



OREGON STATE UNIVERSITY
SUSTAINABILITY REPORT
FISCAL YEAR 2013

Oregon State
UNIVERSITY

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Executive Summary

Oregon State University’s positive trends in sustainability performance largely continued in Fiscal Year 2013 (FY13). Although already nationally recognized as a sustainability leader, OSU strives to be in the top 10 colleges and universities in the United States for excellence in sustainability. Since FY10, OSU has relied on key performance indicators generated from the Sustainability Tracking, Assessment and Rating System (STARS), a comprehensive rating system of sustainability in higher education. Despite significant growth in student enrollment and building square footage, Oregon State has three times achieved a Gold rating from STARS, recently improving its numeric score.

| Fiscal Year | Submission Date | STARS Version | STARS Score |
|--------------------|------------------------|----------------------|--------------------|
| 2010 | Jan. 31, 2011 | 1.0 | 69.74 |
| 2012 | May 11, 2011 | 1.2 | 68.95 |
| 2013 | Apr. 30, 2014 | 2.0 | 70.65 |

Figure 1

In 2013, the STARS assessment tool underwent a major upgrade and consolidation of credits, temporarily making precise year-to-year comparisons difficult. Where possible, this report both attempts and examines the limitations of comparisons. The following figure summarizes OSU’s sustainability performance indicator categories for FY13.

| | |
|---|---|
| <p>Positive trending indicator categories, FY12-FY13</p> <ul style="list-style-type: none"> • Curriculum • Air and Climate • Transportation • Investment • Public Engagement | <p>Negative trending indicator categories, FY12-FY13</p> <ul style="list-style-type: none"> • Dining Services • Energy • Purchasing • Water • Health, Wellbeing and Work |
| <p>High performing indicator categories, FY13</p> <ul style="list-style-type: none"> • Campus Engagement • Research • Grounds • Coordination, Planning & Governance • Diversity & Affordability | <p>Low performing indicator categories, FY13</p> <ul style="list-style-type: none"> • Air and Climate • Buildings • Dining Services • Energy • Purchasing • Waste • Water • Investment |

Fig. 2

Some negative trending areas are due to changes in methodology between STARS versions, while others indicate opportunities for improvement. As with any large organization, some improvements will be more easily attained than others.

Other achievements from FY13 include completing two large solar arrays, hosting the Harvesting Clean Energy Conference and establishing a bike loan program and an undergraduate research grant program.

Introduction

Continuing a trend, Oregon State University (OSU) maintained positive movement across many sustainability indicators during Fiscal Year 2013 (FY13). OSU aspires to be in the top 10 colleges and universities in the United States recognized for excellence in sustainability. With rankings like 11th out of the 164 schools on the Sierra Club's Cool Schools list, being named to The Princeton Review's [2013 Guide to 322 Green Colleges](#) (out of around 800 surveyed) and other awards detailed below, the university has continued to consistently place in the top 25 for sustainability efforts.

| STARS Ratings (all versions) | |
|---|-----|
| Platinum | 0 |
| Gold | 62 |
| Silver | 128 |
| Bronze | 60 |
| Reporter | 20 |

Fig. 3

This report, based largely on the now widely adopted [Sustainability Tracking, Assessment and Rating System](#) (STARS), provides a summary of indicators and highlights accomplishments that occurred between approximately July 1, 2012 and June 30, 2013.

Assessment, Awards and Recognition

Recognition from entities that conduct higher education sustainability assessment, from various perspectives, has been fundamental to understanding OSU's sustainability success. In FY10, OSU for the first time participated in STARS, administered by the [Association for the Advancement of Sustainability in Higher Education](#) (AASHE). STARS is more comprehensive and standardized than any previous rating or ranking system and serves as the platform for the key performance indicators below. This annual report provides a single summary of sustainability performance indicators and highlights accomplishments and challenges.



In addition to the STARS assessment, OSU's ratings and rankings for FY13 are listed here.



The Princeton Review's 2013 Guide to 322 Green Colleges: OSU was recognized for Sustainability practices such as food sourcing, transportation, green building, opportunities to focus on the environment and sustainability in student studies and energy efficiency



League of American Bicyclists the Bicycle Friendly University program: OSU was awarded a Silver designation for providing a bicycle-friendly campus for students, staff and visitors



Sierra Club gave OSU the highest green ranking in the state for its 2013 edition of ["Cool Schools."](#) This puts OSU 11th in the nation, rising from 24th in 2010.



Best Workplace: OSU's main campus has been designated by the National Center for Urban Transportation Research as one of the Best Workplaces for Commuters. This designation recognizes employers for outstanding efforts to provide alternatives to the single occupancy vehicle.

STARS Key Indicators

OSU continues to experience growth in enrollment and an overall increase in building square footage. Despite this growth, performance on many key indicators seems to have improved but some have also slipped. Direct comparisons between FY12 and FY13 are made complicated by significant changes in the STARS assessment tool; these changes are discussed in detail below and throughout this report. Because of these changes, this report focuses on general trends using methods that provide some level of comparability, recognizing the comparisons are imperfect.

Between FY10 and FY13, total student enrollment grew an astounding 20%, from 21,969 to 26,393. One quarter of this 20% (4424 student) increase was enrolled in Ecampus courses only; they were not necessarily physically present at the Corvallis campus. Over the same period, campus building square footage grew by around 12.5%, from around 7 million square feet to nearly 7.9 million square feet. This section offers short narratives in three subsections, which provide a more summarized fashion than previous annual reports:

1. **areas of significant performance change (large improvements or declines)**
2. **areas of consistently high performance**
3. **areas for potential improvement.**

In October 2013, AASHE launched STARS 2.0. This new version provides improved clarification and definitions, and is based more heavily upon recognized standards and protocols relevant to sustainability work. Examples of other standards and protocols include the International Labor Organization, [Green Seal](#) cleaning products, [LEED](#) or the [Living Building Challenge](#) for green buildings. Importantly, consolidation of credits and reduction of the number of total assessment system points from 300 to 200 helps streamline reporting, but makes direct comparisons between versions very difficult. Because of the change from STARS 1.x (under which OSU submitted its FY10 and FY12 data) to STARS 2.0 (under which FY13 data were submitted), comparisons between FY10, FY12 and FY13 are neither simple nor straightforward.

With these changes in the assessment tool, analysis of OSU's general performance trends is imperfect but not impossible. The following two figures show OSU's category (highest level summary) scores for both versions of STARS for all three fiscal years. Point values and percentages are provided below to show relative weight and performance within each category. FY10 and FY12 are shown together since they were part of the same assessment tool version.



| STARS 1.x Category Name | Points Possible | FY10 % | FY12 % | Change % |
|------------------------------|-----------------|------------|------------|-----------|
| Education & Research | 99.75 | 69.7% | 72.0% | 2.2% |
| Operations | 100.00 | 48.2% | 49.5% | 1.2% |
| Planning, Admin & Engagement | 100.00 | 68.4% | 74.5% | 6.1% |
| Total | 299.75 | 62% | 65% | 3% |

Figure 4: STARS version 1.x summary figure (FY10 and FY12)

Figure 5: STARS version 2.0 summary figure (FY13)

| STARS 2.0 Category Name | Points Possible | FY13 % | Change* % |
|--------------------------------|-----------------|------------|-----------|
| Academics (AC) | 58 | 78.7% | 6.8% |
| Engagement (EN) | 41 | 85.7% | 11.1% |
| Operations (OP) | 69 | 45.6% | -3.9% |
| Planning & Administration (PA) | 32 | 80.6% | 6.0% |
| Total | 200 | 69% | 4% |

**Performance changes between FY12 and FY13 are due in part to changes in the STARS assessment tool*

Although not directly comparable because of changes between STARS versions, these highest level category scores reveal:

- Continued strong performance in Academics (formerly Education & Research)
- Superb performance in Engagement as well as, to a lesser extent, Planning & Administration
- Weaker performance in Operations.

As shown in the figures above, OSU's overall score improved 4% between FY13 and FY12, indicating positive institutional progress, particularly in light of updated methodology in the new assessment tool. Unfortunately, at the time of this writing, it is not possible to compare OSU's FY13 scores to national averages of other higher education institutions because AASHE has not yet performed the necessary calculations. This is in part due to the relatively low number of schools using the new STARS version 2.0. It is anticipated that these comparisons will be available by the time the FY14 report is complete.

Because of the significant changes in the STARS assessment tool and the desire to be concise, this report takes a more consolidated approach to trend analysis than past annual reports, which included discussion on a credit-by-credit basis of significant changes, strengths and weaknesses. This FY13 report performs the same analysis, but at the STARS subcategory level.

It should be noted, however, that not all areas of the STARS assessment tool have changed and may not change substantially over time, so past analyses are still relevant to OSU's progress, but not repeated in this report. While this and subsequent reports will focus on subcategory trends, readers are encouraged to explore the full set of credit scores in this document's appendix.

Subcategories of significant change between FY12 and FY13

This section details changes between FY12 and FY13 performance within STARS subcategories. “Significant change” is considered here to be greater than +/- 10% for STARS subcategory scores; those scores are highlighted in the figure. The narratives following the figure below discuss possible reasons for these significant subcategory score changes. As evident in the figure, the number of points possible within a STARS subcategory heavily impacts that subcategory’s influence on the institutional score. A lower score in Dining Services, for example, is more than offset by an improved score in Curriculum.

While the FY12 Sustainability Report examined the relationship between individual credits and compared performance over time, the consolidation of credits in STARS 2.0 makes that comparison impractical today. For example, there were 300 points possible in STARS 1.2 and 200 points are available in STARS 2.0. This report will therefore examine changes at the subcategory level.

| STARS version 2.x subcategory name | Points Possible | FY13 | | FY12-FY13 % Change |
|--------------------------------------|-----------------|---------------|------------|--------------------|
| | | Score | % | |
| Campus Engagement | 20 | 20.00 | 100% | 1.41% |
| Curriculum | 40 | 28.17 | 70% | 19.13% |
| Research | 18 | 17.50 | 97% | 0.63% |
| Air and Climate | 11 | 6.50 | 59% | 23.21% |
| Buildings | 8 | 2.88 | 36% | 9.08% |
| Dining Services | 7 | 2.76 | 39% | -40.81% |
| Energy | 10 | 0.33 | 3% | -7.43% |
| Grounds | 4 | 3.63 | 91% | -9.25% |
| Purchasing | 6 | 3.39 | 57% | -9.63% |
| Transportation | 7 | 4.43 | 62% | 8.33% |
| Waste | 10 | 4.49 | 45% | -0.22% |
| Water | 6 | 3.14 | 52% | -47.67% |
| Coordination, Planning & Governance | 8 | 7.67 | 96% | -4.13% |
| Diversity & Affordability | 10 | 8.91 | 89% | -10.90% |
| Health, Wellbeing and Work | 7 | 5.09 | 73% | -17.16% |
| Investment | 7 | 4.11 | 59% | 12.45% |
| Public Engagement | 21 | 15.12 | 72% | 17.61% |
| Total | 200 | 138.03 | 69% | 4% |

Figure 6: STARS subcategory comparison – areas of significant change.

Curriculum (FY12-FY13 change: +19.1%) ↑

The Curriculum subcategory is one where some of the most significant changes occurred between STARS 2.0 and previous versions. Four previous credits were consolidated in the new Academic Courses credit:

- Sustainability course identification
- Sustainability focused courses
- Sustainability related courses
- Sustainability courses by department.

When looking at the aggregated score of the four STARS 1.2 credits above, in FY10 OSU scored 43% of possible points and for FY12 scored 50% of possible points. The score in the new Academic Courses credit is 88% of possible points. Changes and improvements in internal assessment methodology were likely the largest contributors to the score improvement. A significant difference in data availability through OSU's ever-expanding curriculum proposal system provided Sustainability Office staff access to course syllabi. This enabled a more thorough review than ever before, when previously no comprehensive syllabus inventory existed. For FY13, the OSU evaluators broadened the definition of sustainability used for this analysis, specifically the social aspect of sustainability, allowing for more courses to be counted as sustainability courses or a course with sustainability content. Reasons for this change include clarification of guidance from STARS on their credit criteria and a refinement of the OSU-developed assessment tool. Many of these courses include subject matter relating to equity of women, queer-identified people, ethnicity, race and class.

Changes within STARS definitions and guidance were also a factor, but those impacts on OSU's score are unknown. Previously called sustainability focused and sustainability related courses, STARS now uses simpler language listed in the figure below. Also, undergraduate and graduate courses were counted separately for the first time, requiring totaling the courses (below) to enable apples-to-apples comparisons.

| | Undergraduate | Graduate | Total |
|--|----------------------|-----------------|----------------------------|
| Number of sustainability courses offered, FY13 (formerly sustainability focused courses, FY12) | 69 | 43 | 112 (7.7%) 68 (2.5%) |
| Number of courses offered that include sustainability, FY13 (formerly sustainability related courses, FY12) | 104 | 60 | 164 (11.3%) 329 (12.1%) |
| Total number of courses offered by the institution, FY13 (total, FY12) | 864 | 586 | 1450 2727 |

Fig. 7

In the figure above, there is a substantial difference in the total number of courses offered in FY12 and FY13. Nearly all of this difference is due to a change in the tools used for identifying, sorting and filtering courses. Also, for FY13 a better understanding of and reliance on OSU's curriculum proposal system resulted in more consistent results and other refinements in the process were made resulting in a more accurate representation of course offerings.



Not all of the score improvement in this area should be attributed to differences in methodology, but it is difficult to know to what degree OSU's actual performance became more in alignment with STARS's standards. Anecdotal observations through syllabi review, course descriptions and direct student input seems to suggest more actual sustainability related content in OSU courses, relative to previous assessments. In addition to new initiatives like the sustainability double degree, sustainability content seems to be growing rapidly in the social aspect of sustainability, as noted above.

Encouragingly, departments have begun using the new Sustainability Course Criteria developed by the Sustainability Office to inform academic outcomes. For example, the School of Design and Human Environment included a Social Responsibility school-level outcome inclusive of many of the sustainability principles listed in the Criteria. The outcome states: "Students will develop a framework of social responsibility to evaluate how their decisions will impact society in global contexts." To serve the school-level outcome, all DHE students take a sustainability-focused course, ENGR 350 (Sustainable Engineering). Additionally, all Apparel Design and Merchandising Management students will take two sustainability-related courses offered within DHE, (1) DHE 170 and (2) DHE 475. The Apparel Design and Merchandising Management syllabi use wording directly from the Criteria.

Two credits within the Curriculum subcategory scored no points: Sustainability Literacy Assessment and Incentives for Developing Courses. As in previous years, OSU does not conduct entry or exit surveys to assess sustainability literacy of students before and after their university experience. A representative sample, not necessarily the full student population, would need to be surveyed to earn this credit. Similarly, OSU does not offer incentives for faculty to develop new sustainability courses and/or incorporate sustainability into existing courses or departments. Incentives need to be available to any discipline and may include release time, funding for professional development, and trainings offered by the institution. Incentives for expanding sustainability offerings in academic, non-credit, and/or continuing education courses count for this credit.

Air and Climate (FY12-FY13 change: +23.2%) ↑

Within the Air and Climate subcategory, a large amount of the available points fall within the credit specific to greenhouse gas (GHG) emissions reduction. For FY12, OSU achieved 26% of the available points for the GHG reduction credit and for FY13, 55% of available points were attained. STARS 2.0 no longer provides a separate credit and two full points for simply producing a publicly available GHG inventory, but rather gives a small credit only for public availability.

Much of the improvement in OSU's score can be attributed to a 15% reduction in GHG emissions between FY12 and FY13, making progress toward meeting an aggressive target of climate neutrality by 2025. President Ray's April 2007 signing of the American College and University Presidents Climate Commitment (ACUPCC) has motivated some action and OSU has been able to capitalize upon other opportunities since 2007.

A large portion of OSU's reduction is a result of refinement of plant operations at the Energy Center, OSU's cogeneration facility that produces nearly half of the Corvallis campus'

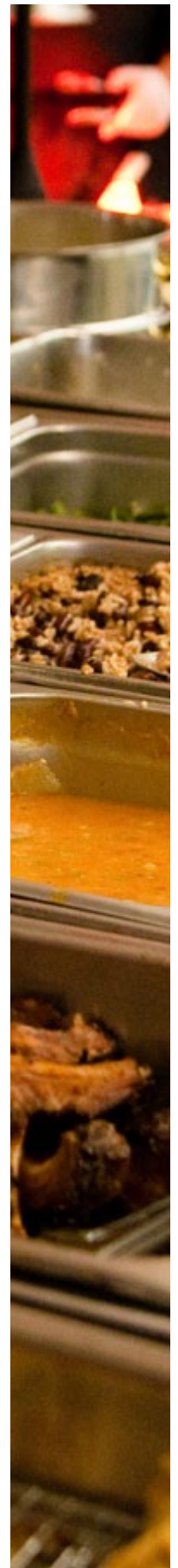
electricity and all steam used for building heat. With cogeneration, or combined heat and power, a majority of steam is created from the “waste” heat that is inherent with the electrical generation process. By capturing this waste heat, efficiencies skyrocket. Because of the complexities of systems at the Energy Center, fine tuning has taken several years and further refinement may achieve even more savings in the future.

Other contributing factors to OSU’s dramatically improved score in Air and Climate include ongoing energy efficiency efforts in existing, older building stock and continued payoff from projects like lighting upgrades and federal stimulus-funded steam trap replacements. Also, fewer air miles travelled, and a shift from air travel to ground transportation (busses) for Athletics, contributed to a reduction in emissions.

Dining Services (FY12-FY13 change: -40.8%) ↓

Credits for this subcategory within the older version of STARS (1.2) were split into two parts: one quantitative credit focused on food and beverage purchasing and a long series of qualitative quarter points that gave full or no credit for activities such as having recycled content napkins, providing information to patrons about trans-fats and vegan options, and having food donation programs in place. In STARS 2.0, the qualitative quarters of one point have been consolidated and refined. One credit focuses on purchasing and dining practices broadly, while the second credit deals with animal products sourcing and veganism. Because of this major change in the credit structure, point comparisons between FY12 and FY13 are not possible. However, the slide downward in the subcategory score centers nearly entirely on a single metric: the percentage of dining services food and beverage expenditures that are local and community-based and/or third party verified. This is also the portion of the credit worth the most points, reflecting the high impact made by our food choices. For this metric, University Housing and Dining Services reported for FY12 that 36% of food expenditures meet one or more of the criteria for this credit, while in FY13, UHDS reported 17.4%. Much of the reason for this change centers on better data analysis for reporting actual food purchases. Institutional-scale food purchasing often presents insurmountable challenges in data and statistical granularity needed to make accurate assessments of food sourcing and sustainability. In a more data-driven approach, UHDS staff made considerable efforts to report the most accurate information possible for FY13, investing a significantly higher number of hours than has been invested in past reports. It is likely the FY13 numbers far exceed any previous estimates in accuracy and comprehensiveness.

Another factor contributing to a lower score in this subcategory is the ever-increasing level of granularity and detail needed as STARS breaks apart and adds aspects to dining-related credits. For example, animal product-specific questions were not asked in previous versions of STARS, but in STARS 2.0, animal product and vegan related questions comprise three-sevenths of the available points within the Dining Services subcategory. Knowing these questions will be on the next STARS assessment better enables UHDS and the Sustainability Office to create internal reporting systems and protocols that match STARS reporting expectations.



Water (FY12-FY13 change: -47.7%) ↓

STARS 2.0 has a much more highly refined approach to awarding points for water use than previous STARS versions. Some changes include:

- Differentiation between potable and non-potable water use
- Differentiation between recycled/reused water from both on- and off-campus sources
- Calculation based on total campus acreage, farmland, vegetated and landscaped grounds, to create a series of normalizing factors and different weighted calculations for area types
- Calculation based on campus gross square footage.

OSU uses non-potable water in place of potable sources for toilet and urinals in Kelley Engineering Center and also for boiler makeup water in the Energy Center. The use of rainwater is not measured and estimates were not available on a timeline that allowed for timely STARS submission. The Sustainability Office hopes to make estimates for the FY14 STARS submission to get credit for current and expanding use of rainwater, and reduction of potable water reliance.

OSU's high score in the Water subcategory for FY12 was largely a result of a reduction in water use (231,523,952 gallons) relative to the 2005 baseline year (267,228,984 gallons). For FY13, water use relative to the 2005 baseline year actually increased, since OSU's total consumption totaled around 274,140,653 gallons. This, plus the changes in scoring methodology discussed above, resulted in a 74% of available points attained for the water use credit for FY10, 100% of available points for FY12 and only 38% of available points for FY13. Weather records indicate that 2012 was the fourth highest rainfall year on record for Corvallis, likely improving the FY12 water consumption score beyond what is typical, when measured against the 2005 baseline.

OSU's score in the Water subcategory was buoyed somewhat by achieving all available points (2/2) for the Rainwater Management credit. Points attained for this credit were from implemented practices like:

- using Low Impact Development (LID) practices as a matter of policy or standard practice to reduce rainwater/stormwater runoff volume and improve outgoing water quality for new construction, major renovation, and other projects
- employing rainwater harvesting as noted above
- utilizing porous (i.e. permeable) paving
- installing bio swales on campus (vegetated, compost or stone).

Interestingly, STARS 2.0 offers one point for wastewater management, rewarding institutions for using ecological wastewater treatment systems like [Living Machines](#), constructed wetlands and similar tools to treat sewage, grey water and the dirtiest water discharges. At the time of this writing, no Gold-rated institution scored points for this new credit, reflecting the emerging and very rare nature of this practice.





Diversity and Affordability (FY12-FY13 change: -10.9%) ↓

Oregon State continues to demonstrate strengths in the topics covered by this subcategory. Previous 100% scores have declined slightly due to a more rigorous and quantitative look at affordability. STARS' assessment of diversity initiatives continues to be qualitative and OSU has again scored full points in the diversity related credits of this subcategory. For affordability, quantitative indicators are listed below.

Indicators that the institution is accessible and affordable to low-income students:

| | Percentage (0-100) |
|--|--------------------|
| The percentage of entering students that are low-income | 32 |
| The percentage of entering students that are low-income | 76 |
| The percentage of student financial need met, on average | 73 |
| The percentage of students graduating with no interest-bearing student loan debt | 10 |

Fig. 8

Scoring across the indicators is cumulative. For example, an institution that reports 100% for three of the four indicators would earn 3 points for this credit. Likewise, an institution that reports 75% or more for all four indicators would earn 3 points.

Health, Wellbeing and Work (FY12-FY13 change: -17.2%) ↓

The lower FY13 score within this subcategory does not reflect so much lower OSU performance as it does the addition of the Workplace Health and Safety credit to this subcategory, and the movement of some high OSU performance qualitative credits to other subcategories. The high performing credits moved include the employee educators program, employee orientation and staff professional development, in all of which OSU scored 100% of available points all three years of the STARS assessment. To derive the 73% of available points score, the Health Wellbeing and Work subcategory score for FY13 was compared to a score of 90% within the STARS version 1.2 human resources subcategory. On the new Workplace Health and Safety credit, OSU scored 0.71 points of a possible 2 points based on the number of reportable workplace injuries and occupational disease cases per FTE employee in the performance year (FY13) relative to the baseline year (FY05). Although the number of cases has declined from 175 in FY05 to 153 in FY13, STARS only awards full points for zero reportable injuries and cases.

A positive improvement in score for this subcategory is the new STARS assessment of employee satisfaction. Previous versions of STARS did not allow partial points for this credit. Therefore, institutions would need to assess a representative sample of employees to get any points for the credit. STARS 2.0 offers incremental points based on the percentage of employees assessed. In early 2014, the Office of Equity and Inclusion conducted a campus climate survey that included questions about employee satisfaction, employee advancement opportunities and work culture. While the surveys are not mandatory, the response rate is high at approximately 38% of employees responding.

Reflecting the increasing institutionalization and diversity of employee wellness programs, the credit assessing such programs expanded from a qualitative quarter point to a one

point credit with three parts. Each part awards 1/3 of a point for programs that provide wellness related support to students, faculty and staff. In both FY12 and FY13, OSU was able to obtain 100% scores. Similarly, the employee compensation credit was split into three parts asking separately about the compensation of faculty, staff and contractors. OSU for both years performed well, scoring high marks for following sustainable compensation standards, guidelines, or policies and/or collective bargaining agreements for all of its workforce.

Investment (FY12-FY13 change: +12.5%) ↑

Nearly making it out of the low performance status, OSU's Investment subcategory score improved significantly since FY12, partly due to reporting for the first time the amount of holdings in businesses selected for exemplary sustainability performance. The OSU Foundation reported \$6.76M of \$393.12M invested in such businesses, combined with qualitative practices including:

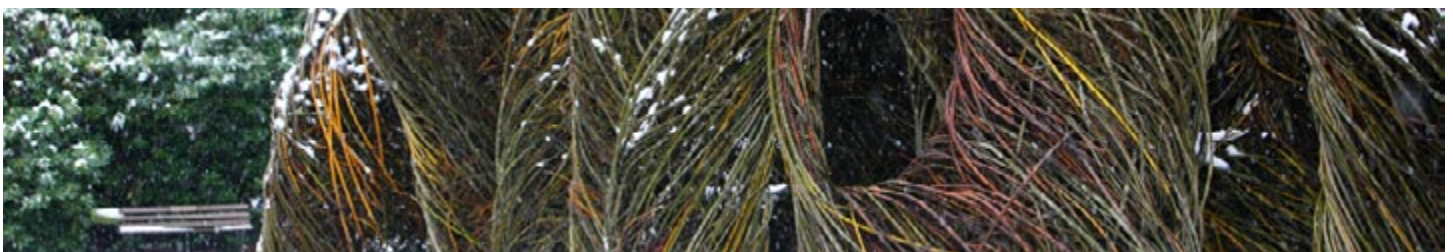
- A publicly available sustainable investment policy
- Using its sustainable investment policy to select and guide investment managers
- Engaging in policy advocacy by participating in investor networks and/or engaging in inter-organizational collaborations to share best practices.

Finally, in a rare case of a qualitative quarter point change positively affecting OSU's score, the Investment Disclosure credit moved from 0.25 to 1.0 points. OSU's investment disclosure guidelines have been and are in full alignment with STARS criteria, resulting in added points from this credit.

Public Engagement (FY12-FY13 change: +17.6%) ↑

Much of the change in score within the Public Engagement subcategory is related to reduction in the number of points associated with community service and OSU's somewhat low score for this activity. Within STARS 1.2, over one-third of the points for the Public Engagement subcategory were derived from community service credits. The new consolidated community service credit contributes fewer than one-quarter of the points for this subcategory. Performance wise, despite the high level of engagement across the university community and the Carnegie Foundation's coveted 'Community Engagement' designation, OSU's score is just 22% of the credit's available points. Much like in the FY12 report, this performance is likely due less to on-the-ground participation and service and is more likely attributable to underreporting service related activities. Because of OSU's large size and the diverse number of campus and community organizations involved in service related activities, accurate accounting for service hours and headcount will be a work in progress for some time to come. There is not yet a culture on campus of reporting community service and engagement activities resulting in many undocumented hours.

One standout resource that continually engages students in public service is Geosciences 300, Sustainability for the Common Good. GEO 300 is a baccalaureate core course typically taken by several hundred students each quarter in which, in addition to other academic requirements, each student is part of a



six-student group working four hours in the community on sustainability projects. Some projects have a strong environmental focus like trail work for the City of Corvallis and the OSU McDonald Forest, help at Finlay Wildlife Refuge or helping 4H with habitat improvement at an elementary school. Many service activities include strong social and outreach elements like tabling at Earth Fair booths, producing a video for campus security on bicycle safety or helping on Habitat for Humanity projects. These activities have made a notable impact in the years since GEO 300 Professor Steve Cook began changing the course's curriculum to emphasize service. Feedback from students has been quite positive, and from the community, overwhelmingly positive.

Much of the positive trend for the Public Engagement subcategory is due to very strong performance (100% scores) in the following credits:

- Community Partnerships
- Inter-campus Collaboration
- Continuing Education
- Community Stakeholder Engagement
- Participation in Public Policy.

OSU still does not pursue the Trademark Licensing credit. Institutions get two points for becoming a member of the Fair Labor Association (FLA) or Worker Rights Consortium (WRC) and for signing on to the Designated Suppliers Program. OSU uses the labor code Collegiate Licensing Company has established. Oregon University System policy prohibits adopting limits on eligibility to enter business agreements unless based on ability to perform, evidence of illegal activities or other criteria provided by statute or Board rule. OSU attempts to ensure that the companies making products that bear the university's name are not participating in situations that put workers' rights and safety in jeopardy. OSU follows industry guides but can't participate as a member in WRC or FLA.



Subcategories of high performance

Because of OSU's relatively solid performance in a number of subcategories, the bar for "high performance" has moved to mean achieving 85% or more of STARS points. Those subcategories are bolded in the figure below.

| STARS version 2.x subcategory name | Points Possible | FY13 | | FY12-FY13 % Change |
|--|-----------------|---------------|-------------|--------------------|
| | | Score | % | |
| Campus Engagement | 20 | 20.00 | 100% | 1.41% |
| Curriculum | 40 | 28.17 | 70% | 19.13% |
| Research | 18 | 17.50 | 97% | 0.63% |
| Air and Climate | 11 | 6.50 | 59% | 23.21% |
| Buildings | 8 | 2.88 | 36% | 9.08% |
| Dining Services | 7 | 2.76 | 39% | -40.81% |
| Energy | 10 | 0.33 | 3% | -7.43% |
| Grounds | 4 | 3.63 | 91% | -9.25% |
| Purchasing | 6 | 3.39 | 57% | -9.63% |
| Transportation | 7 | 4.43 | 62% | 8.33% |
| Waste | 10 | 4.49 | 45% | -0.22% |
| Water | 6 | 3.14 | 52% | -47.67% |
| Coordination, Planning & Governance | 8 | 7.67 | 96% | -4.13% |
| Diversity & Affordability | 10 | 8.91 | 89% | -10.90% |
| Health, Wellbeing and Work | 7 | 5.09 | 73% | -17.16% |
| Investment | 7 | 4.11 | 59% | 12.45% |
| Public Engagement | 21 | 15.12 | 72% | 17.61% |
| Total | 200 | 138.03 | 69% | 4% |

Figure 9: STARS subcategory comparison – areas of high performance.

In spite of being a comprehensive and, in many places, thorough assessment tool, STARS is not necessarily the authoritative answer to sustainability assessment for all institutions and gaps still exist. There is clearly more work to be done in areas where OSU scored well or even attained all the points within a subcategory, but the STARS assessment process is intended to help prioritize investments moving forward.

Campus Engagement (FY13 score: 100%) ↑

Credits within this subcategory are derived from the co-curricular education and human resources sub-categories within the previous version of STARS. OSU’s 99% score in the FY12 co-curricular subcategory and its 100% score for the three FY12 human resources related credits resulted in an unsurprising perfect score in the new campus engagement subcategory.

OSU’s strong commitment to student engagement around sustainability led in part by several programs within the Student Sustainability Initiative and supported by Campus Recycling and the Sustainability Office, covered the student oriented credits within this subcategory. The Sustainability Advocates program and new employee resources coordinated by the Sustainability Office, including materials from Northwest Earth Institute, helped reach full points for the employee oriented parts of this subcategory.

Research (FY13 score: 97%) ↑

With OSU's Carnegie Classification as a high research intensity institution, and OSU's designation as a land, sea, space and sun grant university, high scores in Research are not surprising. Similar to previous assessments, the only room for a higher STARS score is within the credit that measures departments engaged in sustainability research, where OSU demonstrated engagement from 69% of departments that conduct research. The STARS target for full point allocation is 75% of departments that conduct research. For engagement at the individual faculty level, STARS awards full credit for the number of faculty doing sustainability research when 15 or more percent of faculty are engaged in sustainability research. Interestingly, the STARS target for full points was 25% in previous versions. For FY13, OSU has an astounding 40% of faculty engaged.

Grounds (FY13 score: 91%) ↓

Full credit was received for FY10 and FY12 in this category of credits due in part to OSU's application of Integrated Pest Management (IPM) - to varying degrees - throughout the Corvallis campus. Also, the university gained points for all qualitative credits including being a Tree Campus USA, utilizing native plants and protecting wildlife habitat. Since it is unlikely OSU has achieved true sustainability in landscaping practices, STARS 2.0 produced a likely more realistic score of 91% of available points for FY13.

The primary driver for this change was a major shift in how this credit scores practices and the granularity of quantitative data required. For example, STARS 2.0 asks for the number of acres managed under an IPM program, managed in accordance with a sustainable landscape management program and/or is managed organically, third party certified and/or protected. Previous STARS versions required only a simple binary response. More information about OSU's landscape practices is available at <http://or-egonstate.edu/sustainability/natural-features>.

Coordination, Planning and Governance (FY13 score: 96%) ↓

As with each STARS assessment, OSU has attained full scores for having sustainability staff and committees. STARS' evaluation of sustainability in planning-related documents became much more robust and resulted in a 92% score for the planning credit due to the university not having plans with measurable outcomes that address dining services; purchasing; water; health, wellbeing and work; and investment.



Subcategories of potential improvement

This section details areas of potential score improvement and reasons for lower performance in some areas. Generally, subcategories for which the university scored 59% or fewer of available points are included in this section.

| STARS version 2.x subcategory name | Points Possible | FY13 | | FY12-FY13 % Change |
|-------------------------------------|-----------------|---------------|------------|--------------------|
| | | Score | % | |
| Campus Engagement | 20 | 20.00 | 100% | 1.41% |
| Curriculum | 40 | 28.17 | 70% | 19.13% |
| Research | 18 | 17.50 | 97% | 0.63% |
| Air and Climate | 11 | 6.50 | 59% | 23.21% |
| Buildings | 8 | 2.88 | 36% | 9.08% |
| Dining Services | 7 | 2.76 | 39% | -40.81% |
| Energy | 10 | 0.33 | 3% | -7.43% |
| Grounds | 4 | 3.63 | 91% | -9.25% |
| Purchasing | 6 | 3.39 | 57% | -9.63% |
| Transportation | 7 | 4.43 | 62% | 8.33% |
| Waste | 10 | 4.49 | 45% | -0.22% |
| Water | 6 | 3.14 | 52% | -47.67% |
| Coordination, Planning & Governance | 8 | 7.67 | 96% | -4.13% |
| Diversity & Affordability | 10 | 8.91 | 89% | -10.90% |
| Health, Wellbeing and Work | 7 | 5.09 | 73% | -17.16% |
| Investment | 7 | 4.11 | 59% | 12.45% |
| Public Engagement | 21 | 15.12 | 72% | 17.61% |
| Total | 200 | 138.03 | 69% | 4% |

Figure 10: STARS subcategory comparison – Subcategories of potential improvement.

Because they have been discussed previously in the subcategories of significant change section of this report, the following subcategories will not be included in the discussion here:

- Air and Climate
- Dining Services
- Water
- Investment

Buildings (FY13 score: 36%) ↑

The Buildings subcategory is one that has not changed significantly between different versions of STARS, and OSU continues to score low due to not having any buildings certified under a green building rating system for existing buildings, like [LEED® for Existing Buildings: Operations & Maintenance](#) (O&M) and/or operated and maintained in accordance with formally adopted sustainable operations and maintenance



guidelines and policies that cover all of the following:

- Impacts on the surrounding site
- Energy consumption
- Building-level energy metering
- Usage of environmentally preferable materials
- Indoor environmental quality
- Water consumption
- Building-level water metering

In the other two credits that make up this subcategory, OSU has scored well, attaining full scores for indoor air quality and at least partial points for constructing new buildings in accordance with green building guidelines. Previously, during FY10, the Energy Center was certified Platinum and Kearney Hall was certified Gold, garnering a higher score in that year. Also, all of OSU's major capital construction projects are typically LEED Silver equivalent or better. However, the building operations and maintenance credit carries the most weight in this subcategory.

Energy (FY13 score: 3%) ↓

As with other credits, qualitative quarters of a point found in previous versions of STARS have been consolidated under the STARS 2.0 Building Energy Consumption credit. However, STARS 2.0 no longer awards any points for items covered by the previous qualitative quarter points, such as vending machine sensors, temperature and lighting controls, and utility metering. OSU had traditionally earned all possible qualitative quarter points in the Energy subcategory but since points are no longer awarded for those items, OSU's score has suffered. Another aspect negatively affecting OSU's score is the discontinuation of institutional purchases of renewable energy certificates, which earned OSU up to 0.35 points in the past. Not all the aspects of this subcategory trended negatively, however. The largest single indicator of energy sustainability that made positive progress, picking up 0.32 points where OSU had previously scored no points, is total building energy consumption per gross square foot of floor area improved relative to our 2005 baseline. Increased operational efficiencies at the OSU Energy Center, as well as completing a series of small energy conservation projects over the past few years have held energy consumption lower, even as the campus expands.

Purchasing (FY13 score: 57%) ↓

Although at the higher end of the lower performing spectrum with 57% of available points scored, the Purchasing subcategory suffered from the addition of the Life Cycle Cost Analysis credit. Since OSU does not perform any life cycle analyses on the goods it purchases (few schools do), OSU scored no points for the new credit. Other credit scores within this subcategory are on par with past performance, and most

trended slightly upward. Electronics purchasing in particular trended positively, in part due to better and more complete data thanks to efforts in OSU's procurement group and continued purchases of predominantly EPEAT Gold registered desktop and laptop computers, displays, thin clients, televisions, and imaging equipment.

Waste (FY13 score: 45%) ↓

Within this subcategory, OSU trended positively with higher scores on Waste Minimization and Waste Diversion credits than FY12. As covered in the FY12 annual report, data prior to FY12 were estimated using dumpster volumes rather than weights. FY12 and FY13 STARS submission data came from improved data gathering and waste hauling measurement, creating what is effectively only a two year trend. Slightly lower diversion rates for construction waste offset some of the gains from Waste Minimization and Waste Diversion. Also, the elimination and movement of the qualitative quarter points negatively affected OSU's score in this subcategory.

Highlights Beyond STARS

Ground Mounted Solar



In partnership with the Oregon University System and SolarCity, OSU began and completed work on two of five planned ground mounted solar arrays. The first two sites, both located on the Corvallis campus, came

online in January 2013. This effort was started as part of the University System’s “Solar by Degrees” initiative, the goal of which was to install 5 megawatts of solar power on Oregon’s public university campuses. Because of the public-private partnership between OSU and SolarCity, backed by the Oregon Department of Energy, Governor’s Office and others, OSU paid nearly nothing for the project and it will save the university money over the long run. The equipment is owned, maintained and operated by SolarCity and the OSU purchases power from the systems at rates lower than the local utility can provide.

The solar equipment provides enough electricity to supply enough power for the surrounding university buildings each year, on an annual basis. The two locations were chosen to match electrical load with available ground space. Work on three more installations occurred during FY 14.

Harvesting Clean Energy conference

OSU hosted the [Harvesting Clean Energy](#) conference, the Northwest’s premiere gathering of the agriculture, forestry, and energy industries to advance rural economic development through clean energy. Hundreds of attendees got hands-on guidance for clean energy projects at this three day event. The event brought visibility to OSU energy and sustainability related accomplishments through a guided tour of campus sustainability features attended by about 35 conference participants.



Transportation Options initiatives: Drive Less Connect and Bike Loan Program

Transportation Options (or alternative transportation) continues to be a moderately high performing parameter for OSU, and the university’s score improved 8% over FY12. Regional travel data show that Corvallis is an employment destination: many more trips are made into Corvallis for the workday than leave Corvallis for other communities. Corvallis cost of living and other factors contribute to higher reliance on single occupancy vehicle travel.

Initiatives begun in FY13 and accelerating in FY14 are aimed at reducing reliance on the single occupancy vehicle. OSU’s partnership with

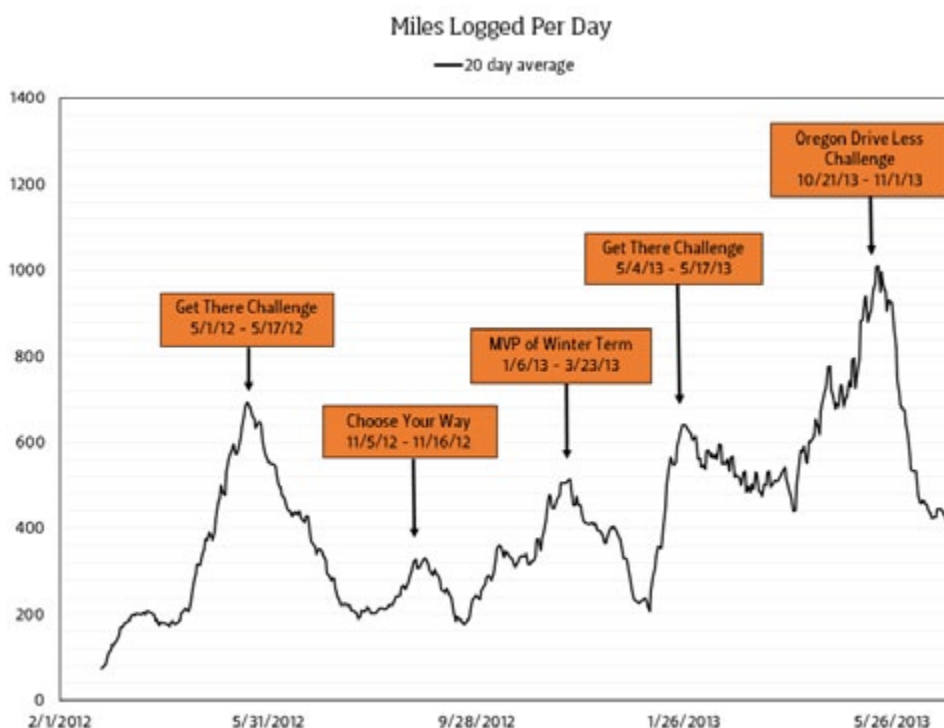


Fig. 11

the City of Corvallis in [Collaboration Corvallis](#) has resulted in more thorough communication between City and university leadership and the communities that surround the Corvallis Campus. A Traffic and Parking Workgroup included participants from the university and community and made a series of recommendations intended to reduce negative impacts on surrounding neighborhoods from university growth. From this process, several Transportation Options initiatives were created or enhanced including the Bike Loan Program and Drive Less Connect.

The OSU [Bike Loan Program](#) is a partnership between Recreational Sports, the Student Sustainability Initiative (SSI) and the Sustainability Office. With startup funding provided by SSI and Collaboration Corvallis and programmatic support from RecSports and the Sustainability Office, the Bike Loan program started in January 2013 with a fleet of 15 bicycles available for daily, weekly or quarter-long rent at very low rates (\$5/day, \$15/week or \$35/quarter). Since gaining early momentum, the program quickly developed a waiting list that at the end of FY13 was more than triple the available fleet of bicycles. During FY14, program partners began planning for expansion of the fleet and its support systems.

Enhanced marketing and outreach for Drive Less. Connect was also made possible through support from Collaboration Corvallis. By setting up an email address import methodology for university students, faculty and staff, combined with prizes and incentives already orchestrated by the Sustainability Office, the Office has been able to dramatically grow utilization of the online ride matching and trip calendaring system.

Since program inception, the number of Drive Less. Connect users has continued to increase. As shown in Figure 11, while the overall growth trend is positive, strong correlations exist between targeted outreach efforts and increases in miles logged and other assessment parameters. These trends also follow the cyclical nature of the academic calendar.

The Sustainability double degree

This newly established program was refined and enrolled its first students during FY13. The double degree exposes students to real-world problems and fosters knowledge, skills and abilities to address these problems in communities and workplaces. In step with the interdisciplinary nature of sustainability, the degree was designed to complement all OSU degree programs and be earned as a second bachelors degree in addition to a major area of study. Students take a sustainability “core” consisting of 5 courses: environmental science, sustainable communities, sustainability assessment, and a choice of several (1) economics and (2) sociology courses. Graduates emerge prepared to communicate effectively, work collaboratively, and apply knowledge of economic, business, scientific, and sociological principles of sustainability to a variety of career fields.

SSI Research Grant added to slate of grant programs.

While many higher education institutions offer internal grants to advance sustainability on campus, OSU's Student Sustainability Initiative (SSI) offers a variety, scale and scope that are innovative, as is the inter-relationship between them. The SSI is run and operated by students and is entirely student fee funded. SSI administers four grant programs: Project Grants, Travel Grants, Wage Grants and Green Fee Grants. During FY13, a Research Grant program was developed to offer opportunities targeted to undergraduate researchers.

The Research Grant program creates and supports opportunities to use the Corvallis Campus as a living laboratory for sustainability. To better integrate OSU's renowned research into daily operations and improve the student experience, SSI developed the Research Grant Program to advance the sustainability of the Corvallis campus' built environment, operations, policy, academics, and student engagement with an applied focus to encourage change in our own community.

Continued excellence in recycling programming

Campus Recycling continued programming that moved OSU toward waste reduction. Specific highlights are below.

Repair Fairs: The Waste Watchers, a student volunteer team jointly coordinated by Campus Recycling and the Student Sustainability Initiative, started a new event series called the [Repair Fairs](#). At this twice-per-term event, volunteers from the on- and off-campus communities offered free repairs for common items such as clothing, electronics, bicycles and more. In FY13 organizers estimate that 200 people attended, bringing 207 items, 74% of which were fixed.

America Recycles Day: Campus Recycling hosted an event on this nationally recognized day that focused on collecting hard-to-recycle items, and was open to both the on- and off-campus community. In just four hours, Recycling collected 5,300 pounds of electronics, electronic storage media, batteries and scrap metal (double the weight collected the previous year), plus 29 cubic yards of Styrofoam and film plastic.



Res. Hall Move-Out Donation Drive: Surplus Property and Campus Recycling, in collaboration with University Housing and Dining Services, coordinated an effort to reduce waste during residence hall move-out by educating residents and giving them the tools to recycle and donate as much as possible. Donations have been increasing every year since 2010.

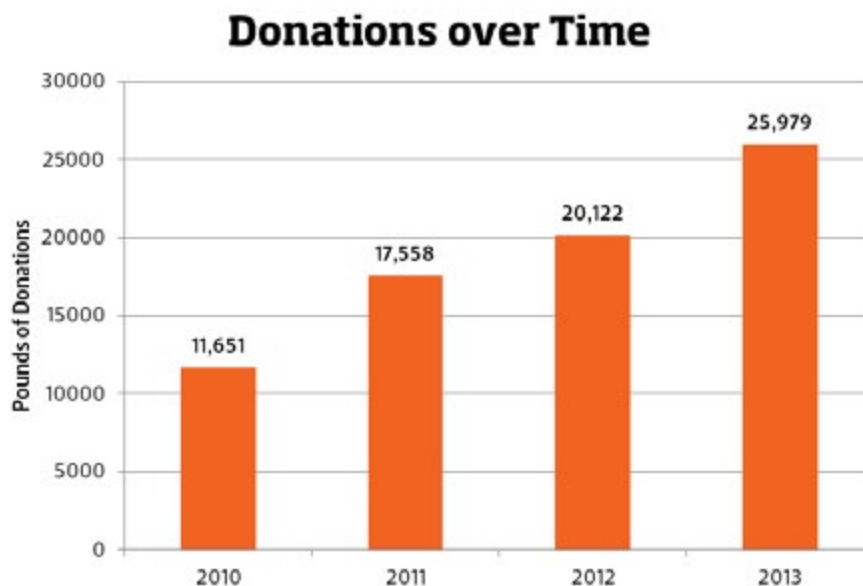


Fig. 12

Da Vinci Days Festival waste: Through collaboration with da Vinci Days staff, Republic Services, and community volunteers, 85% of the trash was diverted either to recycling or compost, maintaining the low levels of landfill-bound waste accomplished since the waste reduction initiative began in 2010.

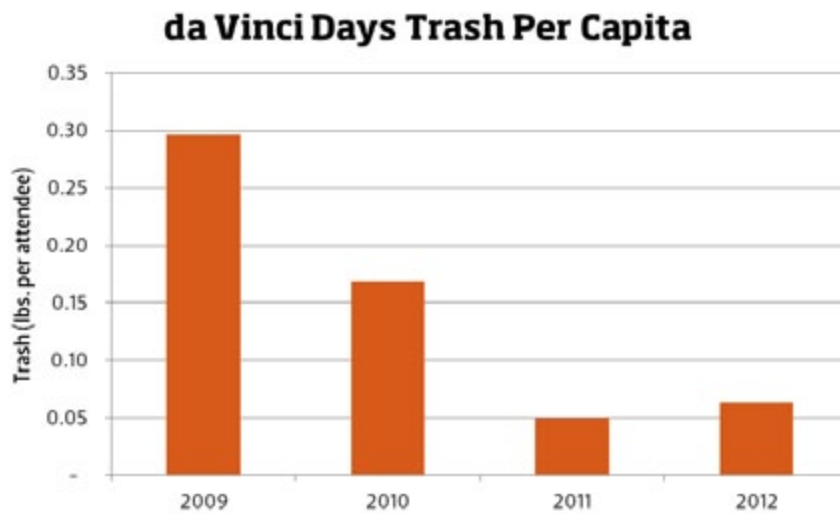


Fig. 13

4.1 Areas Exceeding STARS Credit Maximums

This section details areas where OSU projects, activities or programs reflect priorities and/or strengths of the institution and exceed by a significant margin the STARS point thresholds. These are different than innovation points which strive to be in some way unique; the items listed below may not be unique but have developed in an advanced enough way that they cannot be adequately captured or valued by the number of STARS points in the appropriate credit. To an extent practicable, the authors have reviewed the scores and qualitative information for other institutions to compare OSU's performance.

Sustainability double degree

As noted above, the sustainability double degree was designed to complement all OSU degree programs and be earned as a second bachelors degree in addition to a major area of study. Having this degree in place significantly exceeds the undergrad degree programs credit requirement for [AC-3: Undergraduate Program](#).

Student Sustainability Initiative (SSI)

The scope, structure and impact of SSI exceeds [EN-3: Student Life](#) in two aspects of the credit: 1) Student-run enterprises that include sustainability as part of their mission statements or stated purposes and 2) Sustainability-focused student employment opportunities offered by the institution.

Corvallis Sustainability Coalition

Oregon State's extensive connections with and support of the Corvallis Sustainability Coalition exceed [EN-9: Community Partnerships](#). Notable activities include:

- Staffing various committees and action teams, including the Coalition Steering Committee, Executive Committee and Energy Action Team
- Leadership of several action teams is coordinated by OSU staff, and leverages university resources through these channels
- Using the campus as a living laboratory for Coalition action team projects. Specifically, Energy Action Team, Water Action Team and Waste Reduction Action Team have catalyzed opportunities in this way
- OSU Sustainability Office is the primary financial and logistical sponsor of the Coalition's annual sustainability Town Hall meetings
- Promoting Coalition events to the campus community through a wide variety of channels.

Open access policies and [ScholarsArchive@OSU](#)

OSU has demonstrated leadership in providing access to research since at least 2005 when the Faculty Senate passed an Open Access resolution. The 2013 [Open Access Policy](#) affirmed the campus community's commitment to its land-grant mission, and to disseminating its research and scholarship as widely as possible. In addition to the public benefit of such dissemination, this policy is intended to serve faculty interests by promoting greater reach and impact for articles. For a credit where the average amongst all other STARS Gold universities was just 0.79 out of 2 points, OSU's research prominence is clear.

Sustainability in Research

With clear strengths in engineering and the natural sciences, the amount of sustainability related research at OSU continues to grow. Key research areas within College of Engineering, for example, include [SENERGI](#) (Sustainable Energy & Infrastructure) which includes clean energy, energy management and conservation, and infrastructure. Additionally, OSU helps lead the [Oregon BEST Sustainable Built Environment Research Consortium](#), which works to make it easier for businesses to harness the intellectual capital of Oregon universities. STARS awards full credit for the number of faculty doing sustainability research when 15 or more percent of faculty are engaged in sustainability research. Interestingly, the STARS target for full points was 25% in previous versions. For FY13, OSU has an astounding 40% of faculty engaged.

[Collaboration Corvallis](#)

Citizen involvement is the foundation on which Collaboration Corvallis was created. The Collaboration utilizes three citizen work groups to evaluate current matters and concerns associated with traffic and parking; planning and housing issues; and livability matters in neighborhoods nearby the university.

A joint steering committee made up of city and OSU representatives oversees the overall Collaboration project, as well as the three work groups. The work groups engage with community and campus stakeholders – as well as planning, housing and traffic experts – to evaluate and recommend potential solu-



tions and new strategies to the Corvallis City Council and the leadership of Oregon State University. These activities exceed STARS requirements for [EN-13: Community Stakeholder Engagement](#).

Governance

OSU prides itself for mechanisms through which students, staff and faculty – of any rank – have avenues to participate in one or more governance bodies. Various OSU entities, such as ASOSU, the Service Employees International Union, Faculty Senate and countless other committees and groups provide a network of governance structures. The newly formed OSU Board of Trustees, with student, faculty and staff members, continues this transparency and helps exceed STARS requirements for [PA-3: Governance](#).

Support for Underrepresented Groups

The Office of [Intercultural Student Services](#) (ISS) exists to provide a more fluid and dynamic organization for the intersectionalities of race, gender, class, ethnic identity, and ability in a more comprehensive and engaging approach. Although these resources are focused on students, they are also available to faculty and staff. Financial support is provided by the Diversity Achievement Award. It is a competitive award offered to entering undergraduate freshman and transfer students aimed at building upon the diversity and educational goals of the university. Evaluation of award application and financial need are also factored into the selection process. These and other efforts exceed [PA-6: Support for Underrepresented Groups](#).

[Employee wellness programs](#)

OSU offers extensive employee wellness programs, arguably exceeding the 1.0 points available in [PA-11: Wellness Program](#). Highlights include:

The [Faculty Staff Fitness Program](#) was started in 1984 with 10 activity classes enrolling 100 individuals. Today there are an average of 30-40 classes serving over 800 faculty/staff, GTAs/GRAs, spouses/partners, and retirees of the university each term. No membership fees are collected; a modest class fee is all that is charged.

“[LifeBalanceOSU](#)” helps faculty and staff maintain a healthy balance in life. The program strives to create a family-friendly environment where your work life or school life can be balanced with your personal life.

[Be Well](#) is another effort at OSU by the Healthy Campus Initiative, a collaboration involving students, faculty, and staff. By emphasizing a culture of well-being, we support individuals and our community in adopting and maintaining healthy behaviors that will improve quality of life. A healthy campus provides added value, beyond what individuals provide for themselves. Be Well encourages members of the OSU Community to Be Active, Eat Healthy, Manage Stress, and stay Smoke-Free. In addition to providing resources, services and programs, our aim is to make sustainable changes to the fabric of OSU that will result in a healthier community.

[OSU's Employee Assistance Program](#) (EAP) is a free confidential service that can assist employees with problems that interfere with day to day activities. OSU has chosen Cascade Centers, Inc., as its EAP provider in which eligible employees and dependents are covered. This confidential service provides telephone contact and/or in-person sessions as needed to assist you in completing an intake, assessment and referral.