



stars[®]
a program of **aashe**

quarterly review

fall 2012:

the role of institutional diversity



The Association for the Advancement
of Sustainability in Higher Education

Cover:

Oregon State University grounds.

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Babson College ([STARS Silver](#), 2012)

Haywood Community College ([STARS Gold](#), 2012)

Middlebury College ([STARS Gold](#), 2011)

Oregon State University ([STARS Gold](#), 2011)

University of Calgary ([STARS Silver](#), 2011)

University of Colorado, Boulder ([STARS Gold](#), 2010)

University of South Florida ([STARS Gold](#), 2011)

Wake Forest University ([STARS Silver](#), 2012)

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INSTITUTIONAL DIVERSITY & SUSTAINABILITY

"America's colleges and universities differ in many ways... This **collective diversity** among institutions is one of the great strengths of America's higher education system."

- American Council on Education, *On the Importance of Diversity in Higher Education*

Characteristics such as size, institution type, programs offered, and other variables are key factors differentiating colleges and universities worldwide. In mission statements and strategic plans, higher education institutions are able to distinguish themselves even further. With no two institutions alike, thousands of factors come into play when choosing where to study or work.

A commitment to social, environmental, and economic sustainability has been a significant trend among colleges and universities in recent years. Since 2009, [AASHE Bulletin](#) has reported on over **4,200 stories** cataloguing sustainability practices among higher education institutions, as well as **689 job announcements** that specifically focus on improving sustainability on college campuses.

A commitment to sustainability is not as novel now as it had been several years ago. To stand out today, institutions are identifying different areas of focus based on their own unique strengths and opportunities. Hence, the search for the "most sustainable" college or university has become somewhat futile.



Engaging a Full Spectrum of Colleges and Universities

The STARS framework is intended to engage and recognize a full spectrum of colleges and universities – from community colleges to research universities, and from institutions just starting their sustainability programs to long-time campus sustainability leaders. Any college or university in the United States or Canada may register to participate in STARS, while other international institutions may participate in the [STARS International Pilot](#).

This edition of the SQR highlights three stories that deal with institutional diversity and how it impacts sustainability performance in higher education. All STARS reports submitted through September 1, 2012 were included for data analysis in this edition.



327 STARS Institutions

- 202 Rated Institutions (85 have renewed participation)
- 125 Institutions pursuing a rating

214 reports submitted

- 12 Institutions submitted a 2nd report

- *STARS Demographics over Time* – The diversity of STARS institutions based on country of origin has increased over time. However, participation in STARS according to institution type was not found to be representative of national demographics.
- *Differences in Sustainability Performance* – The characteristics that make higher education institutions distinct also play a role in how campuses are doing in advancing sustainability.
- *Advancing Sustainability through NCAA Rivalry* – Through healthy competition, sports rivalries can serve as catalysts in advancing sustainability in higher education.



STARS Demographics over Time

The diversity of STARS institutions has changed since the STARS 1.0 Early Release launched in September 2009. Country of origin diversity has increased over time, largely due to recent participation from institutions outside the U.S. and Canada.

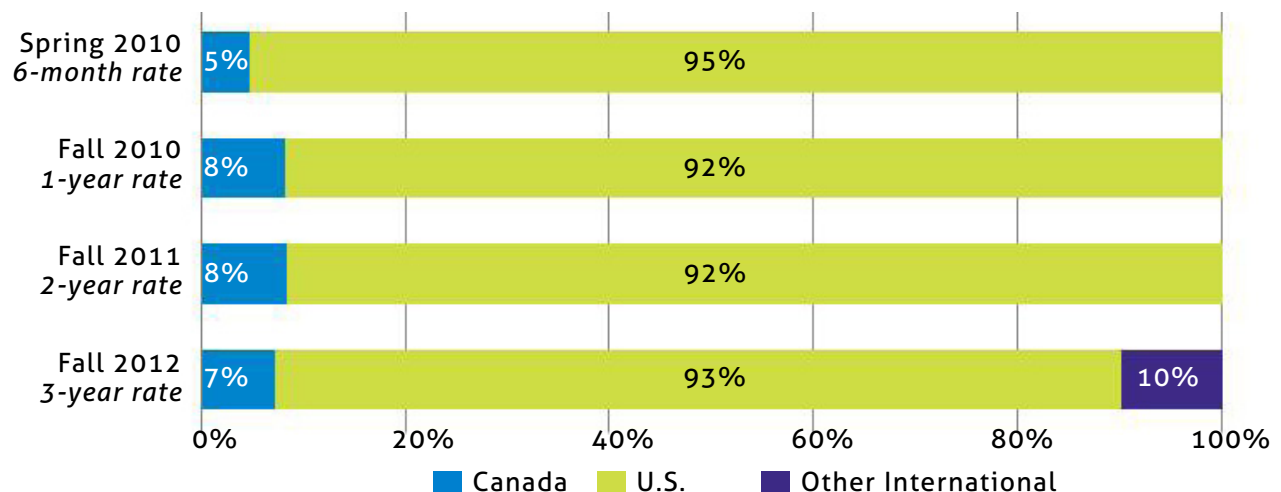
Although STARS was designed for U.S. and Canadian institutions, growing interest at the international level resulted in the October 2011 launch of the [STARS International Pilot](#). The pilot allows colleges and universities outside of Canada and the U.S. to publicly document their sustainability efforts, with opportunities for these institutions to share feedback and make suggestions for improvements to the system. Registration is open until December 31, 2012, and results from the pilot will help determine the role of STARS in a global context.

STARS Fact

When considering the total number of institutions in the U.S. and Canada, the STARS participation rate is significantly higher among Canadian institutions.

As portrayed in the table below, U.S. institutions have been, and continue to be, the primary users of STARS, while Canadian participation over time has remained consistent at 7 to 8 percent. However, the rate of Canadian participation is much higher than the U.S. Participation rate when considering the total number of higher institutions in both countries. Other international institutions entered the picture beginning in late-2011. By fall 2012, institutions outside the U.S. made up 17 percent of all STARS participants.

Distribution of STARS Institutions by Country of Origin over Time



Institution Type

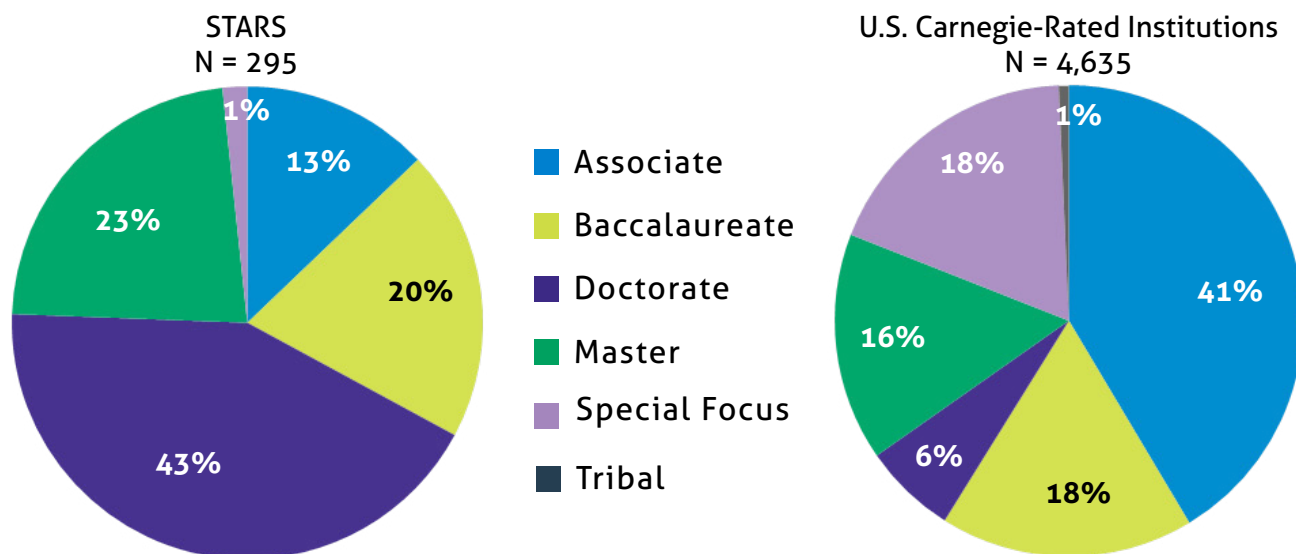
While country of origin diversity has increased among STARS Participants, the mix according to institution type has not changed significantly over time, with participation among Doctorate, Associate, and other types of institutions staying consistent.

AASHE defines *institution type* according to the Carnegie Foundation's [Basic Classification](#). The AASHE classification includes six institution type categories: Associate, Baccalaureate, Doctorate, Master, Special Focus, and Tribal. Although Canadian institutions are not included in the Carnegie system, they were included in the AASHE classification, with institution type determined based on best-fit analysis and through communication with institutional liaisons.

Participation in STARS is not representative of national demographics based on institution type, as displayed in the table below. When comparing STARS participation with the 4,600+ institutions in the Carnegie mix, disparities were significant in three areas:

- **Doctorate** institutions, which represent only 6 percent of the Carnegie mix, made up 43 percent of total STARS institutions.
- **Associate** and **Special Focus** institutions, which represent a combined 58 percent of the Carnegie mix, made up a combined total of 14 percent of STARS institutions.

STARS & Carnegie Comparison



With Doctorate institutions over-represented in STARS and Associate and Special Focus institutions underrepresented, differences in demand for sustainability tracking tools may exist based on institution. However, factors such as institution size and enrollment may also play a role.

STARS 2.0 Sneak Peek

The public-comment draft of STARS 2.0 includes revised credits that include targeted thresholds for different institution types ([learn more](#))

A Special Focus on STARS Entrepreneurship and Social Responsibility at Babson College

(STARS Silver, April 2012)



A demonstration on food preservation is one of several sustainability-focused student projects featured at Babson's FME fair. Courtesy of Babson University.

Babson College in Massachusetts is one of only two STARS-rated institutions with a Special Focus Carnegie designation. With business management as its specialty, the college provides every first-year student the opportunity to take part in creating and managing a business through its [Foundations of Management & Entrepreneurship \(FME\)](#) course (see [ER T2-5](#)). Students in the course present business ideas at the start of the year, and top ideas are then turned into operating businesses. Throughout this process, students are taught about corporate responsibility and product life cycle analysis, and the management team attends a presentation by the Sustainability Office. Each team of approximately 30 students donates 180 hours and all profits from the venture go to a local community service agency of the team's choice. Agencies supported by FME businesses among others have included Special Olympics, Habitat for Humanity, Fidelity House, Cradles to Crayons, Boys and Girls Club, and Wellesley Housing Authority. Since 1999, more than \$435,000 has been donated by FME businesses to local charities. In the spring 2012 semester, FME businesses contributed just over \$30,000 in charitable donations.

Differences in Sustainability Performance

“If a man does not **keep pace** with his companions, perhaps it is because he hears a different drummer.”

- Henry David Thoreau, American author and naturalist

The **characteristics** that make higher education institutions distinct are also found to play a role in how institutions are doing in advancing sustainability. A recent analysis of STARS institutions found that Doctorate institutions earned higher scores in comparison to all other institutions, while Associate colleges earned lower scores.

Comparison Methodology

Institutions were analyzed according to AASHE institution type classifications. Average scores among Associate, Baccalaureate, Master, and Doctorate institutions were compared against all other institutions, and these values were tested for significance using a two-sample t-test of unpaired values. Comparison figures in the table below highlight significant differences based on a .05 critical value, while dashes indicate no significant difference.

Significant Differences in Overall and Category Scores by Institution Type

Average Difference (compared to all other institutions)	Count	Overall Score	ER	OP	PAE
Associate	29	-7.5	-11.3%	-5.2%	-5.0%
Baccalaureate	42	-	-	3.1%	-
Master	46	-4.4	-	-4%	-5.4%
Doctorate	94	4.0	3.8%	2.4%	3.9%

Analysis of Special Focus and Tribal institutions was not conducted due to low sample size. No significant differences based on institution type were found within the Innovation category.

Doctorate institutions earned the highest scores overall and in most STARS categories as compared to all other institutions. Baccalaureate institutions earned the highest scores in OP, while differences in other areas were not found to be significant. Associate institutions earned the lowest scores overall and in most STARS categories as compared to all other institutions. In OP, PAE, and overall, Master institutions also earned relatively low scores.

Average Subcategory Scores

Using the same comparison methodology, significant differences based on institution type were found in various STARS subcategories:

- Associate Institutions – Scored lower than other institutions in Co-curricular Education, Curriculum, Transportation, Diversity & Affordability, and Public Engagement
- Baccalaureate Institutions – Scored higher than other institutions in Climate, Transportation, and Public Engagement
- Master Institutions – Scored lower than other institutions in Research, Climate, Grounds, Transportation, Water, Human Resources, Investment, and Public Engagement
- Doctorate Institutions – Scored higher than other institutions in Curriculum, Grounds, Transportation, Waste, Water, Diversity & Affordability, Human Resources, and Public Engagement

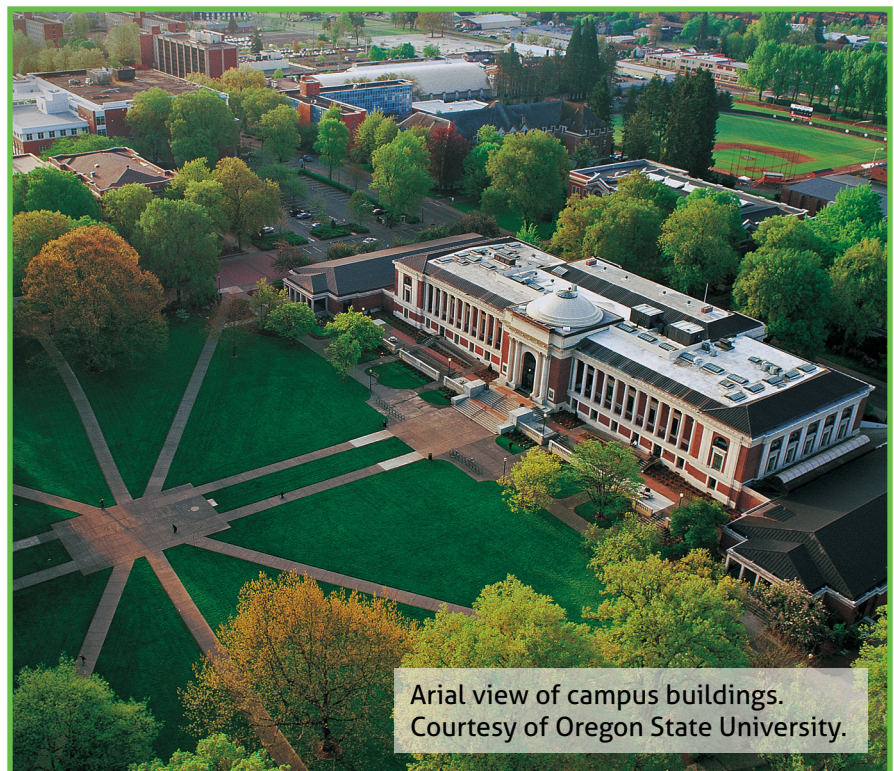
Although institutions' basic characteristics have an impact on sustainability performance, a number of other, inter-related factors may also play a role. For example, financial and staff resource allocations may, on average, be higher among Doctorate institutions and lower among Associate institutions, and these differences may in part explain why performance varies so significantly. The effect of these variables and others will likely be explored in future AASHE publications.

While some areas within STARS may be challenging for certain types of institutions, these challenges can be overcome with planning and preparation. By using STARS as a tool for growth and improvement, significant sustainability advances can be made each time a report is submitted.

STARS Fact

There are 5 STARS subcategories in which no significant differences were found to exist, regardless of institution type:

- Buildings
- Dining Services
- Energy
- Purchasing
- Coordination & Planning



Arial view of campus buildings.
Courtesy of Oregon State University.

Submitting for a Subsequent Rating

Haywood Community College Tracks Improvement in Transportation

(STARS Gold, April 2012)

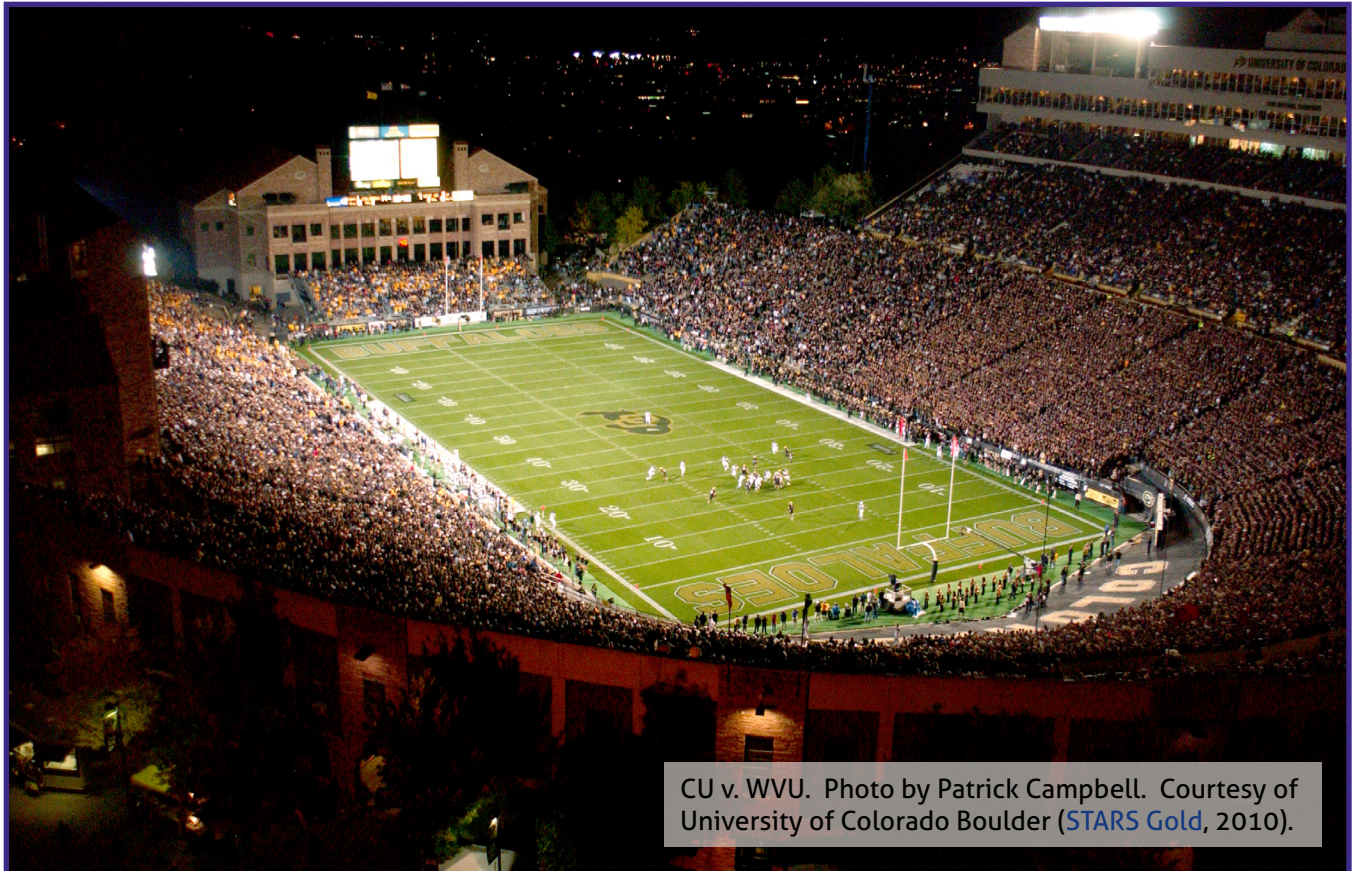
Haywood Community College was one of the first Associate-level institutions to submit two STARS reports. With the release of its second report in 2012, the college's STARS rating improved from Silver to Gold. Significant gains related to transportation have been identified, including the installation of the first [electric vehicle charging station](#) in Haywood County and southwest North Carolina. The charging station is available to the public for free, and the entire project was sourced within a 30-mile radius of the campus, including station manufacturing, installation, and licensing (see [IN 1](#)).

In addition to the charging station, Haywood Community College has increased its percentage of alternatively fueled and/or powered fleet vehicles from 75% to 81% (see [OP 14](#)). The college also began tracking student and employee commute modal split in its most recent STARS report.



HCC's electronic vehicle charging station is the first in Southwest North Carolina. Photo courtesy of Haywood Community College.

Advancing Sustainability THROUGH NCAA Rivalry



STARS FACT

71 NCAA Athletic Conferences are represented by 202 STARS-Rated Institutions

STARS was designed to enable meaningful comparisons over time and across institutions using a common set of measurements. It is meant to create incentives for continual improvement rather than to rank institutions based on sustainability performance. Nonetheless, rivalry and competition exist, and are engrained in human nature.

Arguably the most intense competition within higher education is found in NCAA conference rivalries. These historic conflicts are known to motivate athletes and teams to perform at above-expected levels. In some cases, rivalries may encourage strong performance beyond the sports field.

Through healthy competition, sports rivalries can motivate institutions to ramp up efforts in campus sustainability. As the AASHE resource case study on this page highlights, colleges and universities can increase sustainability awareness and improve operations through competition with rivals.

AASHE RESOURCE

PAC-12 rivals University of Oregon and Oregon State staged a contest to see which school could produce the most human-powered energy (see the [case study](#))

Greatest Participation: ACC

Two-thirds of member institutions in the [Atlantic Coast Conference](#) have committed to advancing sustainability by participating in STARS. Current ACC Rated institutions are found in Georgia, Florida, North Carolina, and Virginia.

Among the smallest in terms of enrollment, **Wake Forest University** was the first ACC institution to submit a STARS report in early 2011. Wake Forest is also among the first institutions to submit a second report, demonstrating significant gains in its [Dining](#) operations. Since its first STARS report was submitted, Wake Forest implemented a pre-consumer food waste [composting program](#) (see [OP T2-7](#)) and increased expenditures on local and sustainable foods by six percent (see [OP 6](#)). (STARS Silver, 2012)



WFU's composting program comes full circle with the application of "Carolina Dynamite", which includes WFU pre-consumer food waste. Courtesy of Wake Forest University.

ER Top Performer: Big East

25 percent of [Big East Conference](#) member institutions have submitted a STARS report, and one institution is an unrated Current Participant. The four Big East institutions that earned a rating received high scores in the ER category



Mechanical Engineering PhD candidate Jamie Trahan is shown with her team's 15 kW Solar Initiatives Project. Courtesy of University of South Florida.

The **University of South Florida** is among few institutions to earn full points in the Co-Curricular Education subcategory. A highlight of USF's co-curricular activities is its [Sustainability Scholars Program](#), which provides undergraduate students opportunities to conduct sustainability audits of programs, offices, and businesses (see [ER 1](#)). The audits examine social, economic, and environmental practices that promote or impede sustainability. Results and suggestions for improvement are shared in the form of a sustainability report card. (STARS Gold, 2011)

OP Top Performer: PAC-12

The [Pacific-12 Conference](#) is among the most competitive in the NCAA when it comes to sustainability, with most STARS-rated institutions in the conference having earned a STARS Gold rating. PAC-12 schools have done particularly well in the OP category.



Analyzing soil content. Courtesy of Oregon State University.

Oregon State University shows strong performance among PAC-12 schools in OP, with particularly high scores in the Grounds and Water subcategories. Between 2005 and 2011, OSU reduced water consumption by 13 percent despite an increase in weighted campus users (see [OP 22](#)). Among its [water management initiatives](#), the OSU uses non-potable water and a weather informed irrigation system. Stormwater runoff is managed through porous paving, vegetated swales, and a unique rainwater filtration system. (STARS Gold, 2011)

PAE Top Performer: NESCAC

Four out of 11 schools in the [New England Small College Athletic Conference](#) have submitted a STARS report, while one institution is an unrated Current Participant. Among NESCAC STARS-rated institutions, the PAE category was an area of particular strength.

Middlebury College has incorporated sustainability in its [athletics program](#) through careful coordination and planning. A [Green Team](#) of representatives from every varsity sport meets to discuss and implement ways for teams to become more sustainable, such as improving recycling during travel, using reusable water bottles, and buying food in bulk. The Athletic department's Nordic ski teams coach also serves as the department's sustainability liaison. The College's ski teams and the Snow Bowl where they practice are carbon neutral (see [IN 2](#)). (STARS Gold, 2011)



Middlebury athletes make a pledge to the planet and show support by lacing up with green. Photo by Michael Riddell.

FORWARD PROGRESS

“We may have all come on different ships, but **we’re in the same boat now.**”

- Dr. Martin Luther King, Jr., American civil rights activist

Considering the challenges of measuring and gauging performance in all areas of sustainability, identifying the “most sustainable” college or university is nearly impossible. Instead, an institution has the opportunity to carve out its own “sustainability niche,” in some cases becoming a leader in an area of focus and providing direction for others to make improvements in that area as well.

While factors such as size, type, and country of origin may play a role in sustainability performance overall, across-the-board comparisons are not always the most effective means for measuring improvement. An institution’s sustainability performance over time can be a more valuable method for encouraging improvement. As such, the greatest competitor for any institution should be itself. By submitting a STARS report on a regular basis, colleges and universities can identify areas for improvement and develop strategies to make improvement a reality.



Greening Cream & Crimson crew separating recyclables at a football game. Courtesy of Indiana University ([STARS Silver](#), 2011).

Index of Rated Institutions

September 1, 2012 Count: 202



34 Gold - G



90 Silver - S



48 Bronze - B



13 Reporter - R

Agnes Scott College - S
 American University - G
 Anne Arundel Community College - S
 Appalachian State University - G
 Arizona State University - G
 Babson College - S
 Ball State University - S
 Bard College - S
 Berea College - S
 Boston University - S
 Bowdoin College - R
 Brandeis University - B
 Brunswick Community College - B
 Bryant University - B
 California State Polytechnic University, Pomona - S
 California State University, Channel Islands - S
 California State University, Monterey Bay - G
 Carnegie Mellon University - R
 Central Carolina Community College - S
 Chapman University - R
 Cleveland State University - S
 College of Lake County - S
 College of Saint Benedict - S
 Colorado State University - G
 Cornell University - G
 Dalhousie University - S
 Delta College - S
 Denison University - S
 DePaul University - R
 DePauw University - B
 Dickinson College - G
 Drew University - S
 Duke University - G
 Earlham College - R
 East Tennessee State University - B
 Eastern Iowa Community College District - S
 El Centro College - DCCCD - R
 Elon University - S
 Emory University - G
 Estrella Mountain Community College - B
 Evergreen State College, The - S
 Florida Gulf Coast University - S
 Florida State University - S
 Furman University - S
 George Mason University - S
 Georgia Institute of Technology - G
 Gettysburg College - S
 Goshen College - B
 Grand Valley State University - S
 Green Mountain College - G
 Guilford College - S

Harrisburg Area Community College - B
 Haverford College - B
 Haywood Community College - G
 Illinois Central College - B
 Illinois Institute of Technology - S
 Illinois State University - B
 Indiana University Bloomington - S
 Ithaca College - G
 Judson University - B
 Kankakee Community College - S
 Keene State College - S
 King's University College - B
 Lakeland Community College - R
 Loyola Marymount University - S
 Luther College - S
 Macalester College - S
 Maryville College - B
 McGill University - S
 Michigan State University - S
 Middlebury College - G
 Missouri State University - B
 Moraine Valley Community College - B
 New Mexico State University - B
 New York University - G
 North Carolina State University - R
 North Seattle Community College - B
 Northern Alberta Institute of Technology - B
 Northern Arizona University - S
 Northland College - S
 Oberlin College - G
 Okanagan College - S
 Oklahoma City University - B
 Oklahoma State University - B
 Old Dominion University - B
 Onondaga Community College - S
 Orange County Community College - B
 Oregon Institute of Technology - B
 Oregon State University - G
 Pace University - B
 Pacific Lutheran University - S
 Pacific University - B
 Pennsylvania State University - S
 Pittsburg State University - B
 Pomona College - G
 Portland Community College - B
 Portland State University - G
 Princeton University - S
 Raritan Valley Community College - B
 Red River College - S
 Rice University - R
 Richland College - DCCCD - S

Index of Rated Institutions continued



34 Gold - G



90 Silver - S



48 Bronze - B



13 Reporter - R

Richland Community College - B
 Rio Salado College - S
 Rocky Mountain College of Art + Design - B
 Royal Roads University - S
 Saint John's University - S
 Saint Louis University - B
 Saint Mary's University - S
 San Diego State University - S
 San Jose State University - S
 Santa Clara University - S
 Sheridan Institute of Technology and Advanced Learning - B
 Shoreline Community College - B
 Simon Fraser University - S
 Slippery Rock University - S
 Southern Oregon University - B
 St. John's University - G
 Stanford University - G
 Stark State College - S
 State University of New York at Brockport - S
 State University of New York at Cortland - S
 State University of New York at Fredonia - B
 State University of New York at Geneseo - B
 State University of New York at Oswego - S
 State University of New York College of Environmental Science and Forestry - S
 Swarthmore College - R
 Taylor University - B
 Texas A&M University - S
 The New School - S
 The University of Arizona - G
 Thompson Rivers University - S
 Truman State University - B
 Tufts University - S
 Unity College - S
 University of Alaska Anchorage - B
 University of Alaska Fairbanks - G
 University of Albany - S
 University of Alberta - S
 University of Arkansas - S
 University of British Columbia - G
 University of Calgary - S
 University of California, Los Angeles - S
 University of California, San Diego - G
 University of California, Santa Barbara - G
 University of Colorado Boulder - G
 University of Colorado Colorado Springs - S
 University of Dayton - B
 University of Denver - G
 University of Florida - S
 University of Houston - S

University of Illinois, Chicago - R
 University of Kansas - B
 University of Kentucky - S
 University of Louisville - S
 University of Massachusetts Amherst - G
 University of Michigan - S
 University of Minnesota, Duluth - R
 University of Minnesota, Morris - G
 University of Minnesota, Twin Cities - S
 University of Mount Union - B
 University of Nebraska at Kearney - R
 University of Nevada, Las Vegas - S
 University of New Hampshire - G
 University of North Carolina at Chapel Hill - S
 University of North Carolina, Greensboro - S
 University of North Texas - S
 University of Northern British Columbia - S
 University of Northern Iowa - G
 University of Notre Dame - S
 University of Oregon - S
 University of Ottawa - S
 University of Puget Sound - G
 University of Saskatchewan - B
 University of South Carolina - G
 University of South Florida - G
 University of Tennessee at Knoxville - S
 University of Texas at Arlington - B
 University of Texas at Austin - S
 University of Texas at San Antonio - B
 University of the District of Columbia - B
 University of Utah - B
 University of Virginia - S
 University of Wisconsin-Green Bay - S
 University of Wisconsin-Oshkosh - G
 University of Wisconsin-River Falls - S
 University of Wisconsin-Stevens Point - G
 Vassar College - S
 Virginia Commonwealth University - S
 Virginia Tech - S
 Wake Forest University - S
 Washington and Lee University - B
 Washington University in St. Louis - S
 Weber State University - B
 Wellesley College - S
 West Chester University of Pennsylvania - R
 Western Kentucky University - S
 Western University - S
 Westminster College - S
 Wilfrid Laurier University - B
 Williams College - S
 Yale University - S

STARS Would Like to Thank...

STARS is the result of countless hours of effort and hundreds of people's expertise. We would like to recognize all of those who have contributed feedback and advocated for STARS. The [STARS Governance Structure](#) provides a framework for the STARS Steering Committee, Technical Advisors, and Partner Organizations to support and guide STARS. Additionally, we are grateful to the many individuals who contribute to our improvement outside of that structure. AASHE is proud to say that STARS is a program that has been developed by those within the higher education community, the community STARS serves.

STARS Technical Advisors

AASHE recognizes its team of over 70 STARS [Technical Advisors](#), the primary source for input and insight on STARS credit content.

STARS Steering Committee

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Partner Organizations

STARS sponsorship provides an outstanding opportunity for campuses to demonstrate their support of campus sustainability. Please email stars@aaashe.org to inquire about becoming a STARS Partner Organization.



Association of College &
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Council for Christian
Colleges & Universities



HIGHER EDUCATION ASSOCIATIONS
SUSTAINABILITY CONSORTIUM



National Association of College and
University Business Officers



Advancing Campus Activities
in Higher Education



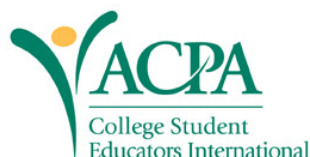
The Resource for Campus Dining Professionals



Second Nature
Education for Sustainability



Society for College and University Planning
INTEGRATED PLANNING FOR HIGHER EDUCATION



AASHE is helping to create a brighter future of opportunity for all by advancing sustainability in higher education. By creating a diverse community engaged in sharing ideas and promising practices, AASHE provides administrators, faculty, staff and students, as well as the business that serve them, with: thought leadership and essential knowledge resources; outstanding opportunities for professional development; and a unique framework for demonstrating the value and competitive edge created by sustainability initiatives.

AASHE defines sustainability in an inclusive way, encompassing human and ecological health, social justice, secure livelihoods, and a better world for all generations.

STARS is a program of [AASHE](http://www.aashe.org).

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