track energy and fuel consumption, and translate overall fuel use to carbon emissions; and are explicitly made a responsibility of an on-campus department, the Physical Plant (NC Department of Environmental Quality, 2015).

### **Faculty and Staff Sustainability Assessments**

One of the mechanisms for evaluation in the Strategic Directives is a sustainability literacy survey of faculty and staff at AppState. This survey is expected to be conducted annually and is explicitly outlined in the directives as a metric for evaluation. The faculty and staff sustainability literacy survey is in a questionnaire format with Likert-scale responses. Questions are designed to uncover levels of understanding of various sustainability topics including social justice, environmental conservation, and economic stability. Portions of the sustainability literacy survey ask participants if they identify with certain sustainability-associated values that are explicitly posed in the question. Other questions get participants to describe the type and frequency of behaviors associated with sustainability in which they engage. The faculty and staff literacy assessment should provide measures of sustainability knowledge and insights into common values and actions taken by employees. The findings of this study may help to inform

the selection of appropriate questions and identify areas needing further investigation by the faculty and staff sustainability literacy assessment.

### **Other Metrics Used to Measure Sustainability**

Similar, and much more in-depth, studies have been conducted like this one. For example, an investigation by Stacy Schmauss on the impact of stakeholder values, perceptions, and behaviors on sustainability initiatives in higher education was conducted by an AppState doctoral student (Schmauss, 2015). This study looked at holistic integration of sustainability into campus operations, curricula, and staff understanding at multiple higher education institutions other than Appalachian State University (Schmauss, 2015). Using both quantitative and qualitative analysis methods, Schmauss looked at knowledge ownership, resource allocation, and general attitudes held by a wide range of stakeholders (Schmauss, 2015). Some of the questions posed in this study into general attitudes and perceptions were built off of findings by Schmauss.



## CHAPTER 3: RESEARCH METHODOLOGY

This research was a qualitative study that employed semi-structured interviews with key stakeholders on AppState's campus to investigate sustainability perceptions and personal attitudes. It was designed to complement current and ongoing sustainability literacy assessments of faculty and staff, and to build upon other sustainability policy assessment metrics outlined in the Strategic Directives.

Qualitative data analysis of stakeholder interviews and results from the sustainability literacy faculty and staff survey will provide for a number and stories approach (Creswell, 2012,) to understanding general attitudes related to sustainability at this institution. Initial coding schemes for qualitative data analysis were developed based on a literature review of indicators of effective policy and barriers to implementation of policy.

### **Data Collection: Stakeholder Interviews**

Qualitative studies are iterative, progressive, and recursive (Seidel, 1998). Initial interview questions were developed from questions to be included in the faculty and staff sustainability literacy survey as well as from questions that were derived from the literature review of faculty and staff assessment tools used at other universities that were designed to get participants to self-describe attitudes. Interview questions and coding schemes were re-designed throughout the process as data were simultaneously collected and analyzed.

Using a semi-structured interview format (see Appendix A) allowed participants to direct the dialogue to some extent, with the goal of encouraging respondents to self-identify their general attitudes and perceptions of sustainability policies on campus without influence from (or access to) supportive diction. However, sub-questions were identified and prepared for each group within the sample to draw out, when necessary, more detailed comments by asking about

specific sustainability initiatives that were known to be the responsibility of each given group. These sub-questions were only used as prompts when a participant did not self-describe a sustainability initiative in their department or gave very short answers to a primary question.

This qualitative study was conducted over the academic semesters of Fall 2015 and Spring 2016 and served as a precursor to the faculty and staff sustainability literacy assessment. Interviews were conducted individually, and were audio recorded and then transcribed. The data collection protocol, including interview questions and sampling strategy, received approval from App State's Internal Review Board. The protocol specified that interviews were to be conducted on a confidential basis with no participant's name, department, or other identifying information being used. Quotes that were used were scrubbed to ensure details, and initiatives mentioned, could not be used to figure out the identity of the participant. Participants were initially contacted by email or by phone, and were allowed to determine the location of the interview, with the option to meet at an off-campus location or over the phone. This was done to ensure the participants could choose a setting where they could feel free from pressure or oversight from their supervisors or colleagues.

### **Research Sample**

The sample focused on "key stakeholders" because these are members of the institution who influence critical operational mechanisms of the university. Key stakeholders in the administration, faculty, and staff were identified and interviewed as the purposeful sample for this study. Criteria to be qualified as a key stakeholder within this study consisted of being a responsible party for an explicit sustainability metric or being a party included in data collection for metrics outlined in the Strategic Plan's six strategic directives. Further key stakeholders were identified through snowball sampling, which involved asking each participant to identify other potential participants, but were subject to the same qualification criteria. The sample was

restricted to current and active members of the AppState community. The target sample size was between 25 and 30 participants, but ultimately the sample included 20 individuals due to scheduling and time constraints of stakeholders. Two vertical samples and one horizontal sample were taken from within AppState's organizational structure. Vertical samples were used to examine whether and how general attitudes changed within a departmental structure, while the horizontal sample was used to indicate the range of varying attitudes held by individuals in comparable position across departments within the organization.

For the vertical samples, key stakeholders from two departments at AppState were targeted because of the known relationship each department has with goals and metrics described by the 2014-2019 Strategic Plan. These two departments play functional roles on campus and are receipt funded. Sampling in each department was approached in a top-down format, whereby stakeholders in director and administrative roles were interviewed first to further guide interview questions and to help identify other key stakeholders within each department.

For the horizontal sample, program directors and program coordinators were targeted. Across academic departments these key stakeholders hold similar job responsibilities and consist entirely of individuals drawn from the faculty ranks and now holding administrative titles. This sample was selected to examine the range of attitudes held by stakeholders with similar directives and levels of authority in implementation of campus policies.

### **Data Analysis Procedures**

The guiding principles of qualitative data analysis, which include noticing, collecting, and thinking (Seidel, 1998), were used simultaneously throughout all portions of data analysis. As patterns and frequencies emerged from coding of responses, phenomena and themes were

individually scrutinized and cross-compared to revise coding schemes. Interview transcripts were subject to multiple rounds of coding and analysis as themes emerged.

The Critical Discourse Analysis (CDA) approach (Seidel, 1998) was taken to interpret dialogue recorded during sampling and to draw conclusions about general attitudes and their effects on implementation of sustainability policies at AppState. The CDA approach takes a constructivist perspective, which assumes that one's values are derived from the environment as well as from individual experiences. Using this perspective, and having a focus on three categories of interview coding (word frequency, indicators of general attitudes, and explicitly stated perceptions), allowed conclusions and connections between general attitudes and sustainability policies to be described.

CDA is accomplished through active data compilation, inductive coding, and analysis conducted during data collection and beyond. This approach helped to identify and verify themes that emerged as the study proceeded. Data analysis involved coding of dialogue for word frequency, stated positive and negative perceptions of sustainability policy and initiatives at AppState, stated sustainability actions in life or job, and explicitly stated attitudes and perceptions. As a working model for organizing the qualitative data, a series of spreadsheets was developed to assist with identifying themes and then cataloging the extent to which these themes were reinforced through statements made by participants. These tools are shown in Appendix B and are explained in further detail in Chapters 4 and 5. Readers are cautioned not to over-interpret the numerical schemes shown in these spreadsheets, however. They provide evidence of the frequency with which trends and themes were identified, but should not be viewed as statistical analyses of the data.

## CHAPTER 4: FINDINGS

This study was guided by two research questions, the first of which was: What are the general attitudes towards, and perceptions of, sustainability initiatives among key stakeholders at Appalachian State University? Analyzing interview data from the sample of 20 individual participants representing administrators, faculty, and staff from multiple departments/units at AppState revealed both common attitudes held among all stakeholders sampled as well as some divergent perceptions.

The analysis tool developed to organize the data (seen in Appendix B) was comprised of four major categories, each with multiple themes. The four major categories were values, behaviors, attitudes, and culture. The attitudes category held the bulk of themes investigated. Chapters 4 and 5 of this study discuss major trends while pulling themes and examples from the values, behaviors, and attitudes categories simultaneously, and using the culture identified as a lens for understanding participant comments. Explicit statements by participants were used to tally “scores” for each theme listed. Some themes were drawn from the literature review, while others, such as “I am given the tools I need to do the job,” emerged as interviews were conducted, requiring subsequent interviews to be re-coded.

Sixteen of twenty stakeholders reported feeling that their job was related to the implementation of sustainability efforts on campus, although only eleven stated that their job was directly linked to the Strategic Plan. Recall that all stakeholders were chosen because they did have job functions that linked them to goals or evaluation metrics in the Strategic Plan.

Twelve of the key stakeholders interviewed felt that the Strategic Plan’s sustainability-oriented goals were the most appropriate direction for the university at this time. However, only nine of the twelve explicitly stated how their job responsibilities aligned with directives in this plan or initiatives that were developed from it. This discrepancy is inverse to the findings of

Goldman and Salem (2015) and Ginsberg (2011), who noted that strategic plans act more as present-day management tools rather than outlining a vision of the future at universities. The findings at AppState suggest that the Strategic Plan serves more of a visionary function.

### **General Attitudes and Perceptions**

Twelve stakeholders expressed positive opinions about the integration of sustainability goals with their own departmental goals, with more participants reporting feeling proud of their sustainability efforts (ten participants) than burdened by the additional work and responsibilities now required of them (seven participants). “When I talk to peers, at other schools, they think we are doing a real good job...people are noticing” said one participant. Only two participants explicitly stated views that the overall direction of sustainability policy was inappropriate for all departments and aspects of App State’s campus, or that its goals weren’t properly integrated with departmental policy. Over half of the participants explicitly stated views that the Strategic Plan’s inclusion of sustainability as a focal point was a good direction for the university. The remaining participants made comments that that did not explicitly link sustainability initiatives with the Strategic Plan. This point of view was illustrated in the comment, “I think [sustainability] is a good direction, we just need to make sure the changes we are proposing are realistic for all departments.”

Divergent opinions on the focus towards sustainability in the Strategic Plan emerged, but mainly existed among project manager/director level staff. Comments such as, “I have concern about where we are going with [sustainability as the primary focus of the Strategic Plan]” and “I don’t think [the Strategic Plan] changed our direction at all, App has always been focused on sustainability” illustrate these differing views. The latter comment also reflects Rowley and Sherman’s findings that strategic plans act to better align universities with the environment already present at the university (2001). The only strong dissenter who voiced objections to a

sustainability-oriented Strategic Plan was a faculty member responsible for curriculum development and program management within a college.

The second research question posed in this study was: How might these general attitudes influence implementation and/or evaluation of sustainability initiatives at App State? Overall, there appeared to be a feeling of pride and personal ownership for many of the sustainability initiatives investigated. In some cases, implementing initiatives required a lot of research, particularly around procurement, before decision making by stakeholders. Having a feeling of ownership over the initiatives led the staff and faculty to follow through with the appropriate amount of research and investigation into vendors, which contributed to the outcome of said initiatives. One administrator participant said “We are making good faith efforts in [sustainability], it’s costing us money, and we are trying new products that we think are making a difference.” The same participant also stated, “We are constantly trying, and failing, at doing new things towards [sustainability], and about the time I go out and brag about a certain thing, we find out it didn’t work.”

### **Influence of AppState’s 2014-2019 Strategic Plan**

Stakeholders interviewed expressed varying levels of connection to the Strategic Plan, and stakeholders who held administrative or managerial level roles felt as though the 2014-2019 Strategic Plan helped support and enforce already ongoing efforts in sustainability. One participant stated: “Because of the strategic plan, the cost element of projects was not looked at as much, it was more about our carbon footprint and other things,” suggesting there was more administrative support for programs with less favorable returns on investment but that offered other advances in the school’s sustainability goals. Another participant spoke to this aspect more generally: “[The Strategic Plan] has given us the ability to do more in sustainability.”

Eleven stakeholders expressed views that the spirit of sustainability and intent of individual initiatives outweighed the influence of the Strategic Plan and metrics outlined in the Strategic Directives. One participant spoke to the feeling of ownership and integration of sustainability as adding value to their job: “Like I said, we’ve been doing [sustainability] before it was convenient or popular to do that. It has always been part of our daily routine.”

Administrator level participants, in particular, believed that the Strategic Plan was both a reflection, and a culmination, of many departments’ already on-going efforts in sustainability. Four of the five administrative stakeholders interviewed felt that the spirit of sustainability was stronger and more influential than the Strategic Plan or any particular initiative. On the other hand, one participant who grew up near Appalachian and now works for the university said, “I feel like we are taking these efforts more seriously now.”

### **Motivation Towards Action**

Three fourths of participants interviewed felt called upon to take action on their own toward the goals described in the Strategic Plan, as opposed to just being directed by supervisors or of only following explicit job responsibilities and functions. This feeling is epitomized by this quote from one such participant: “Sometimes you have to make leaps of faith, maybe not so many in one year, but you have to make them.” This quote also reflects that particular participant’s frustration with the perceived rate of change, a barrier that will be discussed in the next section. Participants also seemed to be looking for ways to contribute to the sustainability of campus through actions that were not explicitly directed: “We don’t just look at the big stuff, we look at everything.” These same participants believed that they were making a noticeable impact in their department and on campus. “We’ve done a complete turnaround on how we think about what we are throwing away.” Alternatively, one participant felt as though all that



could be done toward sustainability at AppState has been done, for their department: “We’ve reached a little bit of a plateau [in regards to certain sustainability related projects].”

Counterbalancing this motivation toward action, however, is an expressed feeling by two of the stakeholders that these efforts go largely unnoticed or that their significance is unappreciated. The quotes, “There is a large part of the campus community that doesn’t care or notice [sustainability initiatives]” and “60% [of students] don’t even pay attention, and 40% pay attention and care deeply about [sustainability efforts by my department,]” best exemplify these feelings of frustration. One participant expressed that when they do get student feedback it is very motivational to them and their staff: “Getting feedback from students is very important, it helps reinforce why we took on these cumbersome changes.”

### **Educating and Engaging Students**

There was a sense of responsibility to the students among staff members that emerged during interviews, more so than to supervisors and campus administrators. Staff members were quick to talk about their jobs’ relationship to the student community. Half of them felt as though part of their job is to help educate students about more sustainable lifestyles and habits. All the administrators interviewed provided at least one example of a sustainability project or initiative for which a student, or student group, had either provided valuable feedback or directly helped in implementation. In fact, the word “students” was the most often used word during all interviews. More than one of the stakeholders interviewed observed that initiatives were not begun due to directives in the Strategic Plan, but from student demands or wants.

One quote by a staff member best exemplifies this feeling of a need to educate students: “It would be real easy for us to do it, just to say we are being sustainable. Obviously, there is more to it than that. We are going to educate our students, we are going to teach them to do the right thing.” Although seven of the fourteen staff members interviewed viewed part of their job

responsibilities as educating students about sustainability, five of the total twenty participants expressed student buy-in (or lack thereof) as a major barrier to success in multiple initiatives.

### **Barriers to Implementing Sustainability Policy**

The review of literature on successful policies in sustainability at higher education institutions revealed a lack of cohesive indicators or standards for evaluating success. Instead, the literature showed that identification of barriers to policy implementation was largely the approach being taken. Identifying barriers helps administrators to avoid pitfalls, to better target resources, and to anticipate certain problems with policy implementation. The barriers revealed by this study were (listed in order of prevalence): cost/financial prioritization, staff training/knowledge, student buy-in, time, vendor knowledge, and rate of change.

Not surprisingly in today's constrained budget climate, cost and financial prioritization were the most common barriers identified. Financial prioritization refers to resource allocation decisions where sustainability goals might be sidelined as funding is diverted to support other goals, and for our purposes can be grouped with the cost/lack-of-funding barrier. One participant said, "There is not enough resources to do everything we would like to do." This barrier can also be seen in AppState's AASHE STARS report, where AppState typically scores higher on credits that require minimal or no capital to implement.

Interestingly, one explicitly stated barrier was student buy-in (or, more specifically, lack of student buy-in). "Then [after cost] the issue becomes, do students care?" stated one participant. Another participant suggested that the role of student groups on campus should be peer education about sustainability and that such activities would help university employees to implement their own departmental project and initiatives.

One of the functional departments interviewed had two different staff members express vendor knowledge as a barrier to implementing sustainability policies on campus. They had

conducted their own research and knew which products were more “eco-friendly”, however when they approached vendors about their preferred product choices the vendor didn’t carry those specific product lines. Further complicating this situation is that AppState is bound to “State Contracts”. Since AppState is a public entity often they are required to purchase from only one or a set of vendors for a particular set of products, limiting their ability to choose environmentally friendly products even when AppState staff are properly trained and knowledgeable.

Two additional barriers emerged. Although staff training and knowledge was the second most-cited barrier, nine out of the twenty participants also felt as though they had been given support from other departments (particularly the Office of Sustainability at AppState) for enacting of and training in implementation of sustainability initiatives that affected them.

Another interesting aspect to call out is the “rate of change” barrier. One participant stated that the rate of policy change and programming was far too fast for them to keep up with demands by administrators and supervisors, while another participants expressed frustrations that the rate of change was so slow that, “I’ll never be able to hit the goals we’ve setup for ourselves.”

## CHAPTER 5: DISCUSSION AND CONCLUSIONS

Sustainability as a focal point of AppState's Strategic Plan has encouraged extra motivation for already ongoing sustainability initiatives on campus by giving the administrative backing and by creating an avenue for the argument that "it's not all about the financial cost." Project managers can now more confidently use aspects such as carbon reduction, student out-of-the-classroom education, and whole campus image as key selling points of a project to supervisors and administrators. It was noted, however, that the Strategic Plan is more of a culmination of these attitudes and perceptions rather than representing a new or different set of values and goals for the university. Almost all of the stakeholders interviewed were raised within the region, and attributed their commitment to sustainability values, behaviors, and personal actions to their upbringing or to expressed student wants.

This study also shows the need for qualitative evaluation of barriers to implementation of sustainability initiatives at the university, to not only complement quantitative metrics being used in evaluation but also to help in the continued implementation of programs. Although identification of barriers doesn't necessarily lay out solutions to implementation concerns on campus, it can help to guide decisions about where resources should be applied and where efforts should be focused.

### **An Embedded Commitment to Sustainability**

It's clear that most participants in this study hold a deeper commitment to the goals of sustainability and that this preceded adoption of the University's Strategic Plan. Ninety percent of participants described actions they practice at home that are reflective of sustainability behaviors. These included growing their own vegetables, making household energy efficiency upgrades, and carpooling to work. This evidence supports that idea that the Strategic Plan did

not act to spur sustainability oriented behavior and values from the Appalachian community but acted to reinforce a culture of sustainability. Deal and Kennedy (1982) found that down-the-line managers and employees tend to make marginally better decisions and judgement. When you combine this finding with my own of a community of engaged employees with prior personal sustainability knowledge, we see an atmosphere where faculty and staff are well positioned to implement sustainability initiatives. Further evidence to support this comes from App State's relatively high scores on the AASHE STARS report.

The desire and commitment expressed by staff members to educate students about sustainable lifestyles and habits comes from the deep sense of local community and shows that App State is truly an institution that seeks to help students become more well-rounded individuals or, as expressed in the Strategic Plan: "engaged global citizens who understand their responsibilities in creating a sustainable future for all" (ASU, 2014, p. 2). This feeling was even present among staff members who share very little face-to-face interaction time with students but who play key roles in operational and functional units on campus. App State shows evidence of a campus built on the values of all its stakeholders, who themselves hold sustainability as a core value.

### **A Process Culture**

Using Deal and Kennedy's (1982) classification of organizational culture (detailed in Chapter 2), a "Process Culture" is apparent at App State, with three-fourths of participants acting as employees within a process culture would. Actions within a process culture are characterized by being both low-risk and providing slow feedback. Project/initiative validation at AppState often takes up to a semester or even years, with risk typically being small and incremental. For example, the low-impact dining initiative was planned over a period of several months. It involved placing napkin holders on the cafeteria tables rather than having Food

Services staff put a handful of napkins into each to-go bag. This initiative aimed to reduce the amount of unnecessary waste paper and required no additional initial capital cost. However, there were other situations mentioned by two participants in which they directly had to take high levels of risk as a result of goals in the Strategic Plan, illustrating the “Macho-Man” and “Bet-Your-Company” type cultures. These risks were centered around monetary investments on sustainability-related products or technologies. Interestingly, the participant who exemplified the Bet-Your-Company type culture was a member of the logistical staff interviewed, someone whose job responsibilities typically required few decision making aspects and who had little relationship to, or say in, departmental policy and university directional policy.

There was a wide range of attitudes expressed toward the rate of change on campus. Some participants very much felt as though they were being pressured into adoption of new programs or technologies too quickly and before these programs and technologies have been proven to work at other universities. One participant stated this feeling, saying: “When is the right time to go with a project? Have we tested it? Do we know it works?” Others expressed discontent with the slow-moving bureaucracy and would call out other departments for not being as progressive as their own. One participant even stated that they thought other departments should be investigated on sustainability actions and compliance with policy: “I think there needs to be an audit within departments.”

### **Suggestions for Faculty & Staff Survey**

One of the goals of this study was to aid in the development of a faculty and staff sustainability literacy survey. Investigation into faculty and staff attitudes and perceptions of policy revealed a strong sense of ownership toward initiatives and also a feeling of accomplishment with the recent success of many of these initiatives. Many felt as though their own department was greatly contributing to the goals of the Strategic Plan but questioned other

departments' efforts. Further investigation by the survey into this tension between departments and operational units could reveal opportunities for interdepartmental collaboration or competition. If every department feels as though they are at the forefront of the sustainability movement at AppState, perhaps an informal ranking or auditing system could be created to show who is making the largest strides in sustainability. This might encourage lower-scoring departments to look for other less explicitly defined actions in sustainability, or to reach out for help from supporting offices or from App State's Sustainability Council. This might also provide information helpful in determining how resources to support sustainability efforts on campus should be allocated.

Some faculty interviewed felt as though the inclusion of sustainability-related courses into the curriculum was less appropriate for some majors and disciplines. Investigation into why this opinion is held and what disciplines faculty feel are most appropriate for further inclusion of sustainability into the curriculum could help to guide and focus support efforts by the Office of Sustainability. This information could be used to identify which departments faculty think should be working on inclusion of sustainability into the curriculum, thus focusing the Office of Sustainability's education efforts on a few departments to create a small set of heavily sustainability oriented majors. Likewise, this information could also be used by the Office of Sustainability to focus education efforts and resources on bringing departments that feel as though they shouldn't be included in sustainability curriculum development into the fold.

Staff members expressed that a large barrier to implementing initiatives was student buy-in and acceptance, which might help to explain the need to educate and engage students that was expressed by several participants. One participant suggested the focus of student groups should be toward peer education about sustainability and sustainability initiatives on campus. The faculty and staff survey could better define this opinion and gain specifics into how this might be

achieved, and which sustainability initiatives most strongly require this cooperation with the student community. This could even give grounds for creation of a new student group focused on peer education, or give grounds for increased resources for already available campus engagement offices such as Appalachian and the Community Together (ACT).

### **Conclusions**

This study has helped to create a better-rounded picture of the implementation of sustainability policies, initiatives, and efforts on AppState's campus. The picture that has emerged is one of broad acceptance of the sustainability goals outlined in AppState's Strategic Plan, with an acknowledgement that the commitment to sustainability on campus was in place well before adoption of the Strategic Plan, which has mainly served to formalize the institution's commitment to sustainability. In helping to identify self-asserted barriers to implementation, and to gauge attitudes and perceptions of this overarching directional policy at the university, this study provides another tool for evaluation of success. Buy-in from key stakeholders is crucial for effective deployment of the Strategic Plan, and participants in this study largely were receptive and proactive towards its goals.

In order to use the upcoming faculty and staff sustainability survey to its fullest potential, an interview format like the one used in this study could be used as a follow up. It could help to clarify faculty and staff needs, provide suggestions for future policy, focus and guide support and training efforts for policy implementation, and provide insight into inter-departmental issues. These evaluations of attitudes and perceptions can provide early warnings of unsuccessful implementation of initiatives and can help to create an avenue for collaboration between upper level administration and middle management staff at the university.



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## APPENDIX A

### Semi-Structured Interview Questions

1. How long have you worked for AppState, describe your job.
2. Have you participated in any of the recent discussions about AppState's Strategic Plan? Do you feel that your job has been, or will be, affected by the strategic plan that was adopted last year?
3. What changes, if any, have occurred [on campus, in your dept., in your job] that you think are a result of the new strategic plan? What changes are due to other sustainability policies or initiatives?
4. Has your job been affected by the said initiatives? [In what way? What new responsibilities or specific actions do you have?]
5. In your view, have there been any negative outcomes from these added/changed responsibilities?  
To you or your staff?
6. In your view, what are the positive outcomes from these changes?  
To you or your staff?
7. Do you think these added/changed responsibilities will help reduce the environmental impact/footprint of your department?
8. What barriers are there to you performing sustainability-related functions or responsibilities on the job?
9. In your everyday life, outside of work, how important is sustainability? What kinds of efforts do you make, if any, to live in a more sustainable way?  
Ex. Eating habits, consumption reduction, alternative transportation, community service, grow food.

10. Do you think with the recent sustainability initiatives in your department, or that your area of work, is contributing in a meaningful way to the larger sustainability efforts on campus?
11. Has involvement with these initiatives in your workplace changed how you feel about your job? [In other words, has your job become better or worse as a result of these initiatives?]
12. What efforts would you like to see made in the future regarding sustainability on AppState's campus? If you could give advice to campus planners about campus sustainability, what recommendations would you give?

APPENDIX B

Data Analysis Organizational Models

Values

Participant Identifier	Functional Group Job Type	Values			
		Sustainability is the right direction for ASU	Sustainability should be a whole-institution commitment	The spirit of sustainability is more important than policy	Part of my job includes educating students about sustainability
A1	Administrative	0		2	1
A2	Administrative	0		3	2
A3	Administrative	1	1	1	1
A4	Project Manager	1		2	
B5	Project Manager	0	2	2	2
B6	Logistical	1			
B7	Project Manager	1	1	1	2
B8	Project Manager	1	1	1	2
B9	Logistical	1			
B10	Project Manager	1	1		
C11	Project Manager	-1	-1		1
A12	Logistical	1	1		
C13	Project Manager			1	
C14	Project Manager		1		1
C15	Project Manager	1	2		1
C16	Project Manager	1		1	
B17	Administrative	1	1	1	
A18	Administrative	1			1
A19	Logistical		2		
C20	Project Manager	-1		1	
YES		60%	50%	55%	50%
NO		10%	5%		
Count If		12	10	11	10
SUM		10	12	16	14
AVERAGES		0.59	1.09	1.45	1.40

## Behaviors

Participant Identifier	Functional Group Job Type	Behaviors		
		Sustainability at home	Motivated to Activism	Whistleblower on Negative Behaviors/Actions
A1	Administrative	2	6	5
A2	Administrative	4	3	
A3	Administrative	3	0.5	1
A4	Project Manager	3	1	1
B5	Project Manager	2	1	1
B6	Logistical	-1	2	
B7	Project Manager	3	2	1
B8	Project Manager	0	2	
B9	Logistical	2		
B10	Project Manager	1	1	
C11	Project Manager	2		
A12	Logistical	4	1	
C13	Project Manager	1		
C14	Project Manager	1		
C15	Project Manager	2	1	
C16	Project Manager	1	1	
B17	Administrative		1	1
A18	Administrative		1	
A19	Logistical	3		
C20	Project Manager	1	1	
YES		90%	75%	30%
NO				
Count If		16	15	6
SUM		34	24.5	10
AVERAGES		1.89	1.63	1.67



# Attitudes

Participant Functional Group		Attitudes									
Identifier	Job Type	What I'm doing at my job influences implementation of sustainability	Policy has positively affected my job	Policy has negatively affected my job	I am given the tools I need to do the job	Appalachian has found its "niche"	Green Washing	My project role is linked to the SP/SD's	Barriers, List:	Have Support from other departments/supervisors	Pressured into Risk or taking on Risk
A1	Administrative			3	-1		2		financial prioritization, student buy in, staff training/knowledge		2
A2	Administrative	2	1						Capability to manage programs, financial prioritization, finances matching growth	1	
A3	Administrative	1.5	1				1	1	Resources, Time to develop programs	-1	
A4	Project Manager	1						-1	finances, changing master plans/dept prioritization, appropriate staffing		1
B5	Project Manager	2			-1	1		1	student buy in, costs, vendor	2	
B6	Logistical	2							knowledge offerings slow progress toward change, vendor	1	1
B7	Project Manager	2	2		1	1		1	knowledge offering processing fresh products takes more work, student buy-in	1	
B8	Project Manager	2						1	student understanding, money, time for setup/training	-1	1
B9	Logistical	2			0.5			1	cost	2	-1
B10	Project Manager	2			2			1	need student buy-in, cost, staff training	-1	1
C11	Project Manager	1						1		1	-1
A12	Logistical	1			1	1		1	time		
C13	Project Manager	1								-1	
C14	Project Manager	2	1		1	1	1	1		3	
C15	Project Manager	3	2		1			1	time, lake of faculty training in pedagogy, technology	2	
C16	Project Manager	1									
B17	Administrative	2	1		1			1	cost, staff training	1	1
A18	Administrative	1						1	cost		
A19	Logistical	1			1						
C20	Project Manager	1	1					1			
YES		80%	50%	35%	35%	20%	15%	55%		45%	30%
NO				10%	10%			5%		20%	10%
Count If		16	10	7	7	4	3	11		0	9
SUM		27.5	12	9.5	5	4	4	10		10	5
AVERAGES		1.72	1.20	1.36	0.56	1.00	1.33	0.83	#DIV/0!	0.77	0.63

Culture (Deal & Kennedy, 1982)

Participant Identifier	Functional Group Job Type	Culture			
		Work-Hard/Play Hard	Bet your company	Process	Macho-Man
A1	Administrative			x	x
A2	Administrative	x		x	
A3	Administrative			x	
A4	Project Manager			x	
B5	Project Manager	x			
B6	Logistical		x		
B7	Project Manager	x			
B8	Project Manager				x
B9	Logistical			x	
B10	Project Manager			x	
C11	Project Manager			x	
A12	Logistical			x	
C13	Project Manager			x	
C14	Project Manager			x	
C15	Project Manager			x	
C16	Project Manager			x	
B17	Administrative			x	
A18	Administrative			x	
A19	Logistical			x	
C20	Project Manager			x	
YES					
NO					
Count If		2.50	1.00	15.00	1.50
SUM					
AVERAGES					

## Vita

Morris “Brenton” Faircloth was born in Lumberton, North Carolina to his loving parents, Cal and Leslie Faircloth. Brenton grew up in Winston-Salem, NC and attended North Carolina State University for his undergraduate degree in Environmental Technology and Management. Brenton first developed his affinity for the natural world while spending time with his father on many Boy Scout trips. Brenton eventually became an Eagle Scout, and credits much of his success to skills learned and habits developed from scouting.

Brenton spends much of his time with and looks up to his girlfriend Zoë Detter, who teaches English Literature and enjoys being an equestrian. Brenton is pursuing a career related to sustainability and environmental management. He believes that love and respect can solve all problems, and feels a deep need to make a positive impact on his community. He can still be found kayaking, reading science fiction books in his hammock, and wandering in the blank places on the map.