

DU Center for Sustainability 2018 Annual Report



UNIVERSITY of
DENVER

CENTER FOR SUSTAINABILITY



DU Center for Sustainability 2018 Annual Report



Highlights, Impacts, and Numbers

2360+

Students, faculty, staff, administrators and community members engaged in Center for Sustainability programs and projects



31 undergraduate student staff from 13 academic majors + 6 graduate student staff from 5 colleges

88%

Total diversion rate for 2017-2018 Hockey Season

52% of student staff say their work at the Center weighed "a great deal" or "a lot" in their decision to persist at DU after their first year.



232

Bikes serviced in the DU Bike Shop, plus 32 bikes rented through our internal bike share program and 11 bikes sold at our annual bike sale in the fall

197

passengers on 6 ski busses to the mountains during winter quarter

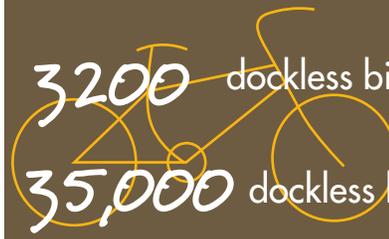
560

Students engaged in Energy Education programming





98 unique food pantry users
 181 total food pantry visits
 2643 pounds of food distributed
 2500+ pounds of food donated



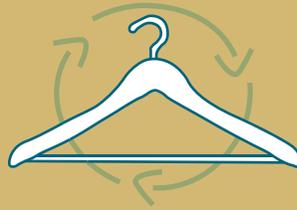
3200 dockless bikeshare users
 35,000 dockless bikeshare rides
 17,826 miles traveled in first month of service



First year doing zero waste operations for Newman Center Events and Concerts.

92%

Total diversion rate for 2017-2018 concert season



1500 pounds of mattress toppers and bedding recycled during moveout
 2000 pounds of food donated to DU Food pantry during moveout



7 Audits performed through Renter Efficiency Program for Students (REPS)
 19 Renters educated during REPS Audits in 2017-2018 year



58 Gear Garage renters
 107 Gear Garage spring rentals
 Gear Garage support allowed DU Backpacking Club to double their impact through leading more trips



UNIVERSITY of DENVER

CENTER FOR SUSTAINABILITY

Letter from Chad



The 2017-2018 academic year was a significant year for sustainability efforts at the University of Denver. The resolution on climate change by the board of trustees, and a clear plan for operationalizing a Green Fund, approval of 25 goals for 2025, and a new charter for the Sustainability Council set ambitious opportunities for work across the campus. Successful sustainability efforts are always collaborative, with many partners and contributions from across the campus, and that was especially true this year.

Major accomplishments that included the work of many partners included the launch of Denver's first dockless bikeshare pilot in partnership with the City and County of Denver. We also launched the city's first microtransit service, as we contracted with Chariot for shuttle service. Both these projects con

nect campus users to light rail, enhancing the benefit of the RTD passes provided to students and employees. With 18% sustainable and local food purchases, audits showed Denver Dining by Sodexo is approaching the 2020 goal of 20% real food. Energy consumption is the key contributor to our goal of carbon neutrality. Energy efficiency falls on every member of the DU community, collectively these efforts led to a 36% reduction in our carbon footprint (in FY2017) over our 2006 baseline.

Led by student efforts, the Center for Sustainability had a number of key successes. This report provides detailed outcomes of all the programs that operate out of the Center for Sustainability. Perhaps this will inspire you to engage more intently in this sustainability journey by partnering on projects, or joining the sustainability council. We also welcome your financial support, to allow us to keep providing students with opportunities to apply their passion to purpose, while preparing them for their future. Support will also allow us to continue to grow curricular offerings across campus.

I hope this will encourage you to do the small things at DU and in the broader community that contribute to a just and sustainable future for all.

Thank you,
Chad



University of Denver 25x25 Sustainability Goals

25 goals completed by 2025!



1. Reduce carbon emissions by 24% by 2020 and 45% by 2025 from 2007 levels.
2. Produce 5% of DU's energy needs on-site through renewable sources.
3. Continue reduction of on-campus electrical consumption by 500,000 kWh/yr.
4. Investigate a 20-year PPA for 20% of DU's total energy needs.
5. Reduce Energy Use Intensity on Campus to 40% below national standards



6. Reduce SOV commutes to less than 40% of total trips.
7. Eliminate the need for first and second year students to have a car on campus.
8. Create a "Green Fleet" consisting of 50% alternatively fueled vehicles.
9. Achieve Bicycle Friendly University gold status by 2020, platinum by 2025.



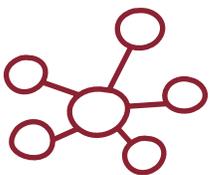
10. Achieve a 70% diversion rate, on the way to a waste-free campus by 2035.
11. Advance DU's role as an anchor institution by supporting and investing in local, women and minority owned, and alumni-owned businesses.
12. Create and implement a campus Sustainable Purchasing Policy.



13. Write and implement a campus Sustainable Storm Water Policy.
14. Achieve a Water Use Intensity of 30% above national standards
15. Reduce indoor water use by 30% from 2007 levels.
16. Reduce outdoor water use for irrigation by 40% from 2007 levels.



17. Purchase 40% of food from local or sustainably certified sources.
18. Manage 50% of the grounds organically through a phased Integrated Pest Management approach, beginning with turf maintenance.



19. Engage the entire DU community in sustainability programming or practice.
20. Provide training in sustainability through a social justice lens for all new students and employees.



21. Assess sustainability literacy, attitudes, and culture longitudinally through annual campus-wide surveys.
22. Implement a curricular and co-curricular sustainability learning outcome for all students, and identify or create at least one class per degree program that explicitly focuses on sustainability.
23. Increase the total students taking more than one sustainability-related course.
24. Develop an Interdisciplinary Institute to serve as the backbone to support community-engaged collective impact through curriculum and research projects.



25. Become AASHE STARS Gold by 2020 and Platinum by 2025.

About the Center

A recent study showed that 71% of college students and 59% of millennials desire a job where they can make an impact on causes that are important to them. Colorado attracts people who are drawn to an active lifestyle with a wealth of opportunities in a magnificent natural landscape. The Center for Sustainability provides ways for the whole campus community to engage in impactful work as part of their study and employment. These meaningful opportunities have a direct impact on social justice and the quality of life for individuals, on making Denver a better place to live, and on preservation of the amazing natural setting of the Rocky Mountain west. Through a wide range of programs, students and employees are empowered to turn their passion into purpose, apply their learning to action, while affecting positive change.

The Center for Sustainability was launched in 2012, with the hiring of the first full-time staff member focused on institutional sustainability. Founded on a history of student engagement, building on research and passion of faculty members, and drawing from work of facilities management, the Center was tasked with centralizing sustainability activities and becoming a hub of support. Starting with one to two student employees working out of a room in JMAC to assess campus sustainability, success relied on strong collaborations with student government, student organizations, and the Sustainability Council. Programs developed where students and other community members identified needs or gaps in operations that impeded basic sustainable operations of the University.

Student engagement and empowerment has always been a foundation of the work of the Center for Sustainability. The Center provides a bridge to support and channel student passion and energy into innovations and programs that connect to the hierarchical and bureaucratic structures of a large institution. In this way, students can engage in constructive, meaningful change in the short time they are on campus, enhancing rather than conflicting with the day-to-day operations of the University. As student employees,

interns, and organizations work through the Center for Sustainability they learn leadership and communication skills that translate passion to operations, dreams to outcomes.

Sustainability may be the largest challenge facing society, and Colorado, today. As a tremendously broad field, it has many intersections with the academic and research mission of the University. The Center for Sustainability is here to support those activities as well. With responsibilities in campus wide reporting, links to campus operations, and a network of business, nonprofit and government partners across the Front Range, the Center holds large data sets and has developed a wide range of project concepts. These



data and projects can integrate directly into course projects, student research, or interdisciplinary faculty research. This has led to involvement in courses across the curriculum, working with faculty from Anthropology, Art, Biology, Business, Emergent Digital Practices, Freshman Seminars, Advanced Seminars, Geography, Hospitality, Law, Media, Film and Journalism Studies, Social Work, and Writing, to name a few. Applied and interdisciplinary approaches work exceptionally well for this content. With a broad list of community partners, community engaged service learning in a collective impact context can be particularly successful as well.

A strong internship program provides the basis of student engagement and programming. With over 30 student employees and interns working in a cohort model, we have built a structure to develop student leadership and peer mentoring. In their first year, students experience a broad introduction to all of the topics in sustainability. This provides the expertise and opportunity to move into student leadership roles in their subsequent years working at the Center. These leaders are provided the training and support to manage teams of students on projects with measurable outcomes. These programs are grouped together under the supervision of graduate coordinators who come from colleges across campus. This model has allowed students to grow into leaders who impact change on campus and in the community.

The current programs of the Center for Sustainability fall into a number of categories. In food and gardens, students help manage the campus community garden

and the ELC garden, manage community supported agriculture and food box deliveries, assist in quantifying sustainable food purchases by campus dining, run the campus food pantry, and plan education and engagement activities such as makers markets, food days, cooking lessons, and harvest celebrations. In efforts to improve waste minimization and diversion, students manage zero waste athletics for all sports, manage zero waste performing arts in the Newman Center, perform building level waste audits, develop bin audits and waste collection plans for buildings, assist in expanding compost collection, and manage hard to recycle collections from the residence halls and the library. In mobility efforts, students run the campus bike shop, perform bike rack audits, organize the ski bus, coordinate winter and summer bike to work day events, and organize engagement efforts emphasizing a reduction in single occupancy vehicles, such as commuting classes, bicycle mechanics classes, and participation in GoTober (a program of the Denver Regional Council of Governments). In energy efficiency efforts, students run a energy audit and efficiency service for renters, perform campus behavioral energy audits, engage students in an annual energy competition, and organize creative educational programs about behavioral changes to reduce energy consumption. In outdoor programming, students manage an outdoor gear rental program that provides opportunities for students to connect to the natural environment. Across all of these programs student also participate in marketing and communication planning and implementation, and contribute to clear research and reporting on measurable impact to campus and the community.





Internship Experience

Introduction

The Center for Sustainability serves the DU community in a variety of functions. One focus has always been engaging students in operationalizing sustainability practices on campus in ways that enhance their educational experience while providing applied career skill development. This has improved the sustainability of campus operations, and allowed students to work on interdisciplinary teams of students, crossing class standings, degree programs, and mixing graduates and undergraduates. Additionally, this has provided a community for these students, connecting them to the university and to partnerships across the region. In the last year, we have formalized this experience into a four-year internship program.

The Sustainability Internship Experience is a comprehensive approach to co-curricular education and career development through applied, experiential learning. This experience formalizes skill and career development through a series of trainings. As students progress through the program, these trainings prepare them for increasing levels of commitments and responsibility in programs managed by the Center for Sustainability. By working with groups of peers managed by graduate assistants, students

develop the skills required for to succeed in fast-paced, agile, team-based careers in today's workforce.

The Sustainability Internship Experience prepares students for a capstone community internship experience. Once students have developed skills through successful campus project experience, they are encouraged to seek a summer internship with a community partner between their third and fourth year at DU. The Center for Sustainability has developed a number of close relationships with sustainability organizations across the city and region. Students who reach this point in the program will be very well prepared to be a strong contributor with these partners.

The Sustainability Internship Experience provides an enriched experience for up to forty undergraduates and six graduates. Students receive funding for participation, which provides financial support to continue their education. Supporting this program into the future will require dedicated fundraising; methods could include annual sponsors, support for community internships, foundations, or donor endowments.



Outcomes

The Best Parts

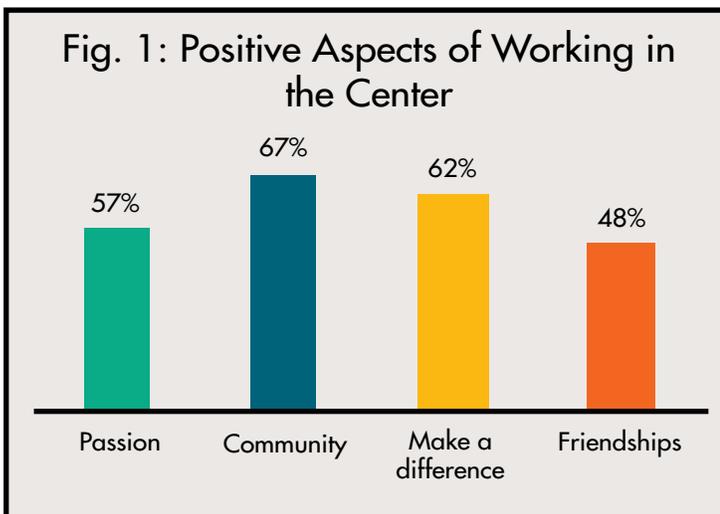
At the end of the academic year, we surveyed our undergraduate students about their experience working for the Center for Sustainability. The survey included questions about why they decided to work in the Center, what skills and tools they used and learned throughout the year, what partners they collaborated with, and what their overall experience in the Center was like.

The survey included several open-ended questions where they could write freely about various topics, from their favorite and least favorite parts of working in the Center, whether they thought the Center was a welcoming place to work, and what skills they feel like they are taking back to the classroom, internships, and their careers. We coded these open-ended responses to understand the trends and most common experiences of our undergraduate students. Figure 1 (below) describes the major topics around which our students commented. Many of these outcomes are in line with the goals and learning outcomes from Housing and Residence Life, Campus Life and Inclusive Excellence, and the University of Denver more broadly.

While we definitely received feedback that gives us an opportunity to improve the Internship Experience for our students, we are thrilled that this year the feedback was overwhelmingly positive. Of the students that had the opportunity to return for another year in the program (students that completed this year's internship successfully and not graduate), all but two will be returning for another year with the Sustainability Internship Experience.

Persistence

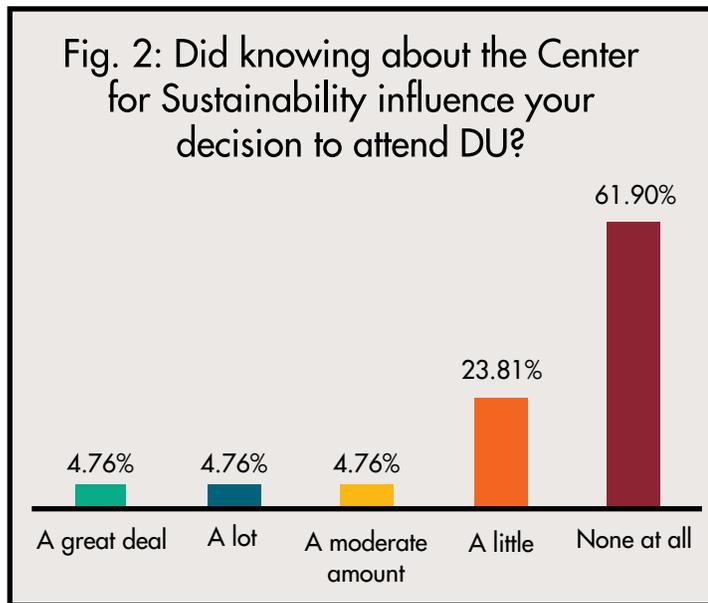
One of the biggest goals within Campus Life and Inclusive Excellence is to provide the support necessary to keep students enrolled at DU until they graduate. We had heard anecdotes about students who had stayed at DU because they were working for the Center for Sustainability; we were interested to see whether this was a pervasive trend. We were also interested in whether our in the Center had an influence on students' decision to attend DU in the first place. The Princeton Review reports that nearly 70% of students consider the sustainability programs at a school as an important factor in choosing a college or university to attend.



What we found was interesting: very few students knew about the Center when they applied to DU (see figure 2, below), however, over half of our students reported that their work at the Center weighed “a great deal” or “a lot” in their decision to persist here (see figure 3, right); the free-response portion of our survey indicated that several students felt that their work at the Center for Sustainability was the primary reason for persisting at DU. We are proud to be a place where students can make a home for themselves at DU.

Most striking, perhaps, is the students’ own words about the Center influencing their decisions to persist at DU:

“DU is a really expensive school and my work at the Center is one of the major factors for why I have chosen to stay because I don’t think I would be able to have this experience at many other schools.”



“After my first year [at DU] I wanted to transfer. However, I started a new project and work study at the Center that year and I felt like I belonged to a community of people that cared and wanted to work together to change DU. I thought that if I stayed I could make a difference and have people to help me grow and move forward. If not for the Center, I have no doubt that I would have left DU because it was the only organization on campus I joined that gave me a sense of purpose and that made me feel like there might be a future for me.”

“[The Center] enhanced my [college] experience. It is one of the main reasons I will continue to attend DU.”

By the Numbers...

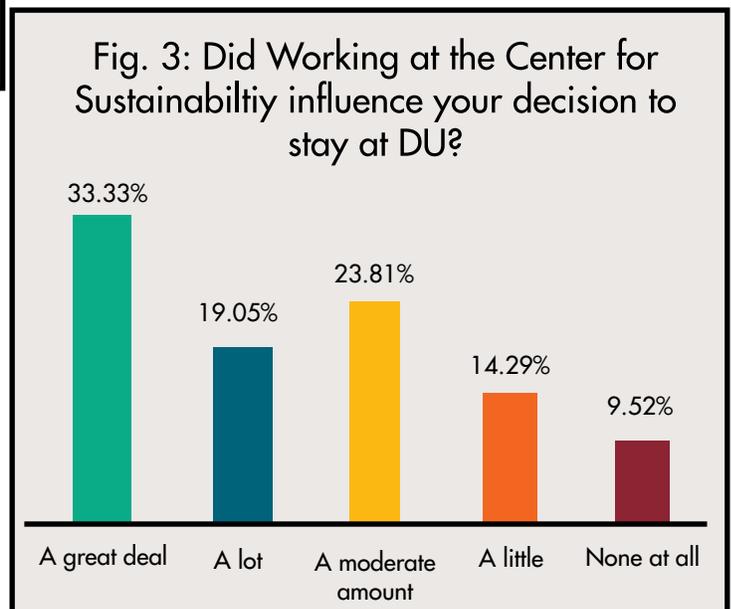
The Center for Sustainability prides itself on its wide appeal to all sectors of campus. Our work sparks passion and excitement in students of all academic disciplines, backgrounds, and points of view. Our 2017-18 cohort was one of the largest and most diverse we’ve ever had, with:

- 31 Undergraduate Students
- 13 Undergraduate Majors Represented
- 6 graduate leads
- 5 Graduate Schools Represented
 - o Graduate School of Professional Psychology
 - o Natural Science and Mathematics
 - o Graduate School of Social Work
 - o University College
 - o Morgridge College of Education

“I was highly considering leaving DU, but it was finding my passions here that kept me. The Center is a huge passion I have and greatly, greatly makes me feel like a part of something bigger.”

“The Center helped me transition into college better because it instantly gave me a community that I fit into and certain events and activities that I could take on in order to pursue my passion for the environment”

“I think [the Center] allowed me to find purpose on campus, and it also became a place that solidified friendships with people in the sustainability community”



Experiences at the Center

We were interested in trying to quantify the qualitative feedback we got about the best parts of working for the Center. Every student found that their work at the Center for Sustainability allowed them to pursue an area of passion, make a positive impact on campus, and become better prepared for a career after college (see table 1, below). The students also expressed that they were able to develop a number of professional and personal skills through their work in the Center (see table 2, on page 13).

Once again, the students' words best illustrate these experiences and findings:

"I felt like I got to be a leader on campus...I learned how to collaborate, and I also think I learned a valuable lesson about doing what you love. Part of the reason I wanted to leave [DU] was because I was forcing myself into subjects and communities that I didn't fit into. The Center showed me that you can be successful and do what you love at the same time. I don't know if I will ever find a space that is simultaneously productive, fun, spearheading change, and welcoming. But the Center proved that it can exist, and I am so grateful that I got to be a part of it. The Center for Sustainability MADE my DU experience. It is also the organization/program at

DU that gave me the most amount of practical skills and that I was able to apply and practice them."

"Working at the Center is an integral part of my university career- it revealed a strong passion of mine, as well as helped me discover my leadership style. I molded my organization/planning skills on my experience at [the Center] and I turned one of my interests (the environment and sustainability) into a passion and possible career choice."

"This internship empowered me to make my ideas a reality. Instead of falling into a 'sophomore slump,' I felt motivated to change the things that I didn't like about DU and make a positive impact in the world. The Center gave me the platform to do this in a non-threatening, supportive way where I didn't feel pressured. I felt encouraged and supported which was much needed amidst my competitive classes at the music school."

"I have loved working in the Center during my first year at DU. It is such a unique job experience considering that most of our work is individually-decided and motivated, while also being integrated in such a tight-knit team atmosphere. This position has been rewarding and challenging for me, and I don't think I would feel nearly as accomplished with my DU experience so far had I not upheld this position."

Table 1: How Would You Describe Your Experience Working at the Center for Sustainability?

This work allowed me to pursue my educational interests	95%*
This work corresponded to an area of passion for me	100%
This work required additional learning beyond my curricular experience	71%
My work contributed to positive impact on campus or in the community	100%
This work helped me develop leadership skills	91%
This work prepared me for a job or career	100%
This work played a defining role in shaping my career path	67%
<i>*Percentage of students answering "agree" or "strongly agree"</i>	



Table 2: How much has your experience working at the Center contributed to your knowledge, skills, and personal development in the following areas?

Thinking critically and analytically	62%*
Acquiring job-or work-related knowledge and skills	91%
Working effectively with others	95%
Developing or clarifying a personal code of values and ethics	67%
Solving complex real-world problems	57%
Being an informed and active citizen	86%
Use of: excel, presentation software, communication software, online calendars, time management, reporting	62%

**Percentage of students answering "a great deal" or "a lot"*

Intern Spotlight: Selene McConachy

Selene, who began working for the Center for Sustainability during her freshman year, was recently featured in the University of Denver Magazine:

Among the environmentally aware students who help staff DU's Center for Sustainability is senior Selene McConachy, a double-major in journalism and psychology with minors in Chinese and sustainability. McConachy manages the center's zero-waste sports program, which works to divert waste at home hockey, lacrosse, gymnastics, basketball and soccer games, ensuring that recyclable and compostable items are diverted from landfills.

Q: How is the zero-waste sports effort going?

A: It's going great. We used to be just zero-waste hockey, but now we've branched out, and it's going pretty successfully. We've maintained on hockey, and we're just trying to bring that awareness to the audiences at all the other games.

Q: Simple question, but what's the reason behind the campaign? Why make the games zero waste?

A: I don't think people realize how much

waste is produced from these games. It's hundreds of pounds every single night because there are so many people. If it all ends up in the landfill, it's just repeating the cycle. We're trying to intervene with where all this waste goes in the end. And ideally it would be great if we could train other people — not only students, but parents, alums — to bring recycling and composting into their own lives as well.

Q: Where did your interest in and passion for sustainability come from?

A: I have to admit that when I started university, I never thought I'd care about trash. It sort of happened. I've always been interested in the environment and the impact that we have, and I've tried to be sustainable, but it really launched when I was a part of the Environmental Sustainability Living Learning Community [a program that puts first-year students with similar interests on the same residential floor and engages them in related programming]. They had a lot of great programs and field trips, and I learned so much about it. It's always been a subject I've been interested in and wanted to learn more about. It has a really important impact, especially in this day and age, with the onset of climate change, and I wanted to see if I could

make a difference.

See the whole article here: <https://magazine.du.edu/campus-news/du-home-games-go-zero-waste/>



The Center as a Community

Anecdotally, we have heard many students struggle with finding their own place at the University of Denver. The Center for Sustainability has long acted as a place where students can feel at home, build strong

friendships and working relationships, and be welcomed with open arms. We asked the students how welcoming they felt the Center for Sustainability was and how we could make it feel more like a home for the students who work with us, as well as to visitors, collaborators, and partners. Two-thirds of our undergraduate students reported that the community was one of the best parts of working for the Center and that they felt like the Center was a “very welcoming” place to spend their time (see figure 4, right).

Once again, their own words illustrate just how much they appreciated the community at the Center. *“Working at the center really made my DU experience great! I love the community of friends I have built here and I think that it has been a place where I can learn from my peers as well as an outlet to teach other students about some awesome sustainability stuff!”*

“I get to work all the time with people that I love dearly and who are some of my greatest friends.”

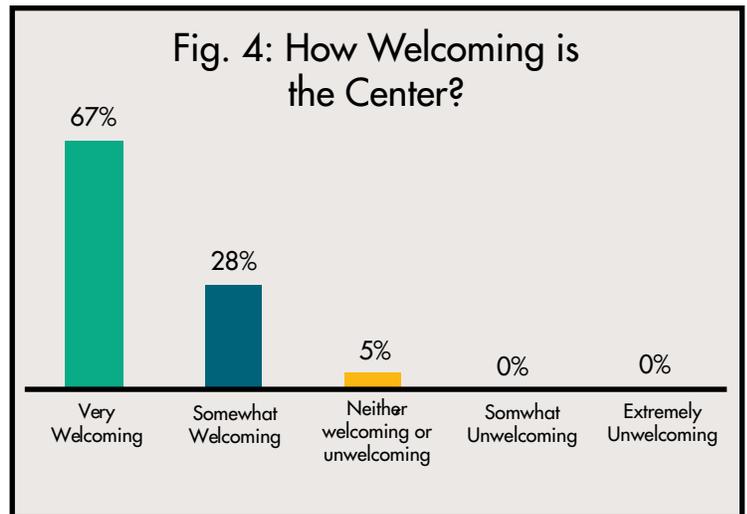
“I got to make friends and grow as a leader in my job, which is something that I didn’t think about. Everyone is super welcoming and I know that if I wanted to collab or work with another team, I’d be welcome, which is a nice feeling.”

“This has been an awesome first college job and I am so happy to be a part of a great community!”

“The Center helped me transition into college better because it instantly gave me a community that I fit into and certain events and activities that I could take on in order to pursue my passion for the environment on DU’s campus.”

“I think [the Center] allowed me to find purpose on campus, and it became a place that solidified friendships with people in the sustainability community”

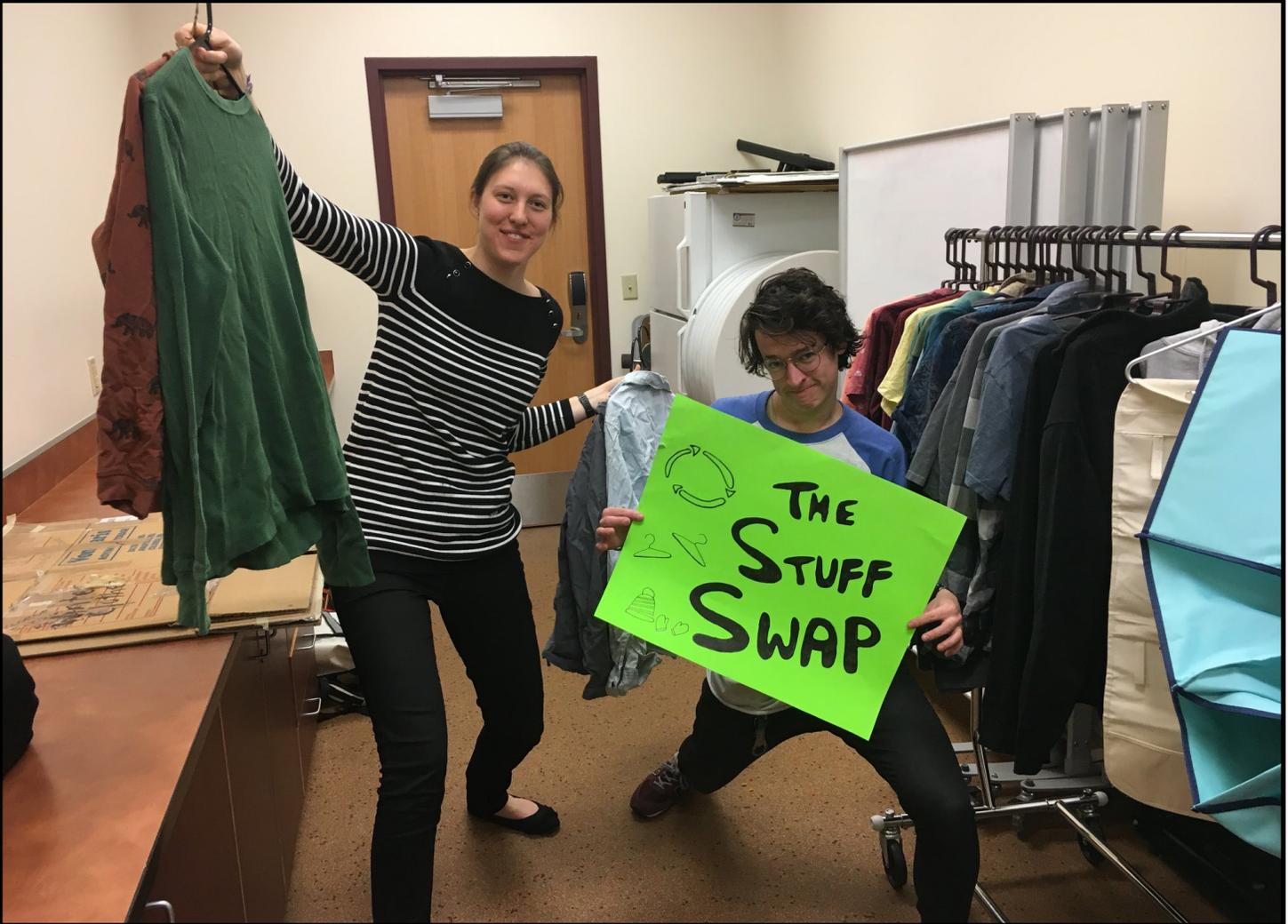
Of note were comments from one student about their experience working at the Center as a queer person:

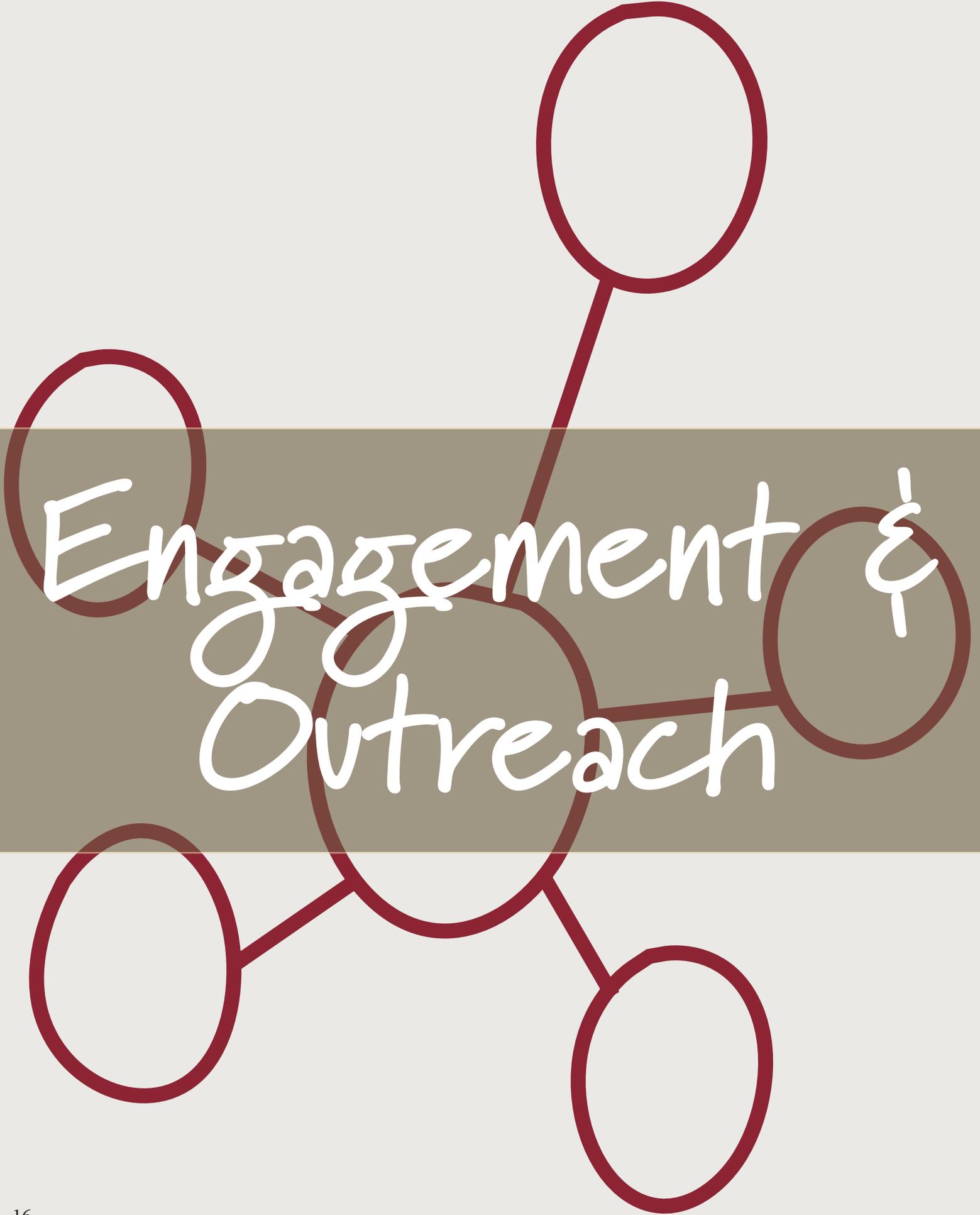


“The Center feels like an affirming place for queer folks ..Emily...and other employees have provided that space”

One third of our undergraduate staff identified as being part of the LGBTQIAA+ Community, so for students to find the Center for Sustainability a welcoming and affirming place to spend time is significant. We are proud to provide a home that feels positive and open not just for students passionate about the environment, but for students who have many other identities that are not as readily welcomed in all spaces in the world.







Engagement &
Outreach

Introduction

Engagement and outreach activities include a number of campus collaborators, and have a variety of purposes. Partnering with programs across campus is a key way of enhancing communication and education about sustainability at DU and in the community. This experience gives student staff the opportunity to develop and enhance effective communication skills.

Participating and presenting in regional and national meetings enhances DU's profile, while providing opportunities to learn from peers. Opportunities for students to lead projects with clear outcomes that can be shared at conferences further enhance the DU experience and provides career development



Outcomes

Many hosted events bring together students, staff and faculty for educational opportunities and active engagement in community change. These activities include general education during new student and all new employee orientations. Quarterly events highlight all programs of the Center for Sustainability and include community members.

Highlights from this year include:

- 400 students reached at orientations: 200 at GSSW and 200 students at the General Grad orientation
- The Winter Event drew 180 attendees and 31 exhibitors, speakers, vendors, and musicians.
- Earth Day of DUing: Spring Quarter Event, which offered 4 volunteer opportunities:
 - o Bridge Community Garden
 - o Clean Community Crew
 - o Platte River Cleanup
 - o Food Recovery Network

The Earth Day of DUing drew 30 volunteers who worked during the morning and then came to celebrate their hard work and our beautiful earth at a party later that day.

Campus Life and Inclusive Excellence Partnerships

Engagement events seek to draw students, staff and faculty together for educational opportunities and active engagement in community change. These events rely on strong partnership with units across campus, such as Student Life, Housing and Residential Education, Orientation, Fraternity and Sorority Life, Human Resources, Wellness, and others. These partnerships highlight the role of the whole campus in sustainability efforts. Ongoing activities include general education during new student and employee orientations. Large quarterly events highlight all programs of the Center for Sustainability and include community members.

The lived experience provides a unique perspective on a sustainable lifestyle. Students are in a period of intense learning and behavior change shaped by their co-curricular experience. Programs that address students where they live allow application of knowledge into practice and growth as an individual towards a just and sustainable future. These co-curricular programs and partnerships are critical for this educational experience.

HRE Partnership:

- RA-led events around sustainability: 3
- RAs who used Center bulletin boards: 9
- Sustainability Staff attended RA summer training
- Led two planning meetings with RDs and GRDs
- Presented to Orientation leaders (40)



Sustainability in the Curriculum

Sustainability initiatives provide a foundation for applied interdisciplinary research and curricular projects. Using campus as a learning laboratory provides classes and individuals with access to campus projects and data. Connections and partnerships that the Center for Sustainability has developed in Denver and the region provide curricular opportunities off campus. Projects have also developed out of classes and research for implementation on campus. The Center for Sustainability provides a backbone to facilitate and support these types of research and class projects, supporting problem sol. These projects have focused on a variety of areas, including supply chain and marketing, applied communication and writing, carbon and water footprint analysis, waste diversion, transportation, renewable energy law and financing, and more. These partnerships allow students and the educational experience to remain at the core of our work.

Highlights from this year included:

- Presented to ESLLC class, Sullivan, 30 students
- Presented to Geography class, Powell, 20 students
- Presented to Geography class, Trigoso, 21 students
- Presented to Geography class, Trigoso, 21 students
- Presented to GSSW class, Bexell and Mudlier, 12 students
- Presented to ELC classes, Brunkhorst, 15 students
- Led ELC class project, Brunkhorst, 15 students
 - Presented to HRTM class, Parsa, 20 students
 - Provided research experience for HRTM class, Parsa, 8 students
 - Advised Engineering student project, 3 students
 - Advised GIS student internship project, 1 student

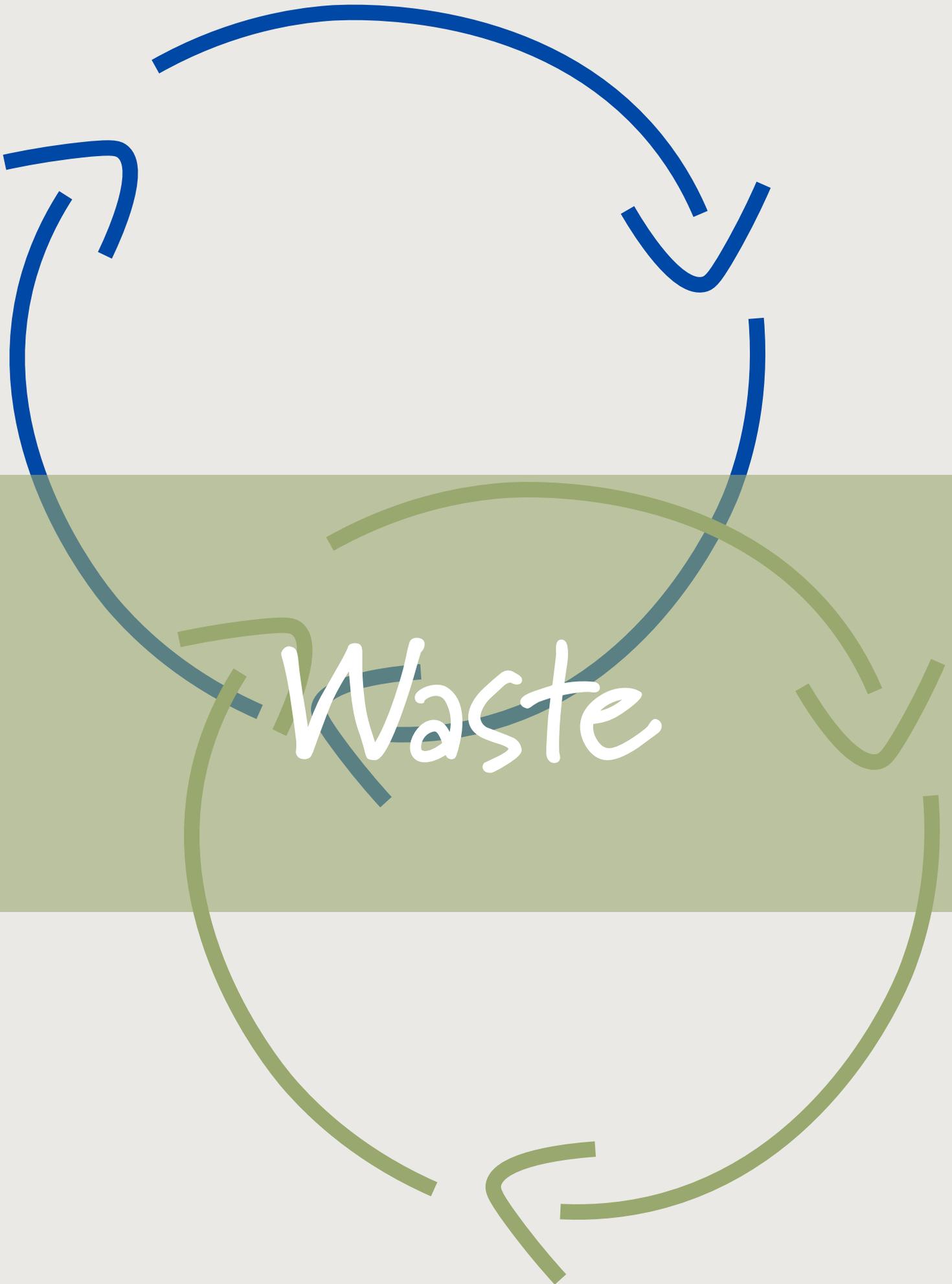


Outreach to Collaborators: Local, Regional and National

Sharing the University of Denver's sustainability efforts in a broader context raises the perception of the University, provides opportunity for shared research and learning, and builds the potential for collaboration. Student employees of the Center for Sustainability are encouraged to participate in these types of opportunities to gain valuable experiences, build networking opportunities, and develop professional skills. These opportunities are also made available to the sustainability community across DU.

Highlights from 2017-2018 include:

- Presented at Association for the Advancement of Sustainability in Higher Education national convention, two staff, one student, 5 posters/presentations
- Attended Mayor Michael B Hancock's 2017 Denver Sustainability Summit
- Participant, Institutional Food Procurement Cohort, Regional food purchasing group
- Participant, NREL Smart City Transportation Research Group
- Participant, Moving People Forward, Denver Mobility Conference
- Planning, presentation and participant, The Road Ahead, Transportation Solutions Mobility Summit
- Public Comment, RTD Pass Working Group
- Presentation, INC Transportation Committee



Waste

Introduction

Everyone on campus throws something away every day. Providing people with the knowledge and tools for waste minimization and diversion allow everyone to participate in campus sustainability goals. Waste is also a very visible indicator of commitment to sustainability, as visitors see recycling and compost across campus. Center for Sustainability engages student staff and volunteers in efforts to reduce waste going to the landfill in areas where operational sup-

port is necessary for success. This includes education, collection, and data gathering associated with major events such as move in, move out, events, and athletics. Bin and waste audits provide data on infrastructure, operational efficiency and actual practices at the building or event level. Disseminating these results and associated educational opportunities is meant to motivate continued behavior change to meet our zero waste goals.



Outcomes

Food Waste Reduction

Recent reports have raised awareness about the critical issue of food waste. Over 40% of the food grown in the US is lost or wasted. For the University, this directly impacts budget and student food security. In a partnership with DU Dining by Sodexo, food waste is being measured in a number of ways. Sodexo staff are beginning to weigh pre-consumer waste, such as trimmings, or food that is prepared but not served. The Center for Sustainability assists with Weigh the Waste events, where post-consumer edible food waste is measured and normalized to ounces of waste per person (see 2017-2018 data in table 3 below). Accompanying surveys ask about reasons people throwaway their food and what efforts or programs might reduce food waste. Waste values are shared during the event. This spring we tested a method reducing for post-con-

sumer food waste, by allowing students to try a taste of a dish before taking a full serving. "Try a Taste" was available in Nelson dining, but not in Centennial Halls, and seemed to reduce the amount of waste per person (see the data below). We will continue to run Weigh the Waste events next year in collaboration with Sodexo to better hone in on food waste causes and solutions.

These efforts have developed into a collaborative project funded by TIAA, that includes DU Marketing and Communications, and the National Resource Defense Council (NRDC). With a goal of developing a toolkit for increasing awareness and reducing food waste on college campuses, this study will use survey data and a strong marketing campaign utilizing the NRDC save the food materials. Developed this spring, the project will start next fall.

Table 3: Food Waste Audit, Edible food waste, oz per person

	Fall	Winter	Spring
Nelson, Lunch	2.44	3.18	2.55
Halls, Lunch	4.4	2.86	3.55
Nelson, Dinner	3.74	4.02	
Halls, Dinner	3.39	2.73	



Program Spotlight: Mt. Trashmore

Over 60 volunteers participated in the 2017 Mt. Trashmore, a one-day waste audit of all the trash from the University. Engaging several classes, living learning communities, and other volunteers, this program educates participants about waste diversion while providing building level diversion data, and is has been a staple waste program for the last six years.



Move-out Collection

Students moving out of residence halls typically produce a tremendous amount of waste as they leave materials that they aren't willing or able to store or move home. In the past DU has partnered with Goodwill and ARC thrift stores for the pickup of these materials. With Goodwill no longer interested in this program, and increased student interest in gathering these materials, this year donation centers were set up in Centennial Halls, Centennial Towers, Nelson, Nagel, JMAC and the apartments. These materials were collected and stored with the intention of hosting a thrift store during fall move in. In this way materials that students always buy to furnish their rooms can be made available on campus at greatly discounted rates.

For a first attempt at collecting move-out items for on-campus reuse, rather than immediate donation to Salvation Army or GoodWill, the 2018 collection was moderately successful. While we not able to collect a full accounting of the weight of materials saved from

landfills, we do have some key metrics:

- 2000 pounds of mattress toppers and bedding were recycled
- 2000 pounds of food and cleaning products were added to the Food Pantry

We engaged roughly 20 volunteers (many of whom were not affiliated with DU) over 9 days of sorting, packing, and moving items at Nelson, JMAC, Towers, and Halls. We were able to recover all materials donated at these four locations. Time was the biggest factor, and no materials were recovered from Nagle.

Resident Hall Move-In

Student staff organized, collected, and disposed of recycling during the rush of resident hall move-in, making sure that recycling (mainly cardboard boxes), was diverted cleanly into the appropriate dumpsters.

Compost Collection

Weekly compost collection from Beans and the Fisher Early Learning Center provide a service filling a gap in campus operations. This practice allows motivated departments that produce significant daily food waste to participate in diverting waste to compost.



Bin Audits

Building level audits of total landfill, recycling and compost bins provides a detailed look into whether best practices are being met in bin type and arrangement. This year, audits and accompanying recommendations were completed for the Newman Center, Daniels College of Business, Sturm Hall, Law School, and Fisher Early Learning Center.

Building Waste Audits

In order to better understand the waste coming out of any given building, the Center for Sustainability regularly conducts building-level waste audits around campus. There are several buildings that we have been tracking waste in for several years, providing us with

excellent long-term longitudinal data. Many of these buildings were ones where the staff or building manager expressed interest in reducing the waste in their space. Starting in 2017, we have requested to follow-up all building bin audits with a waste audit in order to give more in-depth and accurate recommendations about bin placement and type.

In 2017-18, the Center conducted 10 building waste audits in five buildings (plus the campus-wide audit at Mt. Trashmore). The results are listed below (in table 4), and show a variety of results, from the good showing at the Anderson Academic Commons, who have put a lot of effort into educating building users and occupants about proper waste sorting, to Sturm and Craig Halls, which have a less pointed effort in terms of reducing waste and contamination.

Table 4: Building Waste Audits, percentage of waste diverted to compost or recycling instead of going to landfill

	Fall	Winter	Spring
Mt Trashmore (campuswide)	61% potential*		
Joy Burns Center	66% actual 77% potential		
Beans (Joy Burns Center)			54% actual 92% potential
AAC	67% actual 79% potential	63% actual 83% potential	68% 84% potential
AAC (Front Porch Café)		75% actual 79% potential	
Newman Center		44% actual 74% potential	
Sturm Hall			38% actual 71% potential
Craig Hall			31% actual 83% potential

**Potential refers to the percentage of waste that could have been diverted if all the waste had been sorted properly, as compared to the waste that was actually diverted*

Table 5: Zero Waste Athletics, 2017-2018 Season

Event	Season Diversion Rate*	Games at <75% Diversion	Games at <85% Diversion	Games at <90% Diversion
Soccer, 3 games	77 %	3	0	0
Hockey, 14 games	88%	3	8	4
Lacrosse, 5 games	88%	1	3	1
Gymnastics, 5 matches	83%	1	2	1
Basketball, 6 games	80%	4	1	1

**Diversion Rate refers to the percentage of waste that is recycled or composted*

Zero Waste Athletics

In 2012, DU became the first university in the country to begin pursuing zero-waste in a hockey rink. In the six years since the program began, the program has grown to include men’s soccer, lacrosse, gymnastics, and basketball, which encompasses the vast majority of high-traffic sporting events at the Richie Center.

The zero waste athletics program reached its best diversion rates to-date (see table above). In hockey and lacrosse, true zero waste (a 90% diversion rate or better) is just within reach, with the other sports close behind (see table 5, above).

While the program initially used “goalies” who would stand next to the waste stations during the whole game, as each sporting crowd gets more and more used to the zero waste protocol, our staff and volunteers have moved towards just sorting waste after each

intermission and after the game ends. This hard effort to sort waste during and after games, plus a great partnership with the Richie Center, are what have led our team to such successes in this area.

The zero waste athletics program engaged our entire Center for Sustainability staff and nearly 200 volunteers, including two high school honors societies, the club rugby team, the ESLLC, and other interested people from around campus, making it one of the most engaging programs our office runs annually.

By doing such visible and impactful work in a part of DU that is visited by students, faculty, staff, alumni, and community members alike, we are able to have a huge impact not just on the waste generated on campus, but on the mindsets and education of a huge part of the DU extended community. Each year, our team continues to find better and more efficient ways to make waste diversion at Richie Center successful.

Student Spotlight: Mari and Newman ZW



When Mari came to DU in 2016, she knew that as a music major, she would be spending a lot of time in the she was interested in the Newman Center. She also knew that she was interested in the environment, and after taking an FSEM with Megan Kelly that focused on waste issues, she knew she wanted to do all she could to make the Newman Center as green as possible. Mari contacted the Center for Sustainability and began working with Chad to develop a plan to treat events and concerts at the Newman Center the same way we treat sporting events at the Richie Center when it comes to waste. In Fall 2017, Mari led the first zero waste concerts at the Newman Center. Engag-

ing a dozen different volunteers from the ESLLC and other places around campus, Mari was able oversee 10 zero waste concerts and reach a 92% diversion rate in the first year!

Mari’s passion and excitement for creating more zero waste spaces on campus has ignited a fire on the rest of campus, as several other buildings have wanted to get the zero waste treatment just like Newman got. We expect to see even more events at the Newman Center divert their waste away from the landfill, and we are excited to see what new buildings follow!



Energy

Introduction

Reducing campus energy consumption is critical to meeting our carbon neutrality goals. Electricity alone contributes to over forty percent of the University carbon footprint, and combined with natural gas for campus heating, these energy sources contribute to sixty percent of the carbon footprint. The University has an aggressive and successful plan to improve energy efficiency, however it is well known that user behavior is a major contributor to building energy con-

sumption. For this reason, programs in the Center for Sustainability focus on behavior change for energy savings. This focus expands off campus to student housing, since education leading to behavior changes that decrease electricity use benefit the region while reducing student cost of living. While hard to measure directly, the goal of all behavioral energy programs is to cause a decrease in the University electricity and natural gas use.



Outcomes

Engagement

Education and student engagement are critical to influence behavioral energy savings. Community programming accomplishes this in two practical ways. Evening events that are low in energy use draw students out of their individual rooms and into shared spaces that utilize less energy per person. These engagement activities also provide a means of sharing energy efficiency education in a different setting to a broad group of students. These engagement and education events have also been linked to our winter Energy Challenge. In years past, this challenge pitted resident halls against each other to see who could conserve the most energy for one month (as a percentage reduction over a baseline of prior years' energy consumption for each residence hall). This year saw a slight change, with a focus on individual participation through commitments and action.

The Energy Team worked to create several signature events that were repeated throughout the year: Open Mic Nights and Candlelight Yoga.

These engagement and education events impacted:

- Fall Events:
 - o Open Mic Night, 100 attendees
 - o Candlelight Yoga, 40 attendees
- Winter Energy Challenge:
 - o Open Mic Night with DUPB, 100 attendees
 - o Candlelight Yoga, 20 attendees
 - o Movie night, 10 attendees
 - o Trivia night, 30 attendees
 - o Ice Cream Social, 20 attendees
- Spring Events
 - o Open Mic Night 1, 100 attendees
 - o Open Mic Night 2, 100 attendees
 - o Candlelight Yoga 1, 20 attendees
 - o Candlelight Yoga 2, 40 attendees

Education: REPS

The Renter Efficiency Program for Students (REPS) developed out of a partnership with Xcel Energy. Students working in this program are trained to complete basic energy audits of apartments and rental houses. This program identifies methods for student renters to reduce energy consumption and reduce the cost of their bills. Focusing first on behaviors for improving energy efficiency, these auditors also provide materials for basic, reversible improvements to the rental unit. All renters are required to be present for the audit, and they receive an Illegal Pete's burrito for their time. The auditors provide and install LED light bulbs, low flow shower heads, sink aerators, water pipe insulation, and door and window weather stripping. This allows impactful change in settings where neither the renter or the landlord are incentivized to make energy improvements, as the renter often can't make changes to the unit, and the landlord doesn't pay the energy bills.

This year, the impact of the REPS program was:

- 3 tenants educated, 2 audits completed in fall
- 9 tenants educated, 3 audits completed in winter
- 7 tenants educated, 2 audits completed in spring



Program Spotlight: Energy Challenge

During previous years in the Energy Challenge, the month of February was designed as a competition between residence halls to reduce their building's energy and win an ice cream party. It was intended to create a competitive environment to encourage students to battle by saving the most energy. Results were recorded by collecting data from each residence hall to track which hall was making the most improvement on limiting energy usage. However, we found that by and large, the students on campus do not have any particular affinity for the building they live in, and therefore no desire to compete for victory in that building. Instead, we changed the challenge to be individually-based, rewarding students for attending events and taking energy-sav-



ing actions on their own, rather than for their whole building. This let students have more agency over their participation and success in the challenge, rather than depending on a largely un-engaged residence hall to see success. Overall, we found this new process to be more beneficial for the students who participated, as it let them learn more about their individual actions and how to apply these lessons to the rest of their lives both on and off campus.

The Energy Challenge featured five campus-wide events intended to get people out of their rooms and doing community activities: Open Mic Night, Candlelit Yoga, Movie Night, Trivia Night and an ice cream social for the participants.





Food &
Gardens

Introduction

Food falls at a key nexus of sustainability topics. Food production and consumption in Colorado falls at the intersection of water, energy, transportation, ecology, and climate. For some, passion about food starts with the nutrition and health components of fresh, seasonal, local food, which also has a strong local economic impact and emissions reductions from shipping food around the world. For others, food provides an opportunity to make a lifestyle choice that reduces impact on the environment and on living organisms.

Plant-based diets have a lower impact on ecological services and climate change, as they reduce the total amount of food production area required, lower runoff into waterways, and lower the methane contributed from animal production.

Our food and gardens educational programs and engagement activities draw students from all over campus, while operations projects provide goods and services to address food security on campus.



Outcomes

Food Justice

Food justice is a key topic in any urban setting. In many settings, food deserts and food insecurity are in stark contrast to the food waste that is prevalent across the US.

Educating and engagement in this area includes partnerships with the GrowHaus, who provides food boxes delivered directly to campus. These food boxes support the food justice programming in north Denver. On campus food justice efforts include donations of food from food service to local food banks, as well as access to food provided by the Campus Food Bank. This year, the GrowHaus food boxes averaged 12 participants per week.

Since its formal launch in Winter 2018, the Food Pantry has served 62 users over 91 visits. It has provided 1825 lbs of food, which is equal to 1520 meals. We ran several food drives throughout the year, including a large holiday food drive for staff, and a food drive for students during move-out, where 2000 lbs of food collected and sorted.

The program has continued to grow and serve greater parts of the DU community, as people beyond the students have started to see and use the pantry on a regular basis.

Gardens and Planting

Grounds, gardens, and campus plantings provide further opportunity for education on local issues and ways for individual participation. The Bridge Community Garden (on Race Street) links students, faculty and staff with local neighborhood members while providing hands on experience in seasonal food production. Planning for future gardens allows the opportunity to reduce overall water use on campus. To that end, we added eight new garden beds to campus next to the English Learning Center. This garden is meant to highlight the diverse cultures who attend DU and their varied food heritages.

Our Food and Gardens teams were able to engage nearly 40 volunteers in prepping the new ELC Garden for plantings, which was finalized during summer 2018.

We also engaged another 40 volunteers over several workdays maintaining the Bridge Community Garden, weeding, repairing, and preparing beds for summer plantings.

The Bridge Community Garden had over 20 faculty, staff, and community members rent and manage garden plots during the summer months, along with several beds that were managed by student groups.





Project Spotlight: ELC Garden

The students attending the University of Denver are diverse; they come from all over the world and from a wide variety of backgrounds, races, cultures, and beliefs. Many of these students spend time taking classes at the English Learning Center, working hard to improving their English speaking and writing skills in order to be more successful in their regular courses.

These students are especially far from the cultures and, especially, foods that feel the most like home. In an effort to bring together the benefits of gardening and the homes that these students miss, the Center worked with the ELC to build and plant 8 new garden beds sitting directly outside the ELC building on Asbury Ave.

Our goal is to plant foods and spices that will remind the students of home, prompt cultural exchange, and bond over food. We also plan to work with non-profits around Denver who promote seed-saving and heritage plant varieties, as well as restaurants and shelters that help feed hungry people in the city.

This year, the ELC students helped build the garden beds and worked with our staff to create plant signs in their native languages. This will help students identify the plants growing in their garden, and what they will be best used for. As the garden becomes better established, the students will be able to use the veggies to show off food dishes from their home countries and give recipes to others.





Events and Engagement

The Food and Garden team at the Center for Sustainability works hard to engage students, faculty, and staff in events that highlight the work being done by Sodexo, in our own community gardens, and by the local Denver community. Every quarter, our students plan several events that draw people from all across campus and the nearby neighborhoods.

In fall 2017, we hosted a Harvest Festival that drew over 40 attendees and highlighted the work being done by a local couple running a Thai Restaurant near DU: Taste of Thailand.

In the Winter quarter, we hosted our third Makers Market, which seeks to highlight the work being done by makers and crafters on campus and in Denver. The 2018 Market also highlighted local food makers and the non-produce food options available to the DU community being produced just a few miles away.

The spring quarter focused on preparing our gardens for the summer growing season, and engaged nearly 100 students in learning about how to care for a garden, see the difference between weeds and desirable plants, and how to plant seeds and starts.

Local Food

In Colorado, seasonality, climate, and the history of western agricultural development have tremendous impacts on variety, quantity, and timing of agricultural products. One of our efforts around food on campus is to improve the links between people and local food in order to best understand seasonality and the implications of eating in season. This also provides an opportunity to educate around water, one of the most critical aspects of life in the west. Partnering with Ela Family Fruit Farms for drop-off of community supported agriculture shares on campus stresses this seasonality, while bringing local food to campus. Additional work on the University becoming an anchor institution around food purchasing has translated to participation in the Real Food Challenge, where the University and Sodexo (the food service provider on campus) set a goal of 20% local and sustainably served food in our dining halls by 2020.

In 2017, we had 28 participants in the Ela Family Farms CSA for the DU Community.

Our staff trained 15 undergraduates and a grad student on how to process data for Real Food Challenge.





Introduction

Hunger and food insecurity are a growing problem on college campuses. The rising cost of a college education and the increasing number of nontraditional students mean that more students are living on a shoestring budget. Food insecurity - the lack of reliable access to sufficient quantities of affordable, nutritious food (Dubrik, Mathews, Cady, 2016) - is common at higher education institutions across the country and University of Denver students are not immune from this struggle. Approximately three years ago, a grassroots emergency food pantry began in the Center for Multicultural Excellence, where staff and graduate students were seeing examples of food insecurity near the ends of quarters, especially as students were running out of swipes for their meal plans. They also saw examples of food insecurity in the commuter student population. These stories are in line with findings from the 2016 Hunger on Campus Report (Dubrik, Mathews, Cady, 2016) conducted by the College

and University Food Bank Alliance, National Student Campaign Against Hunger and Homelessness, Student Government Resource Center, and Student Public Interest Research Groups. This report found that challenges with food negatively impact a student's academic success in many ways including not buying textbooks, missing class, not being able to concentrate, and even dropping out of classes.

In the Hunger on Campus Report (Dubrik, Mathews, Cady, 2016), 48 percent of respondents reported food insecurity in the previous 30 days, including 22 percent with very low levels of food security that qualify them as hungry. This study showed that very low food insecurity occurs at both two-year and four-year institutions, but at a higher rate at community colleges (25%) than at four-year schools (20%). Food insecurity was more prevalent among students of color, where 57 percent of Black or African American stu



dents reported food insecurity, compared to 40 percent of non-Hispanic white students. Additionally, more than half of all first-generation students (56 percent) were food insecure, compared to 45 percent of second-generation students. Food insecurity unveiled a range of additional concerns, as sixty-four percent of food insecure students reported experiencing some type of housing insecurity, with 15% of food insecure students reported experiencing some form of homelessness, in the past 12 months. At four-year schools, seven percent of student respondents reported homelessness.

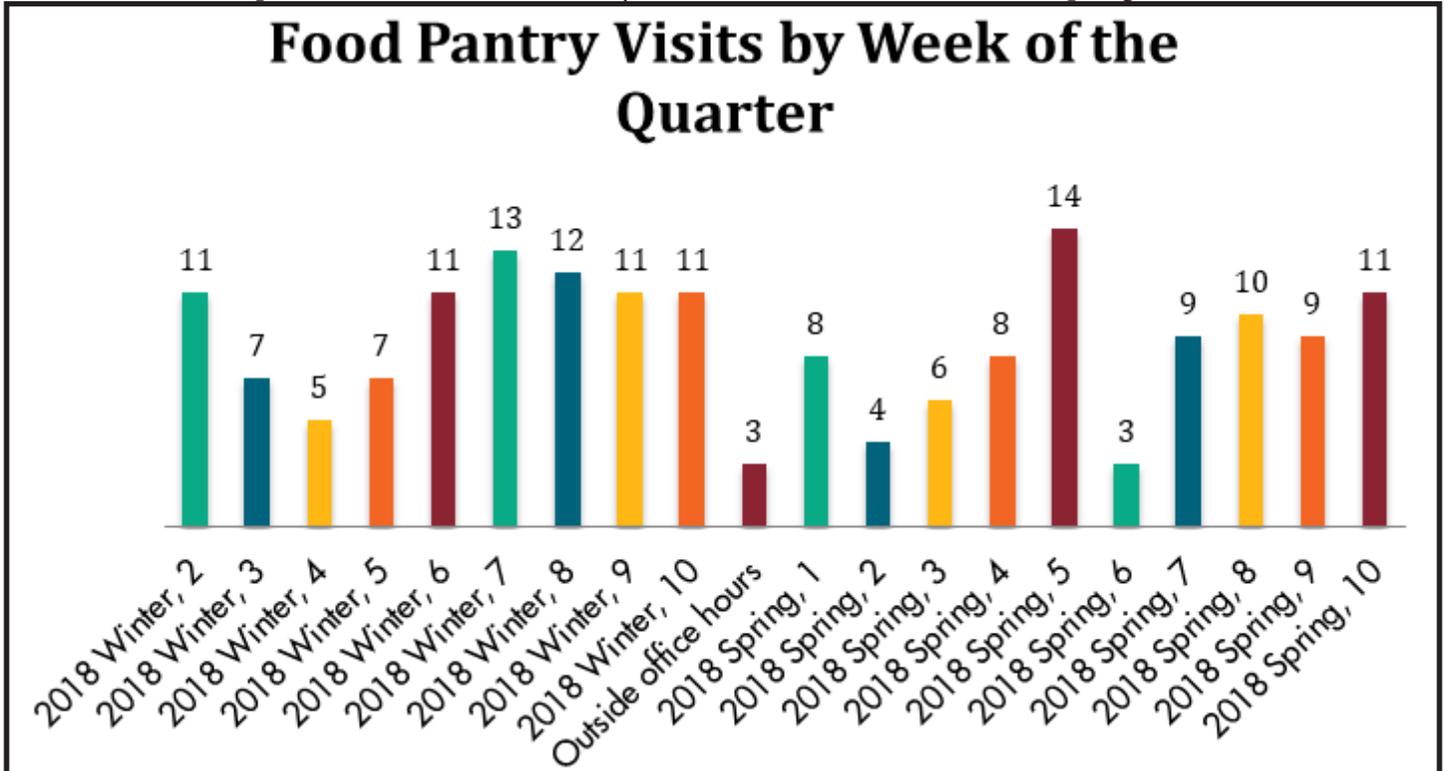
The Hunger on Campus report emphasizes that food insecurity affects students who have a meal plan, are employed, or seek other help. Fully fifty-six percent of food insecure students had a paying job, with 38 percent working over 20 hours per week. Forty-three percent of food insecure students at four-year colleges had a meal plan. Seventy-five percent of food insecure students received some type of financial aid, and sixty-one percent had used at one other existing aid service in the last year. This research further reiterates the widespread nature of food security on

campuses, suggesting the need for solutions to meet students' basic needs for success.

At the University of Denver, a dedicated graduate student and CME staff took the initiative to begin assembling food and toiletry donations that they could share with students in need. The program was advertised only by word of mouth. Due to concerns regarding privacy and confidentiality, statistics on the number of students served or amount of food provided was not tracked. Commonly used items were restocked as needed. Operations were expanded to include delivery supplied to student's dormitory residences or off-site apartments. In 2016 Sodexo began sponsoring the food pantry, providing around \$3000 per year as a percentage of sales from one of their locations, to help supplement the cost of the program.

In 2017, the food pantry program was moved to the Center for Sustainability. As part of the move, intensive research was done to formalize an operating process to determine campus need and impact of the program. Food donated from Residence Halls at dorm move out after Spring Quarter 2017 was uti-

Food Pantry Visits by Week of the Quarter



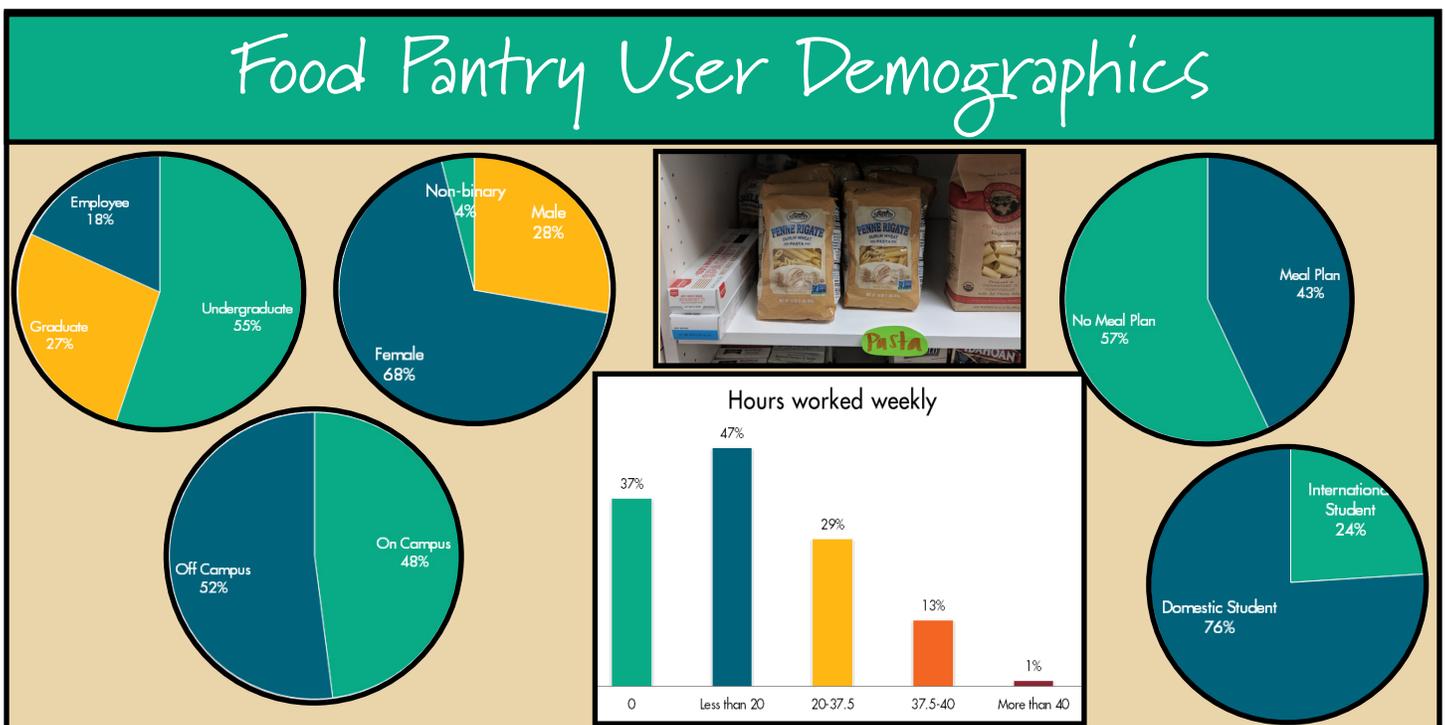
lized to initially stock the pantry. The emerging goals is to stock the pantry with nutrient dense whole foods that will not only alleviate hunger, but also keep students healthy. The goal is to sources as many products as possible locally. The campus gardens and CSA programs may provide opportunities to supplement dry food stuffs with fresh produce. Education on nutrition, food preparation, and wellness are seen as critical components to a successful program.

As this version of the food pantry emerges, a number of data collection and operational processes are being developed. Operationally, a process has been defined to clarify roles and responsibilities in the food pantry. Planning has also focused on details from oversight to specific purchasing, planning, and safety responsibilities. This includes the creation of an advisory board to contribute to the direction of the pantry and identifies student roles in managing the pantry. In order to better understand campus need, a hunger survey has been adopted from a national assessment tool to collect campus specific data and is currently in the process of being rolled out. In order to better understand impact of the pantry, a user survey has been developed and was done in May 2018. This maintains user confidentiality while collecting valuable information for justifying the program needs. Understanding the sensitivity associated with utilizing a campus food bank, a number of best practices are being adopted to train students working in the food pantry. These include a standard intake process/script, and a confi-

dentiality agreement meant to maintain the confidentiality of campus users. In attempts to standardize the offerings in the food pantry, a product list has been developed. These products are meant to incorporate nutrient dense whole foods, and to provide recipes and meal demonstrations when possible to provide a means of education on cheap whole food options.

The University of Denver Food Pantry launched formally in Winter Quarter 2018 with weekly drop-in hours Wednesdays from 4pm-8pm at the Center for Sustainability in Centennial Towers. Food and support came from a variety of sources. In the fall quarter, food provided relied solely on spring 2017 Move Out donations. For FY 2017-2018 the Pantry also received financial and in-kind donations from across campus. Donations during this time came in from Move Out 2017, a residence hall food drive at the end of winter quarter, food drives from Sturm College of Law, DU Technology Services, Korb, the DU Daycare Center, and a few individual staff members. Financial support came from Sodexo, as well as donations from One Day for DU, an Alumni engagement sponsored event, the DU Student Foundation, and DUPB.

The impact of the food pantry was significant. During Winter & Spring Quarters, the food pantry distributed approximately 1842.75 pounds of food to 57 unique visitors who visited a total of 183 times. The Food Pantry was open during fall quarter but information about disbursement was not tracked.





Mobility

Introduction

Mobility continues to be one of the hottest topics in the City of Denver and across the Front Range. With a growing population and limited road space, much of the work to date has been to provide access and options for all user groups. For many, this requires serious behavior change; for students, this can be a

much easier adaptation. To meet University goals of reducing single occupancy vehicle trips to campus, sustainability efforts have focused on education, encouragement, empowerment and infrastructure improvements.



Outcomes

Engagement and Empowerment

Education, encouragement, and empowerment programs often overlap. Goals include teaching and motivating people to use public transportation, helping people feel comfortable in a bicycle commute, and providing the tools to make those trips easier. This included hosting mobility munchies, free breakfast for people who commuted by transit or bicycle. We also participated in regional initiatives such as Go-tober, Winter Bike to Work Day, and Summer Bike to Work Day. These events and challenges are hosted by the Denver Regional Council of Governments, and provide a way for the University to participate in broader initiatives, while building a community on campus, and encouraging commitments to alternative commuting. Educational efforts also included basic bicycle mechanics and master mechanics trainings, a bicycle commuting class, and sponsorship and hosting of the Road Ahead, a parking and mobility conference organized by the Transportation Solutions Foundation.

Key outcomes from these education and engagement programs and events include:

Education:

- Master Mechanics class: 5 attendees
- Fix your flat table: at The Event, 40 attendees
- Commuting Education Class: with Bicycle Colorado, 3 participants

Engagement:

- Mobility Munchies: 20-30 people reached
- Bike festival: 40 people reached, 11 bikes sold
- Gotober: 3% of employees participated (69)
 - o 1093 one-way non-SOV trips pledged
 - o 1657 one-way non-SOV trips taken
 - o 18,671 non-SOV miles traveled
 - o 10,987 lbs of CO2 saved
- Winter Bike to Work Day: 14 people reached
- The Road Ahead, Transportation Solutions Mobility Summit: co-hosted on campus, 130 attendees
- Bike to Work Day: 150 people, five sponsors



Program Spotlight: Ski Bus

The DU Ski Bus is a partnership between the Center for Sustainability, the DU Alpine Club, and the USG Sustainability Committee. On most weekends during the Winter quarter, the ski bus takes students up to a ski resort that is covered by the Epic Pass, as this is the pass that is sold at a discount by the Alpine Club. The bus fare is affordable, only \$10-\$15, and includes breakfast on the way up to the mountain.

The Ski Bus offers an opportunity for students to have fun while skipping the traffic along I-70, which ultimately reduces traffic along the interstate and makes it possible for students to be on campus without a car and still have access to the mountains and winter sports.

As demand for the Ski Bus increases, we are able to offer more frequent buses that go up to more mountains. In 2018, the Alpine Club began offering the IKON Pass in addition to the Epic Pass, and the hope is that we will be able to charter two buses each week: one to an Epic mountain and one to an IKON mountain. This will allow even more students to have access to the mountains without a car, and will make the trips more desirable.

At the end of the 2017-2018 ski season, we surveyed the students who used the ski bus. We found that while there was some feedback about which destinations to service or what to serve for breakfast,



the students - about a 50/50 split between Alpine Club members and non-members - were largely satisfied with the bus. We found that many were exactly our target audience: students who want to get out to the mountains but do not have access to a car to drive there with. Over 87% of students said they would use the Ski Bus again if it is offered.

As some students commented:

"[Ski Bus] is really easy because I don't have a car."

"I think it's really important to provide sustainable transportation to the mountains and it's really beneficial to students without cars."



Ski Bus Location	Riders
90th DUAC Anniversary Ski Bus- A-Basin	53
Ski Bus - A-Basin	18
Ski Bus - Beaver Creek	25
Ski Bus - Breckenridge	22
Ski Bus - Keystone	24
Ski Bus - Vail	55
TOTAL	197



Access to Transit Options

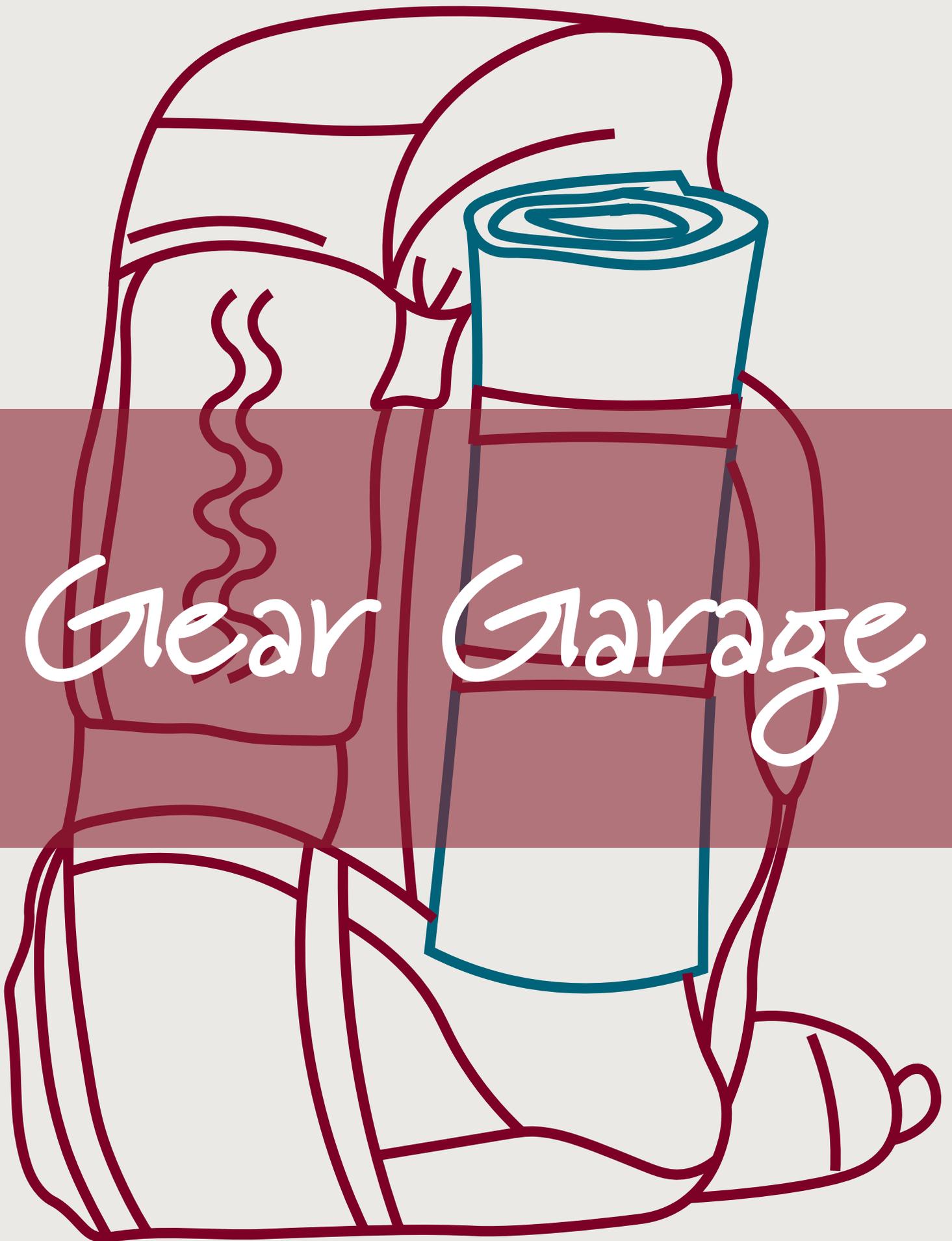
The Center for Sustainability also provided access to mobility options to increase low carbon commuting. The DU Bike Shop (Piogears Underground) held a bike sale at the beginning of the fall quarter, and continued to service bikes in the DU community free-of-charge. The Center also partnered with Lyft during the Fall quarter to provide discounted rides for the first or last mile to or from the DU light rail station. This provided some basic data for a campus shuttle concept. In the Spring quarter, the Center worked with Parking and Mobility Services, Facilities Management and Planning, and the City and County of Denver to launch a partnership with ofo dockless bikeshare, the first dockless bike service in the City of Denver. The ofo bikes have been wildly successful, and the partnership between ofo and DU has paved the way to allow dockless bikes in the rest of the City. The Center for Sustainability partnered with DU Alpine Club to once again offer a Ski Bus to key mountains along I-70. Also in the Spring quarter, the Center offered several classes about how to use the ofo bikes, and about proper bike etiquette and safety. Throughout the year, the Center continued to collect data on how many bikes are on campus so that we can offer bike parking in the places and quantities that are most needed on campus.



Key metrics from operational programs that work to increase access to alternative transit options include:

- Lyft Pilot: 56 discounted rides received
- Bike Shop
 - o 11 bikes sold
 - o 32 bikes rented
 - o 232 bike services
 - o 4.4 day average repair time
 - o Value of services: \$4,553
- Ski Bus (partnership with DU Alpine Club)
 - o 6 trips
 - o 197 passengers
- ofo Dockless Bikeshare May 2018 Data:
 - o 3,144 riders
 - o 34,620 rides
 - o 17,826 miles biked
- Bike Rack Audits
 - o Fall: 745 bikes on campus
 - o Winter: 600 bikes on campus
 - o Spring: 558 bikes on campus





Clear Garage

Introduction

The Gear Garage began in 2017, growing out of student interest and funding to provide accessible outdoor gear in order to allow all students to build a connection to and appreciation for the Colorado wilderness. A full fleet of camping gear is available for checkout through an online based booking system. Inventory is stored adjacent to the Center for Sustainability, in a secure space with all resources for renting, returning, and fixing any gear. The Gear Garage is experiencing consistent use by students and occasional class or club trips, providing an effective means of getting students into the outdoors. We are looking forward to partnering with more DU community members to offer more programming around outdoor recreation and environmental stewardship.

Progress Highlights

- New Online Booking System - accessible by full DU community
- Fleet of well maintained camping gear (enough for 8 people to go camping)
- Dedicated storage/operations space
- Implemented usage survey and Connectedness to Nature Survey to gather data on impacts GG rentals have on students.
- Rented 107 pieces of camping equipment to 22 people and groups
- 64 people have accessed online booking system
- Supported 5 backpacking club trips
- Piloted day trip programming to Rocky Mountain National Park



Resources

Sustainability Staff

Chad King
Director of Sustainability
chad.king@du.edu
303.871.3345

Emily Schosid
Sustainability Program Coordinator
emily.schosid@du.edu
303.871.4354

Get in Touch!

Phone: 303.871.3345

Email: sustainability@du.edu

Website: du.edu/sustainability

Facebook: University of Denver
Center for Sustainability

Instagram: @DUSustain

Helpful Links

Energy Management at DU: <https://www.du.edu/facilities/energy/>

Residential Sustainability Programs: <https://www.du.edu/housing/sustainability/educational/index.html>

Recycling Program at DU: <https://www.du.edu/sustainability/operations/waste-recycling.html>

Food Waste Reduction at DU: <https://dudining.sodexomyway.com/explore/sustainability>

DU Recycling Guide: <https://www.du.edu/facilities/recycling/whatwerecoycle/index.html>

Sustainable Transit Options at DU: <https://www.du.edu/parking/mobility/index.html>

Information about the Bike Shop: <https://www.facebook.com/piogearsunderground/>

Food Sustainability at DU: <https://dudining.sodexomyway.com/explore/sustainability>

Bridge Community Garden Information: <https://dug.org/garden/du-bridge/>

Sustainability-Focused Classes at DU: <https://www.du.edu/sustainability/education/courses.html>

Sustainability Living Learning Community: <https://www.du.edu/livinglearning/sustainability/index.html>

