

University of Pittsburgh
Ad Hoc Faculty Committee for Sustainability

Pitt Sustainability Institute Proposal

December 2023



Report on Proposed Pitt Sustainability Institute

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Executive Summary

OUTCOME AND SUMMARY: To advance the *Plan for Pitt* and University-wide Sustainability goals, we must build on our existing strengths to elevate a new **Pitt Sustainability Institute**. This Institute will constellate existing sustainability functions, create new value propositions for Pitt, and fundamentally align our University to tackle the biggest sustainability challenges we aspire to address.

➤➤➤ **ASK:** It is now time for Pitt leadership to identify sustainability as a fundamental value and support the creation and success of The Pitt Sustainability Institute through visible prioritization, organizational infrastructure, and an annual financial investment of \$4.5M.

➤➤➤ **PROCESS TO GET HERE:** In 2021, the Mascaro Center for Sustainable Innovation (MCSI) initiated a 2-year, Provost and SVCR-supported strategic planning process to evaluate the interest, need, and support for a university-wide Sustainability Institute. A robust and cross-cutting strategic planning effort was guided by a [Faculty Ad Hoc Committee for Sustainability](#) and with stakeholders engaged from all academic schools.

➤➤➤ **ACTIONS:** Create and fund the Pitt Sustainability Institute through leadership's visible prioritization, organizational infrastructure, and financial investment. This will occur in two parts:

Build Research Capacity within four core areas with environmental & climate justice at its core by:

- **Regenerative Solutions Respecting Planetary Boundaries:** Water Equity, Circular Economy & Sustainable Materials, Complex Sustainable Systems, and Just Energy Transition
- **Thriving Futures in the Face of Regional Change:** Climate & Health, Sustainable Healthcare, Urban Food, Community Resilience, and Equitable Built Environments
- **Resilient Ecological Systems:** Water, Ecosystems, Biodiversity, Ecological Justice, & Natural Resources
- **Reclaiming Environmental Discourse:** De/Growth, Preserving Our Past to Understand Our Future, Climate Anxiety, and Environmental Justice, Film Studies, & Media Disinformation

Strengthen Education and Engagement Core

Harness the momentum from the rapid growth in enrollment in sustainability education programs by:

- **Co-creating Educational Offerings:** Improving accessibility to our programs by co-creating sustainability course offerings across departments and schools in ways that align with and elevate each discipline.
- **Experiential Learning:** Creating interdisciplinary and experiential learning courses and degree programs that align with external partner needs in industry, government, and non-profit sectors.
- **Community Impact:** Enhancing our community impact by expanding the geographic reach of our partnerships at the local, regional, national, and international level.

OBJECTIVES FOR YEARS 1-5 [Performance Metrics]:

- Launch Pitt Sustainability Institute in FY25
- Increase Pitt-led transdisciplinary research to solve complex sustainability challenges [Research Revenue, Publications]
- Attract and retain high-caliber students and faculty through the development and expansion of course offerings and programs including creative on-line programs. [Course Development, Students Impacted]
- Create expanded mutually benefiting partnerships with industry, nonprofits, and government [Partnerships, Grants]
- Cultivate a strong and connected alumni network who are proud and actively engaged with their alma mater [Engagement, Impact]
- Elevate sustainability funding opportunities to attract and secure large-scale donor support [Engagement, Funding]
- Increase Pitt's brand recognition and positive perception [Media Attention, Awards and Honors]

Why Sustainability? Why Pitt? Why Now?

Over the past 20 years, Pitt's commitment to sustainability has resulted in numerous exemplary initiatives across our University. The next phase of our journey involves channeling this wealth of talent, passion, and vision into a unified constellation that further enables us to address society's most pressing sustainability challenges **together**.

Our benchmarking efforts have revealed a scarcity of universities effectively integrating their sustainability research, education, engagement, and operational missions. With Pitt's proven success in these areas, a unique opportunity exists for Pitt to distinguish itself among peer institutions -- and those it aspires to match. The envisioned Pitt Sustainability Institute holds the promise of elevating Pitt's genuine leadership in sustainability education, accelerating our research agenda, expediting our journey toward climate neutrality, and uniquely positioning our campus as a vibrant living laboratory.

What will make the proposed Sustainability Institute uniquely Pitt and advance our institutional goals?

1) Uniquely Pitt and Pittsburgh

- Pittsburgh's regional, national, and global brand includes innovative environmental and economic transformation -- positioning us as leaders in critical areas, including environmental and climate justice.
- Given historical and persisting challenges surrounding environmental justice, it's crucial for Pittsburgh to showcase tangible progress in resolving regional issues and share these lessons globally to provide international benefits.

2) Building on Twenty Years & Strategic Partnerships

- Pitt has been invested in sustainability since 2003. We are already leveraging strong academic offerings and research capacity, witnessing notable growth in our programs.
- National higher education sustainability leaders have highlighted the future trajectory of sustainability, emphasizing the alignment of research, academics, and institutional operations. Pitt is among a select few higher education institutions already actively engaged in this integrated approach.

3) The Future is Interdisciplinary & Sustainability is a Driver

- In a complex world, disciplinary silos are dissolving; sustainability is an approach with demonstrable results connecting and breaking down those silos.
- Through our planning efforts, we've pinpointed research themes where interdisciplinary Pitt teams are poised to drive significant progress. The SI will foster, culture, and support sustainability research for basic, applied, and action-oriented research.

4) Financial Opportunity

- The surge in federal funding and investment directed toward sustainability and climate action is substantial. By strategically supporting faculty in actively pursuing these and other funding opportunities, we will increase our likelihood of success in accessing these new resources.
- A Sustainability Institute will attract new collaborations, forge partnerships, and help secure these opportunities.

Sustainability is a moral imperative and is embraced as a core value of the University. Given demonstrable student, faculty, staff, and alumni interest, sustainability should be considered basic infrastructure of any thriving university.

-Melissa Bilec, Gena Kovalcik, Aurora Sharrard, and David Sanchez

Motivation & Goals

We are witnessing a global sustainability crisis that has regional, national, and international implications. Pitt must step forward as a major player and help to be a part of the solutions, which are impacting everything from science, health, engineering, social science, law, and business/economics.

Recognizing this great challenge, leadership has already identified sustainability as a universal value at the University of Pittsburgh, yet organizational alignment and strategic investment are lagging. Building from an initial [Phase 1 discovery](#) led by the Mascaro Center for Sustainable Innovation (MCSI), the Provost appointed an Ad Hoc Faculty Committee for Sustainability in October 2022 and tasked it with developing recommendations for a University-wide Sustainability Institute ([Appendix 1](#)).

The Ad Hoc Committee's charge was as follows:

- 1) Develop a shared vision, mission, and goals of the sustainability institute.
- 2) Develop measurable actions to elevate research, education, and engagement in sustainability.
- 3) Explore options and support for a faculty cluster hire in sustainability.
- 4) Explore governance options and develop phased budget models.

Process

We embarked on a phased strategic plan to define how the core value of Sustainability can be further woven and advanced at Pitt. We explored how to accelerate the positive impact of our research on key sustainability topics. We learned how to more closely connect various sustainability centers, initiatives, programs, and activities on campus. We also discovered how to strengthen the critical link between academics and research with our operations, student activities, and communities.

We engaged 8 Deans, dozens of sustainability leaders, nearly 50 faculty, 15 staff leaders, and over 100 students, [Appendix 2](#). Our internal and external conversations were complemented by internal research on similar efforts and an extensive external peer (and aspirational peer) research effort ([Appendix 3](#)). In Phase 1, the **strategic framework** for Advancing Sustainability in Academics and research at Pitt (ASAP) was developed, which included alignment with Pitt's Sustainability Plan and Pitt's Climate Action Plan. The strategic framework developed in Phase 1 set forth a pathway for the Phase 2 work.

Starting in November 2022, the framework shown in Figure 1 was used by the Ad Hoc Committee and culminated in this document, with a detailed Phase 2 [process documented](#). This document summarizes the recommendations and path forward.



Figure 1. Advancing Sustainability in Academics & Research at Pitt (ASAP) Strategic Framework





Strategic Priority Recommendations

To advance the Plan for Pitt and University-wide Sustainability goals, we must build on our existing strengths to elevate a new **Pitt Sustainability Institute**. This Institute will constellate existing sustainability functions, create new value propositions for Pitt, and fundamentally align our University to tackle the biggest sustainability challenges we claim to aspire to address. The ad-hoc committee has identified strategic priority recommendations, vision and mission, and [14 goals](#) (denoted herein).

The proposed Pitt Sustainability Institute is founded on partnerships created across the university with multi-disciplinary Pitt community members. It will embody and implement Sustainability as one of the University's core values by building on the 2018 [Pitt Sustainability Plan](#)'s primary objectives of Exploration, Stewardship, Community, and Culture; and the 2022 [Pitt Climate Action Plan](#), including building clearer intersectionality between these themes.

A Sustainability Institute will carry forth the strategic priorities and goals adopted in university-wide plans. Previous [Phase 1 planning efforts](#) made strong connections to Pitt's strategic plan, and the Sustainability Institute will continue to connect to this strong foundation, along with future University-wide strategic planning efforts and their outcomes.

The Pitt Sustainability Institute's four key drivers and recommendations are:

	Recommendation 1	Recommendation 2	Recommendation 3	Recommendation 4
	 CONSTELLATE Sustainability Efforts at Pitt	 ACCELERATE Sustainability- related Research	 WELCOME and CONNECT our community	 FOSTER enlightened sustainability journeys
Description	Break down silos, share capacity, elevate existing nodes of activity, and provide places for collaboration and innovation.	Expand impact in priority research areas and their intersections; environmental and climate justice are a thread woven throughout.	Front door for sustainability at Pitt, welcoming external partners, establishing service opportunities, & advancing global impact.	Education and interfacing opportunities for faculty and students, including using campus as a living laboratory

VISION

The Pitt Sustainability Institute's vision is to co-create research, education, and engagement opportunities by shattering silos and fostering critical connections to solve the complex sustainability challenges facing our planet while co-creating more just, equitable, and sustainable communities at the University, within the region, and around the world.

MISSION

The Pitt Sustainability Institute is the collaborative, interdisciplinary hub of sustainability at the University of Pittsburgh, focused on making positive impacts that address our grand sustainability challenges. The Institute connects, strengthens, and complements existing, emerging, and exploratory sustainability nodes at Pitt.

RECOMMENDATION 1: Constellate Sustainability Efforts at Pitt

CONSTELLATION GOALS

- GOAL 8. Enhance staff resources to strengthen engagement, break down silos, and enhance internal networks and external partnerships through shared functions.
- GOAL 12. Build shared knowledge of existing efforts and increased organizational capacity

The Pitt Sustainability Institute is a collaborative hub of the University's sustainability efforts, charged with connecting and elevating sustainability efforts and nodes across Pitt.

Significant academic sustainability-related activity already exists in several centers across the University, including the following:

- Center for Global Climate Change (DAS)
- Center for Energy (SSOE)
- Center for Healthy Environments & Communities (GSPH)
- Center for Humanities (DAS)
- Center for Sustainable Business (BUS)
- Environmental Law Clinic (LAW)
- Ford Institute for Human Security (GSPIA)
- Johnson Institute for Responsible Leadership (GSPIA)
- Mascaro Center for Sustainable Innovation (SSOE/Provost/SVCR)
- Pittsburgh Collaboratory for Water Research, Education, & Outreach (DAS)
- Pymatuning Laboratory of Ecology (DAS)
- University Center for Social and Urban Research (University-wide)
- University's Community Engagement Centers (University-wide)

Pitt Sustainability Institute enhances staff resources to strengthen engagement, break down silos, enhance internal networks, and increase external partnerships through its shared functions.

The Institute connects existing research centers, academic programs, and University-wide operations with shared resources, amenities, and offerings, while creating additional shared staff capacity across centers and functions to better support and advance Pitt's Sustainability goals.

Priority focus areas for shared functions include:

- Communications and marketing
- Research grant management (pre- and post-award)
- External outreach and partnerships

The Sustainability Institute also builds shared knowledge of existing efforts and increases organizational capacity by providing informal and formal networking opportunities for faculty, staff, and students to engage with one another.

The Institute creates the time and space (physical and virtual) for idea incubation and sharing -- as well as for new programs through which the Pitt community will better understand the value of each other's work and how we can more effectively work together for greater positive impact.

The Institute will create opportunities for casual collisions of diverse and interdisciplinary Pitt minds, which are invaluable in meeting the vision of fostering critical connections to solve the complex challenges facing our planet while co-creating more just, equitable, and sustainable communities at the University, within the region, and around the world.

RECOMMENDATION 2: Accelerate Sustainability Research

ACCELERATION GOALS

- GOAL 2. Elevate and expand our research centers in key sustainability focus areas.
- GOAL 7. Grow core research areas through strategic and diverse faculty hiring.
- GOAL 10. Enable inter- and trans-disciplinary research teams.

The Sustainability Institute will help ensure that we strategically expand the positive impact of our sustainability-focused and -related research in areas most aligned with Pitt's current and emerging areas of research. Connecting research efforts across Pitt's academic schools and centers will help produce a larger impact on Pitt's sustainability research constellation.



The Ad Hoc Committee and key sustainability researchers across Pitt were guided through a four-step process to advance the research themes (Figure 2). This process was based on a combination of who/what/why, SWOT analysis, and organizational structures used in the Plan for Pitt. Working groups, led by chairs, were intentionally multi-disciplinary (Figure 3); this work was conducted and completed over the summer of 2023.

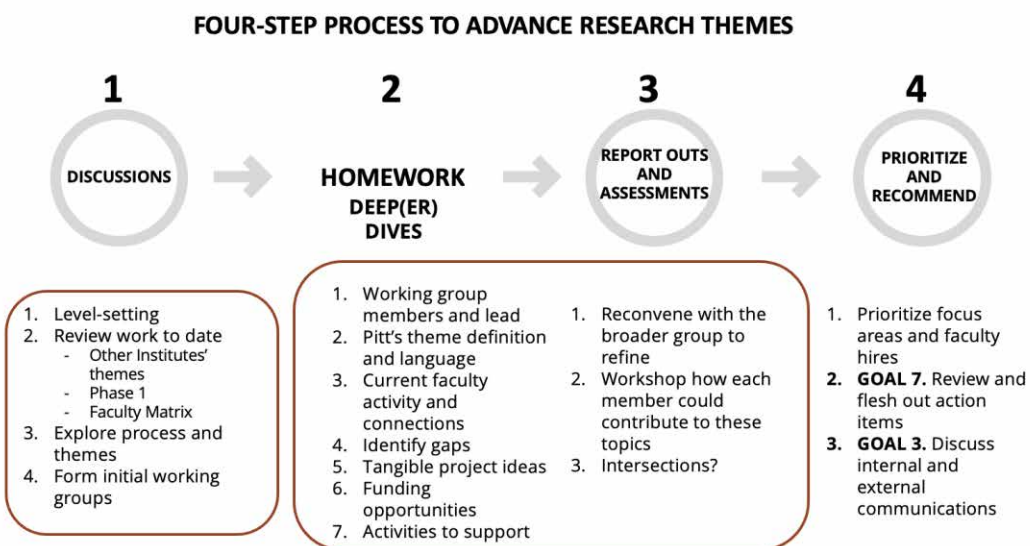


Figure 2. Working Example of Sustainability Research Themes Process

	Regenerative Solutions Respecting Planetary Boundaries		Thriving Futures in the Face of Regional Change		Resilient Ecological Systems		Environmental Discourse		Education & Engagement	
Chair	Goetz Vesper	Engineering	Tina Ndoh	Public Health	Patrick Shirey	Geology	Ruth Mostern	History	David Sanchez	Engineering
Members	Marcela Gonzales Rivas	GSPIA	Michael Glass	Sociology/Urban Studies	John Walsh	French & Italian	Tony Kerzmann	Engineering	Nicola Foote	Honors
	Daniel Mosse	SCI	Mary Ohmer	Social Work	Matt Kropf	UPB Engineering	Jeremy Weber	GSPIA	Cassie Quigley	Education
	Markus Chmielus	Engineering	Corey Flynn	Rehabilitation Sciences	Dan Bain	Geology	Drew Armstrong	Art & Architecture	Allyson Delnore	UCIS
	Shanti Gamper-Rabindran	GSPIA	Aaron Barchowsky	Public Health	Cori Zawacki	Biology	Frayda Cohen	Women's Studies	Jennifer Wasco	Nursing
	Carla Ng	Engineering	Carissa Slotterback	GSPIA	Justin Kitzes	Biology	Sara Moore	Film Studies		

Figure 3. Working Group Members and Chairs

Figure 4 outlines the Sustainability Institute's four proposed themes. Environmental and climate justice will be a thread that weaves through and helps guide our research and education thrusts.



Figure 4. Pitt Sustainability Institute Thrust Areas

The complete analysis of each theme can be found in the [Appendix 4](#) with a brief description herein. We envision a balanced Institute with focus on Research, Education & Engagement.

Regenerative Solution Respecting Planetary Boundaries

We recognize that our current models of consumption and production are unsustainable. We envision communities that thrive within planetary boundaries while developing and implementing solutions that provide equitable and just opportunities for all. This thrust is dedicated to exploring and promoting regenerative solutions that advance the quality of life within the natural limits of planet Earth with a specific focus on just energy transitions, water sustainability, and circular materials flows. Through collaboration, innovation, and community engagement, we seek to create a more equitable, sustainable, and regenerative world for current and future generations.

Thriving Futures in the Face of Regional Change

This research area seeks community engaged solutions that leverage the realities of regional change to build sustainable futures. Communities thrive when they define and enact their vision for the future; Pitt can partner with communities to tackle interconnected problems including food insecurity, health disparities, climate change, and economic shifts. Our success is measured by centering the needs and future aspirations of individual communities while creating trans-local partnerships to help the entire region thrive.

Resilient Ecological Systems

The Resilient Ecological Systems is an integrated, cross-cutting effort to coordinate student experience, connect people, and build understanding of socio-ecological systems through research and education.

Environmental Discourse

A research cluster focused on creative, critical, curatorial, communicative, and political dimensions of sustainability research and challenges. Our activities fall into five research sub-areas: (1) Worldviews and Ideologies, (2) Narrative, (3) Creative Expressions, (4) Power and Politics, (5) Persuasion. While these five research areas are interdependent, this sequence reflects the fact that Power, Politics, and Persuasion rely on unstated Worldviews, Ideologies, and Narratives.

Education & Engagement

The Education and Engagement group is a university-wide team focused on synthesizing Pitt's expertise and partnerships to translate sustainability knowledge to our students and add value to the world by engaging both our local and global communities.

Part of the Sustainability Institute's core motivation is to better support faculty leading in the identified research thrusts and incentivize strategic faculty hires.

- 1) To better support faculty leading in the Institute's research areas, the Institute will serve as both a matchmaker and network builder to develop stronger, more diverse collaborations that will empower SI faculty to successfully advance new research directions.
- 2) The Institute will work with its partner constellation entities to identify short-, medium-, and long-term funding opportunities, implementing actionable plans for targeted research funding/submissions.
- 3) Post-doctoral and research assistant resources will be provided to complement faculty growth.
- 4) To help grow and expand existing and new research foci the Institute will advocate for new faculty and help structure an effective sustainability-focused faculty cluster hire.
- 5) The Institute will facilitate a sustainability cluster hire and/or advocate for new faculty who will help grow and expand existing and new sustainability research foci.

The Pitt Sustainability Institute will continue to advance the University's national prominence and leadership reputation in sustainability via faculty hiring and retention.

The Sustainability Institute enables, convenes, and supports inter- and transdisciplinary research teams to encourage large, multidisciplinary institute-level grants.

It does so by establishing mechanisms for faculty and students to collaborate; providing pre- and post-award grant support; building an accessible and living database of researchers, faculty, and staff skillsets; and identifying and engaging willing external and internal partners able to advance our core research areas. This culture of innovation creates a structure that rewards interdisciplinary research and encourages innovation, entrepreneurship, and collaboration.

RECOMMENDATION 3: Welcome & Connect Our Community

WELCOMING & CONNECTING GOALS

- GOAL 9. Expand external, alumni, and community partnerships.
- GOAL 13. Expand global impact and programs.
- GOAL 14. Elevate Pitt's sustainability service mission to community.



There is a clear need for a single point of access to Pitt for all things related to sustainability (for both internal and external stakeholders). The Pitt Sustainability Institute provides a single portal for partners and collaborators for all academic, research, operational, and community connections to and through sustainability. Direct connection to the University's Office of Communications & Marketing is critical for seamless messaging at the University level, as is a connection to Philanthropy and Alumni Engagement, to help advance both Institute and University-wide funding and capital campaign needs and priorities.

Connecting our community includes expanding external, alumni, and community partnerships.

The Sustainability Institute enhances collaborations with businesses, local and state governments, nonprofit organizations, media, and other external partners while growing existing programs and creating new opportunities that provide faculty and students with real-world partnerships and collaborations.

We embrace a culture of impactful service through long-term investment in our communities.

Partnerships are critical to elevating Pitt's sustainability service mission to our communities. The Pitt Sustainability Institute embraces regional sustainability initiatives to be leaders and takes an active leadership role in sustainability initiatives at scales from local to global. The University will continue to demonstrate and partner in developing solutions to our grand challenges locally. We incentivize sustainability-focused community work internationally by providing copious partnership opportunities, including matching students and employees to opportunities for volunteerism, internships, service, and community engagement efforts that focus on sustainability.

While connecting to our local Pittsburgh communities, we are also expanding global impact and programs.

The Sustainability Institute engages with the world by exploring and addressing issues that improve global environments and quality of life, expanding our understanding of the relationship between local and global activities, and exploring expanded research and academic programs globally. The Sustainability Institute also aims to increase the number of sustainability-related international service projects.

RECOMMENDATION 4: Foster Knowledgeable & Innovative Sustainability Journeys

FOSTERING GOALS

- GOAL 4. Provide undergraduates with understanding of, insights into, and first-hand experience with our grand sustainability challenges.
- GOAL 5. Elevate our graduate student's research & educational offerings, especially for interdisciplinary.
- GOAL 6. Support faculty to increase sustainability in the curriculum.
- GOAL 11. More closely integrate academics, research, and operations via Campus as a Living Lab program.

The Pitt Sustainability Institute takes on the imperative function of supporting Pitt's students, faculty, and staff through their sustainability journeys.

The Sustainability Institute offers a variety of sustainability-focused and -related strategies to advance education, operations, and engagement. Key to this charge is supporting faculty to increase sustainability in the curriculum. The Institute creates faculty tools, workshops, and incentives that encourage the incorporation of sustainability into current and future syllabi and ensure courses are correctly identified as sustainability-focused / sustainability-related.

We prioritize the success of our students – undergraduate, graduate, and post-graduate.

The Sustainability Institute provides undergraduate students with an understanding of, insights into, and first-hand experience with our grand sustainability challenges.

We do this by engaging and supporting passionate students to further Pitt's sustainability-related efforts; broadening and increasing awareness of sustainability-focused and -related academic, research, and extracurricular opportunities on- and off-campus; fostering experiential sustainability projects and experiences in alignment with and in support of other Pitt programs; seeding convergent sustainability teams to solve complex challenges; providing undergraduates with increased offerings and engagement with discovered sustainability pathways; elevating and celebrating undergraduate student achievements; and strategically supporting student groups and projects with mentorship and funding.

The Sustainability Institute must also elevate graduate students research and educational offerings, especially for interdisciplinary collaborations.

These efforts closely align with the Institute's other motivations. The Institute creates new graduate and executive programs, including creating more integration across academic schools. The Institute creates and fosters collective and shared experiences for graduate students via increased interactions with sustainability on-campus, including developing financial support for talented students passionate about sustainability in opportunities including cohort programs. The Institute will provide direct and indirect financial support with intentional focus on students from historically under-represented populations. The Institute also continues and expands its elevation and celebration of graduate student research, service, and achievements.

The University's physical environment and campuses directly impact our sustainability journey, with the closer integration of academics, research, and operations representing a massive opportunity. The Institute will foster an inclusive and diverse Campus as a Living Lab program in close connection with the University's operations team (led by and including the Office of Sustainability). This open-innovation ecosystem will better integrate learning, research, and development focused on sustainable solutions. The Pitt Sustainability Institute will create a



strong process, structure, and support network to implement new ideas and research outcomes over time, while generating visible enthusiasm and support for campus sustainability efforts.

Continued collaboration with Pitt's sustainability leadership constellation group noted above is imperative, as well as seeding and building stronger partnerships within Engagement & Community Affairs, Innovation and Entrepreneurship and Global Studies to name a few.

HIRING, GOVERNANCE, AND BUDGET

- Goal 1: Establish a process to define how the Institute is operated, governed, and funded.

FACULTY CLUSTER HIRE

The Ad Hoc Committee sub-groups identified in Figure 3 examined where Pitt currently has collective faculty expertise to further advance funding and reputation in each of the research thrust areas. The groups also discussed topical areas with noticeable gaps in faculty expertise where strategic hiring could gain Pitt strength and opportunity. As plans for an Institute develop, we urgently advocate for a faculty cluster hire across the University in strategic areas that will further our prominence and potential.

GOVERNANCE

To help make recommendations related to an Institute's governance structure, the SI steering planning team has engaged with both internal and external thought and practice leaders and designed several governance models to aid alignment with the Chancellor, Provost, and SVC for Research, as well as with the new policy and budget model under development for Pitt centers and institutes. Once the new directives become concrete in further discussions, we will align our final, formal recommendation on institute governance accordingly.

- 1) **Executive Leadership:** Because the Sustainability Institute has functions related to academics, research, and operations, we strongly urge the creation of an "Executive Leadership Steering Committee on Sustainability," a strategy employed by other universities. This body should be comprised of key Senior Leaders, including but not limited to the Chancellor, Provost, SVC for Research, SVC for the HS, SVC for Business and Operations, and SVC of Philanthropic and Alumni Engagement.
- 2) **Internal Governance:** Given the elevated Institute structure, an opportunity to reimagine the existing [Chancellor's Advisory Council on Sustainability](#) alongside formalizing and integrating the [Faculty Sustainability Task Force](#) present themselves as internal governance opportunities. These efforts would include new and renewed membership that balances faculty and staff while updating the Council's charter to best reflect the University's Sustainability vision and intentions.
- 3) **Sustainability Institute Team:** The Institute will include a passionate and experienced team of faculty and staff sustainability leaders with the shared values outlined above.
- 4) **Student Engagement:** The Institute would continue to expand Pitt Sustainability's alignment and collaboration with University-wide student sustainability functions, including, but not limited to, the Student Office of Sustainability (*established 2014 in Student Affairs by SGB*), the Pitt Green Fund Advisory Board (*established in 2010 by SGB*), and other student engagement functions -- while also expanding graduate student engagement and activities.

CONNECTIONS WITH THE OFFICE OF SUSTAINABILITY & CROSS-DEPARTMENTAL TEAM

As currently proposed, the Pitt Sustainability Institute is a hub to enhance, connect, accelerate, and (where appropriate) create sustainability efforts. While the Pitt Sustainability Institute could become the single incorporation of Sustainability for the University, its final governance and structure is heavily dependent upon the factors addressed in "Governance," above.

Established in 2018, the Office of Sustainability is a separate entity reporting to and primarily funded by the SVC for Business and Operations. Over the past five years, the Office of Sustainability has centralized campus-wide sustainability activities, strategies, and partnerships; it leads University-wide sustainability strategy, activities, policies, collaborations, & partnerships that builds on the *Plan for Pitt*, *2018 Pitt Sustainability Plan*, *2022 Pitt Climate Action Plan*, and other University-wide strategic plans.

The Office of Sustainability also ensures all of the University's Sustainability progress and accomplishments are shared internally and externally, coordinating across all academic and operational divisions, as evidenced in the [2018-22 Progress Report on the Pitt Sustainability Plan](#).

The University's Office of Sustainability and Executive Director of Sustainability have been strong partners and supporters of the Sustainability Institute development process (and this document).

Continuing University-wide Sustainability collaborations as part of a Sustainability Institute provides a unique opportunity to ensure the intersections between research, education, community, and operations are clearly, fully, and ideally realized. The Pitt Sustainability Institute creates an enhanced opportunity to continue University-wide Sustainability collaboration on hiring, internships, campus as a living lab projects, and other initiatives, collaborations, and programs.

PHASED BUDGET

The steering committee explored a phased budget over a 3-year period beginning in Fiscal Year 2025. The budget presents opportunities where a centralized Institute would provide value-added services to faculty, staff, and students across the University who are advancing research, education, and service goals related to sustainability. Through our listening sessions and meetings with Pitt faculty and leadership we determined that the need for centralized services is key including staff support for **communications and fundraising** as a first phase of support and then the build-out of the additional key services including **grant administration and project management**. In addition, based on the sustainability research themes we identified where a **faculty cluster hire** would help to build upon current strengths and put us further into a position to lead large federal proposals and gain national and international prominence in core areas Table 1.

Table 1. Proposed Budget Roll-Out

Institute Implementation - FY25	Institute Implementation - FY26	Institute Implementation - FY27
<ul style="list-style-type: none"> • Marketing & Communications Liaison • Manager of Constituent Relations (philanthropy and engagement) • Director of Online Education Programs • Faculty Research and Education Leads • Institute Branding, Marketing, and Promotion • Budget to expand signature programs and support new initiatives 	<ul style="list-style-type: none"> • Grants Administrator & Project Manager • Faculty Hiring, Phase 1 	<ul style="list-style-type: none"> • Human Resources, Financial Support Staff • Living Lab Creation & implementation • Faculty Hiring, Phase II

The proposed budget roll-out parallels the proposed schedule, which includes advancing to Phase 3 through operational alignment, implementation, and investments (Figure 5). Please note that Goal 3 is a part of Phase 3 (Goal 3: Build new brand and improve communications around the center and the constellation of our efforts.)

In summary, it is now time for Pitt leadership to identify sustainability as a fundamental value and support the creation and success of The Pitt Sustainability Institute through visible prioritization, organizational infrastructure, and an annual financial investment of \$4.5M.

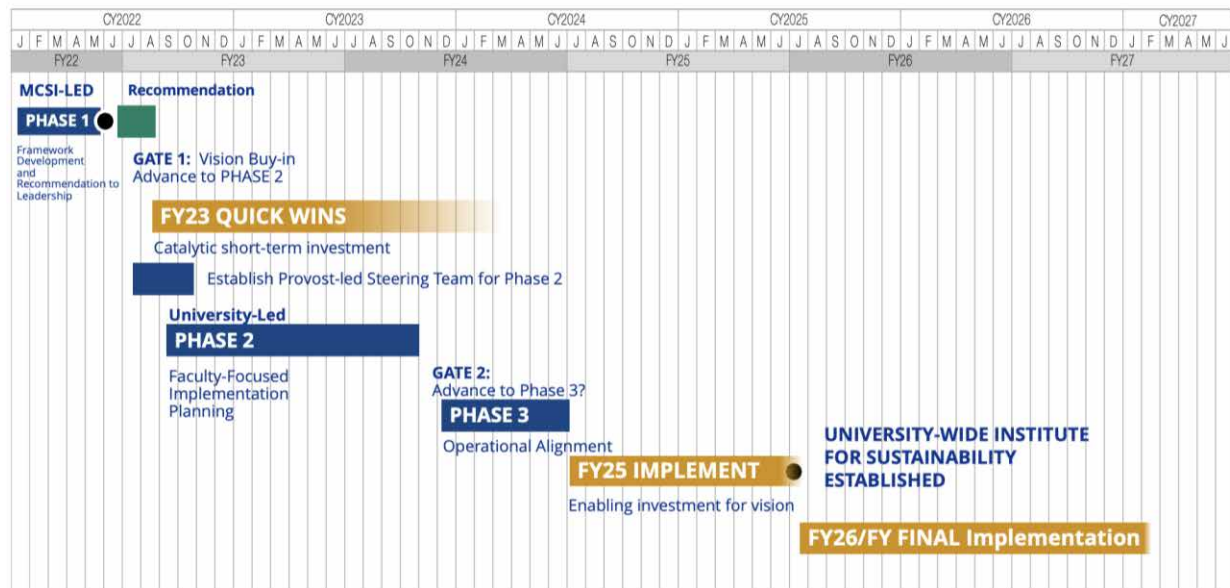


Figure 5. Sustainability Institute Schedule

What's Next

We are at the conclusion of Phase 2, and our recommendation is for the university to create and fund the Pitt Sustainability Institute through leadership's visible prioritization, organizational infrastructure, and financial investment. This will occur in two parts:

Build Research Capacity within four core areas with environmental & climate justice at its core.

- **Regenerative Solutions Respecting Planetary Boundaries:** Water Equity, Circular Economy & Sustainable Materials, Complex Sustainable Systems, and Just Energy Transition
- **Thriving Futures in the Face of Regional Change:** Climate & Health, Sustainable Healthcare, Urban Food, Community Resilience, and Equitable Built Environments
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- **Reclaiming Environmental Discourse:** De/Growth, Preserving Our Past to Understand Our Future, Climate Anxiety, and Environmental Justice, Film Studies, & Media Disinformation

Strengthen Education and Engagement Core Harness the momentum from the rapid growth in enrollment in sustainability education programs by:

- **Co-creating Educational Offerings:** Improving accessibility to our programs by co-creating sustainability course offerings across departments and schools in ways that align with and elevate each discipline.
- **Experiential Learning:** Creating interdisciplinary and experiential learning courses and degree programs that align with external partner needs in industry, government, and non-profit sectors.
- **Community Impact:** Enhancing our community impact by expanding the geographic reach of our partnerships at the local, regional, national, and international level.

OBJECTIVES FOR YEARS 1-5 [Performance Metrics]:

- Launch Pitt Sustainability Institute in FY25
- Increase Pitt-led transdisciplinary research to solve complex sustainability challenges [Research Revenue, Publications]
- Attract and retain high-caliber students and faculty through the development and expansion of course offerings and programs including creative on-line programs. [Course Development, Students Impacted]
- Create expanded mutually benefiting partnerships with industry, nonprofits, and government [Partnerships, Grants]
- Cultivate a strong and connected alumni network who are proud and actively engaged with their alma mater [Engagement, Impact]
- Elevate sustainability funding opportunities to attract and secure large-scale donor support [Engagement, Funding]
- Increase Pitt's brand recognition and positive perception [Media Attention, Awards and Honors]

Appendix 1: Faculty Ad Hoc Committee for Sustainability

Committee Charge

The Faculty Ad Hoc Committee for Sustainability will develop recommendations for a University-wide sustainability institute.

- Vision, mission, and goals
- Measurable actions to elevate sustainability research, education, and outreach
- Faculty cluster hire in sustainability
- Governance model including connections with Business and Operations
- Phased budget model

Through this effort, the Ad Hoc Committee will engage a broad stakeholder group across the University. The recommendations will be ready for presentation to Pitt's executive leadership in Spring 2023.

Membership

- **CHAIR: Melissa Bilec**, *Co-Director*, Mascaro Center for Sustainable Innovation; *Professor*, Civil & Environmental Engineering
- **Allyson Delnore**, *Executive Director of Academic Affairs*, University Center for International Studies
- **Tony Delitto**, *Dean*, School of Health and Rehabilitation Sciences
- **Betsy Farmer**, *Dean*, School of Social Work
- **Michael Glass**, *Director*, Urban Studies Program
- **Matt Kropf**, *Associate Professor*, Engineering Science & Technology; *Director*, Energy Institute, Pitt Bradford
- **Ruth Mostern**, *Professor*, History; *Director*, World History Center
- **Daniel Mosse**, *Professor & Associate Dean*, Computing & Information
- **Tina Ndo**, *Associate Professor*, Environmental and Occupational Health, Public Health
- **Cassie Quigley**, *Associate Professor*, School of Education
- **David Sanchez**, *Associate Professor*, Civil and Environmental Engineering
- **Patrick Shirey**, *Assistant Professor*, Geology and Environmental Sciences
- **Carissa Slotterback**, *Dean*, Graduate School of Public and International Affairs
- **Götz Vesper**, *Professor*, Chemical and Petroleum Engineering
- **Jennifer Wasco**, *Assistant Professor*, School of Nursing
- **Staff Liaisons:**
 - **Gena Kovalcik**, *Co-Director*, Mascaro Center for Sustainable Innovation
 - **Aurora Sharrard**, *Executive Director*, Office of Sustainability

Appendix 2: Pitt Faculty, Staff, & Student Engagement

Role	Name	Department
Students	Capstone Design Class	(~50 undergrads)
Assoc Dean, A&S	Leibovich, Adam	A&S / Provost Office
A&S Department Chair	Covington, Yolanda	Africana Studies
A&S Department Chair	Constable, Nicole	Anthropology
Faculty	Ebert, Claire	Anthropology
Faculty	Goldstein, Steven	Anthropology
Faculty	Matza, Thomas	Anthropology
Faculty	Wanderer, Emily	Anthropology
Faculty	Armstrong, Drew	Architectural Studies
Student	Kemick, Claire	Architectural Studies / SOOS Student Council
Staff	Gray, Dustin	Athletics
Faculty	Carson, Walter	Biological Science
Faculty	Kitzes, Justin	Biological Science
Faculty	Richards-Zawacki, Cori	Biological Science
A&S Department Chair	Lawrence, Jeffrey	Biological Sciences
Director	Bhattacharya, CB	Center for Sustainable Business
Faculty	Camillus, John	Business
Student	Vertucci, Rachel	Business / SOOS Student Council
Staff	Goodfellow, Nick	Business, Hospitality, & Auxiliary Services
Faculty	Blackhurst, Mike	Center for Social & Urban Research
Assoc Dir, Sustainable Bus	Gassman, Chris	Center for Sustainable Business
Faculty	Beckman, Eric	Chemical Engineering
Faculty	Veser, Goetz	Chemical Engineering
A&S Department Chair	Saxena, Sunil	Chemistry
Codirector, MCSI	Bilec, Melissa	Civil & Environmental Engineering
Faculty	Sanchez, David	Civil & Environmental Engineering
Faculty	Sebastian, John	Civil & Environmental Engineering
A&S Department Chair	Wildberg, Christian	Classics
Director, Center for Humanities	Marshall, David	Communications
AVC	Dostillo, Lina	Community Engagement
Faculty	Burton, Matthew	Computer Science
Faculty	Mosse, Daniel	Computer Science
Dean	Blee, Kathy	Dean, A&S
A&S Department Chair	Hiroshi, Nara	East Asian Languages and Literatures
Faculty	Oyler, Elizabeth	East Asian Languages and Lits
A&S Department Chair	Ripoll, Marla	Economics
Faculty	Walsh, Randall	Economics

Student	Chase, Cameron	Economics / SOOS Student Council
Assoc Dean, Education	Crowley, Kevin	Education
Student	Henry, Hillary	Education
Student	Orman, Meghan	Education
Student	Plank, Holly	Education
Faculty	Quigley, Cassie	Education
Staff	Toner, Alex	Engagement and Community Affairs
Assoc Dean, SSOE	Besterfield-Sacre, Mary	Engineering
Assoc Dean, SSOE	Parker, Bob	Engineering
Student	Vaden, Jessica	Engineering
Student	Ziazi, Rezvan	Engineering
Dean	Martin, Jimmy	Engineering / Provost Office
Dean	Shroff, Sanjeev	Engineering
Department Chair	Vidic, Radisav	Engineering / CEE
Board of Visitors	SSOE Board of Visitors	Engineering
Faculty	Boone, Troy	English
Faculty	Carlson, Sten	English
Faculty	Horton, Zachary	English
Faculty	Kramer, Mark	English
Faculty	LeMieux, Steven	English
Faculty	Puri, Shalini	English
A&S Department Chair	Rogers, Gayle	English
Assoc Dean, A&S	Twynning, John	English
Staff	Duval, Keith	Environmental Health and Safety
Student	Carr, Aaron	Environmental Science / SOOS Student Council
Student	Kim, Christy	Environmental Studies / SOOS Student Council
Student	Laing, Taylor	Environmental Studies / SOOS Student Council
Staff	Ruffin, Cheryl	Equity, Diversity, & Inclusion
Staff	Bernotas, Scott	Facilities Management
A&S Department Chair	Halle, Randall	Film and Media Studies
Faculty	Moore, Sarah	Film and Media Studies
Faculty	Mecchia, Giuseppina	French and Italian
A&S Department Chair	Walsh, John	French and Italian
A&S Department Chair	Glazener, Nancy	Gender, Sexuality, and Women's Studies
Director, Climate Center	Abbott, Mark	Geology & Environmental Science
Faculty	Andrew-Brown, Danielle	Geology & Environmental Science
Faculty	Bain, Dan	Geology & Environmental Science
Director, Water Collaboratory	Elliott, Emily	Geology & Environmental Science
Faculty	Shirey, Patrick	Geology & Environmental Science
Faculty	Whittinghill, Kyle	Geology & Environmental Science
A&S Department Chair	Werne, Josef	Geology & Environmental Science
Faculty	Hannun, Reem	Geology & Environmental Science
Faculty	Harms, Viktoria	German

A&S Department Chair	Lyon, John	German
Student	Cadden, Ellie	GSPIA
Dean	Slotterback, Carissa	GSPIA / Provost Office
A&S Department Chair	Holstein, Digo	History
Faculty	Mostern, Ruth	History
Director	Nappi, Carla	Center for Humanities
A&S Department Chair	Dietrich, Michael	History and Philosophy of Science
A&S Department Chair	Rajagopalan, Mrinalini	History of Art and Architecture
Dean	Foote, Nicola	Honors / Provost Office
Faculty	MacIntyre, Grant	Law
Dean	Wildermuth, Amy	Law / Provost Office
A&S Department Chair	Keisling, Scott	Linguistics
Student	Marchese, Nicole	Marketing / SOOS Student Council
Faculty	Kerzmann, Tony	Mechanical Engineering
Faculty	Woods, Noe	Medicine (Obstetrics)
A&S Department Chair	Helbig, Adriana	Music
A&S Department Chair	Meriney, Steve	Neuroscience
Faculty	Freitas, Ayres	Physics and Astronomy
A&S Department Chair	Kosowsky, Arthur	Physics and Astronomy
Faculty	Zentner, Andrew	Physics and Astronomy
Faculty	Aklin, Michael	Political Science
Student	Peterson, Max	Political Science
Faculty	Shimizu, Kay	Political Science
Provost	Cudd, Ann	Provost
Vice Provost	Godley, Amanda	Provost's Office
Vice Provost	McCarthy, Joe	Provost's Office
A&S Department Chair	Fiez, Julie	Psychology
Faculty	Barchowsky, Aaron	Public Health
Faculty	Burke, Jessica	Public Health
Faculty	Fabisiak, James	Public Health
Dean	Lichtveld, Maureen	Public Health / Provost Office
Faculty	Finkel, Muge	Public Policy
Faculty	Gamper-Rabindran, Shanti	Public Policy
Faculty	Gonzalez Rivas, Marcela	Public Policy
Faculty	Weber, Jeremy	Public Policy
Faculty	Gordon, Benjamin	Religious Studies
Dean	Childers, Bruce	SCI / Provost Office
A&S Department Chair	Grigoryan, Bella	Slavic Languages and Literatures
Faculty	Ohmer, Mary	Social Work
A&S Department Chair	Brush, Lisa	Sociology
Faculty	Waverly Duck	Sociology
A&S Department Chair	Iyengar, Satish	Statistics
Staff	Ninos, Erika	Student Affairs

A&S Department Chair	Thomas, Lenore	Studio Arts
Staff	Ford, Samantha	Sustainability
Codirector, MCSI	Kovalcik, Gena	Sustainability
Exec Director, Sustainability	Sharrard, Aurora	Sustainability
SVC Office	Holland, Mike	SVC Research
SVC	Rutenbar, Rob	SVC Research
A&S Department Chair	Croot, Cynthia	Theater Arts
Trustee	Agbede, Bob	Trustee
Trustee	Luxbacher, Roberta	Trustee
A&S Department Chair	Glass, Michael	Urban Studies
Faculty	Mendonca de Carvalho, Roberta	Urban Studies

Appendix 3: External Benchmarking Interviews & Review

UNIVERSITY	CENTER / INSTITUTE	NAME	POSITION
Dickinson College	Center for Sustainability Education	Lindsey Lyons	Director of Sustainability Learning
Ohio State University	Sustainability Institute	Elena Irwin	Faculty Director
University of Illinois	Institute for Sustainability, Energy, and Environment	Jeremy Guest	Associate Director for Research
University of Michigan	School for Environment and Sustainability	Andrew Hoffman	Holcim (US) Professor of Sustainable Enterprise
Washington University in St. Louis		Dan Giammar	Walter E. Browne Professor of Environmental Engineering

[Summary slides of benchmarked institutes and centers.](#)

Review of Institutes/Centers/Schools

IES institutes and centers (IESICs) serve a crucial role in bridging the knowledge needs of society and the knowledge production capabilities of universities. They facilitate interdisciplinary and trans-disciplinary research, administer interdisciplinary academic programs, support campus sustainability initiatives, and engage in collaborative problem-solving with internal and external partners including students, faculty, staff, public and private sector organizations, citizen scientists, other colleges and universities, and governmental institutions from local to global.

Examining Interdisciplinary Sustainability Institutes at Major Research Universities

**Innovations in Cross-Campus +
Cross-Disciplinary Models**

ANDREW J. HOFFMAN + JESSICA L. AXSON

June 2017

This report from the University of Michigan, as commissioned by the University of Texas at Austin and funded by the Cynthia and George Mitchell Foundation, takes an in-depth look at 18 universities with various models of sustainability institutes. These institutes are charged with no easy task, breaking down the long-cemented disciplinary and financial silos that hinder the progress of sustainability education. While many universities across the United States have recognized the importance of this effort, this study is the first attempt to analyze the distinctive characteristics, activities, challenges, and opportunities of this type of sustainability institute. With our eyes toward the future, the Cynthia and George Mitchell Foundation hopes that this report will help support the efforts of the universities included in this report, as well as many others, to break down the barriers within higher education in a thoughtful, sustainability-focused way, as George Mitchell intended.

Ten respondents indicate that their institute reports to the provost's office and seven report to the vice president (or vice chancellor) of research. Faculty director compensation varies from low (0-30% Full Time Equivalent), to medium (50-70% FTE) to high (100% FTE). Typical performance metrics cover 14 categories, with research performance, students impacted, grants received, publications created and revenues generated leading the list. Staffing of these institutes ranges from one to 60 personnel, with an average of 22. Faculty affiliates range from 22 to 492 total faculty (average of 146) and a range of relationships including core (100% appointment), joint ($\leq 50\%$ appointment), participating (0% appointment) faculty, and lecturers. The majority of those engaged are participating faculty with no formal appointment (average 131 or 82% of faculty). Reported institute annual expenditures range in size from \$350,000 to \$25 million, with an average of \$7 million. Thirteen institutes have an internal advisory board and 12 institutes have an external advisory board. Seven institutes have no separate research centers under their direction, with the rest ranging from one to eight.

Despite this variation, five broad themes emerged. First, these types of institutes can be provocative as some perceive them to be competing for resources, most notably money and students. Second, the way to overcome such tensions is to complement and not "compete with academic departments" by adopting a service mindset. Third, a key success factor is broad participation, engagement and relationship building across a wide array of stakeholders in the university. Fourth, be sure to communicate widely and often the value proposition you provide to the university and your constituencies. Fifth, but certainly not the least important success factor, "be configured to earn your way" by securing steady, reliable, diverse and long term funding.

“concerns from other units that faculty grants are ‘lost’ to interdisciplinary centers.”

“structure and goals must complement, not compete, with existing organizations on campus.”

Second, the way to address such concerns is repeated often: be complementary and not “competitive with academic departments” by **adopting a service mindset**. For example, your “structure and goals must complement, not compete, with existing organizations on campus” where you “become a resource” and “provide services and opportunities to the academic units that they cannot provide for themselves.” One respondent warns against being territorial, pointing out that “we consider ourselves to be the mother ship rather than the umbrella. So, there are pockets of institute-relevant research all over the university, and we don’t feel the need to claim them in any way.” Another states the same service goal in a different way, “we operate a little like an internal foundation providing resources, organization, and visibility.”

“Listen to your faculty. You live and die on their success, not yours.”

Third, **a key success factor is broad participation, engagement and relationship building** across a wide array of stakeholders in the university. “Engagement, engagement, engagement” is the advice from one respondent, while another points out that “our work seeks to make the whole greater than the sum of the parts by catalyzing new efforts, while providing integration and support services to those already in existence.” The most important constituency is a fully engaged faculty. As one respondent makes clear “listen to your faculty. You live and die on their success, not yours.” To that end, many recommend an investment of time and effort in “faculty quality” by developing “strong support among a core group of tenured faculty” to “cement a sense of ownership in the institute.” With that core

“you can’t communicate too widely or too much.”

campus that well.” Echoing the service model, “Be sure the funding model, return on grants, and credit for teaching does not compete with but benefits the academic units.” “Try to get off being funded by overhead return. Not just that it is uncertain, but it sets up a competition with departments that is unhealthy.” In the end, “a strong link with the development office makes a big difference, as does a generous advisory board.”

Organizational Structure



REPORTING RELATIONSHIPS for the institutes in this study sample are split: 10 report to the provost, seven report to the vice president of research, and one reports to the vice chancellor of research. Notably, five that report to the provost have a dual reporting relationship: two report to the provost and dean, two report to the provost and vice president of research and one reports to the provost and vice provost. This governance issue is viewed as critical for freedom of movement around the campus. As one respondent explains, “reporting to the provost and having stature equivalent to deans is an effective way to ensure that the enterprise is cross-campus, assuming the other deans are supportive of the enterprise.”

How are institutes different from centers?

Most IESICs are centers, about a third are institutes, and a small proportion (<10%) have other names such as academy, collaborative, consortium, initiative, partnership, program, project or network. We began our analysis with an investigation of whether institutes are significantly different from centers and whether the units with other names are more similar to institutes or centers or make up a third unique category.²³ We found a few significant differences between the three name-type groups, primarily in IESIC structure.²⁴

Institutes are significantly more likely to be administratively located at the primary university level (not within another unit such as a college) with a director that reports to upper administration (president, chief academic officer or chief research officer). They are more likely to be housed in their own building, tend to have a broader focus, and engage with a wider number and diversity of affiliated faculty partners.

We also discovered that the IESICs with other names are more focused on education and less focused on research compared with centers or institutes.

We found no significant differences between institutes, centers and other IESICs in the types of partners included in projects, whether they administer any academic programs, or in the level of engagement with community partners via outreach, continuing education, or providing services. We also did not find any significant differences in budget sources or staffing levels.

TABLE 1: Differences Between Institutes that Report to the Provost Versus Those that Report to the Vice President of Research

Darker boxes represent areas of notable difference

Sample Split on Reporting Relationship		% of Institutes Awarding Tenure	# of Lecturers Engaged	% of Institutes with own course offerings	% Annual Revenue by Source					% Revenue Sources by Restriction		Year of Formation
					Institutional Appropriations	Government and Other Grants	Expendable Gifts	Endowment Income	Tuition and Fees	Restricted	Unrestricted	
Provost <i>n</i> = 10	Ave	50%	3	30%	40%	30%	16%	13%	1%	51%	49%	1997
	Min	-	1	-	9	0	0	0	0	0	10	1963
	Max	-	10	-	100	60	35	60	6	90	100	2014
	St. dev	-	3	-	30	22	12	18	2	38	38	17
Vice President of Research <i>n</i> = 7	Ave	29%	0	14%	32%	41%	10%	8%	5%	65%	35%	2010
	Min	-	0	-	6	12	0	0	0	40	15	2004
	Max	-	0	-	66	80	60	40	30	85	60	2016
	St. dev	-	0	-	21	25	22	15	11	15	15	4

- About a third of IESICs are administratively located at the primary university level (report to top administrators and are not located within another unit such as a college); half are located administratively within a college or are shared by two or more colleges; a sixth are located within departments or are shared by two or more departments; and the remainder are administratively located in other units, are operated as non-profits affiliated with the university, or are subunits of larger institutes or centers.
- About of third of IESICs are titled institute and most others are titled center. A small proportion (<10%) use another name such as collaborative or initiative.
- IESICs with the title institute are more likely to be administratively located at the university level with directors reporting to top university administrators, while those located within colleges with directors reporting to one or more deans.
- Institutes on average have a broader focus on the environment, sustainability, climate change, or natural systems, and are more likely to have their own physical space or offices. They are also more likely to have formal relationships with a larger number of affiliated faculty members.
- IESICs with names other than institute or center typically place less emphasis on education compared with institutes and centers.

Interdisciplinary Environmental and Sustainability Education and Research:

Institutes and Centers at Research Universities

A study conducted by The National Council for Science and the Environment for the Council of Environmental Deans and Directors



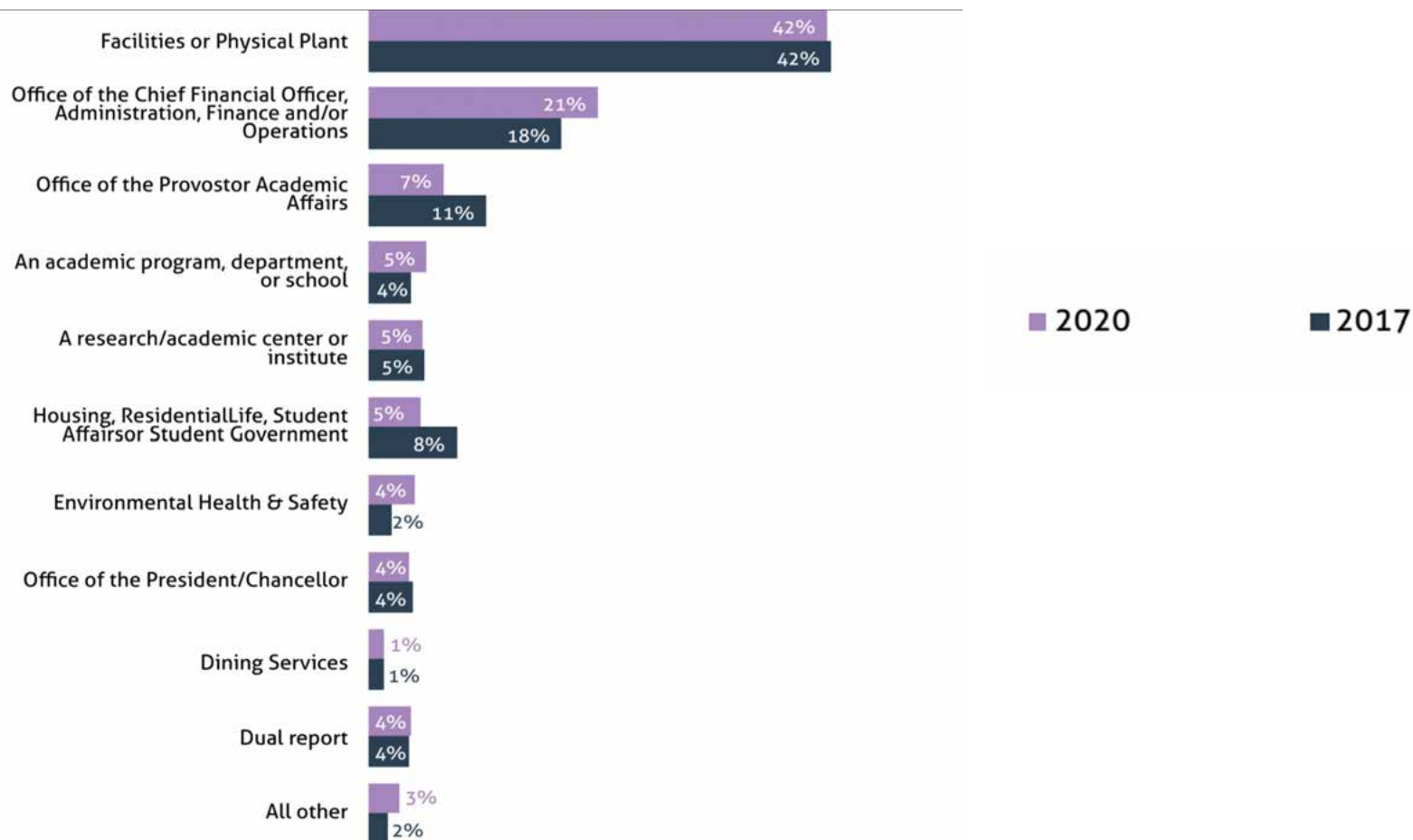
Screenshot

TABLE 3: Differences Between Institutes with Low Versus High Levels of Staffing

Darker boxes represent areas of notable difference

[illegible]

Where Sustainability Positions are Housed | N=458; Total Responses = 520



To Whom Position Reports | N=460; Total Responses = 533

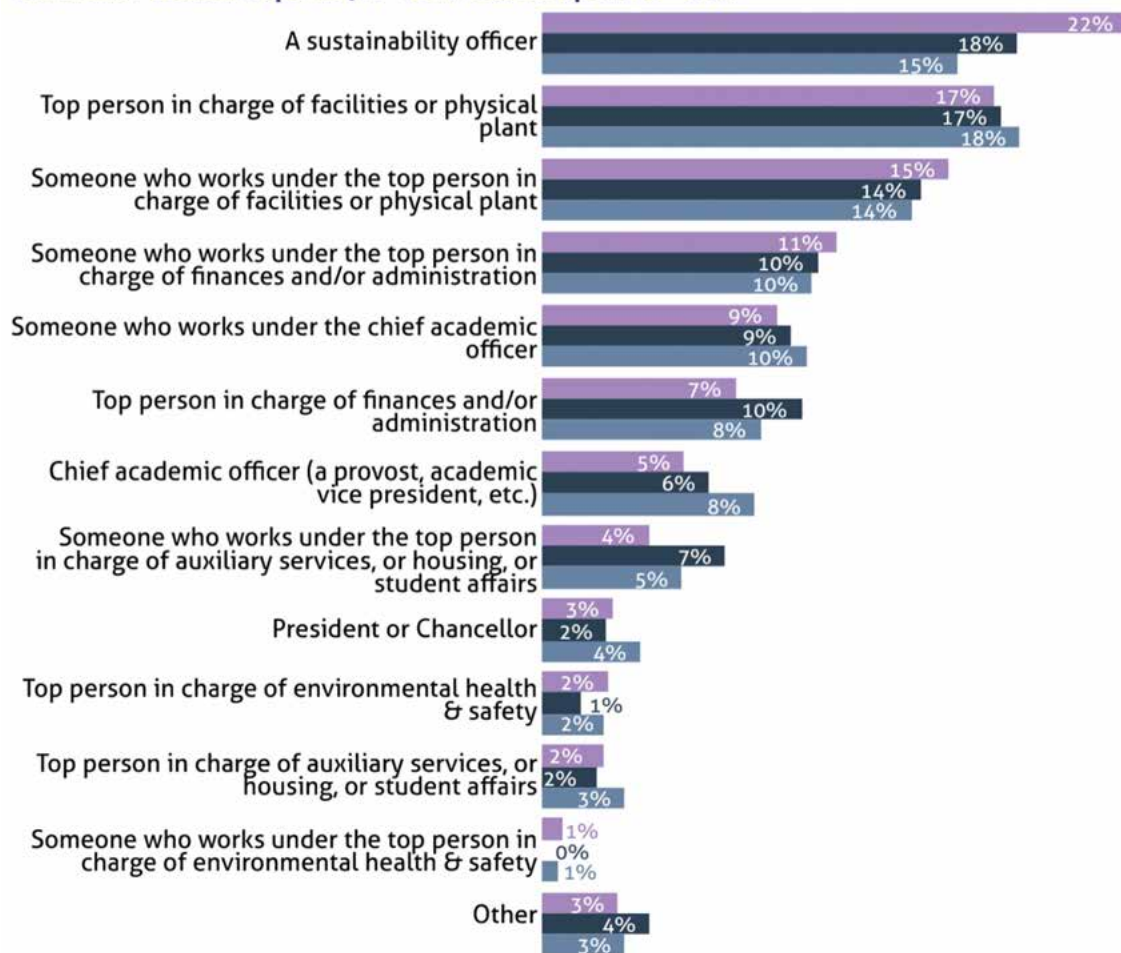


Table 8. Unit administrative location and reporting structure

Administrative location	Reporting office						
	President/ chancellor n=12	Chief academic officer n=57	Chief research officer n=42	College/ school/divi- sion dean(s) n=159	Department chair(s)/ head(s) n=43	Steering committee n=5	Other* n=22
Primary level	11%	36%	33%	13%	1%	1%	5%
Secondary level	1%	10%	4%	75%	5%	1%	4%
Tertiary level	0%	2%	3%	22%	60%	4%	9%
Other location	0%	18%	9%	27%	0%	0%	46%
All IESICs n=340	4%	17%	12%	47%	13%	1%	6%

*Board of directors; advisory board; independent laboratory; lead faculty member in specialty area (no departments); associate VP for engagement, outreach and international affairs; director of continuing education and academic outreach; three VPs for research at different campuses and dean; VP for research and executive dean of arts and sciences; dean and steering committee; institute/center director; school director; two deans and provost; dean and institute director

FIGURE 5: Institute Staffing Levels

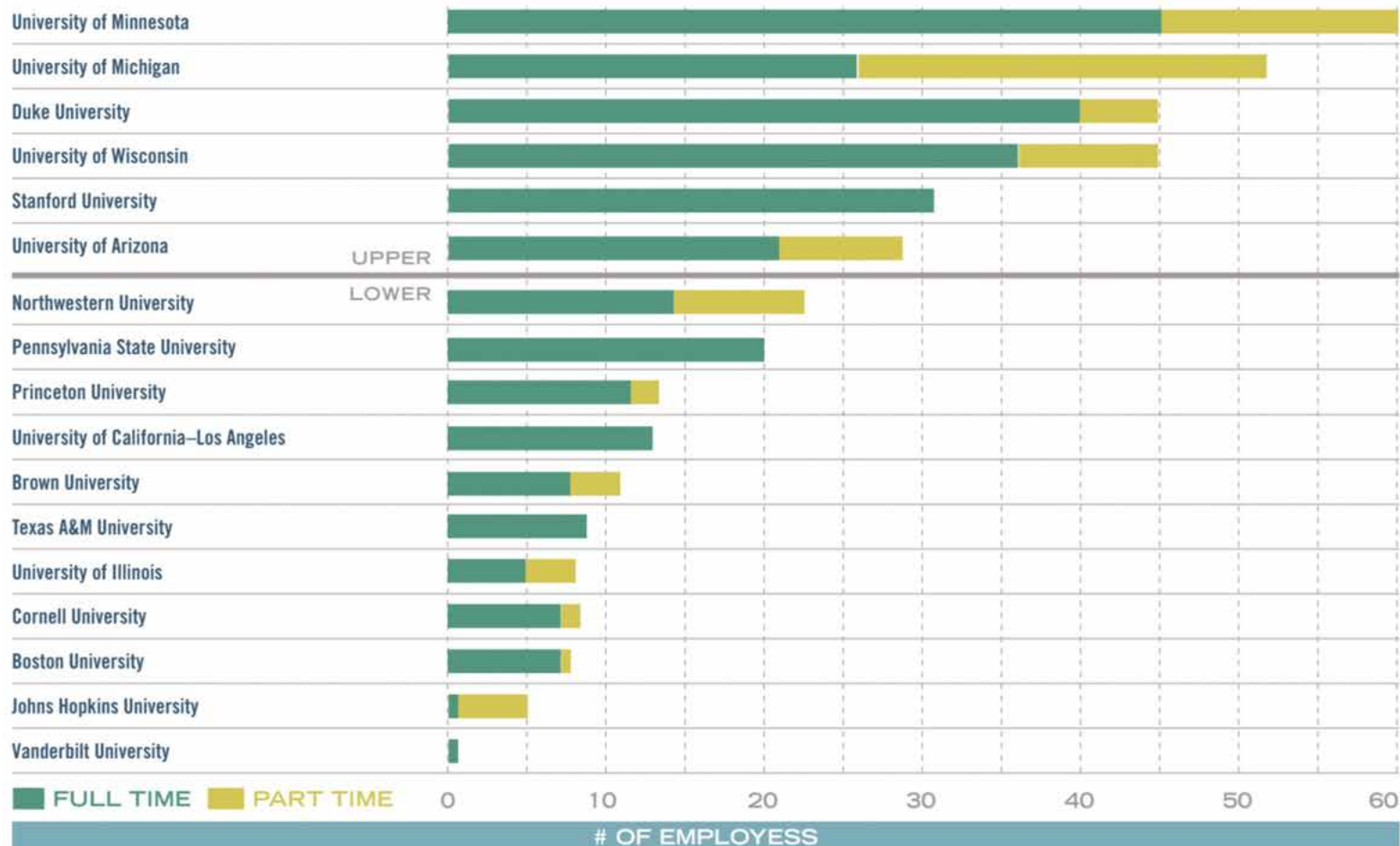
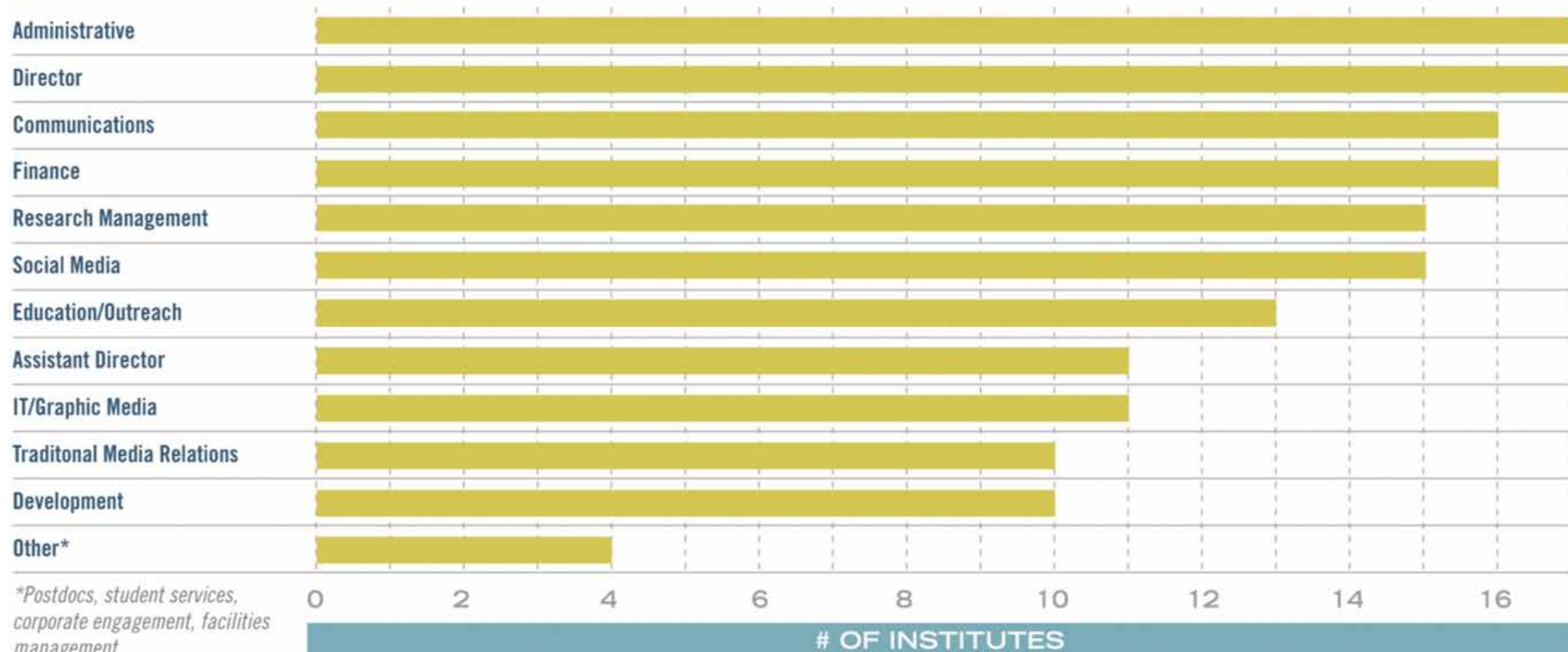


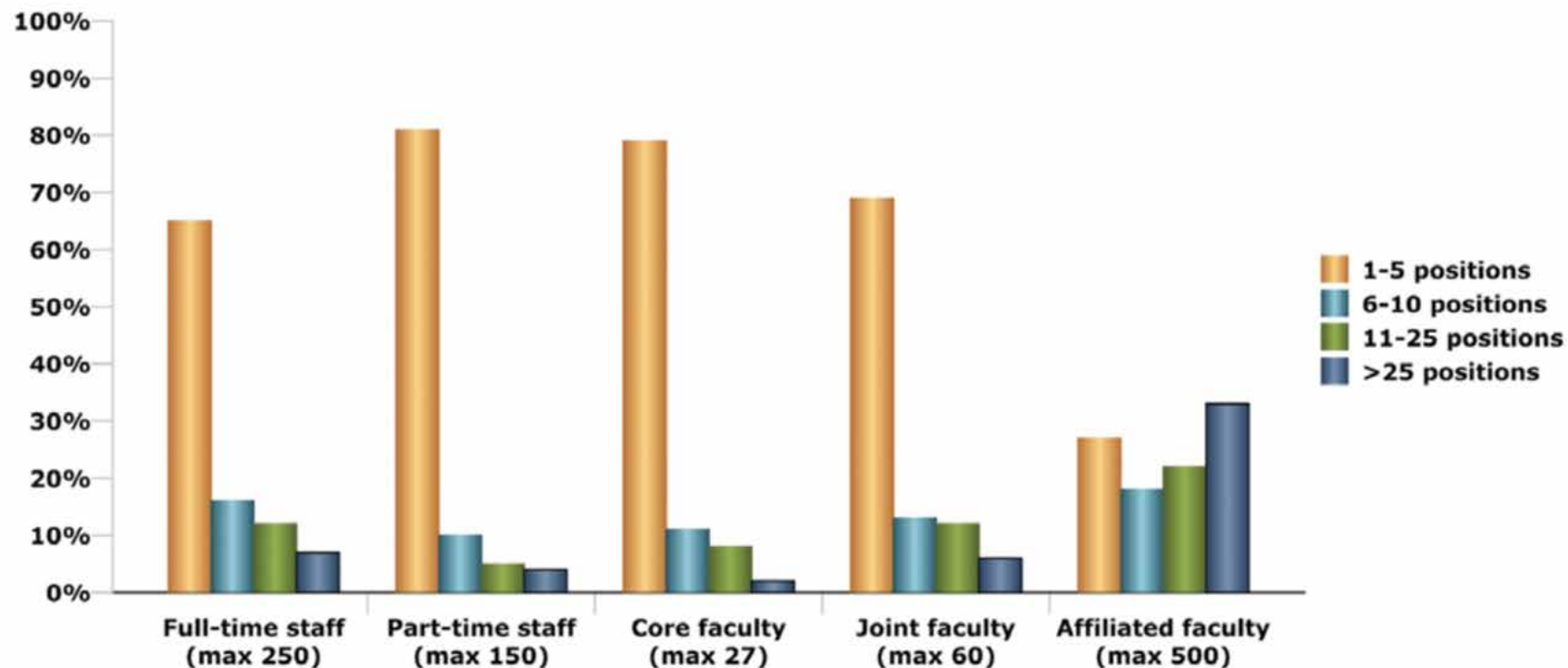
FIGURE 6: Institute Staffing Roles



“a dedicated staff can drive rapid progress and can take time to communicate results outside of academic publications, project reports.”

Many respondents note the importance of a strong staff to the success of the institute. While faculty are also acknowledged as critical, one respondent notes that “relying heavily on faculty who have many other responsibilities limits the rate of work. Therefore, we are growing our team of dedicated staff.”

Figure 7. Proportions of IESICs with different levels of personnel

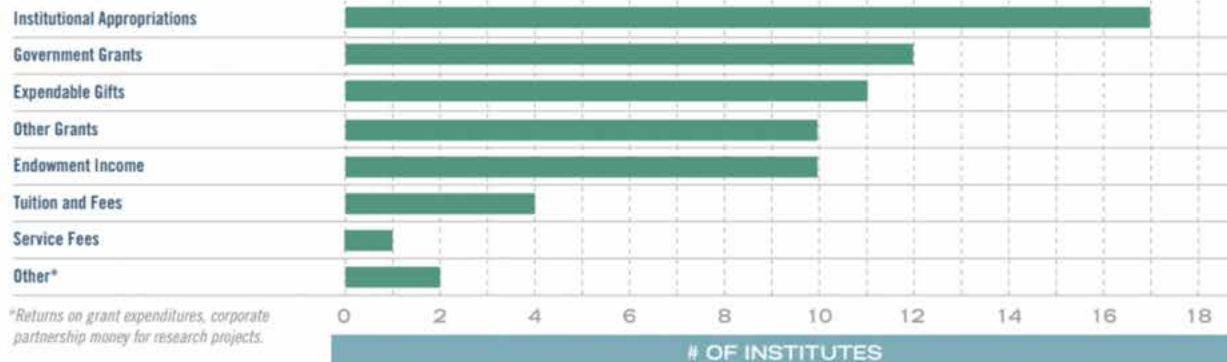


Funding

FIGURE 12: Total Annual Expenditures



FIGURE 13: Sources of Revenue



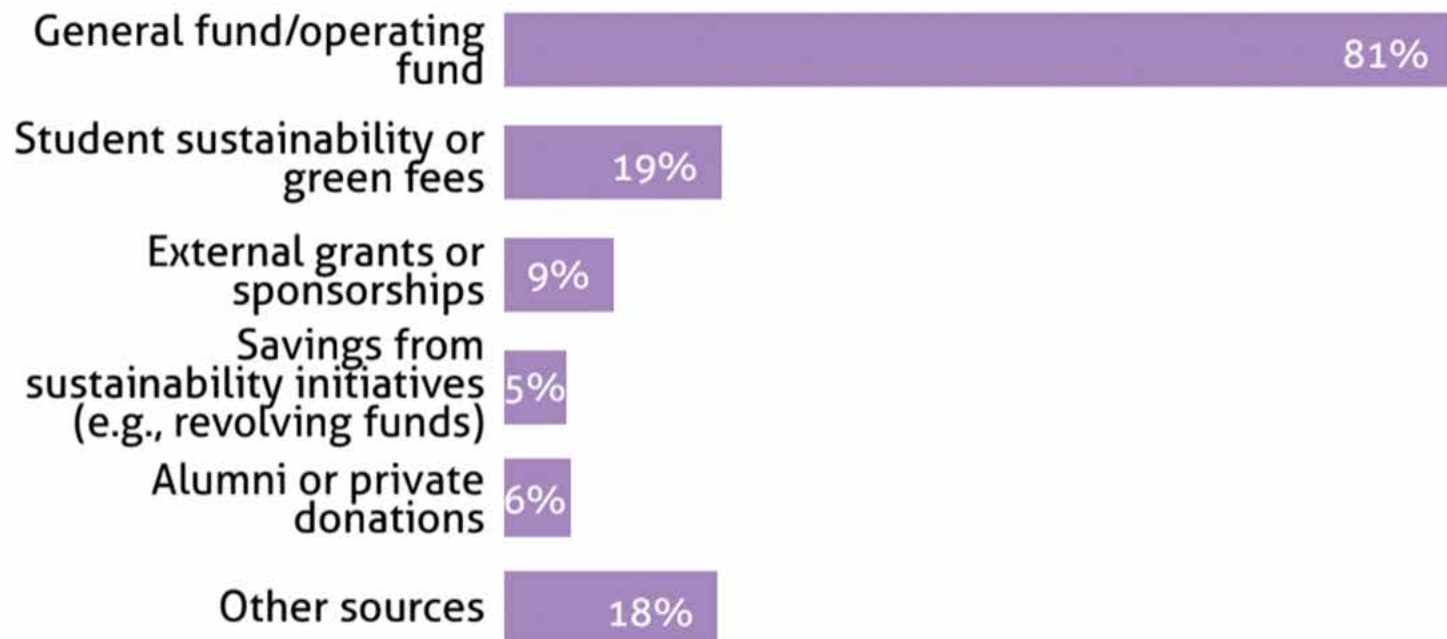
**Returns on grant expenditures, corporate partnership money for research projects.*

FIGURE 14: Distribution of Expenditures



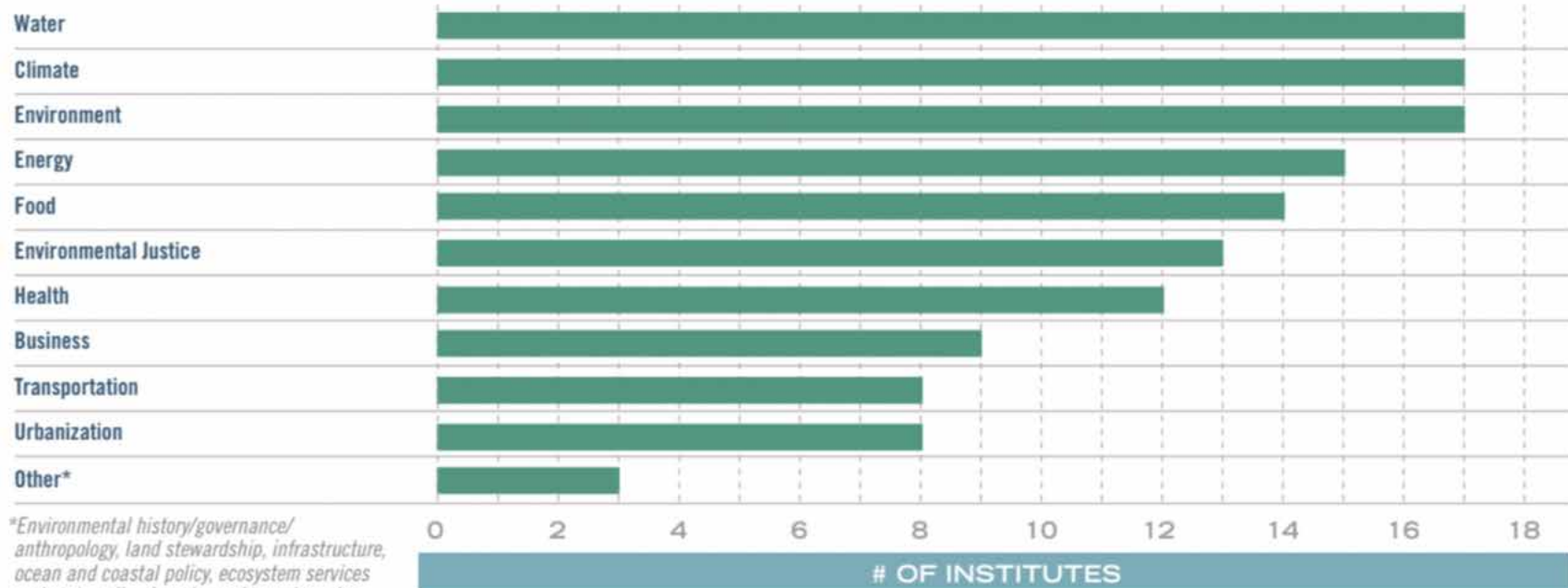
**Campus sustainability, internal and external engagement, communications, development.*

Sources of Funding by Average Percentage | N=201



Research

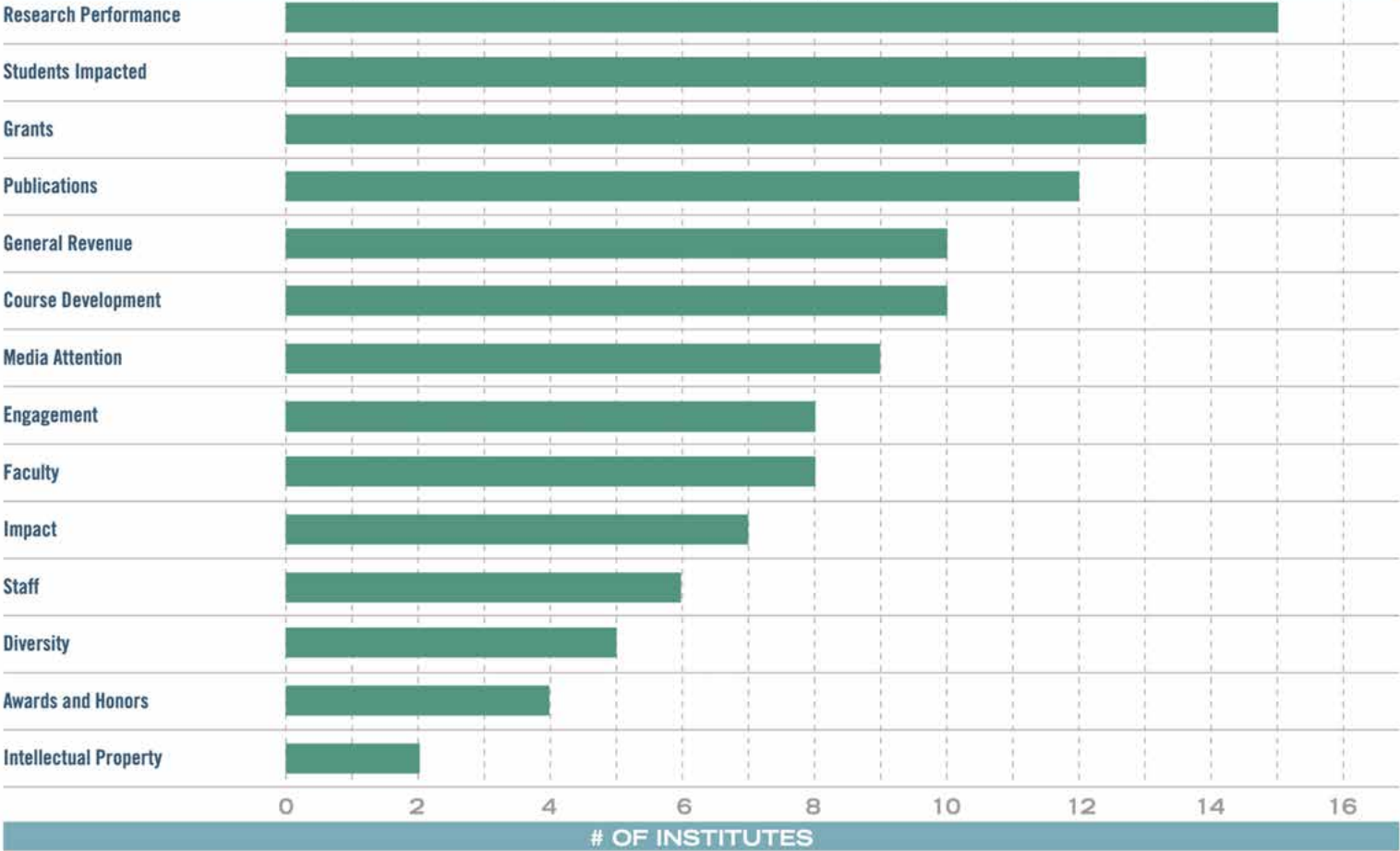
FIGURE 19: Topics of Research



**Environmental history/governance/anthropology, land stewardship, infrastructure, ocean and coastal policy, ecosystem services and state policy, border and transboundary environmental science.*

Metrics

FIGURE 4: *Institute Performance Metrics*



Engagement

FIGURE 7: Faculty Engagement

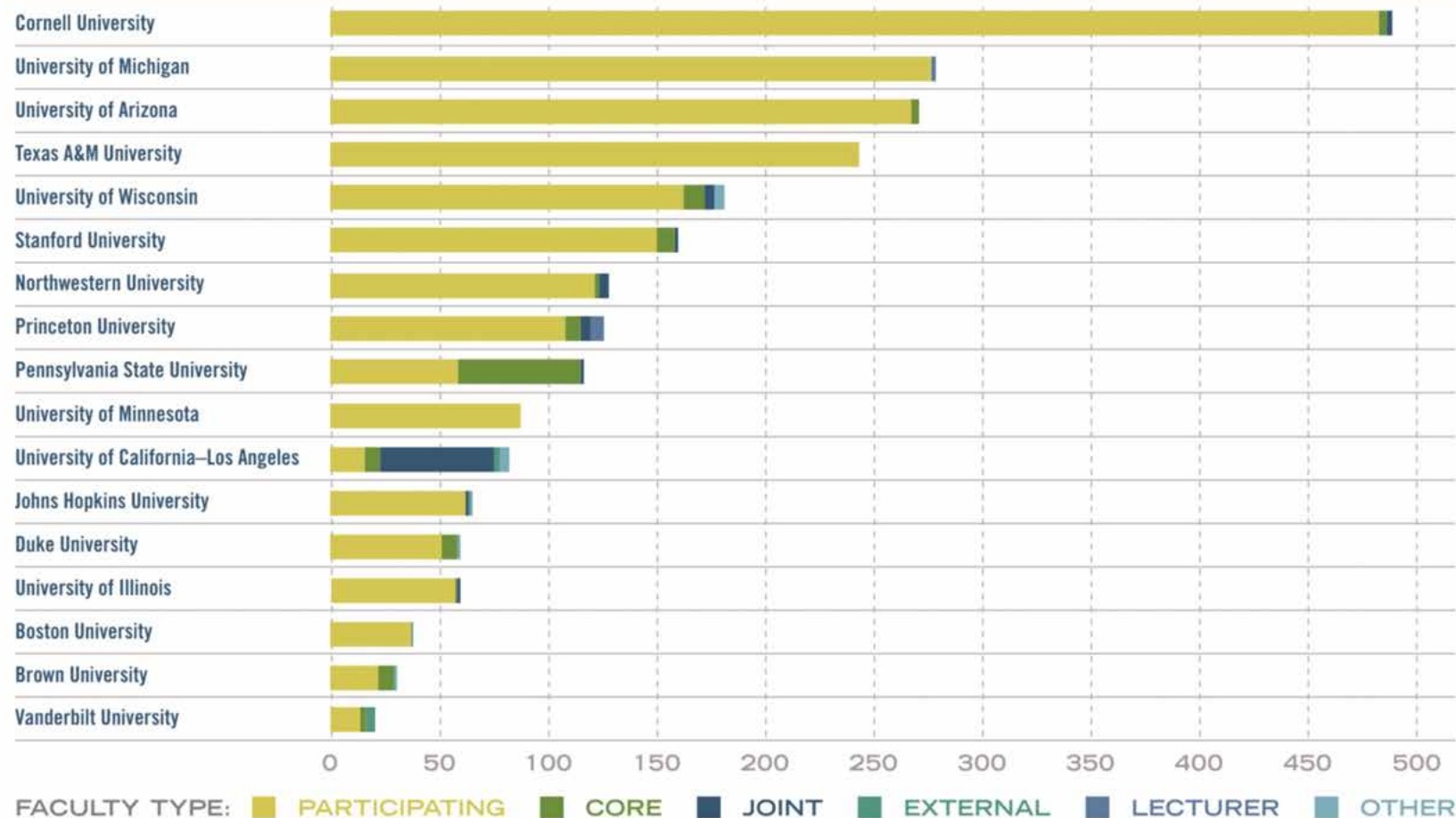
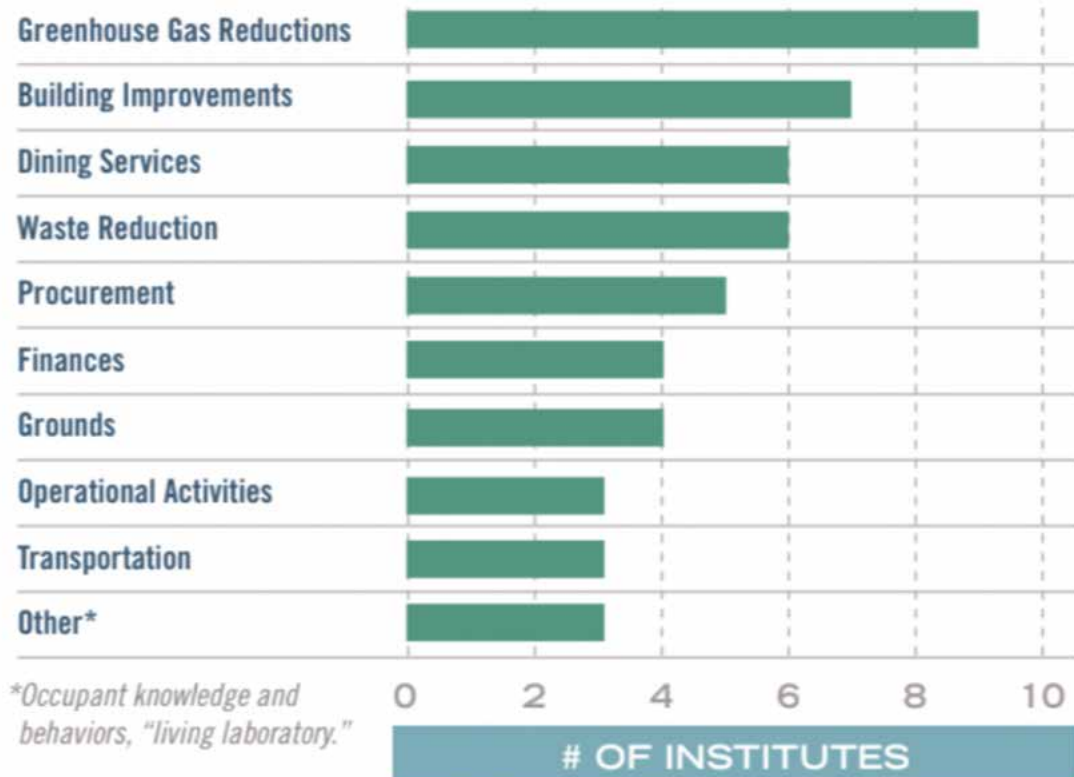


FIGURE 27:
Areas of Engagement with Campus Facilities



ATTRACT FACULTY relate to research, communications, and grant preparation support. These support functions align well with pre-existing faculty objectives and can help the institute perform its role which, as one respondent describes, “we see ourselves as supporting the faculty and departments to do their best work.” This fits with the tools that institutes use to keep faculty involved and to coordinate activities across the portfolio of engaged faculty. Grants administration is mentioned often as a service they provide. One respondent notes that “we have an effective grant-writing team that can help faculty pull together large, multi-investigator grants.” One goes so far as to state that their grant support is “better than offered in departments.” Another adds an important caveat to their grant support: “the value of research grants administered in our center is credited to the faculty’s home department in addition to the center. This eliminates competition for grant administration.” Additional tools for attracting faculty include project administration and coordination for inter-disciplinary research projects, seed funding, education support, communications, and events. In communications, institutes report the use of newsletters, annual reports, quarterly reports, list serves, and university wide branding. In terms of events, they report the organization of Friday seminars (with wine and food), faculty research meetings, award programs, formal engagement with advisory boards and deans, lecture series, roundtable discussions, networking events to help faculty find collaborators, student events, and use of institute space for meetings and engagement.

List

Ohio State

University of Michigan

Minnesota

Cornell Atkinson

UC Boulder

PSU - Sustainability Institute

ASU

University of Illinois, Institute for Sustainability, Energy, and the Environment

Ohio State

[HOME](#)[RESEARCH](#)[EDUCATION](#)[PEOPLE](#)[PARTNERSHIPS](#)[CAMPUS SUSTAINABILITY](#)[NEWS & EVENTS](#)A young woman with brown hair tied back, wearing a red hoodie and a white headband, is watering plants in a greenhouse. She is holding a long silver watering wand with a blue nozzle, which is spraying water onto a row of green leafy plants. The greenhouse has a glass and metal frame with overhead lights.

SUSTAINABILITY INSTITUTE

AT OHIO STATE

BUILDING A MORE SUSTAINABLE AND RESILIENT FUTURE FOR ALL

The Sustainability Institute collaborates with academic and operations units across the university to advance sustainability and resilience scholarship and activities. We aim to establish Ohio State as a leader in sustainability research and applications; educate and empower students; accelerate campus sustainability and living lab opportunities; grow resources to support these efforts; and catalyze a culture of sustainability.

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Circular Economy

Converting wastes into valuable resources throughout the supply chain to shift toward a closed-loop economy in which resources are conserved and environmental impacts are minimized.

Healthy Air, Land and Water

Pursuing integrated research and modeling to ensure the current and future sustainability of air, water and land systems and the ecosystems and communities that depend on these systems.

Smart and Resilient Communities

Improving the well-being and resilience of communities through digital technologies and adaptation strategies for changing environmental, economic and social conditions.



Sustainable Energy



Sustainable Resources

Sustainability Institute Executive Steering Committee

SI is fortunate and grateful to have a group of distinguished university leaders to serve on our Executive Steering Committee. They are:

- Trevor Brown, Dean, John Glenn College of Public Affairs
- Cathann Kress, Dean, College of Food, Agricultural and Environmental Sciences
- Ayanna Howard, Dean, College of Engineering
- Randy Moses, Senior Associate Vice President, Office of Research
- David Horn, Associate Dean, College of Arts and Sciences
- Cinnamon Carlarne, Associate Dean, College of Law
- Ryan Schmiesing, Vice Provost, Outreach and Engagement, Office of Academic Affairs

As an Affiliated Faculty or Researcher, you will have opportunities to:

- Build your internal and external networks and potential research collaborations
- Apply for seed grant funding
- Develop or join an interdisciplinary team receiving research development support to work on strategic research opportunities that advance SI's research program areas
- Share research findings or other accomplishments of yours, your students or collaborators for communications or marketing purposes
- Engage in public outreach or campus stewardship activities and events
- Appear on our searchable [Affiliated Faculty and Researchers directory](#)

Affiliated Faculty and Researchers are expected to actively engage in SI and can do so in a variety of different ways, which may include:

- Seeking opportunities to propose interdisciplinary research and collaborate with other affiliated faculty or researchers on research funding opportunities
- Leading or engaging in networking around an SI research program area
- Contributing to learning opportunities for students on sustainability topics
- Helping review funding requests, including seed grant proposals
- Responding to media requests

We will accept Affiliated Faculty and Researcher submissions at any time. SI will follow up with you after we receive your submission.

University of Michigan

[Master of Science »](#)[Master of Landscape
Architecture »](#)[Doctoral \(PhD\) »](#)[Dual-Degree Programs »](#)[Graduate Certificate
Programs »](#)[Undergraduate
Program »](#)[Courses »](#)

Graduate education at SEAS is highly customizable to each person's interests and aspirations. All of our faculty and students come from a diverse array of academic, professional, and personal backgrounds. If you care passionately about creating a more sustainable, just world, you can find your focus and community at SEAS. Explore the environmental program options below to start planning your personal path.

[I WANT TO LEARN MORE »](#)

Screenshot

Master of Science Program

The SEAS Master of Science program allows students to study in one of seven specializations: Behavior, Education, and Communication; Ecosystem Science and Management; Geospatial Data Science; Environmental Justice; Environmental Policy and Planning; Sustainability and Development; and Sustainable Systems.

A School of Forestry and Conservation

In 1927, the department evolved into the School of Forestry and Conservation—the first such school in the United States. Samuel T. Dana was appointed as professor and dean, heading a faculty of ten. Twenty-five students were enrolled. Saginaw Forest and Eberwhite Woods were the original outdoor laboratories for U-M forestry and conservation students, but in 1929 the school opened its first forestry camp.

In 1998, with Professor Daniel A. Mazmanian serving as dean, SEAS received funding from the Doris Duke Charitable Foundation for its master's program—one of only three schools in the nation to win such an award. The school established the Center for Sustainable Systems (CSS) the following year. A master's specialization in environmental justice was created to study the disproportionate impact environmental problems have on communities of color and low income.

2017: The SEAS Evolution

Building on more than a century of leadership in environmental science, management, policy, and design, SNRE became a new school, the School for Environment and Sustainability (SEAS), as of July 1, 2017. From its inception as a forestry department to the interdisciplinary institution it is today, SEAS has always prepared leaders who understand and solve the major environmental challenges of the era. Thousands of SEAS graduates are now working across the globe to protect the Earth's resources and create a more sustainable future.

[Sustainability Themes »](#)

[PhD Profiles »](#)

[Student Research »](#)

[The Centers, Institutes + Initiatives »](#)

[Faculty Profiles »](#)

[Labs »](#)



Berman Western Forest and Fire Initiative (WFFI)

The Kathy and Steve Berman Western Forest and Fire Initiative (WFFI) is a socially engaged, problem-oriented research program focused on western forests, fires, and communities. Its goal is to improve society's ability to manage western forests to mitigate the risks of large wildfires, revitalize human communities, and adapt to climate change.



Center for Sustainable Systems

Nearly all of the research conducted at the Center for Sustainable Systems involves the participation of students. Through Graduate Student Research Assistantships, hourly employment (including work-study) and volunteer positions, students have the opportunity to publish their research results in CSS reports, peer reviewed journal articles, conference proceedings, CSS fact sheets and press releases.



about

Partners

Historic Milestones

Sustainability Map

ABOUT

Sustainability is a mindset and framework for ensuring that current and future generations have equitable access to the resources for a full and vibrant life without the exploitation of people, society or the environment. In research, advocacy, operations, and other related efforts at the University of Michigan, we strive to protect our planet's life-support systems so that future generations can thrive.

Planet Blue is what we call U-M's commitment to sustainability. It's everyone's responsibility—from the individual to the institution.



PARTNERS

Multiple units and individuals collaborate to lead, organize, and manage the U-M Planet Blue Initiative and its related programs and activities.

- **Governance:** U-M President Mark Schlissel and the executive officers set the university's direction and goals to ensure sustainability considerations are integral in institutional-level decision-making.
 - **Staffing:** This cross-university initiative receives staffing support through a collaborative partnership of the Graham Sustainability Institute, the Office of Campus Sustainability (OCS), the Office of the Vice President for Communications, and Student Life.
-

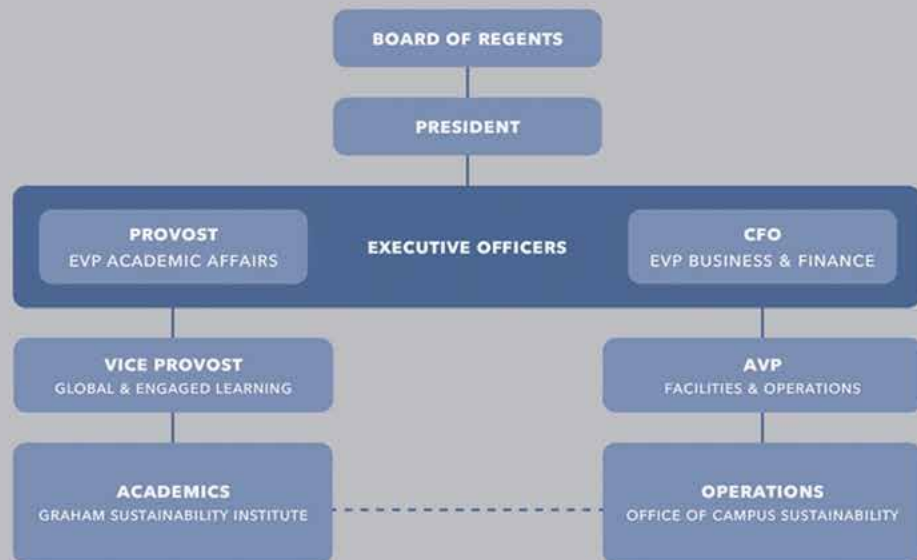
Featured units in our sustainability ecosystem

Many units at U-M contribute to our sustainability efforts in research, education, community engagement, and operations. Among these are:

- The [School for Environment and Sustainability](#) (SEAS) is the primary academic home for faculty and students whose work focuses on these topics. As an interdisciplinary school, SEAS spans the university and brings together students and faculty from all of our schools to contribute their ideas and talents to this important work. All of our other schools and colleges also do important work related to the environment and sustainability.
- The [Graham Sustainability Institute](#) is a boundary-spanning organization that helps to connect external stakeholders to the considerable intellectual capacity of faculty, students, and staff throughout the university, with a focus on catalyzing and supporting sustainability-oriented collaborations that lead to real-world impact.
- The [Erb Institute](#) is U-M's business-sustainability partnership between the Ross School of Business and SEAS. The Institute works with business leaders to improve the social, environmental, and economic performance of their companies; does cutting-edge research on sustainability; and helps form the next generation of business-sustainability leaders through graduate and undergraduate sustainability degree programs.
- The [Office of Campus Sustainability](#) (OCS) coordinates sustainable campus operations and collaborates with academic and auxiliary units and student groups in pursuit of U-M's sustainability goals. OCS is responsible for tracking and reporting progress and communicating with campus and community stakeholders.

- [Student Life](#) is the home for many different units that support students needs outside the classroom. From Housing, Dining, and Rec Sports to University Health Services, Wolverine Wellness and the Dean of Students, Student Life is committed to providing sustainable operations and student focused sustainability leadership development and experiential learning.
- [Michigan Medicine](#) is committed to conducting business in an efficient, environmentally-friendly and cost-effective manner. Through education and cooperation with U-M partners and national and local regulatory agencies, Michigan Medicine serves as a nationally recognized leader for implementing and continuing to improve upon its environmentally friendly practices.
- The [Planet Blue Ambassador](#) (PBA) program is the entry point to sustainability at the University of Michigan. Its goal is to empower U-M community members with the information and resources they need to live, work, and learn sustainably at U-M.

U-M SUSTAINABILITY ORGANIZATION



The Office of Campus Sustainability (OCS) serves as a focal point for sustainable campus operations.

Our role is to:

- Lead, facilitate, and support operational sustainability programs and initiatives on the Ann Arbor campus, and facilitate the institutionalization of best practices in sustainability across academic and research units, auxiliary units, and student groups.
- Provide technical and consultative guidance for operational sustainability on campus, including strategic planning, operational programming, and related campus-wide education and engagement.
- Track and report progress toward U-M's sustainability goals, especially the **2025 sustainability goals**.
- Communicate with the campus and local community to increase awareness and engagement among staff, students, and faculty—with a focus on high-quality operational sustainability programs and building a culture of sustainability on campus.

OCS is part of **Planet Blue Campus**, a university-wide initiative to promote sustainable operations and engagement.

We welcome everyone's involvement in helping to make the campus where we live, work and play more sustainable.

Screenshot



Haverkamp in U.S. News & World Report: Climate Summit Reveals Challenges for Biden Administration

[Read more](#)



Screenshot



ALL FACULTY

Partner with 9 Federal Agencies

The Great Lakes Northern Forest Cooperative Ecosystem Studies Units (GLNF-CESU) provide opportunities for faculty to support graduate students on small projects.

[Learn More](#)



ALL FACULTY

Leverage Our Expertise to Achieve Broader Impacts

Graham professionals support faculty-led, multi-partner collaborations through project coordination



About

Director

Staff

Principal Advisors

Faculty Affiliates

Diversity, Equity & Inclusion

Global Engagement

Strategic Plan

Director

Jennifer Haverkamp, the Graham Family Director of the Graham Sustainability Institute, is an internationally-recognized expert on climate change, international trade, and global environmental policy and negotiations.

As director, she is charged with facilitating sustainability-focused collaborations between faculty and students from many disciplines across campus with external stakeholders including communities, non-governmental organizations, government agencies, foundations, professional organizations, and the private sector. Under her leadership, the Graham Sustainability Institute works to bring together the world-class expertise of U-M faculty and students with the knowledge and needs of these off-campus partners to solve sustainability challenges on all scales, from the local to the global.

Haverkamp is also a Professor from Practice at Michigan Law School, teaching courses on international environmental law and trade and sustainability law, and a Professor of Practice at the Gerald R. Ford School of Public Policy. In February 2019 President Schlissel named her co-chair of the U-M President's Commission on Carbon Neutrality, which is charged with developing a



Institute on the Environment (Minnesota)
Office of Sustainability



Sustainability at UMN

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[News](#)

Climate Action Planning >

We're creating a new Climate Action Plan to identify actions to eliminate our greenhouse gas emissions, make the U more resilient, and address climate change through teaching, research, and outreach. [Get Involved](#)

The University of Minnesota is committed to

Latest Sustainability News

Discovering Solutions to Earth's Greatest Environmental Challenges

[LEARN MORE](#)

IONE NEWS



**UN CLIMATE
CHANGE
CONFERENCE
UK 2021**

IN PARTNERSHIP WITH ITALY

University of Minnesota sending 29 delegates to
COP26 in Glasgow



Colla Screenshot nature modeling platform can
inform resilient city design



Partnerships to promote energy justice

Welcome to the University of Minnesota Institute on the Environment

At the Institute on the Environment (IonE), we envision a world in which sustainable agriculture feeds the world; renewable energy powers healthy homes, efficient transportation and flourishing businesses; every person has access to food, water and shelter; oceans, lakes and rivers are clean and healthy; communities have vibrant economies, neighborhoods and cultures; and thriving ecosystems support thriving economies and societies. Overall, humanity restores and renews resources for the benefit of all living things.

IonE is accelerating the transition to this future by supporting breakthrough research across disciplines, developing the next generation of global leaders and building transformative partnerships across the state, region and globe.

It's important to stress this is **not academia as usual**. At IonE, we go out of our way to collaborate with external partners while bringing different academic fields of expertise together within the University — all with an eye towards being responsive, agile and entrepreneurial in the face of a changing world.

Our “secret sauce” is our ability to connect innovators from around the University and with external partners to discover solutions, to cultivate not just future scholars but future leaders, and to catalyze collaborations and conversations across sectors — all aimed at solving complex environmental challenges.



Theory of Change

A theory of change explains how an organization causes its intended impact. IonE seeks to build a world where people and planet prosper together. To achieve this mission, we organize our work into three essential categories:



The Faculty Leadership Council advises IonE's director, plays a central role in guiding faculty participation in IonE and ensures that the concern of IonE affiliates are incorporated into IonE goals and decisions. Members do not officially represent their colleges or departments but are encouraged to think of the wishes and needs of members of the IonE community. The council's agenda is suggested by the IonE director and prioritized and led by its members.

The Faculty Leadership Council was formed in 2015 and contains the following faculty:

- [Christine Baeumler](#) (College of Liberal Arts, 2016-2022)
- [Elizabeth Borer](#) (College of Biological Sciences, 2019-2021)
- [Ansu Chatterjee](#) (College of Liberal Arts, 2019-2021)
- [Kathy Draeger](#) (Department of Agronomy and Plant Genetics, 2019 – 2021)
- [Julie Etterson](#) (Director of IonE@UMD,* Swenson College of Science and Engineering, UMD, 2018-)
*Permanent faculty leadership council member
- [Christy Haynes](#) (Department of Chemistry, 2020-2022)
- [Alison Hoxie](#) (Department of Mechanical and Industrial Engineering UMD, 2021-2023)
- [Steve Manson](#) (College of Liberal Arts, 2020-2022)
- [Brett McDonnell](#) (Law School, 2020-2022)
- [Crystal Ng](#) (College of Science & Engineering, 2021-2023)
- [Teddie Potter](#) (School of Nursing, 2020-2022)
- [Shailey Prasad](#) (Center for Global Health and Social Responsibility, 2021-2023)
- [Peter Reich](#) (Department of Forest Resources, 2019-2021)

Appointments are for three year terms, with the potential to renew for a second term. Nominations for membership and

Fellows

IonE Fellows are senior researchers and thought-leaders that form the intellectual foundation of IonE.

Educators

IonE Educators focus on the development of new curriculum.

Associates

IonE Associates are early career scholars interested in developing capacity in interdisciplinary engagement.

Visiting Scholars

IonE Visiting Scholars are external researchers who are pursuing scholarship in residence.



GRANTS AND FUNDING ANNOUNCEMENTS

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INSTITUTE AFFILIATES >

INTERDISCIPLINARY
DOCTORAL FELLOWS >

GRANTS AND FUNDING
ANNOUNCEMENTS >

FUNDED PROJECTS >



The Institute on the Environment's fellowships and grants provide support for people and projects across the University of Minnesota system. For the latest information on current and upcoming funding opportunities, please sign up for

Cornell
Cornell Atkinson Center for Sustainability

The hub of collaborative sustainability research at Cornell University

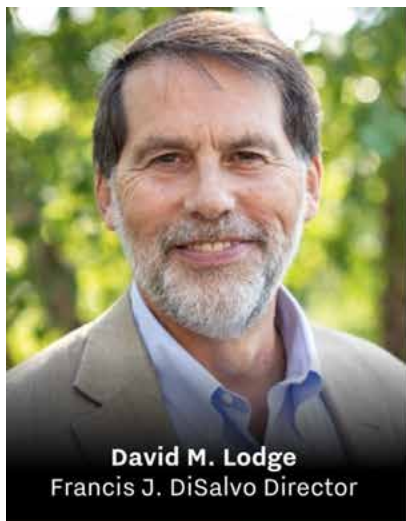
Build Vital Connections —



 6:02 PM (EDT)

 200 Rice Hall | 340 Tower Road
Cornell University





David M. Lodge
Francis J. DiSalvo Director



Christine Goodale
Faculty Director for Student
and Postdoc Programming



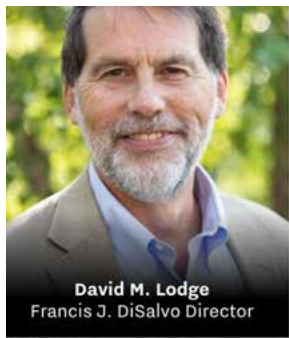
Catherine Kling
Faculty Director and Cornell
Atkinson Scholar



Daryl Nydam
David Drinkwater '94 Faculty



Max Zhang
Kathy Dwyer Marble and Curt



David M. Lodge
Francis J. DiSalvo Director



Patrick Beary
Bruce H. Bailey Senior Director
of Strategic Partnerships



Galib Braschler
Communications and
Marketing Specialist



Chelsea Carr
Director of Development



Kurt Fritjofson
Research & Program
Administrator



Donna Jenney
Financial Operations Manager



Graham Kerslick
Executive Director



Mark A.B. Lawrence
Web & Information Systems
Manager



Alan Martinez
Senior Manager, Strategic
Partnerships



Cynthia Mathys
Senior Manager, Strategic
Partnerships



John McKain
Director of Strategic
Communications



Gail Phillips
Project Associate, Strategic
Partnerships



Janet Smith
Project Associate, Strategic
Partnerships



Sara Stevenson
Communications and Content
Manager



Sandy Stickler
Administrative Assistant



Anna Stratton
Gift Associate



Carrie Young
Internal Programs Manager

Cornell Atkinson Advisory Council



The Cornell Atkinson Advisory Council provides support and guidance to the Center's leadership on issues central to the strategic mission. The board meets twice a year to review Center progress.

Faculty Advisory Board



The Atkinson Center's Faculty Advisory Board (FAB), formed in early 2008, guides our activities. The FAB is made up of faculty fellows, leadership, and representatives from across Cornell.

At Cornell Atkinson Center for Sustainability, our
work is focused on four key areas

Explore Our Work —



01

**Reducing
Climate Risk**



02

**Accelerating
Energy Transitions**



03

**Increasing
Food Security**



04

**Advancing
One Health**

UC Boulder

Sustainability is Embedded in Our Campus Life

Learn how CU Boulder demonstrates our commitment to sustainable solutions.

[Send Us Your Sustainability Ideas](#)

“The imperative to address climate change has never been greater. ... In discussing this issue with student leaders, we agree that the scientific evidence of climate change overwhelmingly demands action now to address the climate emergency. This means redoubling our resolve to unleash the immense human capacity for innovation and applied solutions at sufficient speed and scale.”

—Chancellor Phil DiStefano

[Read the Chancellor's Call to Action on Climate Change](#)

Students Value Sustainability

We surveyed our student body, and here's what they had to say.

Source: Fall 2017 student sustainability survey



95% of students say climate change is a concern for their generation.



80% of students consider their carbon footprint to be low. 95% of students say they would like to have a lower carbon footprint.



92% of students state that it is important that CU Boulder has a strong commitment to environmental sustainability.



40% of students report they chose CU in part because of its sustainability reputation.

Penn State



sustainability
INSTITUTE

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f t i in

HOME

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SI PROGRAMS

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MAKE A GIFT

Search...



Academic Courses and Degrees

Whether you are an undergraduate or graduate student, there are many ways to broaden your Penn State education through the incorporation of sustainability into your degree work. With a greater understanding of the complex concepts related to the 17 Sustainable Development Goals, including climate action, eliminating hunger and poverty, peaceful and just institutions and innovation and infrastructure, students can expand their knowledge and gain a fresh perspective on their primary area(s) of work through a sustainability-related certificates, minors, majors or degree programs.

[UNDERGRAD DEGREE PROGRAMS](#)[GRADUATE DEGREES](#)[WORLD CAMPUS](#)[SUSTAINABILITY LEADERSHIP MINOR](#)[FOOD SYSTEMS MINOR](#)[ENVIRONMENTAL INQUIRY MINOR](#)

Experiential Learning

There are a variety of ways to get outside of the classroom to incorporate practical sustainability experiences into your academic experience at Penn State. The focus of experiential learning is hands-on education – learning by doing. At Penn State, you might be able to take a class that connects you with a local government to assess stormwater impacts on the watershed, a school district to help draw down greenhouse gas emissions, a student farm or garden, or to help design native habitats that are beautiful and thrive. Incorporating these engaging learning experiences into your college experience connects theory to practice, in a real-world authentic setting. You'll become more skilled, build your professional and civic networks, and support a healthier world by applying your education and skills in real time.

[SUSTAINABLE EXPERIENCE CENTER](#)[STUDENT FARM AT PENN STATE](#)[CITY SEMESTER PHILADELPHIA](#)[CITY SEMESTER PITTSBURGH](#)[SOLAR PROJECTS AT PENN STATE](#)[LIVING LABS](#)



Research Institutes and Centers doing Sustainability Research

If you would like to request that your institute or center be added to this list, please email dwb102@psu.edu

Research events occurring across campus related to research in sustainability can be found on these sites' calendars:

- [Institutes of Energy and the Environment \(IEE\)](#)

The IEE works to build teams of researchers from different disciplines to see how new partnerships and new ways of thinking can solve some of the world's most difficult energy and environmental challenges. The searchable [IEE database of research faculty](#) expertise is a collaborative effort of the Institutes of Energy and the Environment (IEE) and the Sustainability Institute. It is built around the IEE's original database of research expertise in energy and the environment, supplemented by additional faculty who self-identified their research as sustainability-related or sustainability-focused.

- [Insect Biodiversity Institute](#)

- [Materials Research Institute](#)

- [SCRiM](#) (Sustainable Climate Risk Management)

- Arts and Architecture – [Ecology + Design](#)

- [Landscape U](#)

- [Penn State Smeal Center for the Business of Sustainability](#)



Dr. Paul Shrivastava

Chief Sustainability Officer, Director, Penn State's Sustainability Institute

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[VIEW BIO](#)



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Ilona Ballreich

Program Manager,
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Collaborative

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Manager

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[VIEW BIO](#)

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Director of Communications

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(814)-865-7485

[VIEW BIO](#)



Katie Chriest

Program Coordinator
Sustainable Food Systems



David Cullmer

Sustainable Operations
Analyst



Perry Dripps

Program Coordinator,
Screenshot
lity Engagement



Leslie Pillen

Associate Director, Farm and
Food Systems



Lydia Vandenberg

Associate Director of
Employee Engagement and
Education



Barbara Duncan

Administrative Support
Assistant

Dr. Paul Shrivastava

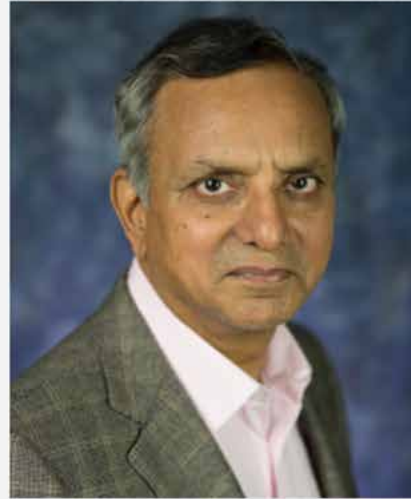
**Chief Sustainability Officer, Penn State Director,
Penn State's Sustainability Institute**

Dr. Paul Shrivastava, is Chief Sustainability Officer of Penn State University. He is also Director of Sustainability Institute, and Professor of Management at the Smeal College of Business. Prior to this he served as the first Executive Director of Future Earth global research platform.

Paul is an academic entrepreneur. He was part of the team that founded Hindustan Computer Ltd., one of India's largest computer companies. He founded the non-profit Industrial Crisis Institute, Inc. New York. He founded the journal Organization and Environment, (published by Sage Publications). He was founding President and CEO of eSocrates, Inc., a knowledge management software company, and the founding Chair of the Organizations and the Natural Environment Division of the Academy of Management.

Paul's research uses science and arts to develop transdisciplinary solutions to sustainability challenges. His current focus is on implementation of Sustainable Development Goals. He is working with colleagues at Penn State, at Future Earth and at the United Nations to develop programs for implementing SDGs, and monitoring and measuring their progress. He believes that infusing sustainability across research, teaching, community and student engagement at Penn State University's 23 campuses can help us implement sustainability across the Commonwealth of Pennsylvania.

Paul received his Ph. D. from the University of Pittsburgh. He has published 17 books and over 100 articles in refereed and scholarly journals. He has served on the editorial boards of numerous leading management education journals. His work was



ASU



School for the Future of Innovation in Society



School of Sustainability



School of Complex Adaptive Systems



The merger of the Global Institute of Sustainability and the Institute for the Future of Innovation in Society brings an unprecedented unification of expertise and facilities dedicated to solve problems and sustain the integrity of our planet and its life-supporting systems.

550+ Sustainability and Innovation Experts



#1 Innovative School ~ U.S. News & World Report

The brand new College of Global Futures



Empowering positive, lasting change.

Sustainability Impact 2019

Sustainability Impact

2019



Sustainability Impact 2019



Undergraduate Degrees

Graduate Degrees

Online Degrees

Certificates

Minor in Sustainability

Executive and Professional
Education

Sustainability Courses

The School of Sustainability

**SCHOOL of
SUSTAINABILITY**

University of Illinois
Institute for Sustainability, Energy, and the
Environment



Institute for Sustainability, Energy, and Environment (iSEE)

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NEWS

ISEE NAMES NEW MANAGING DIRECTOR

Jan 21, 2022

Elizabeth Murphy steps into role, replacing Jenny Kokini; iSEE also has hired a Research Project Coordinator.

NEWLY SEED-FUNDED PROJECTS ADDRESS NEIGHBORHOOD, URBAN SUSTAINABILITY

Jan 12, 2022

Both teams interdisciplinary; one fits in Campus as Living Lab category.

INSTITUTE OFFERING SEED FUNDING FOR SUSTAINABILITY COURSE DEVELOPMENT

Dec 4, 2021

\$1k to incorporate sustainability into existing class; \$2k for new

Screenshot



BRAWN HONORED AS FIRST
LEVENICK CHAIR

READ MORE



Institute for Sustainability, Energy, and Environment (iSEE)

[ABOUT ▾](#)[RESEARCH ▾](#)[EDUCATION ▾](#)[CAMPUS SUSTAINABILITY ▾](#)[GREENER CAMPUS ▾](#)[EVENTS ▾](#)

Research

The Institute was created to lead an interdisciplinary approach to researching solutions for the world's pressing sustainability, energy and environmental needs today and tomorrow. We call this "actionable research" — scientific progress with the emphasis on finding real-world, immediately usable answers to these problems.

Our holistic approach to research brings together the brightest of the bright to solve the world's current and future problems. iSEE shepherds that approach in five distinct themes:

 [Climate Solutions](#)

 [Energy Transitions](#)

 [Sustainable Infrastructure](#)

 [Water and Land Stewardship](#)

 [Secure and Sustainable Agriculture](#)

Campus Sustainability

The staff at iSEE also wants to help the U of I campus become a model of sustainability, energy efficiency, and environmental friendliness for the world to see. In 2008, the University of Illinois at Urbana-Champaign became a signatory of the American College and University Presidents Climate Commitment (ACUPCC) — pledging itself to becoming carbon neutral by 2050.

And so, iSEE [teams](#) of faculty, staff and students regularly evaluate campus progress toward the goals laid out in appropriate categories — energy; transportation; zero waste; land & water; education; resilience; and engagement — and prepare recommendations on future work to be done. The goal is for campus to be a model of sustainability other communities will emulate.

Education and Outreach

We believe that Illinois ought to prepare students to be leaders in sustainability and the environment and/or leaders by example as good Earth citizens when they leave campus. Thus, iSEE is offering a sustainability minor called the [SEE Fellows Program](#) with the help of six campus academic units so that students will be able to learn skills for future employment endeavors. In addition, an undergraduate [Certificate in Environmental Writing](#) is being offered.

The Institute's [outreach](#) efforts both near and far will bring together scholars, experts and other people passionate about sustainability, energy, and environment issues to share knowledge and hold conversations that might lead to solutions locally and globally. These efforts include an annual [iSEE Congress](#), in which experts explore a major grand challenge in sustainability.

Institute History

In December 2013, the University of Illinois launched the Institute for Sustainability, Energy, and Environment (iSEE) on the Urbana-Champaign campus.

The Institute, [under the Vice Chancellor for Research and Innovation](#), leads an interdisciplinary approach to researching solutions for the world's pressing sustainability, energy and environmental needs today and tomorrow. We call this “actionable research” — with the emphasis on finding real-world answers to these problems.

The staff at iSEE also wants to help the U of I campus become a model of sustainability, energy efficiency and environmental friendliness for the world to see — and to prepare students to be leaders in these fields and/or leaders by example as good Earth citizens when they leave campus.

The Institute was officially established Dec. 16, 2013, by the University's Board of Trustees with approval by the Illinois Board of Higher Education, barely a year after the Academic Senate had approved establishment of its predecessor, the Center for a Sustainable Environment (CSE), on Dec. 3, 2012. CSE was a merger of the Environmental Change Institute (ECI) and the Office of Sustainability (OS), both of which did outstanding work in environment and sustainability for our campus.

Work at iSEE is supported by the [Alvin H. Baum Family Fund](#) through a generous gift. The Baum Fund previously supported CSE and ECI. In addition, generous donations by Illinois alumnus Stuart L. Levenick and his wife Nancy J. Levenick will help fund research, teaching, and scholarly fellowships in sustainability, energy, and environment. [You can read more about the Levenick Fellows Program here.](#)



Institute for Sustainability, Energy, and Environment (iSEE)

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Climate Solutions Research

SMARTFARM Project

DAWN Project

Crops in silico Project

Leverhulme Centre

I-GUIDE

Energy Transitions Research

Next-Generation Feedstocks Project

Agrivoltaics Project

SMARTFARM Project

RADAR-X Project

E-E FEWS Project

The Institute is committed to showcasing the numerous research strengths that can be found on the Illinois campus that relate to sustainability, energy, and the environment. Thus far, iSEE has coalesced the [Water Scholars](#), the [Energy Scholars](#), the [Global Climate Change Scholars](#) and the [Sustainable Agriculture Scholars](#) on campus to showcase the breadth and depth of expertise on campus — and to make it easier for researchers and funding organizations to bring together major research teams and centers.



~NEW: Illinois Sustainable Agriculture Scholars



Illinois Global Climate Change Scholars



Illinois Energy Scholars



Illinois Water Scholars



Sustainability Education Opportunities

The University of Illinois offers hundreds of opportunities for students to include sustainability as part of their educational experience. iSEE currently oversees two programs: the Sustainability, Energy, and Environment Fellows Program; and the undergraduate Certificate in Environmental Writing. More information on both programs can be found on this page.

Campus at large offers dozens of other majors, minors, and certificate programs with sustainability components. In addition, we have links for dozens of professional certifications in sustainability fields

[Click here for majors, minors, and certifications](#)

[Click here for many of the options currently available >>>](#)

Hundreds of relevant courses are offered from departments in every college.

[Click here for course listings](#)

If you wish to submit an ad for an upcoming course, please:

1. download our [PowerPoint template](#);

Spotlight on Courses, Students, Programs



“

The Certificate in
Environmental Writing (CEW)

**TURNING
DATA INTO
NARRATIVE**

ENGAGE IN THE LATEST RESEARCH
IN SUSTAINABILITY SCIENCE AND
BUILD YOUR SKILLS IN
ENVIRONMENTAL COMMUNICATION



Institute for Sustainability, Energy, and Environment (iSEE)

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Campus Sustainability Menu

[Main page](#)[Campus as a Living Laboratory:
Research, Campus Sustainability
Working Together](#)[Illinois Geothermal Coalition](#)[Sustainability Training Videos](#)[Sustainability 101: Terms to Know](#)[Illinois Climate Action Plan \(iCAP\)](#)[Sustainability Council](#)[iCAP Working Group](#)[Working Advisory Teams](#)[Education SWATeam](#)[Energy SWATeam](#)[Engagement SWATeam](#)[Land & Water SWATeam](#)

Funding

The University of Illinois and the Institute for Sustainability, Energy, and Environment rely on funding to carry out steps toward carbon neutrality. The University has a generous student population that helps fund projects — mainly through the [Student Sustainability Committee](#), a registered student organization — and the campus [Revolving Loan Fund](#). iSEE has also found [corporate partnerships](#) to do the same.

Levenick iSEE Fellows Program

In February 2015, the Institute announced it would expand its base of research and scholarship thanks to a generous endowment from Stuart L. and Nancy J. Levenick of Peoria.

Mr. Levenick, who retired as Group President of Customer & Dealer Support at Caterpillar Inc., gave \$500,000 to the University of Illinois Foundation in late 2014 for the creation of the Levenick iSEE Fellows Program Fund, which will support the Institute through resident Scholars, Research Fellows, and Teaching Fellows. Many of the Fellows' projects will help study and address campus sustainability issues.

[MEET OUR FELLOWS >>>](#)

Student Sustainability Committee (SSC)

It is iSEE's privilege to have the Student Sustainability Committee. The Committee's purpose is to:



Institute for Sustainability, Energy, and Environment (iSEE)

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Welcome to the Greener Campus Portal, where you can learn how to make your campus office, lab, chapter, organization, and events more sustainable — and receive a certificate for your efforts!

See below for an overview of each program — with links to the full webpages for each.

You may also view the





Institute for Sustainability, Energy, and Environment (iSEE)

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[Read the iSEE announcement of her new role >>>](#)

[Read Madhu's introductory statement >>>](#)

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[Read a Q&A with Jeremy about his new position >>>](#)



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Want to Book our Collaboratory i-Flex Classroom/Meeting/Collaboration Space or Media Lab?

View *potential* availability for the classroom/meeting/collaboration space (Room 337 NSRC) and for the media lab (Room 351 NSRC) on the [online calendar >>>](#)

Request a booking for the classroom/meeting/collaboration space by emailing sustainability@illinois.edu

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Screenshot



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Screenshot

Reserving the Media Lab

The Media Lab is a full-service video production studio complete with multiple cameras, a green screen, teleprompter, studio lighting, and audio recording equipment. It comfortably fits one or two individuals on camera, and it has the capacity for up to four individuals in the studio when recording (**NOTE: During the COVID-19 pandemic, the total number of people allowed in the lab at one time has been reduced to THREE). Reservations are made with our Media Lab Coordinator Mark Herman at maherman@illinois.edu. Please review the Media Lab Policies and the reservations guidelines below before booking the space.

- A request must be submitted at least five business days prior to your desired film date, but further advance notice is preferred.
- We strive to respond within two business days of the form submission.
- Weekend reservations are subject to staff availability and require two weeks' advance notice.
- Faculty, staff, and students of the University of Illinois are eligible to reserve iSEE's Media Lab.

Reservation Schedule

This is a tentative breakdown of the time you should expect to spend in the Media Lab:

- Pre-production: 15-30 minutes (including lighting, camera & mic setup, teleprompter, etc.)
- Video Shoot: Dependent on length of reservation (plan approximately five minutes shooting time per minute of footage to allow for multiple takes)
- Post-production/File Transfer: 15-45 minutes (dependent on amount of footage shot and processing to be rendered)



Reserving the Collaboratory

The Collaboratory is an innovative space created for a multitude of educational and research purposes. It's available for daytime meetings, evening events, and classroom instruction. As a classroom, the space comfortably fits up to 40 individuals and can be arranged to the instructor's precise needs (**NOTE: During the COVID-19 pandemic, room occupancy is limited to one instructor and 15 students). Depending on the event or meeting, the room can comfortably accommodate 40-50

Appendix 4: Working Group Reports – Presentation Slides

Working group reports can be located by the following links:

[Regenerative Solution Respecting Planetary Boundaries](#)

[Thriving Futures in the Face of Regional Change](#)

[Resilient Ecological Systems](#)

[Environmental Discourse](#)

[Education & Engagement](#)



University of
Pittsburgh

Mascaro Center for Sustainable Innovation

Working Group

Regenerative solutions

respecting planetary boundaries



Working Group Members

- Markus Chmielus (MEMS)
- Shanti Gamper-Rabindran (GSPIA)
- Marcela González Rivas (GSPIA)
- Carla Ng (CEE)
- Götz Vesper (ChE)

Theme Name/Language

We recognize that our current models of consumption and production are unsustainable. We envision **communities that thrive within planetary boundaries** while developing and implementing solutions that provide **equitable and just opportunities for all**. This thrust is dedicated to exploring and promoting **regenerative solutions that advance quality of life within the natural limits of planet earth** with a specific focus on just **energy transitions**, **water sustainability**, and **circular materials flows**. Through **collaboration, innovation**, and **community engagement**, we seek to create a more equitable, sustainable, and regenerative world for current and future generations.

Pitt's strengths in...

...Energy Transition

- Pitt's **location in an extractive region in southwestern PA** that is facing opportunities and barriers in the shift to renewable energy has been an impetus for the Pitt faculty and students to learn from and share with communities on accelerating this shift. Faculty members have collaborated with researchers examining the challenges and opportunities for the Just Transition in other fossil fuel extractive regions in the world, including India and Germany.
- The **Grid Institute** houses one of academia's most advanced electric power utility research entity. The lab focuses on advancing utility-scale power systems, incl. integrating distributed generation sources into microgrids.

Key Faculty in...

...Energy Transition

- **Shanti Gamper-Rabindran** (GSPIA/Econ/Law), political economy and legal issues in accelerating the shift to renewable energy and investments into fossil fuel legacy communities.
- **Brandon Grainger**, Engineering, Director of the Grid Institute. Innovations in microgrid design and deployment.
- **Tony Kerzman**, Engineering, Solar deployment in rural SWPA, agrivoltaics.
- **Daniel Mosse**, School of Computing and Information Sciences, energy efficiency in computing
- **David Sanchez**, Engineering. Sustainability in island nations e.g., Guam. The shift to renewable energy and distributed energy resources are important for greater resilience.

Pitt's gaps to reach its potential?

- **Priority Hiring:** Lawyer who works on **utility-law**.
Public Utility Commissions make major decisions that affect electricity distribution companies' purchase of renewable energy and hosting of distributed electricity generation. However, there is little public understanding of the role of PUCs. Briefs from law/policy/ engineering can improve public representation.
- Limited expertise in **renewable energy** (wind, solar, ...) and in **energy storage**, incl. battery research, despite critical role in energy transition.

Threats

- The “**Decarbonization**” narrative can be/has been co-opted to push for drilling down on fossil fuel reliance (see M. Mann’s ‘New Climate War’). All researchers must declare all funding sources in their websites or publications (at present, not required by several social sciences journals or white papers).
- **Competition:** Crowded field (many RE centers at US uni’s) may make it difficult to gain visibility. However, Pitt has unique research in sociotechnical aspects, such as tailoring policies to make RE compatible & financially beneficial to farmers and communities (e.g. agrivoltaic; Gamper-Kertzman MCSI seed grant), and reskilling of fossil fuel workers/communities to ensure inclusive transition (Gamper Carnegie Corp grant)

Pitt's strengths in...

...Water Sustainability

- The **Water Collaboratory** is a clear strength, and has brought collaborations across Dietrich and SSOE. Additionally, strong community actors have mobilized on water equity issues (Our Water Table, CONNECT)
- **Strong collaborations between the School of Public Health and SSOE** with several faculty having secondary appointments that help with the “safe water for all” end of things.
- Expertise on **microbial ecology within built infrastructure** (e.g. drinking water distribution systems) and **environmental justice** in the context of climate exacerbated flooding in homes in Pittsburgh (S. Haig), as well as expertise in **fate and transport of persistent contaminants** w/ implications for hindering circular economy/recycling and developing novel materials (sorbents) to treat emerging chemicals in drinking water (C. Ng).

Pitt's gaps to reach its potential?

- While we have strengths in urban water quality, we would benefit on building out strengths in **management of industrial wastewaters** and **industrial impacts on surface and groundwater** given the high level of industrial activity in the region (and link to energy transition).
- Important aspect of water sustainability is **equitable provision of safe drinking water**. We have faculty in the humanities, social sciences and policy that focus on water equity => Pitt would benefit from establishing an effective institutional mechanism that makes **collaboration across disciplines/areas** of study easier (find/build/link expertise on this with water quality experts). Faculty are often over-committed – how do we incentivize making the time and space to build integrative cross-school and cross-department strength?
- Potential for **industrial partnerships** and **innovation incubators** in the water space?
- *Key faculty:* Emily Elliott (GEO); Sarah Haig, Carla Ng, David Sanchez, Radisav Vidic (link to energy), and Meng Wang (all CEE); Marcela González Rivas (GSPIA), Ruth Mostern (History), Shalini Puri (Literature)

Threats

- **Industrial pushback** on water regulation.
- **High costs** of water infrastructure being passed down to consumers already facing high utility costs.
- **Difficulty engaging with local utility and regulatory stakeholders** (some are willing, many are not; also: lack of resources/ manpower on their end to engage).
- **Competition:** There are many schools with strengths in water – Pitt needs to carve out a unique niche.
- **Perception:** There is tremendous opportunity in “reimagining a rust belt city” but there may not be will to invest.

Pitt's strengths in...

...Circular Materials

- Pitt, jointly with Covestro LLC, has created the first **graduate program in Circular Economy** within the US which has gained significant visibility regionally and beyond.
- **MCSI**, (E. Beckman, M. Bilec) have established themselves as thought leaders on circular economy and design of materials for circularity.
- A nucleus of **research programs** on circular materials for the built environment (Bilec), and “plastic waste recycling” (Veser/Khanna/Masnadi)
- **UPCAM** and Pitt's involvement in **MDS-Rely** offer opportunities to embed efforts more broadly in the materials/AM research landscape
- Key faculty: E. Beckman (ChE), M. Bilec (CEE), V. Khanna (CEE), Marcus Chmielus (MEMS), Paul Leu (IE), Xiajun Zhao (MEMS)

Pitt's gaps to reach its potential?

- Bolstering expertise in materials for circularity would be useful **across different departments and schools**. Folks with experience in materials synthesis would complement existing strengths in materials characterization and systems analysis.
- Specific gaps:
 - No significant research on **bio-renewable materials** and processes.
 - Lack of **materials *design*** expertise.
- **Priority Hiring:** With Eric Beckman retiring, we are lacking a polymer chemist and “materials designer” with sustainability/circularity focus.

Threats

- Circular Economy is a **rapidly developing field** in the US. To maintain momentum and visibility, we have to move fast.
- CCEP program is currently heavily focused on (graduate) **education** => build a **research** arm to support the activities.
- Despite strong efforts, **industry engagement** has proven difficult.
- Currently, CE at Pitt seems largely confined to SSOE – we need **stronger engagement of researchers across campus** (incl. policy, business & law schools).

Project Ideas – Energy Transition

- **RE transition in former fossil fuel communities:** what are policies (siting, tax, fighting misinformation) and types of projects (community solar/agrivoltaics) that could be implemented? Pitt experts on science misinformation and on science-community education (e.g. Pitt School of Education), with interest in working with rural communities in SW PA, could be partners on this RE focused project.
Funding: DOE (MCSI seed grant to Gamper & Kerzman).

Project Ideas – Water Sustainability

- Exploring **decentralization of water treatment for more resilient infrastructure** in the face of climate instability.
- Documenting alternative **models of water service provision** (globally), within the context of understanding what constitutes public service provision in decentralized settings, what are actors involved beyond the public/private models.
- Funding:
 - [US EPA Environmental Justice in Communities](#)
 - [NSF Environmental Convergence Opportunities in CBET](#)

Project Ideas – Circular Materials

- Circular materials flow has two parallel research components:
Developing **circular processing schemes for existing materials**, and **designing materials for circular use** (e.g. polymers that “unzip” readily).
Both aspects are currently the focus of funding opportunities from **DOE** and **NSF**, as well as **industry partners, consortia/NGOs** (e.g. Alliance to End Plastic Waste), and **foundations**.
- We have several nucleating efforts in the area that can be grown into larger focused efforts:
 - *Plastic waste recycling*: Polyolefin recycling (**Pitt** Momentum, E. Beckman); Circular TPU (**industry**; G. Vesper); multiple **DOE** proposals (unsuccessful so far)
 - *Assessment & tracking of (waste) materials flows*: **NSF** Convergence Accelerator (M. Bilec)
 - *Accelerating transition to more sustainable alternatives to PFAS [...] through computational tools*: **NSF** Convergence Accelerator (C. Ng, led by IBM).

Project Ideas – Circular Materials

- Pitt has significant expertise in **Advanced Manufacturing (3D printing)**. Connect CE with AM? Topic: *"3D Printing for Circularity"*; unless done right, 3D printing could result in flood of new devices that cannot be disassembled (funding: DOE-AMO)
- Also, **blockchain technology** has significant potential for tracking sourcing of (clean) energy, materials, etc (but also has large energy footprint...). Pitt has core expertise across multiple schools (DOE, NSF)

Project Ideas – RE/CM

- **Renewable energy requires new materials – combine RE and CM tracks:**
Designing materials (and devices) for a circular renewable energy infrastructure: wind mill blades, solar panels, battery materials;
- This also has an aspect of ***global equity***: sourcing of materials and discarding
- ***Funding***: DOE – various programs; NSF; foundations; industry; could also be great topic for NRT and REU programs

Project Ideas – Water/CM

- **Global Environmental Justice Research Project**, which aims to understand the life cycle of removed **lead lines**. Research focus on implications of US environmental justice initiatives for environmental injustices abroad. Specifically, the research focuses on the implications of the lead line replacement program of the Biden administration, exposing limitations of the US government environmental justice lens.
- **Energy transition needs to move away from hazardous materials**, including PFAS which are components of batteries, solar panels, windmill blade coatings, and microchips. Pose a **water quality threat** given extremely low maximum contaminant limits proposed by EPA in drinking water. Will require innovation in many technical spaces (surface treatments for antifouling, durable materials for membrane design and microchip processing, etc).
- What to do with **contaminated biosolids from municipal and industrial wastewater treatment** that is more sustainable than incineration and less problematic than land application of bioaccumulative chemicals?

Activities

- Summer School on 'Regenerative Technologies'
Multi-day (week-long?) program that brings in experts on the three main themes (energy/water/materials) and a range of **graduate students** from across the US.
- Summer **REU program** with focus on interdisciplinarity (i.e. combine social scientists with engineers, pre-law students, etc)
- **Industry-academia- government forum** which brings together experts from all communities.
Kick off with a half day on overall theme, followed by half day on each topic; continued engagement throughout the year via a seminar series with industry/NGO/gov. speakers and roundtable discussions.
- Create new and complement existing **outreach events** (regionally, e.g. table at Alcosan open house)

With a lens towards...

- **Global:** Pitt's efforts on Energy Transition are well embedded in international efforts through research in US, India, and Germany as well as organization of international conferences; cont'd collaboration with M. Aklin (EPFL) and Miranda Schreurs (TU Munich) will strengthen connections to Europe.
- **Pittsburgh region:** Pitt has a MOU with the City of Pittsburgh and NETL on energy infrastructure sensor development; similar efforts in water & circular materials could be developed (on the materials side, partnerships with local sport teams developing)
- **Campus:** All three aspects (energy/water/materials) can take advantage of campus as "living lab"; while Pitt (through its Office of Sustainability, A. Sharrard) is very active in this area, faculty and students could be more firmly embedded; create space for incubators

Intersections

- Strong connection across all themes via *environmental justice focus*
- **Reclaiming:** Transition to regenerative solutions requires a sensitive discourse on “preserving our past to understand our future” and a new discussion of the ‘growth’ narrative.
- **Thriving Futures:** Energy transition has major implications for climate & health; urban food could be embedded into circular materials (food waste as source material)
- **Resilient Systems:** direct connection via “water” theme. Also, circularity incurs much stronger resiliency against disruption (e.g. more localized sourcing)



University of
Pittsburgh

Mascaro Center for Sustainable Innovation

Thriving Futures in the Face of Regional Change



Working Group Members

- Aaron Barchowsky- Public Health
- Corey Flynn- Physical Therapy
- Michael Glass- Sociology/Urban Studies (co-chair)
- Tina Ndoh- Public Health (chair)
- Mary Ohmer- Social Work
- Carissa Slotterback- GSPIA

Thriving Futures in the Face of Regional Change

Community engagement, leadership and collaboration are a must for *Thriving Futures* in the Greater Pittsburgh Region

Foundational questions to center communities:

- How do communities define their aspirations for future growth and success?
- What existing community plans define thriving futures? How do community plans mesh with institutional plans?
- How can Pitt leverage or develop trans-local partnerships to assist communities meet their goals for the future?
- How can Pitt's strategic partnerships and existing research (e.g., Newcastle University, The Pittsburgh Study) produce knowledge about thriving futures in other left-behind regions?

How do we define *Thriving Futures*?

Pittsburgh and the greater southwest Pennsylvania region are impacted by industry and energy extraction and are crucibles for reducing inequality. Strong translational research with community engagement will forge new advances that allow this region to become a model of thriving communities.

Thriving Futures in the Face of Regional Change seeks community engaged solutions that leverage the realities of regional change to build sustainable futures.

- Communities thrive when they define and enact their vision for the future;
- Pitt can partner with communities to tackle interconnected problems including food insecurity, health disparities, climate change, and economic shifts.

We measure success by centering the needs and future aspirations of individual communities while creating trans-local partnerships to help the entire region thrive.

Thriving Futures Strengths @ Pitt*

- Urban Food
 - Education and Training (e.g., ScholarChefs Program)
 - Campus Community Garden
- Climate and Health
 - Center for Human Environmental and Equity Research (CHEER)
 - SSOE/SPH pilot research projects (climate, EJ, and/or global health focus)
- Sustainable Healthcare
 - SRHS wellness pavilion at Homewood CEC
 - Healthy Home Lab
 - UPMC Center for Sustainability
 - Hillman Cancer Center
- Social and Economic Support
 - Recast Violence Prevention
 - Pittsburgh Study
 - Child and Youth Thriving Matrix
 - Appalachian Regional Commission Partnership

*Additional strengths and community partners in appendix

Intersections with other Themes

The revision of the theme to *Thriving Futures in the Face of Regional Change* provides intersection with the principles of:

- Ecological Justice in *Resilient Ecological Systems*
 - Opportunities for Law School, GSPIA and Environmental Science to develop community road maps with just ecological principles and policies
- Just Energy *Transition* in the *Regenerative Solutions*
 - Chance to build on SSOE/SPH engineering and health pilot projects to build out portfolio of equitable climate health solutions.
- The community engaged focus will have multiple intersections with the *Reclaiming Environmental Discourse and Media* group
 - Project ideas include dialogical analytics from community focus group to understand community preferences for the future of the region

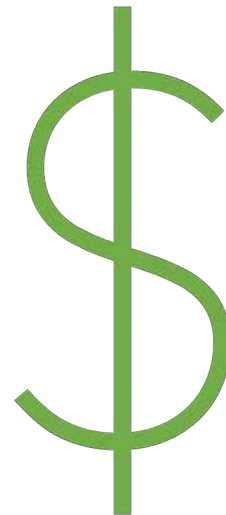


Pitt's gaps to facilitating Thriving Futures

- Research
 - Desire for community engaged research lacks funding support
 - University could use additional expertise in interdisciplinary community health and regional development; specifically climate health, political ecology, and regional economic development
- Education
 - Opportunity to provide EJ Education offerings (efforts underway)
 - Increased external education with Osher Institute and community partners
- Practice
 - Opportunity to create community toolkits
 - Opportunity to leverage J40 related funding- how do we connect communities to the opportunities?
 - Opportunity to cohere Pitt's community focused centers

Funding Opportunities

- Under consideration/in progress
 - NIEHS P30 Environmental Science Core
 - NIEHS P42 Superfund research (theme TBD)
 - NSF NRT EJ Training
 - NSF Engines awards (Regional Innovation)
 - USDA Rural Community Development Initiatives



Appendix: Pitt and Community Partners Resources for Thriving Futures

Urban Food	Climate and Environment	Sustainable Healthcare	Social and Economic Support
<p>Nutrition Education</p> <ul style="list-style-type: none">ScholarChefFood Secure City, E.A.T Initiative, and Everyday CaféAmboy Urban Farm CollectiveFeed the HoodCommunity Kitchen Pittsburgh (CKP)	<p>Pitt Research Centers</p> <ul style="list-style-type: none">Center for Human Environmental and Equity Research (CHEER)Asthma and Environment Lung Health Institute (AEHLI)Center for Healthy Environments and Communities (CHEC)Water Collaboratory	<p>SHRS Wellness Pavilion in Homewood</p> <ul style="list-style-type: none">ADAPT Program	<p>Child and Youth Thriving Matrix, The Pittsburgh Study and ReCAST Violence Prevention Project</p> <ul style="list-style-type: none">Mary Ohmer (School of Social Work), UrbanKind Institute, Neighborhood Resilience Project; Department of Human Services
<p>Community Gardens- Grow Pittsburgh</p>	<p>Asset mapping in Fayette County</p> <ul style="list-style-type: none">Focus on natural and social resources	<p>Physician Assistant (PA) - Street Medicine</p>	<p>Community Partners</p> <ul style="list-style-type: none">UrbanKind Institute Equitable and Just Greater Pittsburgh (EJGP)
<p>Regenerative Agriculture</p> <ul style="list-style-type: none">Garfield FarmHilltop Urban FarmBlack Urban Gardens (BUGS)	<p>Community Partners</p> <ul style="list-style-type: none">Sustainable PittsburghUrbanKindWomen for a Healthy EnvironmentBreatheCancer and Environment Network of SWPAEnvironmental Health Project	<p>Occupational Therapy (OT)</p> <ul style="list-style-type: none">Healthy Home LabTrauma -informed design	<p>Advocacy and organizer training for equitable development and equity issues</p> <ul style="list-style-type: none">Mary Ohmer, and UrbanKind EJGP
<p>Food Hubs</p> <ul style="list-style-type: none">Freedom Foods in HomewoodOasis Farm & Fishery	<p>Center for Sustainable Business</p>	<p>UPMC Center for Sustainability</p>	<p>ARCI (Fayette County)</p> <ul style="list-style-type: none">Michael Glass, Kris Kanthak, David Sanchez, Bryan Schultz
	<p>Choice Neighborhoods</p>	<p>Hillman Cancer Center</p>	



Working Group Resilient Ecological Systems

June 5, 2023

Dan Bain, Justin Kitzes, Matthew Kropf, Cori Richards Zawacki, Patrick Shirey (chair), John Walsh



Resilient Ecological Systems

The Resilient Ecological Systems Initiative within the Mascaro Sustainability Institute is an integrated, cross-cutting effort to coordinate student experience, connect people, and build understanding of socio-ecological systems through research and education at the University of Pittsburgh.



The University of Pittsburgh leads in student experiential learning in resilient ecological systems

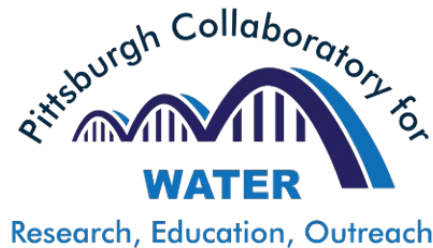
- Pymatuning summer classes and research in ecology (can expand to languages and humanities)
- Pitt Bradford has 400-acre wooded parcel adjacent to campus
- Geology and Environmental Science Programs (Wyoming & Yellowstone)



Intersections – Environmental Justice

Research foci	Water equity 	Food equity 	Air equity 	Health equity 
Core research areas	Ecology, hydrologists, environmental engineers and scientists, microbiologists	Nutrition, soil remediation, environmental engineers and scientists, public policy, law	Air quality, data science, public health, environmental engineers and scientists, public policy	Public policy, statistician, urban planning, clinicians, engineers
Example core research questions	How did major historical infrastructure projects) permanently alter the environment across the urban landscape? How did these changes interact with and reinforce historical patterns of racial and ethnic segregation to form environmental injustices?			
Community Partners				

Pitt Water Collaboratory Community Partnerships



GetTheLeadOutPgh



Exploring

- **basement flooding** impacts to resident exposures

Need: How is Pittsburgh basement flooding impacting resident health?

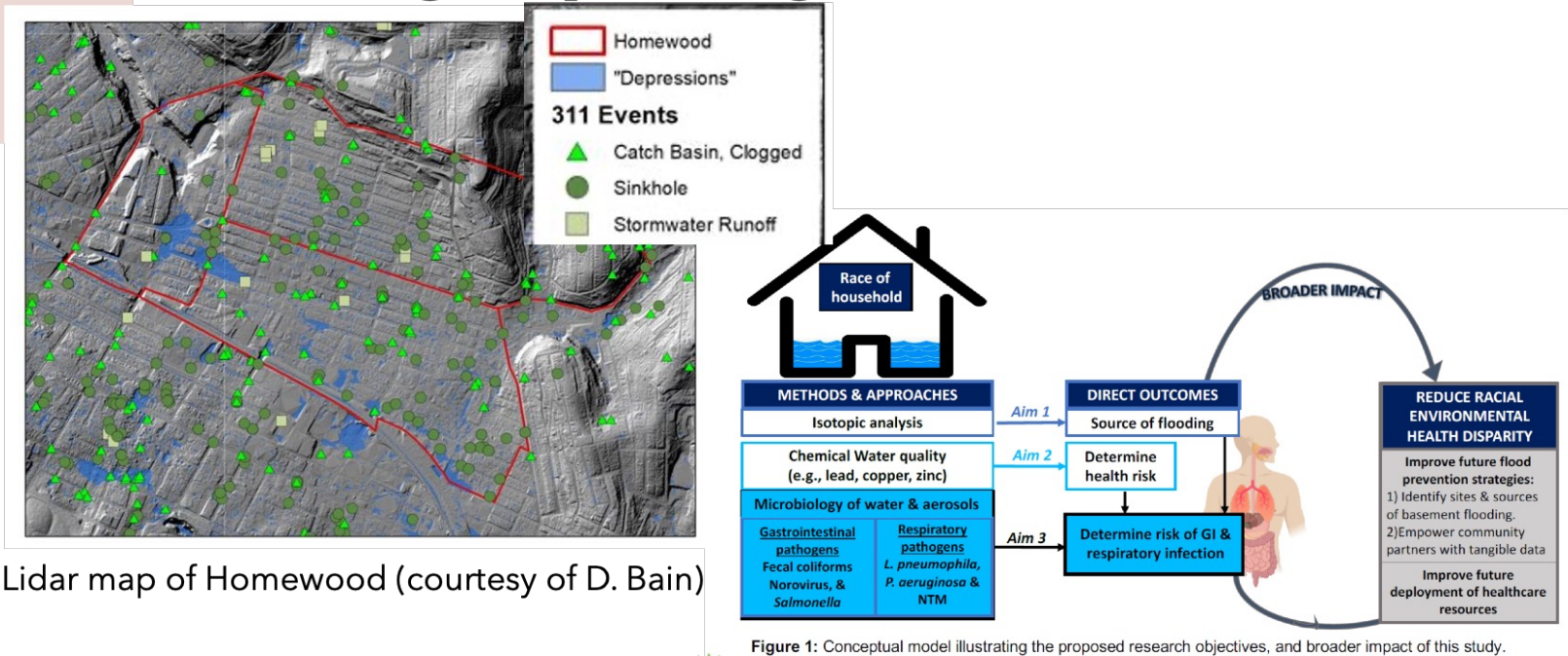


Figure 1: Conceptual model illustrating the proposed research objectives, and broader impact of this study.

Haig, Isaiah-Williams, Bain, Elliott, Smallwood
WHE: Musil, Narakati-Chaptkis, Beightley

WOMEN
for a Healthy
ENVIRONMENT

Funding: Pittsburgh Foundation

Thinking beyond Clean Water Act requirements - How can we use Infrastructure to provide access to nature in all communities?



"Every Neighborhood has a Naturehood"
USFS (DiscoverTheForest.org)



But is that
naturehood
accessible in our
built
environments?

Adjacent to billboard
-commercial
development to
stream edge and no
public access



Plum Creek, border of Oakmont - Verona

A Nature-based approach can unlock additional funding for large projects plus community benefits

Churchill Valley Greenway - Allegheny Land Trust



151 acres of green space accessible to 95,000 people within 3 miles
<https://alleghenylandtrust.org/green-space/churchill-valley-greenway/>

Threats to the Resilient Ecological Systems approach

- External
 - Others have major donated endowments for schools/institutes
 - e.g., Stanford Doer School of Sustainability (\$1B)
 - e.g., UNH Sustainability Institute endowed for >25 years (<https://www.unh.edu/sustainability/about>)
 - Other universities in our region have larger groups of faculty
 - Ohio State
 - Penn State
- Internal
 - Tuition costs for NSF grant proposals (e.g., NSF NRT training grant tuition adds >30%)
 - Need for collaborative space and events

Gaps to reach our full potential

- Hiring Needs – Socio-ecological systems
 - NSF DISES requires integrated approach, interdisciplinary team
- Postdoctoral scholars for sustainability
 - Pitt Geology and Environmental Science has hosted speakers from Stanford
- Facilities – Collaborative space
 - Department Silos are a barrier

Internal support to integrate social and ecological system studies will improve external funding competitiveness

Examples:

- NSF NRT (EJUST competitive in 2022 with resubmission planned in 2023; PI: Bilec)
- NSF DISES (Dynamics of Integrated Socio-Environmental Systems; annual November 15)
- NSF Urban LTER (infrequent opportunity; last effort led by PI Emily Elliott) - won by Minnesota (\$7m)
- Private Foundations (RKMF, Heinz, Colcom)





Working Group: Environmental Discourse

June 5, 2023

**Drew Armstrong, HAA
Frayda Cohen, GSWS
Sarah Moore, Film and Media Studies
Ruth Mostern (chair), History
Jeremy Weber, GSPIA**



Environmental Discourse

- A research cluster focused on **creative, critical, curatorial, communicative and political** dimensions of sustainability research and challenges. Our activities fall into five research areas:
 1. Worldviews and Ideologies
 2. Narrative
 3. Creative Expressions
 4. Power and Politics
 5. Persuasion
- While these five research areas are interdependent, this sequence reflects the fact that Power, Politics, and Persuasion rely on unstated Worldviews, Ideologies, and Narratives.

Environmental Discourse:

(1) Worldviews and Ideologies

- How do all the disciplinary tools of the university (from fine arts to the humanities to science) contribute to articulating affirmative ideas about the sustainable and reparative futures to which we aspire: ones that are just, equitable, and creative?
- What has it meant to be human in relationship to other people, other living beings, the non-human world, and ancestral or divine beings? How do such frameworks determine how people explain environmental pasts and presents?

Environmental Discourse:

(2) Narrative

- How do stories about change over time (from fiction, history, data science, journalism, and elsewhere) explain how human and non-human actors have shaped environmental change?
- What theories of social organization and social change (such as growth and degrowth, sustainability, social metabolism, loss, and collapse) shape existing and potential narratives, and in what ways?
- How do people articulate their worldviews through the stories they tell?

Environmental Discourse:

(3) Creative Expression

- How do people represent the non-human world and human relations to it in writing, film, exhibitions, art, landscapes and built environments, games, computer code, datasets, legislation, white papers, and other domains?
- How can creative and mindful communication and curation invite sustainable futures?
- How do people express personal, spiritual, and emotional responses to the nonhuman world and its unsettling and rapid changes?

Environmental Discourse:

(4) Power and Politics

- How can we describe, analyze, and critique relations of social power, and past and present political and economic arrangements, all of which present challenges and opportunities for sustainable futures?
- How can we use the tools of politics and of social movement practice and theory to help create the futures we want?

Environmental Discourse:

(5) Persuasion

- What do people believe about sustainability and the environment, and why? How do people become convinced of their positions?
- Who peddles climate disinformation, and why? How do we offer stories and metaphors that combat disinformation and despair and inspire action?

With a lens towards our region (1)

- Pittsburgh's industrial and postindustrial arc of development, contraction, and regeneration (creating a present-day city with elements that we might both celebrate and critique) anchors and inspires our narratives of past and future, even as we also invite global research.
- In an era of contentious politics in the United States, southwestern Pennsylvania concentrates a vast range of ideals and visions within a small area.

With a lens towards our region (2)

- Here, we are connected to robust and urban cultural institutions (museums, libraries, foundations, universities), and likewise to neighborhoods and communities that have been hollowed out by racism, toxic chemicals, and disinvestment and that face significant challenges to human flourishing.
- From the Carboniferous Era to the present, this has been a region of global significance in the history of fossil fuel consumption, labor, extraction, and environmental impacts.

Pitt's Strengths in Environmental Discourse

- Proximity to Carnegie Museums, Carnegie Library, the University Library, and other cultural institutions focused on communicating about the environment to the public, such as the Aviary, Rivers of Steel, and Phipps. Deep expertise in exhibition and communication outside the university.
- Pittsburgh-based foundations that fund exhibitions and performing arts.
- Globally-oriented centers, institutes and schools such as GSPIA, UCIS, World History Center
- Relevant curriculum and research expertise in SCI, Law, GSPIA, Public Health, Mascaro Center and the School of Engineering, the Center for Governance and Markets, UCIS, the Humanities Center, and DSAS (especially the social sciences and humanities)
- Pitt-CMU Environmental Humanities Research Seminar

SEP 22
SEMINAR / 4:30

**The Wild Side: Guanacos and Commercial Hunting
in Southern Patagonia**

JOHN SOLURI, Associate Professor of History (CMU)
Respondent: KALLIANE UNG, Assistant Professor of French (Pitt)

OCT 21
PUBLIC LECTURE / 4:30

**Critiquing Hegemony, Creating Food, Crafting
Justice: Cultivating an Activist Feminist Food Studies**

OCT 22
SEMINAR / 12:00
ALICE JULIER, Associate Professor, Food Studies Director (Chatham)
Co-sponsored with CMU Humanities Center's Climate Justice Initiative

NOV 11
PUBLIC LECTURE / 4:30

The Anthropocene: Epoch of Loss

MICHAEL GOODHART, Associate Professor of Political Science (Pitt)
NOV 12
SEMINAR / 12:00
RUTH MOSTERN, Associate Professor of History (Pitt)
Co-sponsored with CMU Humanities Center's Climate Justice Initiative

**The Dated Animal: Big Data and
Wildlife Conservation**

EMILY WANDERER, Assistant Professor of Anthropology (Pitt)
Respondent: BONNIE FAN, PhD Candidate in HCI (CMU)

JAN 26
SEMINAR / 4:30

**Islands in Flux: Migration and Ecological Change in
Early Modern Isolari (Books of Islands)**

JAMES COLEMAN, Assistant Professor of Italian (Pitt)
Respondent: EMMA SLAYTON, Archaeologist and Data Specialist (CMU)

FEB 23
SEMINAR / 4:30

**20th and 21st Century French and Francophone
Studies International Colloquium**

A conversation with MICHAEL FERRER, Writer and Professor (Chuo University, Tokyo),
author of *The Eye of the Storm: Art in the Time of Fukushima*

**ENVIRONMENTAL
HUMANITIES
RESEARCH
SEMINAR**
2021 - 2022

University of Pittsburgh
Humanities Center

For questions contact John Walsh at jpw64@pitt.edu

Carnegie Mellon University

Schreibman Institute for Environmental Education & Research
Department of History

All times are US EST. Event formats and
locations will vary from month to month.
Please see QR for details.

Environmental Humanities Research Seminar

The Environmental Humanities Research Seminar is a joint initiative that connects scholars at the University of Pittsburgh with their counterparts at Carnegie Mellon University. EHRS provides a cross-institutional, interdisciplinary venue where graduate students, postdoctoral fellows, and faculty share research with colleagues outside their immediate fields and engage in generous intellectual exchange.

After five years of seminars – the last two online – EHRS is taking a brief pause this academic year in order to assess the goals and format of the seminar. To that end, we held an initial brainstorming meeting in November 2022, and we will meet again in February 2023 to identify a theme and event formats for AY 23-24. Please join us in envisioning the future of EHRS as a cross-institutional, interdisciplinary endeavor.

Co-Organizer

Noah Therlault

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Phone: 412-268-9301

Email: noah@andrew.cmu.edu

Co-Organizer

John Walsh

Office Phone: 412-624-5220

Email: jpw64@pitt.edu

Strengths and Opportunities for Collaboration. The 2023-24 EHRS theme is *Sedimentation*. We are considering a 2024-25 theme of *Water*.

An interdisciplinary committee from Pitt, CMU and the Carnegie Museum of Natural History is planning a curriculum roundtable in the fall and a research seminar in the spring. We aim to bring together faculty from the humanities, social sciences, natural sciences, and engineering.

22
FEB



TOPIC

Sustainability

COST

Free

UNIVERSITY UNIT

Mascaro Center for Sustainable
Innovation, Office of Sustainability

HASHTAG

#greenspeakeasy

SUBSCRIBE



Green Speakeasy & Research Slam: Environmental Humanities

This is a past event.

The Environmental Humanities at Pitt

How does Humanities scholarship engage with environmentalism? Sustainability? Climate Change? Biodiversity loss?

Hear from Pitt Humanities faculty and graduate students covering their research projects in an accessible and enjoyable way.

Join us for light snacks and 2 complimentary drinks.

All faculty, staff, and graduate students welcome to attend.

Co-Hosted by the Mascaro Center for Sustainable Innovation and The Humanities Council

🕒 Wednesday, February 22 at 3:30 p.m. to 5:30 p.m.

📍 University Club, Gold Room
123 University Place, Pittsburgh, 15213

Green Speakeasy Research Slam



FEBRUARY 22, 2023

3:30 pm - 5:30 pm

University Club, Gold Room

MODERATED BY:



Todd Reeser
Chair, Humanities
Council and
Professor of
French

*Light snacks and 2
complimentary drinks
provided.*

*All faculty, staff, and grad
students are welcome.*

RSVP *required*

Presented by:
**Mascaro Center for
Sustainable
Innovation and the
Humanities Council**

SLAMMERS

Drew Armstrong
History of Art and
Architecture

Ruth Mostern
History

Daniela Fargione
Italian

Leopold Mvuezolo
French

Aaron Henderson
Studio Arts

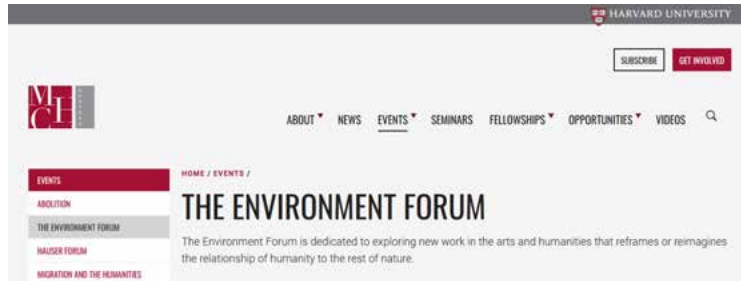
Vicky Shen
History

Zach Horton
English

John Walsh
French

Apala Kundu
English

Molly Warsh
History



ENVIRONMENTAL HUMANITIES

ABOUT

The environmental crisis has found its way into many disciplines of the humanities such as environmental philosophy, ecocriticism, cultural anthropology, environmental history, political ecology, and many others. And each of these disciplines has their own unique approach to the environmental problems engulfing us today. The environmental humanities is an interdisciplinary area of study that brings together these environmental perspectives.

Environmental discourses

P Mühlhäusler, A Peace - Annu. Rev. Anthropol., 2006 - annualreviews.org

... We define **environmental discourse** as comprising the linguistic devices articulating arguments about the relationship between humans and the natural environment, but we restrict the ...

☆ Save 📄 Cite Cited by 196 Related articles All 9 versions Web of Science: 39 🔗

Greenspeak a study of **environmental discourse**

R Harré, J Brockmeier, P Mühlhäuser - 1998 - philpapers.org

... In this interdisciplinary examination of the **discourse** of ... aspects of **environmental discourse**; rather than **environmental** ... both sides of the **environmental** debate between 'conservationists' .

☆ Save 📄 Cite Cited by 663 Related articles All 5 versions 🔗

Environmental discourse and sustainable development: Linkages and limitations

MS Haque - Ethics and the Environment, 2000 - Elsevier

... In recent years, the **environmental discourse** has ... hardly addressed the critical **environmental** and ecological issues. ... are often indifferent towards the **environmental** costs of economic ...

☆ Save 📄 Cite Cited by 135 Related articles All 9 versions 🔗

How do we know we have global **environmental** problems? Science and the globalization of **environmental discourse**

PJ Taylor, FH Buttel - Geoforum, 1992 - Elsevier

... the special relationship between **environmental** science and ... **environmental discourse**, moral and technocratic views of social action have been privileged; and (3) global **environmental** ...

☆ Save 📄 Cite Cited by 425 Related articles All 3 versions Web of Science: 155 🔗

Any competition? Many humanities centers host environmental humanities initiatives. There is a lot of writing about Environmental Discourse. **However, there seem to be no interdisciplinary Environmental Discourse initiatives or centers.**

Threats and Gaps

- The humanities are not well represented in the Environmental Studies major, and there is no major, minor, or certificate in Environmental Discourse.
- Funding and staffing for the Humanities Center is limited.
- There is no existing Center or Institute where faculty and students interested in Environmental Discourse to gather and collaborate.
- Faculty and graduate students working on Environmental Discourse topics are still relatively few and are dispersed across campus.
- Interdisciplinary work is difficult, especially when it involves community partners and potentially contentious topics.

Science, the Environment and Society (CRISES)

[← Search for more funding opportunities](#)

i Important Information for Proposers

Any proposal submitted in response to with the NSF Proposal & Award Policies

The U.S. National Science Foundation seeks to build research capacity and infrastructure to address complex and compounding national and global crises whose solutions require a human-centered approach. To help generate effective and long-lasting solutions that benefit the entire U.S. public, NSF is providing this funding opportunity to inform possible future Centers for Research and Innovation in Science, the Environment and Society (CRISES).

Supports interdisciplinary research to create evidence-based solutions that strengthen human resilience, security and quality of life by addressing seemingly intractable challenges that confront society.

Synopsis

The U.S. National Science Foundation seeks to build research capacity and infrastructure to address complex and compounding national and global crises whose solutions require a human-centered approach. To help generate effective and long-lasting solutions that benefit the entire U.S. public, NSF is providing this funding opportunity to inform possible future Centers for Research and Innovation in Science, the Environment and Society (CRISES).

The envisioned centers will catalyze new research and research-based innovations to address seemingly intractable problems that confront our society. They will develop evidence-based solutions that address fundamental quality-of-life issues, such as those involving the environment, extreme weather and sustainability; workforce and the economy; equity and access to opportunities; and well-being.

Upcoming due dates

Full proposal

2023

June 26 2023 - Target date

Program guidelines

Apply to **PD 23-265Y** as follows:

Full proposals submitted via Research.gov:
[NSF Proposal & Award Policies & Procedures Guide](#) proposal preparation guidelines apply.

Full proposals submitted via Grants.gov:
[NSF Grants.gov Application Guide: A Guide](#)



Education and Engagement Working Group

Nicola Foote, Allyson Delnore, Jennifer Wasco, Cassie Quigley, David Sanchez (Chair)

June 5, 2023



Working Group Members

Allyson Delnore (UCIS)

Nicola Foote (FHC)

Cassie Quigley (EDU)

Jennifer Wasco (NURS)

David Sanchez (ENGR)

What does Education and Engagement focus on at an Institute level?

“The Education and Engagement group is a university-wide team focused on synthesizing Pitt expertise and partnerships to translate sustainability knowledge to our students and add value to the world by engaging both our local and global communities.

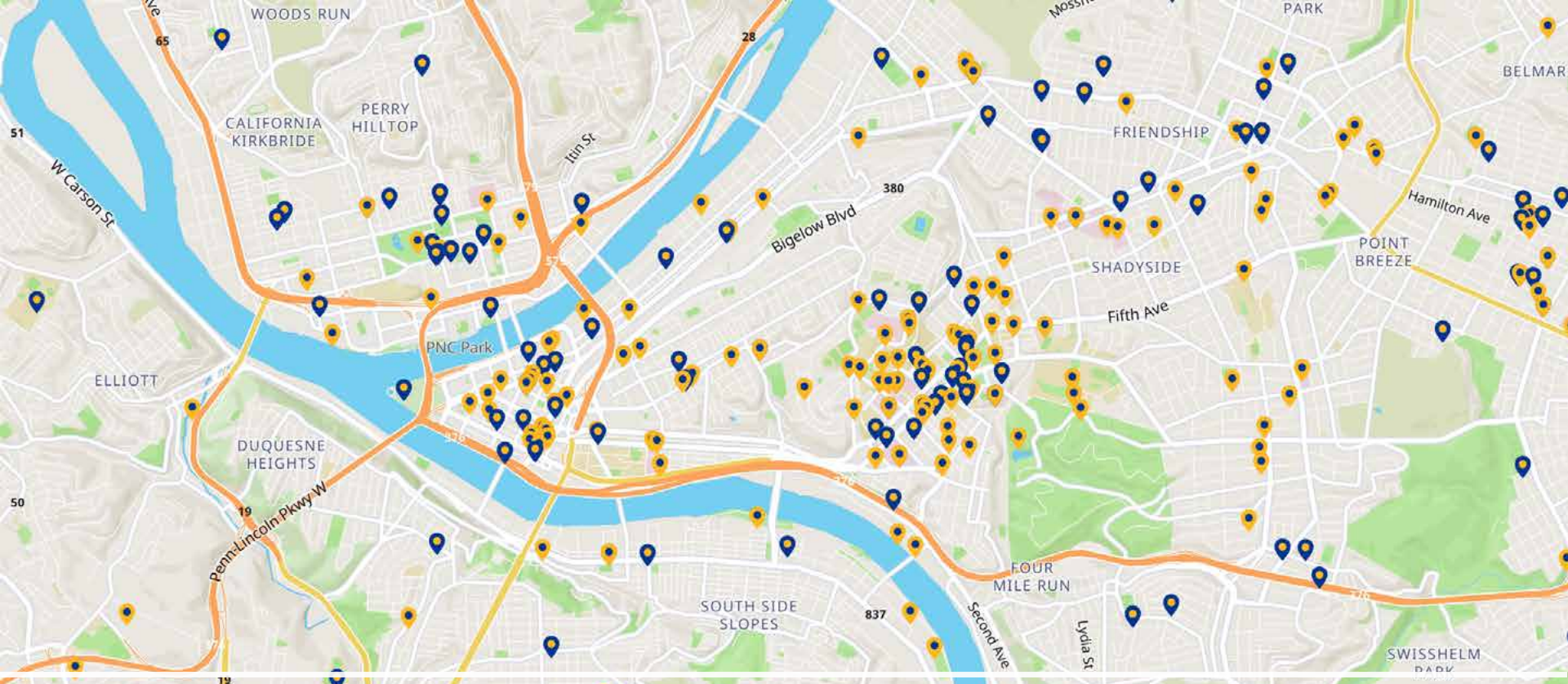
Pitt Faculty are interested in Sustainability

- Diversity of Faculty Expertise w/ growing interest in Sustainability across Schools

- Dietrich School of Arts and Sciences
- Public Health
- Education
- Computing and Information
- Graduate School of Public International Affairs
- Nursing
- Health and Rehab Sciences
- Business
- Frederick Honors College
- Social Work
- Swanson School of Engineering
- Law

Pitt's Strength in Education

- Novel Interdisciplinary Experiences for Students
 - University-wide Academic programs
 - Sustainability Certificate
 - Sustainability Distinction (e.g. Global, Civic Engagement etc.)
 - Academic Courses Inventory is growing!!
 - (> 200 focused courses, >300 related)
 - Increasing focus on Impact and Innovation for students
 - Big Idea Center for Entrepreneurial
 - Scholar Communities in the Frederick Honors college
 - Innovation Distinction
 - Extra Curricular Opportunities – SOOS, OCC
 - <https://www.sustainable.pitt.edu/get-involved/students/academics/>



Pitt's strengths in Engagement



Pitt's strengths in Engagement

- Community Engagement
 - Community Engagement Centers (Homewood, Hill District, Hazelwood site is coming)
 - Carnegie Classification for Community Engagement
 - Student Participation is increasing
 - Incorporating Environmental Justice into Research and classes
 - Incredible lists of programs (clinics, classes forums, workshops, participatory research, seminars, student projects, teacher training)
 - ATP, ScholarCHEF, Pitt Hydroponics
- Global Engagement – UCIS/GEO
 - Global Studies Center, Center for Latin American Studies, Asian Studies Center, European Studies Center, Center for Russian, East European and Eurasian Studies, Center for Ethnic Studies Research
 - Stipends, research opportunities, language fellowships,
- Non-Profit Partners (by school)

Growing Industry Engagement in Sust. Education at Pitt



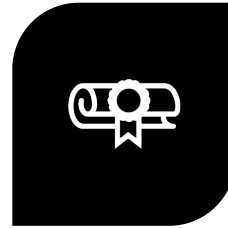
Pitt Gap: Developing and integrating faculty for larger initiatives



A DEVELOPMENT
PATHWAY FOR FACULTY
TO BRIDGE THEIR
EXPERTISE INTO
SUSTAINABILITY/SYSTEMS
THINKING.



RESOURCES
TO SUPPORT COLLABORATIVE
INTERDISCIPLINARY
FACULTY TEAMS TO
DEVELOP COURSE AND
LEARNING
EXPERIENCES FOR OUR
STUDENTS



DEPT./SCHOOL/UNIVERSITY
RECOGNITION
FOR SUSTAINABILITY
CONTRIBUTIONS IN
ANNUAL
REPORTS/REVIEWS ETC.



OUR BEST PRACTICES
FOR NOVEL ACADEMIC
COLLABORATIONS ARE
SILOED OR SUPPORTED
MOSTLY BY
FACULTY/STAFF
VOLUNTEERISM

Project Ideas/Activities



**Sustainability
Across the
Curriculum
Faculty
Workshop**



**Build out tracks
for the
Sustainability
Certificate**



**Infuse
university-wide
expertise in
*Current
Issues* course
by rotating
expertise across
schools**

Further demonstrate
the co-teaching model
(across schools)



**Seed funding
program (like
Faculty Fellows)
to support
faculty
facilitated
experiential
learning
initiatives**



**Develop Sust.
Institute
inventory of
expertise
(speaker bureau,
expertise
primers)**

Threats

Internal

- Resources to coordinate and incentivize across Pitt
- Aligning Dept./School level reviews/incentives for both faculty and leadership to work on Sust. Education
- Potential view as competition between or w/ schools with new budget model
- Sust. Education/Experiences rank as a development priority

External

- Competing w/ Sust. Offerings at other universities
- Uncertainty about resources for long-term engagement partnerships
- Scaling our engagement so that it is consistently addressing Industry/Gov't/Non-profit needs

Funding Avenues to Support

- Internal
 - Cost recovery for courses, Micro-credentials, Pitt Professional Classes - <https://pittprofessional.catalog.instructure.com/>
- Grants/Scholarships
- Research
 - Industry Projects
 - NSF ExLent- Experiential Learning for Emerging Technologies
 - NSF – Division of Undergrad Education
 - NSF – IUSE- Improving Undergraduate STEM Education
 - NSF- AISL- Advancing Informal STEM Learning
 - Appalachia Regional Commission
 - NIEHS – NOFO/CHEER/CEN(Cancer/Environ Network)SWPA
 - NRT and REU (Melissa)
- Philanthropy

Reclaiming environmental
discourse and media

Chair: Ruth Mostern

Environmental justice,
film studies, media
disinformation

Preserving our past to
understand our future

Degrowth/growth

Climate anxiety

Regenerative solutions
respecting planetary
boundaries

Chair: Goetz Vesper

Just Energy Transition

Water Equity

Circular Economy and
sustainable materials

Complex, sustainable
systems

Thriving futures in the face of
climate change

Chair: Tina Ndoh

Climate and Health

Community resilience and
equitable built
environment

Urban Food

Sustainable healthcare

Resilient ecological systems

Chair: Patrick Shirey

Ecological Justice and
Natural Resources

Ecosystems

Water

Biodiversity

Education

Community Engagement, Global Engagement, Industry Engagement