

Dickinson

GLOBAL.
SUSTAINABLE.
ENGAGED.



2020

SUSTAINABILITY REPORT



“At this pivotal moment in human history, facing unparalleled challenges, we continue our decades-long commitment to sustainability and civic engagement. To learn about the world and to help shape a better, sustainable one is the responsibility of us all. That starts right here in Carlisle, where we have worked with leaders through the Community Action Network to solve problems and address challenges creating a more resilient community.”

President Margee Ensign

PANDEMIC, ANTIRACISM & SUSTAINABILITY

Our resilience, and the resilience of the nation, is being tested by the coronavirus pandemic. Our values and resolve are being tested by entrenched systemic racism, violence against Black people and unequal access to the benefits our society can offer. We affirm that the sustainability movement, and our work within the movement, must be joined to movements for human wellbeing, social justice, Black lives and antiracism. These movements will increasingly inform the ways in which Dickinson works to help bring a transition to an equitable, just and sustainable world. Examples of what we are already doing to make these connections are described in this report.

ZERO CARBON

ZERO CARBON. THAT'S THE GOAL WE SET IN 2007 AND REACHED IN 2020. In 14 years we cut our net emissions of carbon dioxide and other climate-changing greenhouse gases to zero from over 18,000 metric tons, making Dickinson one of the first 10 carbon-neutral colleges in the nation.

We've made other commitments and delivered on those as well. Since launching our sustainability initiative, we've integrated education for sustainability across our curriculum, built a robust faculty development program to promote sustainability teaching, provided rich opportunities for sustainability learning in our co-curricular programs at home and abroad, promoted a culture of sustainable practices, improved sustainability performance in campus operations and worked with community partners to help build sustainable communities.

In the process, we've raised **Dickinson's national prominence as a sustainability leader.** We've had a Gold rating since 2011 from the Association for the Advancement of Sustainability in Higher Education (AASHE) and are ranked by them as the No. 2 sustainability performer in the nation among four-year colleges. The Princeton Review ranks us No. 3 and *Sierra* magazine No. 12.

Sustainability learning at Dickinson is entwined with global and civic learning. We are one of a very small number of colleges that has strength and depth in all three areas. **Dickinson received the 2019 Senator Paul Simon Award for Comprehensive Internationalization** (we are the only college in the country to have received the award twice), and in 2020 we earned Carnegie Community Engagement Classification for benefiting the broader community through teaching, research and institutional commitment. Our students, by connecting global, civic and sustainability learning, gain knowledge and aptitudes that prepare them to work on critical challenges that call for acting at local to global scales.

Highlighted in this report are selected achievements in fiscal years 2019 and 2020. Further information about Dickinson's sustainability initiative is available at www.dickinson.edu/sustainability and by emailing sustainability@dickinson.edu.

Dickinson holds itself accountable for advancing sustainability and has created an online dashboard to make our performance visible to our campus community and the public. Visit the Sustainability Dashboard for the latest metrics in student learning, campus operations, and community wellbeing.

www.dickinson.edu/sustainabilitydashboard



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HOW WE LEARN

Active. Experiential. Problem-based, project-based, place-based and community-based learning. These are mainstays of education for sustainability at Dickinson through which our students build skills to make positive change in the world. The core idea is to learn by doing: tackling authentic problems, exploring their complexities and interconnections, formulating and testing solutions, collaborating with others, reflecting on outcomes, communicating lessons learned and taking action. Opportunities to engage in high-impact, hands-on sustainability learning are found in Dickinson's academic programs, off-campus study opportunities, rich variety of co-curricular and civic engagement activities and sustainability projects of campus operations.

67%

USED A CAMPUS RESOURCE to learn about sustainability (e.g. a green building, college farm, or campus recycling program)

34%

INTERACTED WITH RESIDENTS of Carlisle or other community to learn about community issues

44%

CONDUCTED LAB EXPERIEMENTS to examine sustainability concepts

27%

CONDUCTED A SUBSTANTIAL RESEARCH PROJECT on a sustainability related topic

22%

DEVELOPED A SOLUTION to a sustainability problem on campus, in Carlisle or in another community

58%

EXAMINED SUSTAINABILITY PERSPECTIVES, approaches or issues in a non-U.S. context

58%

EXAMINED CIVIC RESPONSIBILITIES to ethical questions or personal values in relation to sustainability

42%

GAVE A PRESENTATION on a sustainability-related topic

58%

WORKED ON A GROUP PROJECT with a sustainability-related topic

53%

APPLIED SUSTAINABILITY CONCEPTS to evaluate a behavior, product, process, community, business or system

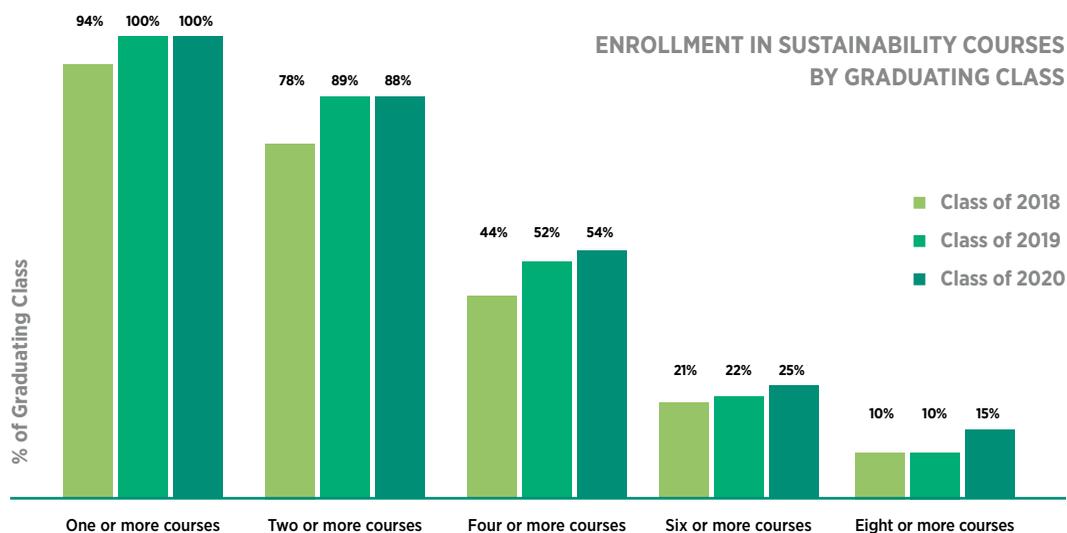
*Percentages of students who engaged in experiential sustainability learning in 2019.



SUSTAINABILITY ACROSS THE CURRICULUM

Sustainability was made a graduation requirement beginning with the class of 2019. All students in the 2019 and 2020 classes completed at least one sustainability course before graduating, and more than half of them completed four or more sustainability courses. Nearly 1,300 students took at least one of the 128 sustainability courses offered in 2020. The courses, offered by 36 of Dickinson's 44 academic programs, represent nearly 14% of total courses at Dickinson.

It took over a decade of investment in faculty and course development to build our diverse and robust sustainability curriculum. Dickinson's Center for Sustainability Education (CSE) supports these efforts with small grants to faculty and staff from the **Sustainability Education Fund (SEF)**, the annual **Valley & Ridge Sustainability Across the Curriculum** study group, faculty seminars, consultations, class visits, and assistance with class projects.



Twenty-two SEF grants totaling \$52,000 were awarded to faculty and staff in 2019 and 2020. The grants were used for curriculum development, professional development, and student-faculty research projects. Cumulative SEF grants awarded to faculty and staff since 2008 have exceeded \$600,000.

Each May the **Valley & Ridge** study group begins with a three-day workshop that brings together educators from Dickinson and other institutions to collaborate in creating and revising courses to support sustainability learning. The 2019 workshop had 17 participants, nine from Dickinson and eight from six other colleges and universities. Following the workshop, the Dickinson participants modified or created sustainability courses in American studies, art & art history, biology, earth sciences, French, religion and writing. Since 2008, 129 educators have participated in Valley & Ridge. Of these, 106 are Dickinson faculty and staff, 74 of whom are still teaching at Dickinson or in our abroad programs. The 2020 workshop was canceled because of the pandemic, but we expect to offer it again in 2021.

In *Life and the Anthropocene* (ANTH 345), **students and Professor James Ellison drew on ethnographies** from throughout the world to explore questions about what it means to be human in the Anthropocene, how humans live in the world and how they interact with technologies, environments and other species. With field trips and focused ethnographic projects, students examined questions of sustainability and the paradoxes of humans being central forces of the Anthropocene while also never being alone in the emergent and dynamic situations of this epoch.

A SAMPLE OF RECENT SUSTAINABILITY COURSES

- Life and the Anthropocene (ANTH 345)
- Asian Urban Ecology (EASN 206/POSC 290)
- Environmental Economics (ECON 222)
- Environmental Leadership and Organizing for Sustainable Social Change (ENST 306)
- Introduction to Arctic Studies (ERSC 250)
- Food and Energy in Israel and the United States (FDST 250/JDST 216/MEST 200/SUST 200)
- Food and the American Environment (HIST 211)
- Global Economy (INBM 200/INST 200)
- Afro-Brazilian Literature (LALC 304/AFST 304/PORT 304)
- Probability and Statistics II (MATH 325)
- Climate Change and Renewable Energies (PHYS 114)
- Russian Culture and the Environment (RUSS 248)
- Ecocritical Literary Tours Through South America (SPAN 231)
- Sustainable and Resilient Communities (SUST 301/SOCI 230)
- Topics in Sustainability and Academic Writing (WRPG 102)



STUDENTS WHO PRACTICED SUSTAINABILITY SKILLS IN SUSTAINABILITY COURSES:

50%

Integrate knowledge from multiple disciplines

48%

Communicate effectively in writing

41%

Applying systems thinking

32%

Analyze future scenarios

30%

Communicate effectively by speaking

30%

Evaluate credibility of information sources

23%

Advocate solutions

Students in Professor Jeff Forrester's course **Probability and Statistics II (MATH 325)** honed their skills for applying statistical methods by analyzing a variety of discrete and continuous variables related to sustainability. As part of a final project, students identified datasets and variables, talked with domain experts, created models and tested hypotheses to explore questions about campus and community sustainability. Topics explored by the students included optimizing benchmarks for energy conservation; examining campus resource usage by living arrangements, building classification, weather variables and resident type; and how knowledge, coursework and attitude were related to the praxis of sustainable living.

FUTURE-READY CAPABILITIES

Dickinson's **Future Ready Initiative** convened faculty and others to identify capabilities that are essential to future work and civic life in a rapidly changing world. The identified capabilities correlate strongly with the strengths of a liberal-arts education. They also map closely with skills that are supported by sustainability education at Dickinson, which emphasizes solving complex problems by integrating knowledge from multiple disciplines, applying systems thinking, employing ethical reasoning, analyzing scenarios of the future and communicating effectively.



RESEARCH

Dickinson students engage in sustainability research through course projects, independent work and collaborations with faculty. In the process they learn skills for asking meaningful questions, posing hypotheses, collecting and analyzing evidence, using evidence to formulate and support arguments, recognizing complexity, communicating findings and uncertainties and applying what they've learned to solve problems.

Max Lee '19, working with Assistant Farm Manager Matt Steiman and Professor Sarah St. Angelo, tested the effects of using a byproduct of biogas production as a crop fertilizer. The process of generating biogas from food and animal waste also produces a sludge byproduct rich in organic material. Max tested the chemical and nutrient content of the sludge, mixed it with compost, grew seedlings in the mixture and measured the effects. The research generated data on the benefits for crop growth, vegetable production and nutrient levels that are potentially useful to farmers. A paper coauthored by Max and his collaborators was published in *Renewable Agriculture and Food Systems*.

Sara Soba '21, Karan Shakya '20 and Professor Maggie Douglas collaborated in research on insecticide and herbicide use patterns and impacts in the U.S. Sara created an app for exploring patterns of toxic loads on bees, Karan studied herbicide impacts on monarch butterflies and Professor Douglas analyzed pesticide and crop datasets to make the surprising discovery that insecticide use is expanding despite the wide adoption of corn that's genetically modified to resist insects. Sara and Karan presented their research at the Annual Meeting of the Entomological Society of Pennsylvania, where Karan took first prize for best presentation by an undergraduate and Sara took first for best poster.

Sustainability is also a focus of faculty scholarship at Dickinson. **Responding to a fall 2019 survey, 61 faculty members reported that their scholarship explicitly addresses** the concept of sustainability, the interdependence of ecological systems and social or economic systems or major sustainability challenges.

Continued on page 9.



EXAMPLES OF OTHER RECENT SUSTAINABILITY RESEARCH BY AND WITH STUDENTS:

- Impacts of natural disasters on inequality. Yanqing Zhao '19, Prof. E. Marshall & Prof. T Underwood
- History of water infrastructure and public health in Carlisle. Samantha Reiersen '19 & Prof. N. Tynan
- Transportation access in Carlisle. Dustin Bishop '20, Cammie Charron '22, Espoir DelMain '21, Katherine Stonesmyth '22, Anna Zaremba '20, Prof. E. Pawley, Prof. T. Underwood & N. Leary
- Greenhouse gas emissions in Carlisle. Mark Frenzel-Sulyok '20, Olivia Kubaska '20, Sam Lavine '21 & N Leary
- Community participation in climate action planning. Kendra Beaver '20 & Prof. M. Beevers
- Climate change impacts on agriculturalists in Bangladesh. Amir Zawad '22, Aisha Rodriguez '22, Prof. S. Alam, & Prof. H. Bedi
- Climate change impacts on birds of Cumberland County. Larissa Babicz '20 & K. Van Fleet
- Turtle population dynamics and phenology at Wildwood Lake. Emma Sullivan '19, Cecilie Macpherson '19 & G. Wingert
- A geographic information system for Appalachian Headwaters. Meggie Devlin '19 & Prof. M. Douglas
- American toads as biological controls in agroecosystems. Abby Marich '20, Maddie DuBoyce '20, Prof. M. Douglas & Prof. S. Boback
- Earthworm cover crop habitat preference. Paige Baisley '20 & Prof. M. Douglas
- Use of green nanoparticles in chemical processes. Jordan Cox '21 & Prof. S. St. Angelo
- Chemical composition of runoff from asphalt. Katie Krieger '20, Cole Bedeaux '20, Kelly Lambertson '21 & Prof. A. Witter
- Solar air heater designs, efficiencies and prototyping. Julia Huddy '19, Sophie Kirkman '19, Olivia Young '20, Rachel Krewson '20 & Prof. H. Pfister
- E-bike prototype construction. Rachel Krewson '20, Maddie Ritter '19, Nikoloz Tsagareli '21 & Prof. H. Pfister

Continued from page 7.

The 61 faculty members represent 53% of the 116 survey respondents and 28% of full-time faculty. Examples of this scholarship include physical science research on climate change, ocean acidification, freshwater pollution, sustainable agriculture, renewable energy technologies, introduced species, species loss and habitat conservation; social science and humanities scholarship on food security, access to health care, access to education, sustainable communities, gender equality and inequality, economic growth, responsible consumption, religious perspectives on the environment, poverty alleviation and climate change adaptation; and artistic works that examine humans' relation to nature, social injustice, environmental harms and climate change.

Frequently our faculty do this work in collaboration with others, including Dickinson students, other Dickinson faculty and staff and colleagues at other institutions, in other countries and in disciplines other than their own.

SUSTAINABILITY FACULTY RESEARCH

23%

Dickinson students

I have engaged in this work with:

19%

Dickinson faculty members or academic staff

53%

Engage in sustainability-related scholarship

23%

Colleagues at other institutions

16%

Colleagues who work at institutions outside the United States

19%

Colleagues who have expertise in disciplines that are different from my own



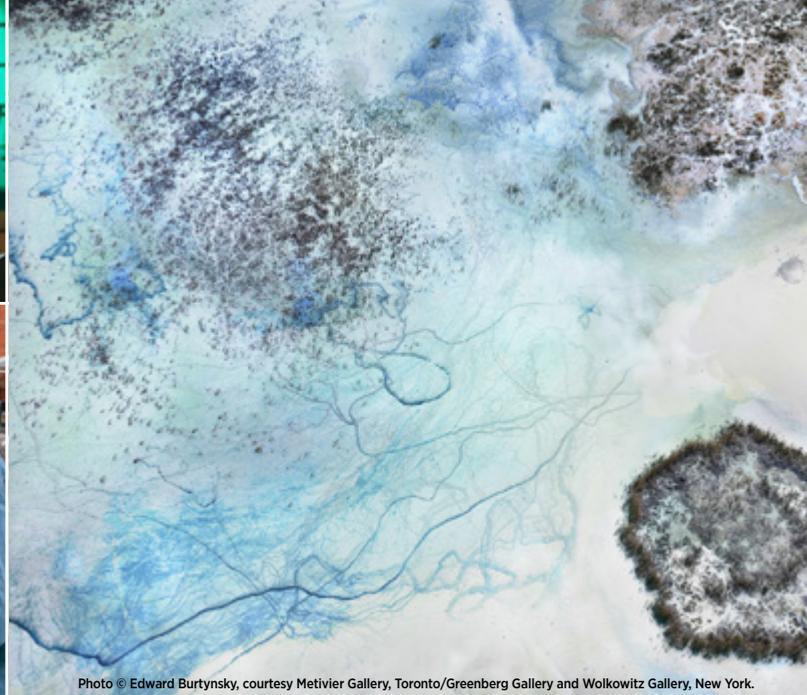


Photo © Edward Burtynsky, courtesy Metivier Gallery, Toronto/Greenberg Gallery and Wolkowitz Gallery, New York.

CREATIVE WORK

Creative projects in 2018 and 2019 stimulated rich conversations around themes of humans' relationships with, interpretations of, responsibilities for and responses to the natural world. *Conodoguinet: A Long Way With Many Bends*, a mural painted in September 2018 by **visiting artist Dierdre Murphy with students and faculty from art, biology and environmental studies, integrated artistic and scientific ways** of seeing and knowing to raise awareness of water pollution and threatened bird species in our local watershed. The mural celebrates the beauty of the watershed while also depicting scientific data of songbird migration and feeding and breeding zones. **Environmental studies faculty and Dickinson's Alliance for Aquatic Resources Monitoring (ALLARM)** assisted in the mural project by providing maps, water quality and bird count data collected in recent years by Dickinson students and local community members, as well as data from bird surveys conducted by Spencer Fullerton Baird in the 1840s.

Dickinson's Trout Gallery hosted *Edward Burtynsky: Water* in June through October 2019. The exhibit of large-scale photographs of water and waterscapes from the accomplished photographer sought to draw attention to the growing needs of an expanding and thirsty civilization reshaping Earth. **Working with Hope Station, the YMCA, Stuart Community Center, Carlisle Arts Learning Center and Carlisle Early Education Center, the Trout Gallery and its student staff members** utilized the exhibit to engage Dickinson students and local K-12 students in discussions about water in summer camp programs, class visits, workshops, an interdisciplinary panel discussion and sessions with high-schoolers taught in foreign languages by Dickinson students.

Inspired by questions raised by Burtynsky's photographs, **Dickinson professors Jennifer Blyth and Todd Arsenault collaborated** on *Current*, a music and video project that they premiered in September 2019 in the Rubendall Recital Hall. Blyth, Professor James Martin and the Heare Ensemble performed musical compositions selected to explore aural images and narratives of rivers, oceans and waterways. The music was accompanied by a video installation by Arsenault, a stop-motion animation composed of more than 10,000 images created by painting, layering and manipulating transparent images and cut paper. Together, the music and visual imagery examined landscapes and waterscapes as nature, habitat, artifact, system, problem, wealth, ideology, history, place and aesthetic.

In December 2019, **Professor Amy Wlodarski and the Dickinson Choir performed *Earth Without Song***. Student members of the choir had a large hand in curating and conceiving the concert, seeking to create a dire vision of climate change that might provoke the audience to awareness and action. The works performed were internationally and culturally diverse, chosen to demonstrate that human concern for climate change transcends religious faith, race, ethnicity, gender, sexual orientation, nationality, time, space and experience. In addition to weekly rehearsals, preparation for the concert included evening discussions of readings to work through anxieties and fears about climate change and give shape to the approach, messages and tone of the performances.

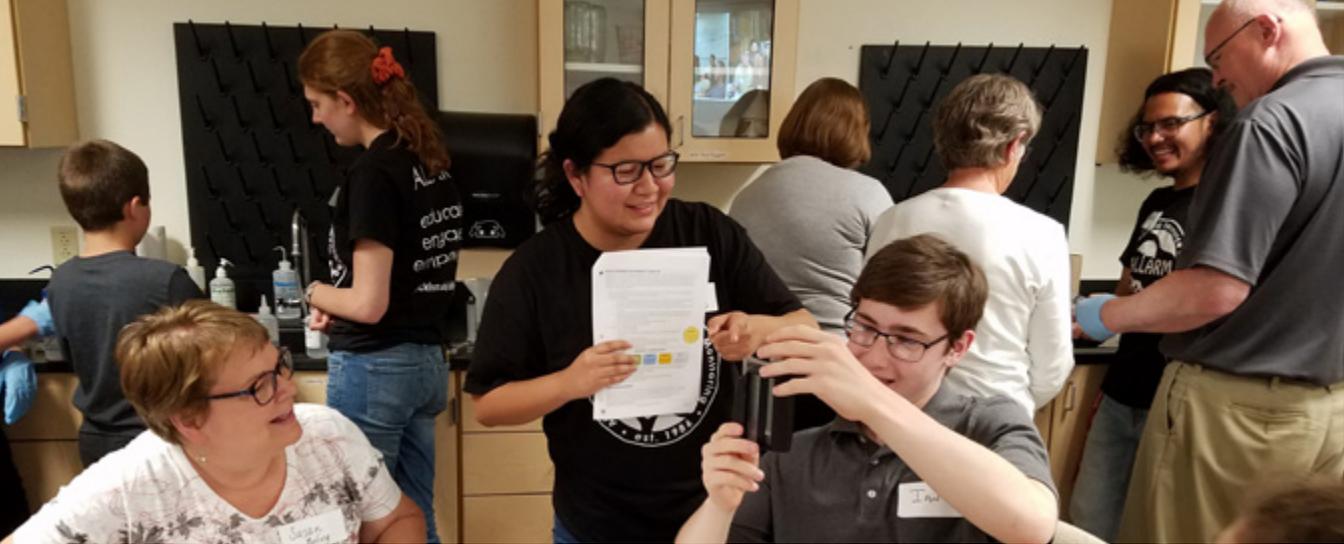
LIVING LABORATORIES

Students extend sustainability learning beyond the classroom by participating in rich and varied co-curricular activities that function as living laboratories for hands-on learning. They apply sustainability principles and test sustainable solutions working as interns and volunteers on and off campus, leading and participating in student organizations, working with campus operations staff, organizing and attending events and pursuing their personal passions. Following are some recent highlights.

Climate Change Needs Behavior Change, a yearlong campaign coordinated by CSE student interns and Eco-Reps, inspired the Dickinson community to take actions to protect the climate and help Dickinson reach its carbon neutrality goal in 2020. Interns and student volunteers developed and implemented a communication strategy for the campaign using social media, a campaign webpage, public events, workshops, flyers and posters to promote emission-reducing behavior changes. Each month of the campaign focused on engaging the campus with a different set of behaviors: walking, biking and ride sharing; shifting to plant-rich diets; reducing food waste; turning off lights and unplugging electronics; and purchasing consciously.

Dickinson's 80-acre organic farm continues to serve as an unparalleled living laboratory for students to learn and educate others about sustainable food, food systems and renewable energy. In 2019 and 2020, **student farmers, farm staff and volunteers cultivated** thousands of pounds of cucumbers, tomatoes, potatoes, squash and other crops for the campus and community. The livestock team expanded operations, increasing animal herds to 80 sheep and 30 beef cattle at season's peak. Recent research projects involving the farm include biogasenergy production from food waste, applications of biogas digester effluent as a fertilizer, control of parasitic flies using nonchemical measures and home gardening as a food security intervention.





ALLARM's student watershed coordinators teach community volunteers to collect stream health data and use findings to protect waterways in Pennsylvania and New York. In the past two years the students presented content in and helped facilitate multiple workshops that trained over 100 volunteers in chemical monitoring, macroinvertebrate monitoring and data interpretation methods that are being applied at sites in multiple PA and NY counties. They also helped support the Chesapeake Data Explorer, a citizen science tool of the Chesapeake Monitoring Cooperative that provides access to water quality data collected by volunteers, local governments and community organizations. Additionally, student watershed coordinators co-taught numerous Dickinson classes and classes for the Carlisle Institute for Lifelong Learning. Through these activities, the ALLARM students build their nonprofit, data communication, diverse stakeholder, watershed assessment and peer and public education skills.

In addition to on-campus internships, **Dickinson students work on sustainability issues as interns with a variety of off-campus employers** in environmental, energy, agricultural, food, transportation and other fields. Recent examples include supporting community-based health programs with the Comprehensive Rural Health Project in India, researching sustainability strategies for Sustainable CT, researching climate change adaptation and resilience strategies with the Conservation Law Foundation, collecting and analyzing water samples with the Marine Biological Laboratory, managing data and assisting with member services for Second Nature, educating children in environmental protection with the Captain Planet Foundation, conducting policy research for the National Rural Electric Cooperative Association, analyzing data for Farmers on the Square, research diving on coral reefs in the Seychelles for Global Vision International, developing environmentally friendly chemical processes for Hastings Laboratory and farming and caring for livestock at Hidden Creek Farm.

CIVIC, GLOBAL & SUSTAINABILITY LEARNING: A CRITICAL NEXUS

Equality/inequality, justice/injustice, wealth/poverty, environmental resilience/ environmental degradation, climate protection/climate disruption—these are “wicked problems” that span places and cultures, interact at local to global scales and call for concerted action by multiple and diverse actors. By drawing on and connecting Dickinson’s strengths in civic, global and sustainability learning, students build competencies for holistic understanding of critical challenges and formulating responses that acknowledge complexities, uncertainties and diverse perspectives.

The recently created Center for Civic Learning & Action (CCLA), established with support from two important grants from the Andrew W. Mellon Foundation, serves as the new home for civic engagement initiatives at Dickinson. Shortly after its launch, CCLA spearheaded Dickinson’s successful application for Carnegie Community Engagement Classification, which was awarded in spring 2020. In the application, the college emphasized the strong integration of sustainability, global and civic education as pillars of the curriculum. The new CCLA, working with the Center for Global Study & Engagement and Center for Sustainability Education, provide Dickinson unmatched institutional capacity for supporting student learning and action that connect civic purposes, global perspectives and sustainability goals.

CCLA’s curricular and co-curricular student programs, faculty support efforts and community-based initiatives are designed to build capacity for more just and resilient communities through student learning and direct action in global communities. One of the CCLA-supported efforts, Ethics Across the Curriculum, was first offered in spring 2018 and repeated in spring 2019. **Sixteen faculty and staff members representing 14 different departments participated in the 2019 Ethics Across the Curriculum study group led by Professor Amy McKiernan.** The group focused on integrating ethical reasoning and civic learning content in courses from disciplines as diverse as astronomy, environmental science, music and sociology. Many of the participants have also been active in Dickinson’s sustainability and global education initiatives and are now better prepared to connect civic, global and sustainability learning in their teaching.

Dickinson students address intersections across the domains of global, civic and sustainability learning in courses that focus on sustainability problems in non-U.S. contexts; examine cultural influences on sustainability attitudes, values and practices in and outside the U.S.; and engage students in learning with and from community members about community sustainability problems.

68%

include study of sustainability in non-U.S. contexts



73%

engage students in intercultural learning



25%

engage students in civic learning



*Percentages of sustainability courses offered in fall 2019 that engaged students in intercultural and civic learning activities.

Dickinson's Global and American Mosaics offer opportunities for students to take deep, interdisciplinary dives into critical issues of our times, many of which have sustainability, global and civic engagement dimensions. Forty-six students participated in four Mosaics in 2019 and 2020. The Carlisle Mosaic, People, Place & Policy, explored issues of sustainability, resilience, racial segregation and economic disparities in the community adjacent to Dickinson's campus through interconnected courses in history, economics and sustainability. The semester featured a research project conducted with community members to understand transportation barriers and consider potential responses to address transportation and climate justice concerns.

The Rwanda Mosaic, After Genocide and Apartheid, brought together students and faculty from history, philosophy and art to study questions about causes and consequences of the genocide against the Tutsi and efforts for peace, justice, reconciliation and rebuilding in the aftermath. The program included two weeks in Kigali, Rwanda, visiting sites of massacre and remembrance, talking with people on opposing sides of the conflict, hearing narratives of healing and examining reconstruction efforts.

Our students have extensive opportunities for semester- and yearlong off-campus study to explore sustainability in non-U.S. contexts through Dickinson and partner study abroad programs. Dickinson programs that have notable strengths in sustainability include our programs in England, Germany, Italy and New Zealand. Partner programs that focus on sustainability include those in Costa Rica, Denmark, India, Israel, South Africa and Tanzania. In addition, Dickinson's membership in the EcoLeague consortium provide opportunities for our students to study sustainability in U.S. contexts that include Anchorage, AK; Prescott, AZ; Sarasota, FL; Bar Harbor, ME; and Ashland, WI.

One Earth, Multiple Worlds: Engaging Student Action for Global Solidarity and Sustainability (INTD 250) was offered in summer 2020 to students who had studied abroad previously. The students examined interconnections of social, economic and environmental issues across communities, regions and continents; the multiple impacts of their lives in local and global communities; and ways of acting to foster international solidarity. Selected modules of the course will be repurposed in the future to help students reflect on these issues before they study abroad and after they return.



“The Rwanda Mosaic was one of the most impactful study-abroad experiences I had at Dickinson ... I was able to contextualize the growth that Rwanda has experienced in the past 25 years. And the compassion, love and humanity that was shown to us as Dickinson students was a microcosm that exemplified the importance of these values within the larger community, as a means to promote sustainable and peaceful growth.”

Lilly Middleton '19



HOW WE ENGAGE

ON CAMPUS

Over 200 Dickinson students, faculty and staff joined the Green Devils Team to compete with teams from a dozen other colleges in the 2020 Campus EcoChallenge. Despite being distributed near and far due to the coronavirus, Dickinsonians came together online for the three-week behavior-change campaign in April. Using an online platform, participants made public commitments to take actions in daily living to help bring about positive social and personal change. They then tracked and reported their actions each day, earning points for themselves and for Dickinson. Some of the actions included volunteering in the community, learning about local environmental justice issues, supporting businesses owned by people of color, supporting local farmers, conserving energy and water, buying green electricity, reducing waste, walking, biking, driving less and advocating for policy changes.

Dickinson came in a strong second in the competition, just edged out of first place by Washington College but far ahead of third place Penn State Altoona. Allison Miller '20 was recognized as a Campus Sustainability Champion by the Pennsylvania Environmental Resources Consortium for leading the intercollegiate competition and Dickinson's participation.

Gender and the environment was the theme for the Women's & Gender Resource Center's (WGRC) programs in 2018-19 and also the theme for the 2019 Gender Week. Gender Week events included ALLARM director Julie Vastine leading a discussion of Sandra Steingraber's book *Raising Elijah: Protecting Children in an Age of Environmental Crisis* and poet and novelist Linda Hogan reading selections of her writings on gender, indigeneity and the environment. The weeklong event also included sessions with Cindy Adams Dunn, secretary of the Pennsylvania Department of Conservation and Natural Resources; Veronica Coptis, executive director of the Center for Coalfield Justice; and Brenda Landis, Carlisle Borough councilor, speaking in the Women's Environmental Leadership Panel. In 2020, Gender Week took another look at gender and environmental connections with a **Sustain It Workshop** on Gender and Food Choice.



Dickinson celebrated the 50th anniversary of Earth Day and carbon neutrality with a teach-in for the campus and Carlisle community. Originally planned as a daylong series of in-person workshops, the teach-in was transformed to an online format due to the pandemic. Students, faculty, staff and community members were invited to propose and lead interactive sessions to educate our campus about the United Nations Sustainable Development Goals and promote actions to advance the goals. Workshops were held to assist students

and others to design effective sessions. The sessions, which took place April 21-22, addressed topics that included creating sustainable communities through farming, the sharing economy, mobility as a catalyst for social and economic justice, climate change impacts in the arctic, climate refugees and migrants and implications of the global pandemic for sustainable development. The teach-in culminated with reflections about Earth Day, Dickinson's path to carbon neutrality and how sustainability education has impacted participants' lives.

A strong lineup of campus visitors engaged our campus in sustainability conversations over the past two years. They included Jacqueline Patterson of the NAACP speaking about environmental racism; Dan Longboat from Trent University talking about indigenous knowledge and approaches to caring for nature; Broadway set designer Donyale Werle sharing her motivations and methods for green design; Barbara Brown Wilson of the University of Virginia talking about community-driven approaches for building resilience in vulnerable neighborhoods; José-Damian Ruiz-Sinoga from the University of Málaga lecturing about soils, soil health, environmental degradation and climate change; and Macarena Gómez-Barris speaking about artistic and activist responses to exploitation of indigenous peoples in zones of natural resource extraction.



IN COMMUNITIES OF GREATER CARLISLE

Shortly after her arrival at Dickinson in fall 2017, **President Margee Ensign launched Carlisle's Community Action Network (CAN)**. Monthly breakfast meetings brought together community leaders from government, nonprofit, business, education and faith-based organizations to share information about community activities and resources, identify needs and mobilize resources to help build a more inclusive, resilient and sustainable community. Formation of CAN was fortuitous for establishing relationships and trust that are paying dividends as Carlisle responds to the coronavirus pandemic.

The network, which has grown to 90 members and now includes representatives of health care and emergency service organizations, has been meeting weekly by phone during the pandemic to share information and pool resources to better serve the community, improve food access, support those who lost jobs, broker a collaborative purchasing agreement to lower the costs of acquiring personal protective equipment and cleaning supplies and construct a new website to share information about community resources. These efforts were recognized by the Pennsylvania Humanities Council, who bestowed Heart & Soul Hero awards on CAN, President Ensign and Assistant Chief of Staff Jennifer Love.

Dickinson students are part of the action as well. **Computer science majors volunteered** to assist small businesses in creating e-commerce systems so that they could continue to generate revenue during the pandemic. Professor Grant Braught, who coordinates the project, teamed up with the Carlisle Area Chamber of Commerce to identify local businesses in need and matched student volunteers with businesses. Sixteen other students are helping local organizations during the pandemic by working remotely in summer 2020 as part of **Dickinson's new Community Action Internship program**. The student interns are creating online brochures and content for websites, assisting with data management, researching nonprofit bylaws, editing videos, researching community reentry programs and reimagining a school supplies drive. While delivering value to community partners, students are gaining experience in using online tools for collaboration and being effective working with multiple partners in a rapidly changing environment.



The Center for Sustainability Education is assisting the Borough of Carlisle in preparing for climate change as part of a **Pennsylvania Department of Environmental Protection program** that supports local governments in climate action planning. In fall 2019, students and CSE staff produced an inventory of Carlisle’s greenhouse gas emissions and presented their work at a Borough Council meeting. Work continued in spring 2020 to estimate future emissions, research climate action plans of other municipalities, gather information about existing energy conservation efforts in the region and develop recommendations for public participation in planning, all of which was shared with the Carlisle Borough Council.

Drawing on this work, the council passed a resolution that sets ambitious emission-reduction targets for Carlisle and calls for the creation of a commission to develop a plan to achieve the targets. CSE staff and student workers plan to work with the new commission in developing the plan. A similar project will be conducted in the coming year with the Planning Department of Cumberland County.

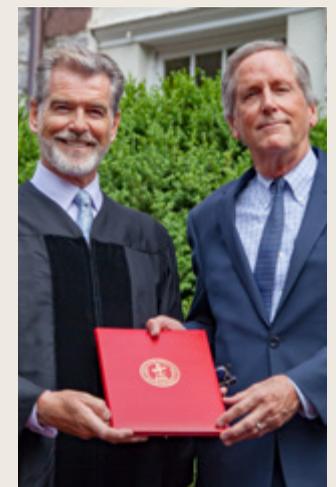
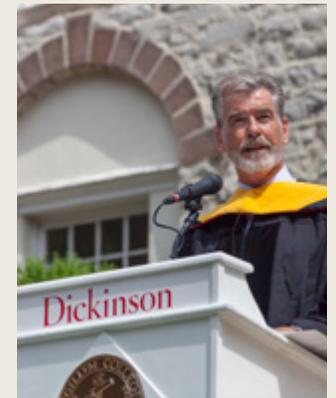
The Dickinson farm connects local K-12 students with food and farms through hands-on learning **led by Dickinson student educators**. Farm, Cook, Eat—an after-school program offered in partnership with LeTort Elementary School—teaches students about sustainability, nutrition and how to make healthy snacks. **Sustainable Earth Education (SEED)** brings school groups aged 5 to 18 to the farm for learning activities tailored to their educational goals. A new element was added to the SEED program this past year: a multiday program for second graders that combines a farm visit with classroom lessons. The farm also partners with the Carlisle Area School District to compost their food waste, saving the school district landfill fees and reducing carbon emissions.

ACROSS THE REGION, NATION & WORLD

The **Sam Rose '58 and Julie Walters Prize for Global Environmental Activism** celebrates and amplifies the work of inspiring advocates and brings them to campus to work with Dickinson students. The 2019 prize was awarded to the Natural Resources Defense Council for defending America’s wildlands. Joel Reynolds, NRDC’s western director and senior attorney, and actor Pierce Brosnan, a longtime NRDC champion, accepted the award on behalf of the NRDC at Dickinson’s May 2019 commencement. Mr. Reynolds, joined by Jacob Scherr, a member of NRDC’s Global Leadership Council, returned to campus in fall 2019 for a three-day residency that included a public lecture, class visits, meetings with student leaders and a workshop on running international environmental campaigns. The residency motivated students to join NRDC’s efforts to protect Alaska’s Bristol Bay and the Bahama’s Light House Point from development projects that would damage these valuable places.

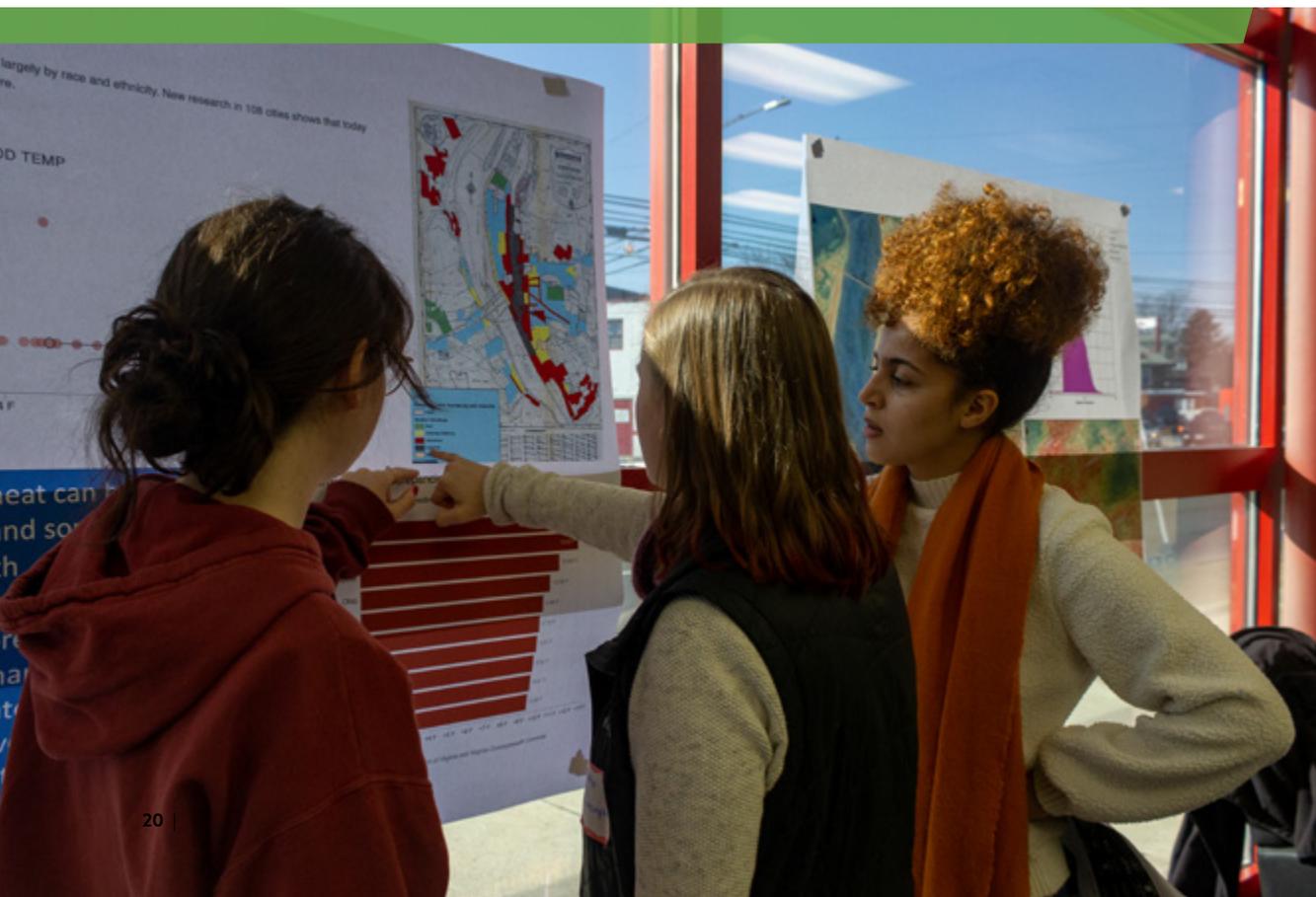
“If you want to save the world, you don’t need to be James Bond. We need people from different disciplines and walks of life who are willing to work together, who can rely on one another, who can push forward, united. We need people who have passion and a sense of mission. We need people with the courage to create. Our world needs you.”

Pierce Brosnan, Dickinson Commencement, 2019.



“Frankly, students are not only the future—they are the now. They’re already leading the charge to create a sustainable planet.”

Kevin Green, co-organizer of BE.Hive and senior director of Rare’s Center for Behavior and the Environment



Dickinson and global nonprofit Rare, whose CEO Brett Jenks won the 2017 Rose-Walters Prize, teamed up to host **BE.Hive on Campus: Climate Change Needs Behavior Change**. More than 400 sustainability professionals, educators, behavioral scientists, alumni and undergraduate and graduate students from across the country came to Dickinson in October 2019. Together they explored how colleges and universities can apply best practices from behavioral science research to promote sustainable behaviors in combatting climate change. Emceed by actor/comedian Ravi Patel, the fast-paced event included skits, a game show, an introduction to behavior science, rapid-fire talks on applying lessons from behavior research and a panel on model sustainability programs at Dickinson, Harvard University, Cornell University and the Massachusetts Institute of Technology.



The summit was preceded by a daylong workshop and behavior-centered design challenge in which **12 student teams from eight colleges and universities** created campaigns to promote plant-rich diets on their campuses. The teams pitched their ideas to a panel of judges, and the judges picked four teams to present the next day at the BE.Hive summit. Dickinson’s team gave a solid presentation to the packed auditorium. But the home team was beaten out for the \$1,500 prize by a team from the University of Pennsylvania composed of behavior science graduate students. Dickinson’s dining services is assessing how student-generated ideas from the challenge might be implemented to shift food choices at Dickinson.

ALLARM’s work in community science—which reaches from the local LeTort to the Chesapeake Bay watershed, across the nation and into Canada—was recognized in summer 2020 with the Excellence in Faculty Community Engagement Award from the Engagement Scholarship Consortium. In 2019, ALLARM director Julie Vastine was appointed by the Department of the Interior to the National Water Quality Monitoring Council as the national volunteer monitoring representative and was engaged as a consultant by Alberta’s Ministry of Environment and Parks to assist them with developing a vision for its provincial citizen science program.

Dickinson, a leader in both education abroad and sustainability, teamed up with the **Forum on Education Abroad** to co-lead a “Critical Dialogue” on sustainability for the Forum’s 2020 annual conference. Facilitated by CSE assistant director Lindsey Lyons and others, participants in the dialogue explored questions about the impacts of education abroad on the planet, environmental considerations when choosing partners or designing programs and equipping students to make good choices, understand the power of their actions and ignite lifelong interest in the wellbeing of the people and places that host their studies. Dickinson is also working with the Community-Based Global Learning Collaborative, a multi-institutional initiative, to create online resources for exploring interdependence, global solidarity and sustainability in global education.



HOW WE LIVE

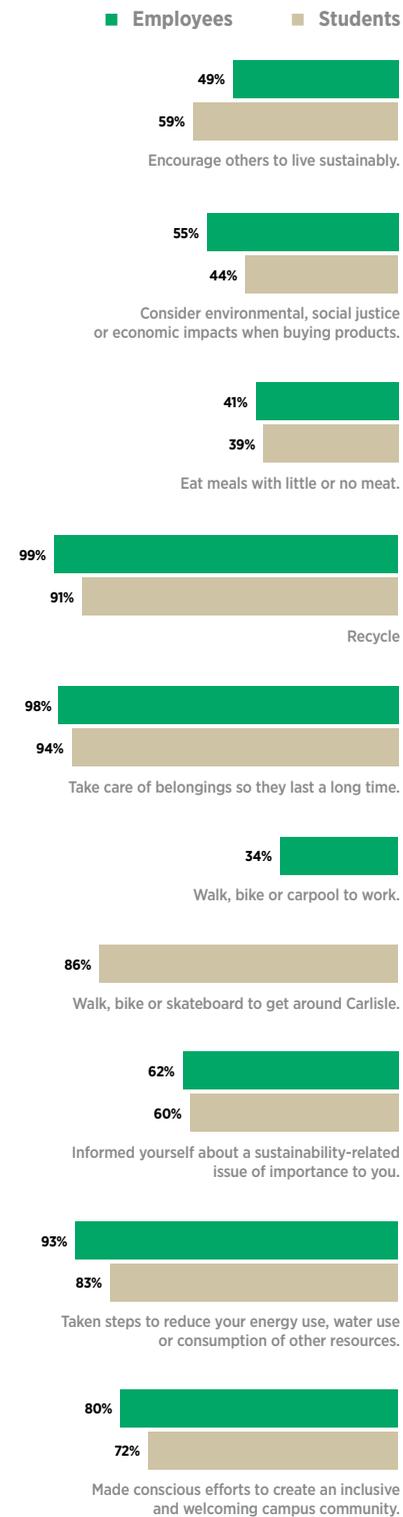
Living sustainably is often defined as limiting the environmental harms we inflict on the planet to levels that can be sustained over multiple generations. At Dickinson, living sustainably includes this but much more as well. It is an approach to living and being in the world that acknowledges that we have responsibilities to each other, to all of humankind alive today and yet to be born. With this broader view in mind, the work that we do to make our campus and our world more inclusive, just, equitable and caring intersects with the work of sustainability.

“We aspire to be a lab for learning where students can discuss and practice what they are learning at Dickinson. The core values of Dickinson encourage students to explore concepts related to sustainability. Students who actively participate in the residential experience will cultivate social responsibility, including how to live a sustainable life.”

Amanda George, Associate Dean, Director of Residence Life and Housing

SUSTAINABILITY PRACTICES

Percentages of students or employees who engaged in various sustainability-related behaviors over the past year



In fall 2018, the Center for Sustainability Education, the Popel Shaw Center for Race & Ethnicity and the Women’s & Gender Resource Center cosponsored **Unpacking Sustainability, an interactive workshop** in which participants unpacked what sustainability means at Dickinson and what it means to them. Questions explored in the workshop included: Sustainability – what’s in there? What exactly is social sustainability? What is Dickinson doing to connect social, economic and environmental realms of sustainability and how can they better work together?

Our campus is most aware of Dickinson’s efforts in the environmental realm, but a careful look reveals that we are doing significant and connected work in other realms as well. Still, the violence against Black lives and the disproportionately heavy toll of COVID-19, the economic fallout of the pandemic and environmental hazards on Black, indigenous and other people of color call us to practice an approach to sustainability that is thoroughly entwined with social justice.

CLIMATE JUSTICE

Jacqueline Patterson, director of the NAACP Environmental and Climate Justice Program, spoke to our community in fall 2018 about environmental racism in the age of climate change, sparking conversations in and out of classrooms about the role racism plays in causing disproportionate harm to people of color from climate events. Themes raised by Patterson were examined the next day in a **Clarke Forum Salon facilitated by Vincent Stephens, director of the Popel Shaw Center, and John Adeniran '19**. Participants in the salon responded to questions about strategies that might help people fighting for racial and economic justice to embrace the “green agenda,” roles that students and academics can play in addressing environmental injustice and racism and ways to ensure that policies crafted to effect change reflect the voiced needs of those disproportionately harmed.

SERVICE, FAITH & SUSTAINABILITY

Community service is one means by which we address social and economic dimensions of sustainability and help build more resilient and sustainable communities. In each of the past two years, Dickinson students and

employees **volunteered over 20,000 hours to serve members of Carlisle and other communities.** We tutored elementary school students with the YWCA and prison inmates at the Cumberland County prison, mentored students with Big Brother Big Sister, taught English as a second language at the Employment Skills Center, provided companionship to seniors at Claremont Nursing home, distributed food with Project SHARE to food-insecure families and educated youths about food justice with Hope Station. **Justice Served, a student group, organized discussions** of the intersections of justice and education and justice and business, as well as events on hunger, refugee experiences and cultural appropriation in Halloween costumes.

For many, social justice, community and sustainability are approached within a context of faith. In 2019, **a group of faculty, staff and students began meeting monthly** for conversations about faith and sustainability, and Dickinson hosted a number of events related to these intersections. In January 2019, Beth Norcross of Church of the Wild spoke to Dickinson audiences about deepening spirituality through nature and loving relationships with the Earth. In February, the Asbell Center for Jewish Life and other partners invited the campus to the **13th annual Multicultural Seder to share** a vegetarian meal, celebrate Tu B'Shvat (New Year of the Trees) and talk about the environment through lenses of poverty and racism. Later that year, visitor Kerry Mitchell spoke about his research on nature, spirituality and national parks.

FOOD & SUSTAINABILITY

Questions about food—where, how, by whom and for whom it is grown—are elemental to sustainable living. **Food grown and raised at the Dickinson farm using organic, sustainable and humane practices** is served in Dickinson's dining hall, supplied to over 130 families who are members of the farm's Campus Supported Agriculture program, donated to the Project SHARE food pantry and sold at Carlisle's Farmers on the Square market. Farm Frolics and Harvest Fest, popular annual events, brought large crowds to the farm in fall 2018 and 2019 for food, music, fun and a bit of learning about sustainable foods.

The Farm's Edible Excursions, cooking classes and Pizza on the Plaza events—co-hosted with partners that included the Trout Gallery, WDCV radio, MOB, the Office of LGBTQ Services and others—offered additional opportunities to learn about and celebrate food and its intersections with a variety of issues. Upscale dining was offered by “Gather”, the farm's pop-up restaurant that features meals of locally and responsibly sourced ingredients prepared by guest chefs, including James Beard Award winner Michael Solomonov of Zahav's restaurant in Philadelphia.



Dickinson's Dining Services, which has a 3-star certification from the Green Restaurant Association, continues to work on purchasing more of the foods they serve from local and sustainable sources, has improved and expanded vegan offerings and utilizes more humanely raised grass-fed beef from the Dickinson Farm. Perishable leftovers are donated to the Salvation Army during winter, spring and summer breaks to help feed food-insecure members of the community. New waste management efforts include elimination of straws and transition to recyclable and compostable wrappers for to-go items, building on existing composting, reusable EcoTainer and recycling programs.

STUDENT LIFE & SUSTAINABILITY

The Office of Student Life encouraged sustainable living through a number of joint initiatives with the Center for Sustainability Education. These included Green Move-In for first-year students in fall 2018 and fall 2019, the 2019 Energy Challenge residence hall competition, the 2020 Campus EcoChallenge, U-Turn in spring 2019, waste minimization during the COVID-19 move and collaboration between resident advisors and student Eco-Reps and CSE interns to promote the Climate Change Needs Behavior Change campaign.

Swapping clothes at **Dickinson's Free xChange** is a common practice for many students. It reduces resource consumption through reuse and raises awareness of environmental and social impacts of the fast-fashion industry. Biking culture continues to grow at Dickinson, supported by the **Handlebar bike co-op, the Green Bikes and Red Bikes semester and one-day bike loan programs and events** like the Northside Community Bike Ride and the Women's (Trans, Femme, Nonbinary too!) Bike Ride. Our growing biking culture and improving infrastructure helped raise Dickinson's Bicycle Friendly University rating from Silver to Gold in 2019. Beekeeping is also catching on, with a swarm of students volunteering to take care of bees at the **Hive bee cooperative**, while larger swarms of students attended workshops to make honey, candles, lip balm and other bee-derived products. The Hive and efforts to improve habitats for bees and other pollinators earned Dickinson certification as an affiliate of the Bee Campus USA program. Each of these programs draws faculty and staff as participants and volunteers in addition to students.





HOW WE OPERATE

In FY 2020 we operated our campus with zero net emissions of carbon dioxide and other greenhouse gases. **We are one of the first 10 colleges in the nation to achieve carbon neutrality**, an ambitious goal that we set in 2007. We are still running the numbers to get the official tally, but our total on-campus emissions are down an estimated 30% from our 2008 level. This surpasses our 25% reduction target, due in part to closing the campus in response to the COVID-19 pandemic. To get to zero net emissions, we purchased carbon offsets and renewable energy credits that financed emission reductions by others.

Actions we have taken to reduce the carbon and ecological footprints of our campus operations are frequently featured in Dickinson's classrooms, including courses in earth sciences, environmental studies, sociology, policy studies and religion. We highlight here some of our recent advances.



"I think this is a really important issue for students, we feel like the stakes are so high for us. As we grow up, carbon emissions are just going to keep increasing and the impacts of climate change will continue to affect our generation most."

Kendra Beaver '20

RENEWABLE ENERGY

We made a big dent in our emissions with our 3-megawatt solar field, which was developed at Dickinson Park through a power purchasing agreement. The solar array has been producing carbon-free energy at anticipated levels and eliminating more than 25% of the emissions from our electricity use since January 2019. The site also continues to be used for agricultural production. Sheep from the Dickinson farm graze beneath the panels, and the surrounding land is farmed. Improvements to the recreational trail that loops around the solar field and is used by the Carlisle community showcases this model of clean, renewable energy.

Dickinson joined with Lehigh, Muhlenberg and Lafayette colleges in early 2020 to buy additional renewable power through a virtual power purchasing agreement. The renewable power will be generated by a 200+ acre solar farm to be constructed in Texas. The solar farm will be the nation's 12th largest renewable energy project constructed to supply colleges and universities. Dickinson's share of the purchased solar electricity will mitigate approximately 2,800 MTCO₂e from our total carbon footprint, or roughly 20% of our total.

"The actions that these schools have taken illustrates true leadership, a collaborative approach to reducing greenhouse gas emissions, and provides an example of how other campuses can meet their individual climate goals and support the transition of the electricity grid to cleaner sources of power," says Timothy Carter, president of Second Nature.

The Dickinson farm continues to be a site for students and staff to research, demonstrate and apply solar and other renewable energy technologies. The farm added to its fleet of electric work vehicles by converting a pickup truck and bicycle to run on solar-charged batteries. Biogas generation from food and animal waste has been researched, optimized and operated at small but useful scales for 10 years at the farm. Operating at a larger, commercial scale is now being considered. In 2019 a feasibility study was completed for constructing a commercial-scale biodigester that would use manure from a neighboring dairy farm and food waste from Dickinson's dining hall to produce methane, which in turn would be used to generate electricity for the farm and sale to the grid. The project looks promising and will continue to be studied in the coming year.



ENERGY & ENVIRONMENTAL DESIGN

A building recommissioning project completed in 2019 for the Rector Science Complex, our largest energy consuming building, is producing significant reductions in energy consumption, emissions and utility costs. Another recommissioning project started in 2020 for Waidner-Spahr Library was paused due to COVID-19. It will be restarted and completed in the coming year. Additional recommissioning projects are also planned for other buildings that are major energy users.

Performance of Dickinson's chilled water system at the central energy plant, which supplies chilled water to cool 75% of our buildings, was improved in 2019. The improvements are projected to reduce annual energy consumption and carbon emissions of the chiller by 15%. Other recently completed energy efficiency projects include adding daylight harvesting sensors in the Waidner-Spahr Library,



solar shades in the Stafford greenhouse in Kaufman Hall, programmable thermostats in the Factory Apartments and attic and basement insulation in student residence rowhouses on West Louther Street.

Two buildings were certified in 2019 by the **U.S. Green Building Council for Leadership in Energy and Environmental Design (LEED)**. The High Street residence hall opened in fall 2018 and was certified LEED Platinum the following year. Platinum is the highest LEED certification level, and earning this distinction marks the building as one of the most sustainable residence halls in the nation. The Kline Fitness Center was also certified in 2019, earning LEED Gold. This brings the total number of Dickinson LEED-certified buildings to seven—one Platinum and six Gold.

ELECTRIC VEHICLES

Three electric vehicle charging stations were installed in 2020 with the help of a grant from the Pennsylvania Department of Environmental Protection. The EV stations, each with two fueling ports, are located at Kaufman, ATS and the admissions building parking lots and are available for free use by all, including visitors and the greater Carlisle community. By making charging of EVs accessible and free, we are providing an incentive for more people to purchase electric vehicles and use them to commute to campus.



OFFSETS

In addition to taking actions to reduce Dickinson’s carbon footprint, we also finance carbon emission reductions by others through purchases of carbon offsets. Our largest source of purchased offsets comes from a fertilizer plant in Oklahoma that is altering its production process to destroy up to 99% of emissions of nitrous oxide, a

powerful greenhouse gas. We purchased 12,000 metric tons of carbon offsets from this source in 2020. The offsets are verified by third parties to assure that the project is resulting in measurable emission reductions. 12,000 metric tons is far more than enough to reach zero net emissions in 2020, and we will apply some of these offsets against our 2021 emissions.

We also invited Dickinson alumni, employees and students to purchase carbon offsets on behalf of the college through **Cool Effect, a nonprofit founded by the family of Blake Lawrence '13**. Carbon offsets purchased through this initiative support a forestry project at the Hawk Mountain Sanctuary on the Kittatinny Ridge, 80 miles from campus. The project sequesters carbon from the atmosphere, protects a globally important raptor flyway and wildlife habitat in Pennsylvania and produces educational and research benefits. Sixty-seven Dickinsonians purchased nearly 400 metric tons of offsets from this local project.



HOW WE INVEST

Dickinson is investing resources to educate our students to be sustainability leaders and to make our campus a living laboratory for sustainable operations. The returns on this investment have been exponential and include remarkable programmatic, financial, environmental, civic and reputational successes. **Our sustainability commitment sets Dickinson apart from other liberal-arts colleges** as a leader in sustainability education; helps us attract students, faculty and staff of high ability, aspiration and civic mindedness; provides exciting opportunities for alumni engagement; contributes to financial stability by reducing expenditures on energy and other resources; and, central to the college’s mission, enhances the educational experience of Dickinson students. The investment thus benefits our community and the wider world.

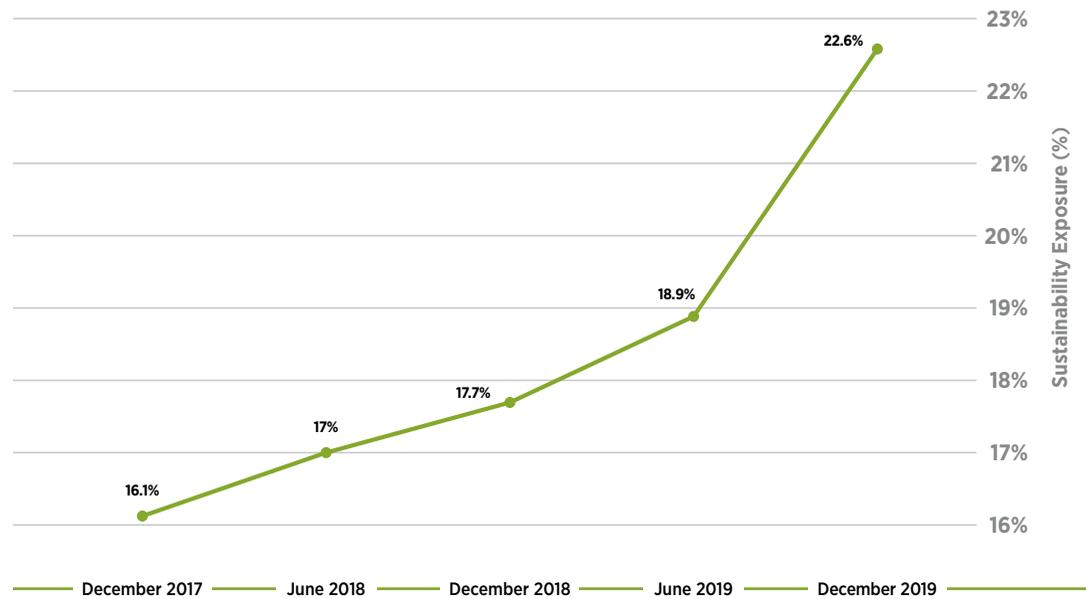
ENDOWMENT: A RESOURCE FOR FINANCIAL SUSTAINABILITY

The strategic goal of the college’s endowment is to invest donor assets in a financially sustainable way to ensure donor funds exist in perpetuity and current and future generations benefit equitably from endowment spending. This goal is measured by the spending rate (the amount of cash we take from the endowment each year to support operations) plus inflation. The enhanced returns we have experienced from the endowment have allowed us to increase our direct investments in sustainability on campus and within our community. Annual spending from the endowment supports 13% of the college’s operating budget and provides funding for other restricted funds as designated by donors.

Dickinson continues to partner with Investure, our outsourced investment office, to explore the issue of sustainable investing and what it means within our endowment portfolio, which is combined with the assets of 12 other nonprofit colleges and foundations. Investure’s due diligence process integrates environmental, social, governance and sustainability considerations in their assessment of the long-term risk of investments as part of the investment underwriting process. Dickinson has also taken advantage of opportunities to make sustainable-specific investments within the portfolio. The Board of Trustees increased our commitment to sustainable investments from \$4 million in June 2010 to \$16 million in February 2018.

In early 2018, the **Dickinson Sustainable Investment Group (DSIG)** developed a sustainable investment reporting policy to guide Dickinson's approach to reporting investments that promote sustainability. In particular, DSIG sought to include companies that have signed on to meaningful and impactful climate change initiatives, including efforts led by the Center for Climate and Energy Solutions, Ceres, the Task Force on Climate-Related Disclosures, RE100 and Science Based Targets Initiatives. Holdings that meet Dickinson's definition of sustainable investments stood at 16% of the total pooled endowment at the start of 2018, when the new reporting system was implemented, and rose to almost 23% by the end of 2019.

SUSTAINABLE INVESTMENTS



CONTRIBUTIONS & GRANTS

Alumni, parents and friends of the college have given generously to support Dickinson's sustainability programs and activities. **In the last two years more than \$7 million has been raised to support sustainability initiatives at Dickinson**, including the endowment of the Sam Rose '58 and Julie Walters Prize for Global Environmental Activism and the creation of new funds to support the college's Center for Sustainability Education and the Dickinson farm. Also supported are a faculty chair in earth sciences, whose research concerns arctic and alpine regions, and student-faculty research expeditions in arctic and alpine regions to encourage field research and deepen awareness of the impact of climate change.

The college extends its sincere thanks to **Betty '58 and Dan Churchill, Justin '00 and Nancee Gold, Mike Lefever '76, Susan Miller '81, Sam Rose '58, Julie Walters, Rick '81 and Mary Shangraw** and many others whose generous gifts have benefited Dickinson's sustainability programs.



\$15,000

EXTERNAL GRANTS AND OTHER FUNDING

A total of \$155,000 was awarded to Dickinson faculty, staff and programs in 2019-20 to carry out projects with sustainability connections:

- Susquehanna Stream Team and Creek Watch:**
 Three grants totaling \$79,480 were awarded from the Campbell Foundation and Lancaster Solid Waste Management Authority to Julie Vastine and ALLARM to support and expand community-based stream monitoring in the lower and middle Susquehanna watersheds.
- Mid-Atlantic Volunteer Monitoring Conference:**
 \$25,000 was awarded from the Pennsylvania Department of Environmental Protection to ALLARM to host a conference for volunteer water monitoring groups in Pennsylvania, Maryland, West Virginia and Virginia.
- Adapting Beekeeping Practices to Diverse Landscapes:**
 \$15,730 was awarded from the USDA to Professor Maggie Douglas for research on the effects of landscape and other factors on bee survival and colony productivity.
- Sustainable farming:**
 \$5,000 was awarded from the Miller Foundation to support operations of the Dickinson farm.
- Electric vehicle charging stations:**
 \$29,584 in rebates was awarded from the Pennsylvania Department of Environmental Protection to Dickinson for the installation of three dual-port electric vehicle charging stations on campus.

MOVING FORWARD

Achievements of the past two years have added to Dickinson's reputation as a sustainability leader. But we have plans to do more.

PRIORITIES FOR THE COMING YEAR AND BEYOND INCLUDE THE FOLLOWING:

- Surmounting challenges of the coronavirus pandemic to protect the health and wellbeing of our campus and Carlisle communities, provide high quality educational experiences in a virtual learning environment and secure financial sustainability for the college
- Joining our sustainability efforts to ongoing antiracism and social justice work
- Developing educational programming to explore intersections of the pandemic with social justice and sustainability
- Harnessing social media and online tools to engage the Dickinson community in sustainable behaviors and co-curricular programming
- Deepening connections between civic, global and sustainability education
- Fostering a diverse and inclusive campus culture for thinking, acting and living sustainably
- Setting, pursuing and achieving new climate change goals for reducing emissions and building resilience
- Increasing efforts to reduce potable water consumption and improve water quality in local and regional waterways
- Growing resources for sustainability programs through the work of the Office of College Advancement.





Sustainable Dickinson

Dickinson College is working to create a world that is socially, economically and environmentally sustainable. Explore our website to learn how we are infusing sustainability throughout the college and using the campus, community and study abroad locations as living laboratories for learning and service that advance sustainability goals.

LEARN MORE: dickinson.edu/sustainability

This publication is circulated primarily as an electronic document to save resources. A limited number of paper copies have been printed on recycled paper.

