

IMPACT: DYSON

FALL / WINTER 2022



Cornell
SC Johnson College of Business

Cornell
CALS
College of Agriculture
and Life Sciences

FROM OUR COLLEGE DEANS

FALL / WINTER 2022

BENJAMIN HOULTON

RONALD P. LYNCH DEAN
COLLEGE OF AGRICULTURE
AND LIFE SCIENCES



Cornell's College of Agriculture and Life Sciences (CALS) is delighted to partner with the SC Johnson College of Business and Dyson School on many impactful collaborations at the intersections of agriculture and food systems, economics, climate and sustainability, and technology. As CALS works to fight climate change and protect our world's food supply, Dyson's pioneering policy and market-based expertise will become increasingly critical. CALS Roadmap to 2050 Strategy, designed to help tackle these issues, will draw from Dyson's legacy of assisting farm and food communities with research on commodity markets, supply chain concerns, regulatory and labor market dynamics among other areas of expertise.

ANDREW KAROLYI

CHARLES F. KNIGHT DEAN
CORNELL SC JOHNSON
COLLEGE OF BUSINESS



Our partnership with the College of Agriculture and Life Sciences (CALS) is built on our deep commitment to assuring that business education has a direct immediate and long-term positive impact on people's lives. At the Cornell SC Johnson College of Business, faculty and staff collaborate across our member schools—the Charles H. Dyson School of Applied Economics and Management, the Samuel Curtis Johnson Graduate School of Management, and the Cornell Peter and Stephanie Nolan School of Hotel Administration—as they forge breakthrough approaches to financing and managing the green energy transition, improving global food systems, ensuring equitable economic development on a global and local scale, and more.

FROM DYSON DEAN JINHUA ZHAO

FALL / WINTER 2022



Colleagues:

Welcome to the latest edition of our developing communication, *Impact: Dyson*. This project will likely experience several more shifts before we settle on its final shape, but every version will spread awareness of Dyson's ongoing work in local, regional, national, and global communities. These connections are our contribution to a better world.

This issue highlights the contributions of our faculty, alumni, and students to the growing area of the business of sustainability. It showcases their work on environmental, social, and governance (ESG) issues, on climate and biodiversity finance, and on impact investing and business practices. As an environmental economist who has worked on government environmental policies for decades, I know how important the private sector is in promoting sustainability, both as partners and as leaders. I am heartened to see how Dyson is leading sustainability scholarship and is impacting the broader business community in sustainability practices. This issue of *Impact: Dyson* also intentionally adopts a more community-focused approach, with student writing about Cooperative Business Management community projects, with conversational exchanges with faculty, with alumni talking about their current work and priorities, and more.

Dyson truly is unlike any other business school, with arms across two Cornell colleges, the College of Agriculture and Life Sciences and the Cornell SC Johnson College of business. (You can read a succinct history [here](#).) I'm grateful to have deans Houlton and Karolyi as partners supporting the world-changing teaching, learning, and innovating being done here.

Again, thank you for reading. While we experiment with different formats of this publication, I can assure you that with so much going on at Dyson, each issue will offer deep insights about our collective and collaborative efforts in making the world a better place.

Sincerely yours,
Jinhua Zhao

A handwritten signature in black ink that reads "Jinhua Zhao". The signature is fluid and cursive, with the first name and last name clearly distinguishable.

Jinhua Zhao

Professor of Applied Economics and Policy

David J. Nolan Dean

Charles H. Dyson School of Applied Economics and Management

Cornell SC Johnson College of Business

College of Agriculture and Life Sciences

Cornell University

WE ASKED DYSON FACULTY

ABOUT THE **IMPACTFUL WORK** THEY'RE DOING

Catherine Louise Kling

"My research continues to focus on quantifying the social costs of water pollution (damage to the environment, health care). I work closely with economists and the Environmental Protection Agency who are tasked with regulatory and policy analysis to support the goals of clean water in the country."



Tisch University Professor
Faculty Director, David R. Atkinson Center for a Sustainable Future
Editor-in-Chief, *Review of Environmental Economics and Policy*

WHAT SHOULD PEOPLE DO REGARDING THEIR **ENVIRONMENTAL IMPACT** IN THE NEXT 1-5 YEARS?

"While the private sector is a remarkable driver of innovation and growth, it will not direct resources to environmental improvement unless adequate financial incentives are in place. Those incentives can only be provided by policy change. The most important thing people can do is to support and vote for politicians that support policies that will motivate private industry to move to greener products and production processes." -- Cathy Kling

WE ASKED DYSON FACULTY

ABOUT THE **IMPACTFUL WORK** THEY'RE DOING



Assistant Professor
Susan Henry Sesquicentennial Faculty Fellow

Todd Gerarden

I am working on several environmental research projects this year. In one, I am studying how domestic trade policies such as the “Trump tariffs” affected the solar power market. Another area I am focusing on now is innovation in energy technologies. I am using data on Ph.D. dissertations, scientific publications, and patents to better understand how market forces and government policies like Department of Energy funding for research and development can lower the cost of mitigating climate change.

WHAT SHOULD PEOPLE DO REGARDING THEIR **ENVIRONMENTAL IMPACT** OVER THE NEXT 1-5 YEARS?

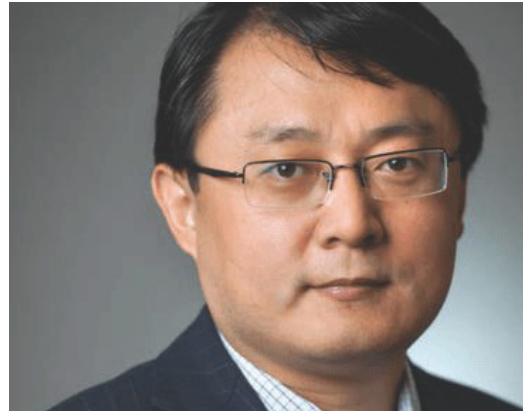
“I recommend prioritizing policy change over individual action. One way to do this is through philanthropy. Giving Green (givinggreen.earth) provides evidence-based recommendations to donors concerned about climate change.” -- Todd Gerarden

WE ASKED DYSON FACULTY

ABOUT THE **IMPACTFUL WORK** THEY'RE DOING

Shanjun Li

My research project [The Global Diffusion of Electric Vehicles: Lessons from the First Decade](#) was cited in this recent Economist article, [How to Encourage Electric Car Use.](#)

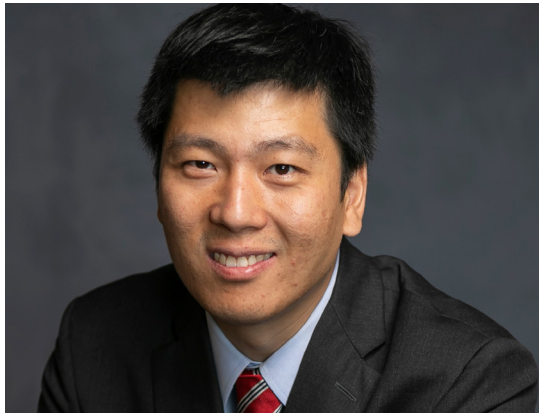


Professor
Director of the Graduate Studies Program
Faculty Director, Cornell Institute for
China Economic Research (CICER)

"In September I gave a keynote speech, "2022 Research Workshop on Smart and Future Mobility," organized by the Xi'an Jiaotong-Liverpool University in Suzhou, China. In October, I presented a research project in an NBER workshop on an optimal EV charging station network which was funded by the Department of Transportation." -- Shanjun Li

WE ASKED DYSON FACULTY

ABOUT THE **IMPACTFUL WORK** THEY'RE DOING



Assistant Professor

Wendong Zhang

I am currently working on two projects related to agricultural water conservation in the US Midwest, one examining whether farmers respond to early farmer adopter peers in than the professional extension educators in their conservation practice adoption, and the other project focusing on the trade-off between carbon sequestration benefits and water quality benefits of agricultural conservation practices. I am also involved in a project that evaluates a new type of laser-guided sprayer technology, Intelligent Sprayer, to help apple growers minimize spray drift and use much less pesticide. (Learn more about this technology [here](#).)

WHAT SHOULD PEOPLE DO REGARDING THEIR **ENVIRONMENTAL IMPACT** OVER THE NEXT 1-5 YEARS?

"People respond better to incentives and sustainability and conservation messages from more trustworthy sources."

"Related to my personal experience: We have been driving our hybrid car more, in part due to higher fuel prices, but this behavior change is environmentally and monetarily sensible."

-- Wendong Zhang

WE ASKED DYSON FACULTY

ABOUT THE **IMPACTFUL WORK** THEY'RE DOING



Stephen B. and Janice G. Ashley
Professor of Applied Economics and
Management
Co-Editor-in-Chief, *Food Policy*

Christopher B. Barrett

You might be interested in a new volume published this year, on which I'm lead author with multiple other Cornellians as co-authors (including past Dyson students and staff, like Liz Bageant, Cynthia Mathys, Kamakhya Misra): [Socio-Technical Bundles for Agri-Food Systems Transformation](#). The book is open access, thus free for download from that URL by anyone. The book is a lightly revised version of the journal Nature Sustainability's 2020 expert panel report. The panel (and the book's co-authors) include representatives from Brisa de Año Ranch, Digital Green, Nestle, Omnivore, Pepsi, as well as the African Development Bank, OXFAM, the Nature Conservancy, and the Rockefeller Foundation (plus academic from around the world). The Cornell Atkinson Center for Sustainability was the lead sponsor of the panel and book. They have lots of materials on this available at <https://www.atkinson.cornell.edu/projects/nature-sustainability/>.

WHAT SHOULD PEOPLE KNOW ABOUT THEIR **ENVIRONMENTAL IMPACT** OVER THE NEXT 1-5 YEARS?

"Food security may be the defining global challenge of the century. We are increasingly concentrating on children with nutritional challenges in conflict-affected countries. We have to get to work in the hardest places to work." -- Christopher B. Barrett

Chris Barrett will lead the UN Food and Agriculture Organization (FAO) Agrifood Systems Technologies and Innovations Outlook (ATIO) initiative, which will be a biennial publication disseminating information on science, technology, and innovation in agri-food systems. Read more [here](#).

DEVRY BOUGHNER VORWERK MSC 1999

FOUNDER, GLOBAL CEO, DEVRY VB SUSTAINABLE STRATEGIES

WHAT CHANGES

have you seen in your industry in the past five or ten years?

Have they been informed by academic research?



Major changes have occurred in the food and agriculture industry over the past 10 years. To start, there has been a flurry of new entrants into the sector, especially constructive disruptors that are fueling innovation to solve some of the greatest social and environmental challenges of our current day. For example, we have seen an explosion in plant-based products to address climate and health issues; vertical farming as a way to reduce resource intensity; cell-based meat production and seafood production to solve emission reductions, ending deforestation, and overfishing/forced labor in the supply chain; and food waste innovation is really taking hold. Also, innovations in food service, retail, delivery are upending traditional methods of access to food. Of considerable note is that the food-energy nexus is now presenting all sorts of new opportunities for circular and systems-based approaches to regenerative agriculture where animal waste and biomass are serving as input into energy and organic fertilizers. Academic research is fueling the innovation and Cornell University is at the forefront of many of the advancements being made.

WHAT RESEARCH would your industry benefit from the most?

Some companies are looking for ways to innovate around new products that capture more from consumer's wallets. That's ok, I guess, but we do not have time to misallocate capital and resources on efforts that are maintaining a cycle of hunger and poverty worldwide. There are companies that are looking for ways to solve some of the greatest threats to food security for today and the future. My recommendation is that the biggest share of the research and innovation budget should focus on solving issues of climate resilience; climate repair; emission reductions; supply chain resilience; health and nutrition; soil regeneration; carbon cycling; food waste reduction; reduced resource use; organic fertilizers; effective public policy; and the like.

DEVRY BOUGHNER VORWERK MSC 1999

"Food security and energy security cannot be at odds with each other. Become informed on the issues and the root causes of food insecurity in your community, country, and world."

I recommend greater cross-collaborative, cross-campus approaches to research in the food and agriculture space. I am concerned we should not leave the food crisis and food issues solely to the traditional food industry players. We need collective industry "go-to-market" approaches to capitalize ag development worldwide in a manner that results in permanent fixes to the issues, not short-term, throw away solutions.

"Ask yourself:
What can I do and what can my company or organization do to become part of the solution?"

JAMES COLBURN, MS, AGRICULTURAL ECONOMICS, 1981 CO-FOUNDER, COMMODITY RESEARCH GROUP

WHAT CHANGES have you seen in your industry in the past five or ten years? Have they been informed by academic research?

I spent most of my career in the energy futures and options markets. Basically, I went around the world teaching oil companies and other entities how to trade futures and options markets, how to manage risk, and how to uncover optionality within the business that was being priced.

If I just take oil companies, we have seen a huge change over the past decade in focus and investment. Most integrated oil companies now have in-house venture capital groups which are on the look out for complimentary or disruptive technologies, ones that will reduce carbon in operations and production. For example, bp has created [bp ventures](#) which invests “in private, high growth, game-changing technology companies, who can help deliver bp’s net zero ambition.”



Energy companies are trying to move out of fossil fuels (yes, some are slower than others) and into green tech. Any research related to green energy sources, energy efficiencies, etc. will be of interest. I recently advised a green company, Blackcurrant, helping them take 2nd prize in the U of Chicago’s Booth School New Venture Challenge. Focused on hydrogen, Blackcurrant brings buyers and sellers of hydrogen together, increasing access to sustainable fuels. My expertise fit because I have experience in developing markets where they once didn’t exist. I know little about hydrogen technology. Many start ups come from scientists, engineers and others who don’t have business or economic backgrounds. I have placed some startups with various kinds of expertise that was missing from the original start up team.

WHAT RESEARCH would your industry benefit from the most?

Energy companies are trying to move out of fossil fuels (yes, some are slower than others) and into green tech. Any research related to green energy sources, energy efficiencies, etc. will be of interest. Many start ups come from scientists, engineers and others who don’t have business or economic backgrounds. I have placed some startups with various kinds of expertise that was missing from the original start up team. I recently advised a green company, Blackcurrant, helping them take 2nd prize in the U of Chicago’s Booth School New Venture Challenge. Focused on hydrogen, Blackcurrant brings buyers and sellers of hydrogen together, increasing access to sustainable fuels. My expertise fit because I have experience in developing markets where they once didn’t exist.

JAMES COLBURN, MS, AGRICULTURAL ECONOMICS, 1981

"I see a lot of talented people from top universities moving into jobs dealing with climate change. Not too long ago top graduates would mostly head to Wall Street."

I am a part of Commodity Research Group, a group of commodity folks I have known for years. One colleague, Ed Meir, is a world-renowned metals analyst. Ed received a call from a company that puts together various exchange traded funds (ETF's) and was interested in putting together an index of future metals, that is, metals that would be used in the coming electric vehicle boom (lithium, copper, cobalt, nickel, etc.). Ed concluded that except for copper, there was not enough liquidity in the other metals to support an ETF...I also work with a group of four who share a passion for the energy transition. One guy invests in clean energy companies. I told him about our conversation about the metals ETF and he said he has a company which extracts metals from batteries using a clean process, and could I ask Ed to talk to them about the metals market? I did, and now Ed is on the company's board. So my common theme is: passion, networking and staying in touch with my Cornell people.

"My industry is short on risk managers."

by **Blaine McCollum '22**

The Dyson motto, “Our Business is a Better World,” resonates with all of us undergraduates, but it’s likely to mean different things to different people. What defines a “better” world? The meaning is inherently subjective in nature, with definitions as diverse as our student body. To me, the strongest metric for evaluating my undergraduate career is the progress made at locating the intersection where passion and opportunity meet, generating impact to make the world, yes, better.



Pictured:

Front from left: Stratton Papakirk, Jack Zardecki

Rear from left: Blaine McCollum, Barry Segal, Alexander (Xander) Casserly

A key factor in my decision to attend Dyson was this alignment of the motto with my own vision and goals, specifically, the opportunity to make a direct impact in the community and gain practical business experience through the Grand Challenges program. I have had the privilege of being a member of the first student cohort to go through all three stages of the Grand Challenges curriculum, completing AEM 3000, Pre-Project Immersion in the second semester of my junior year. This course prepares students for their required senior-year Capstone Project by providing opportunities to meet and interview a local community stakeholder whose work applies to a chosen UN Sustainable Development Goal.

My group had chosen the first goal: End Poverty. I met with several people at the Family and Children’s Service of Ithaca, who had first-hand experience with regional poverty and homelessness. Their work was humbling and inspiring. I was searching for a community partner whose work addressed poverty and might have a project appropriate for our required senior AEM 4000 Grand Challenges capstone project. Then Family & Children’s Services’ William Taylor introduced me to local construction company owner Barry Segal, saying that “if there was anyone who truly understood the challenges facing those without housing in Ithaca it would be him.”

When I heard about the work that Mr. Segal was doing for those in need, I knew that I wanted to pursue a Capstone Project that partnered with his organization, Court Street Place.

Segal founded Court Street Place in 2012 after the Red Cross abandoned its 10-person emergency shelter in Ithaca. Segal had one vision: providing local men with the opportunity to transition out of homelessness and rebuild their lives in a safe, affordable, and supportive environment. He

At the start of the pandemic, however, the Rescue Mission left the Court Street Place project, and since then, Segal has run the house out-of-pocket, as essentially a boarding house, without support to assist men with acute needs. Overworked and in need of financial aid, Mr. Segal is looking to form a 501c3 to receive much-needed funding and grants.

I was astonished to learn about what Segal had accomplished on his own. He and I immediately established a rapport and discussed our mutual faith, our passion for service, and our belief that this partnership had the potential to drastically impact the organization, its tenants, and the students here at Dyson. Our team has been working with him to complete the paperwork required for attaining non-profit status, which will allow the house to continue operations, perhaps expanding its non-profit model to establish additional homes around Tompkins County for both men and women.

I am truly excited, inspired, and motivated about working with my colleagues and Mr. Segal on this Capstone Project. While I have dreamed about improving lives on a large scale, I see that some of the greatest impacts are actually made on a much smaller scale. Mr. Segal has impacted the lives of each of these men on a personal and intimate level, and to be a part of building his organization and furthering its work is an honor. To sacrifice a person's most valuable gift (time) and dedicate it to transforming others' lives is a true manifestation of loving and caring for others. Court Street Place and its founder embody this school's motto of "Our Business is a Better World," and this capstone course is a stepping-stone towards realizing that goal.

Court Street Place Ithaca, NY

Student-developed project with a local non-profit organization

Court Street Place is a supportive residence for men who are working to transition out of homelessness and establish self-sufficiency.



Dyson's Grand Challenges Program translates better business into action as students engage in curriculum to develop crucial skills such as teamwork, community engagement, client service, self-awareness, and leadership for social impact. The Program culminates in a senior team project course where students collaborate with an external client or community partner, giving senior Dyson students an opportunity to apply their skills and knowledge to a real-world problem. All capstone projects are aligned with the United Nations Sustainable Development Goals and focus on positive impacts within communities locally, regionally, domestically, or abroad.

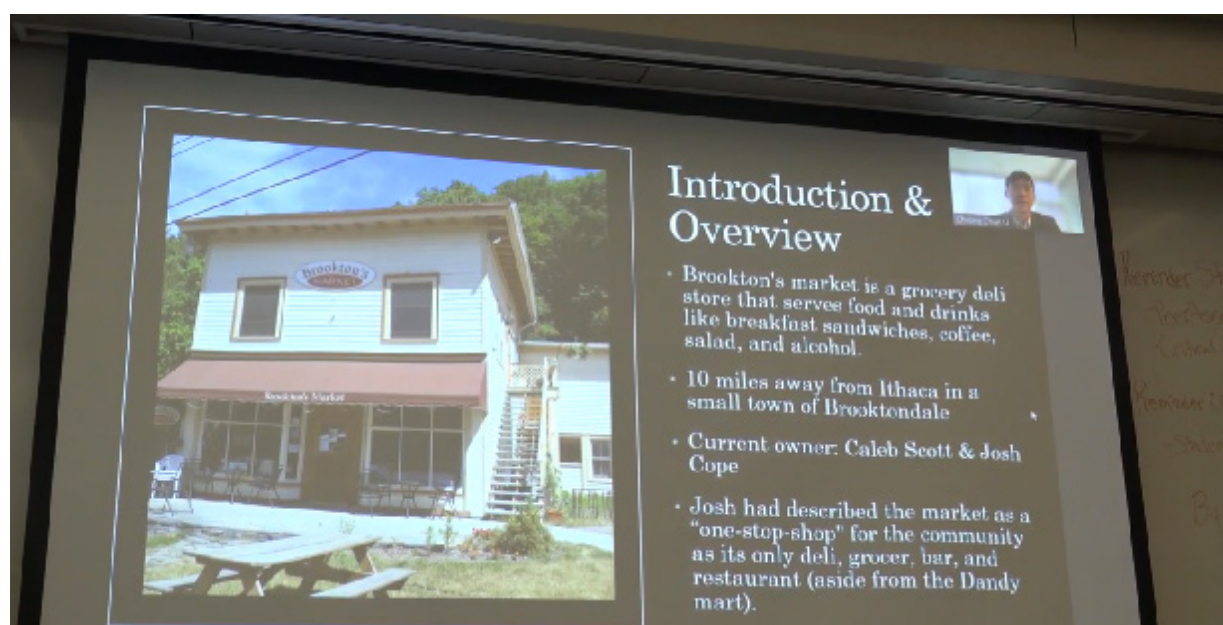
GRAND CHALLENGES STUDENT PROJECTS

AEM 3260/3560: COOPERATIVE BUSINESS MANAGEMENT

The spring 2022 session of Professor Todd Schmit's Cooperative Business Management course saw graduate and undergraduate student teams working with cooperative businesses near and far, embracing real world issues. These were all qualifying capstone projects for the Grand Challenges program.

Students chose their clients in February, and worked with them throughout the semester to address the business's pressing issue - real-world problems ranging from converting a privately-run business to a cooperative model, to developing a marketing strategy, and more. In the process, students learned about the many structures that cooperative businesses can adopt, how they are financed, and how they are governed.

In June, student teams presented their final projects at The Showcase, a live forum including client partners and others. Here are brief explanations of the course's ten projects, along with links to final student presentation videos. The full set can be found on the [Experiential and Engaged College of Business](#) video page, here.

**PROJECT:**

Worker Co-op Business Transition Brookton's Market

Owners Caleb Scott and Josh Cope describe Brookton's Market as a "one-stop-shop" for its community. Indeed, theirs is the only business offering groceries, coffee, local brews, and performance space in scenic Brooktondale, ten miles from Ithaca. Interested in expanding the market's scope and reach, Scott and Cope decided to explore the possibility of converting to a cooperative business model. Cornell students Grace Harrigan and Cheong Chun (Keith) Li examined other cooperative organizations before developing an alternative community ownership model with suggested future plans suited to protecting Brookton's Market's unique success. Watch the student presentation video [here](#).

PROJECT:

Governance Processes for Worker Cooperatives CoLab Cooperative

CoLab is a member-owned company creating purpose-driven technology that focuses on web design and development with an emphasis on user experience. The company needed to examine its governance processes, and worked with student team Oliver Fisher, Jack Knibb, and Jordan Miller. The group focused on restructuring and board training, specifically outlining and delineating Board-specific responsibilities and tasks, adding new committees, and training board members. Watch the student presentation video [here](#).

PROJECT:

Governance Systems and Member Heterogeneity Eden Valley Growers

Eden Valley Growers, founded in 1956, currently has nine member farms and 22 members owning class A stock. Students Joey Kummer, John Rogers, Juul Loonen met with their point of contact weekly and designed a member survey to determine strengths and weaknesses, ultimately recommending improved communication via new literature, improving meeting reporting, and enhanced member participation. Watch the student presentation video [here](#).



PROJECT:

Building Member Knowledge of Cooperative Equity National Grape/Welch's

Students Faiz Adem, Seth Bollinger, Maxine Mangubat, and Danielle Sitzler partnered with National Grape, a grower-owned marketing cooperative dedicated to providing profitable long-term market for its members' quality Concord and Niagara grapes. Using design thinking to identify strategic issues with the organization of member materials, communication about payment structure, and unclear options for investment programs and allocation credit distribution, the team delivered concise, appealing, digestible alternatives. Watch the student presentation [here](#).

PROJECT:

Member Engagement and Cooperative Options Long Island Oyster Growers Association

LIOGA is a community-based association representing the social, economic, environmental and political interests of Long Island oyster growers. A resurgence in oyster demand over the last 20 years has led to widespread interest in farmer expansion. Here, students Andrew Darby, Avery Primas, Darius Tam, and Michael Wassmuth addressed questions of distribution, designing a proportional investment cooperative with features like non-transferable ownership, redeemable equity, and proportional investment based on use. Other plans focus on collaboration between LIOGA members and individual cost saving initiatives. Watch the student presentation video [here](#).

COOPERATIVE BUSINESS MANAGEMENT - STUDENT PROJECTS, CONT'D.

PROJECT:

Macadamia Nut Production Cooperative Hawaiian Macadamia Nut Orchards

Students Alice Karetsky, Nicole Pelletier, Connor Ranck, Jose Valencia collaborated with Brad Nelson of the client Hawaiian Macadamia Nut Cooperative. This organization, farming over 5,000 acres on the Big Island, holds a market share of between 40-50% of US macadamia nut production. Exploring the client's interest in expanding cooperative function, the students propose a redistribution of the stock structure, reorganization of members governance, and the addition of a board of directors. Watch the student presentation video [here](#).

PROJECT:

Collaborative Onion Marketing Opportunities CCE Orange County, NYS Onion Farmers

NYS Onion Growers worked with Cornell Students Sheryl Kiernan, Srinidhi Rajesh, and Arin Sheehan to explore the opportunities of a marketing order or cooperative for NYS Muck Onion Growers. Grown in organically-rich soil, these uniquely pungent onions invite premium branding, which the students proposed, along with federal marketing orders and opportunities to form joint ventures. Watch the student presentation video [here](#).

PROJECT:

Hudson Valley Farm Cooperative DPO and Worker Equity Park Slope Food Co-op

Nikhil Iyer, Frederic Minzberg, Thomas Mocerrea collaborated with the Hudson Valley Farm Cooperative to create an equity-raising plan through the capital markets. The group researched industry comparatives and presented pros and cons, including successful examples the likes of Slack, Spotify, and Ben and Jerry's. With board approval, capital raising, and farm acquisition, the students believe their project could reach a \$30M goal. Watch the student presentation [here](#).

PROJECT:

Columbia SEC Agrivoltaic Cooperative Development EDF Renewables

Addressing the imperative use of solar energy but acknowledging the real problem of NY state land competition between farmers and solar operators, Cornell students Emily Boldt, John John Jiang, Ricardo Piovezan, Jr., and Destin Witmer proposed a collaboration between EDF Renewables and the NY State Farmer's Collaborative. Dubbed the Columbia Agrivoltaic Collective, the proposal envisions the dual use of land for traditional farming practices and solar PV arrays, including sheep grazing, cattle grazing, and vegetable farming. An agrivoltaic system supports farmers with watering facilities and well installation, fencing and paddock boundaries to graze livestock, adaptive engineering of farm equipment, and cultivation of suitable grasses for grazing.

PROJECT:

Solar Sheep Cooperative Development
American Solar Grazing Association

GRADUATE STUDENT TEAMS:

Needs Assessment: Teddy Abera, Michelle Corio, Sumire Doit, Jyothis Joy Mazhuvanchery
Financial Modeling: Jessica Felde, Bin Huang, Summer Li

The final student team was comprised of graduate students, divided into two expertise-focused teams. Ideating a new solar grazing sheep cooperative in collaboration with the American Sheep Grazing Association, students first conducted a needs assessment survey to better understand and inform them of information demographics, shepherding, and transportation, and others. Their final proposal included a variety of mobilization scenarios to mitigate major expenses like depreciation, labor, gas, maintenance, and capital reinvestment. The students also offer innovative approaches to shepherding and site development, including ideas for fencing and animal management. Watch the student presentation video [here](#).

CURRENT GRAND CHALLENGES PROJECTS

This semester, Fall 2022, 18 community-engaged learning projects are underway, with the following partners.

Note: some partners have more than one project in progress.

Class: AEM 3015 Instructor: Jen Majka

Project Partners:

Ithaca Asian-American Association
South Central Regional Library Council
Ultimate Re-Entry Opportunity
Dorothy Cotton Institute
Envious Vegan Handbags
Greater Ithaca Activities Center
Science and Technology Entry Programs
Tompkins County Office of Human Rights
Village at Ithaca

Class: AEM 4000 Instructor: John Tobin

Project Partners:

Court Street Place
GROAM
Cleanwatts

Class: AEM 3385 Instructor: Anke Wessels

Project Partner:

Anabel's Market

Class: AEM 4375 Instructor: Denise Ramzy

Project Partner:

Finger Lakes ReUse

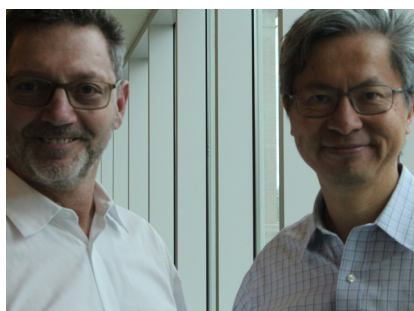
GRAND CHALLENGES @ DYSON

PRME

an initiative of the
United Nations Global Compact

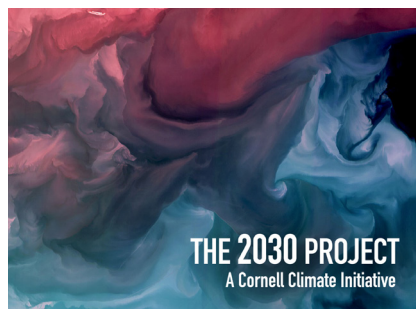
UN Principles for Responsible Management Education

The Cornell SC Johnson College of Business has joined the 900 worldwide business schools in committing to the UN's Principles of Responsible Management Education (PRME). Our inaugural progress report examines college-wide alignment.



Initiative on Responsible Finance

Led by John Tobin-de la Puente and David Ng, the IRF promotes teaching, research, and outreach on finance and sustainability. Their individual work is at the cutting edge of this focus, including leadership in biodiversity finance, responsible accounting and investing.



The 2030 Project: A Cornell Climate Initiative

Harnessing Cornell's breakthrough science to address the climate challenge during this crucial decade, Cornell's Atkinson Center has engaged Dyson faculty Chris Barrett, Ravi Kanbur, David Lee, Aija Leiponen, Tim Mount, John Tobin-de la Puente, Joanna Upton, Sarah Wolfolds. Learn more here.



Interdisciplinary Theme: Business of Sustainability

The SC Johnson College's interdisciplinary themes provide a nexus for faculty collaboration. The Business of Sustainability theme fuels our mission to “inspire leaders to build sustainable, shared prosperity.”

The Tata-Cornell Institute (TCI) is a long-term research initiative that develops and assesses innovative food systems-based approaches to reducing poverty and improving nutrition and livelihoods in the developing world, with a specific focus on India.

Since 2021, TCI researchers have been studying models for farmer producer organizations (FPOs) as a means for small farms to overcome size-related challenges due to their size, allowing them to commercialize and boost their incomes. TCI recently **published a study** in Food Policy and will soon be releasing its own annotated bibliography of FPO literature. “The most exciting piece of the project is our Database for Indian FPOs, a first-of-its-kind data platform with comprehensive information of FPOs in India,” writes Prabhu Pingali.



Zero-Hunger, Zero-Carbon Food Systems.

Through its Zero-Hunger, Zero-Carbon Food Systems project, TCI aims to reduce agriculture-related greenhouse gas emissions in Bihar, India, while improving on-farm productivity. TCI researchers are assessing challenges facing different production systems in Bihar and measuring their emissions. Using that analysis, they will develop a roadmap of mitigation options designed to decrease emissions without sacrificing productivity.



True Cost of Food Subsidies in India

TCI’s project on the True Cost of Food Subsidies in India uses “true cost accounting” to measure hidden costs associated with India’s Public Distribution System (PDS), which provides subsidized food grains to more than 800 million Indians. Preliminary results released in a policy brief for COP27 show that, in 2019-20, the environmental and health impacts of rice and wheat production for the PDS increased the overall cost of the program by about 40%.



Farm Waste to Furniture

The Farm Waste to Furniture project is a collaboration between TCI and Cornell Professor Anil Netravali. The project is developing a process using rice straw to produce environmentally sustainable composite panels for use in a variety of construction activities. Rice straw is typically burned after harvest and contributes to harmful levels of air pollution in northern India. Creating a profitable market for the straw can help improve farmer livelihoods while reducing pollution.



INITIATIVES, HONORS, COMMITMENTS, AND MORE



**Ralph Christy receives Carver Hall of Fame Award
from Tuskegee Institute**

Dyson professor [Ralph D. Christy](#), founder of Dyson's [SMART](#) program, has been awarded the Professional Agricultural Workers Conference George Washington Carver Public Service Hall of Fame Award. The award is “given in recognition of individuals whose work mirrors the philosophy of the world-recognized scholar George Washington Carver.” Christy was nominated on the basis of his consistent pioneering of educational and international development initiatives that are implemented by universities, philanthropic organizations, and professional associations. Learn more about the award [here](#).

Tobin-de la Puente leads Atkinson Center conservation finance working group

[John Tobin-de la Puente](#) and Alan Martinez have recently partnered with the [New York State Corn and Soybean Growers Association](#) to co-create and pilot some of their financial tools with individual farms. Learn more [here](#).



Schmit receives NAREA honor

Professor [Todd M. Schmit](#) has won the Northeastern Agricultural and Resource Economics Association (NAREA) Outstanding Public Service Through Economics Award. Learn more [here](#).

INITIATIVES, HONORS, COMMITMENTS, AND MORE

Majka receives SUNY Chancellor's Award for Excellence in Professional Service

Dyson lecturer [Jen Majka](#) received the SUNY Chancellor's Award for Excellence in Professional Service this fall, and was highlighted in this [Cornell Chronicle article](#). Learn more about the award [here](#).



Gerarden receives CALS Early Career Award

[Todd Gerarden](#) has been awarded the CALS Early Career Faculty Teaching Award, presented to individuals who have taught at CALS for five years or less, who demonstrate a commitment to quality instruction and creative combinations of teaching strategies, which feed student enthusiasm. Learn more about the award [here](#).

Lawell Convenes Two Green Think Tanks

Dyson professor [C.-Y. Cynthia Lin Lawell](#) moderates two green research group-think tanks to coalesce data vital to environmental and social research.

[Deep Green Radar](#) is dedicated to “using cutting-edge methods and ideas in economics, econometrics, dynamic optimization, and game theory” to address issues facing individuals, households, firms, societies, governments, countries, and the world.

[Treespear](#) is grounded in economics to analyze and tackle issues related to resources, energy, and the environment.



IMPACT INVESTING AT CORNELL (IIC)

Dyson students are engaged leaders all around Cornell and the world. Here are just a few examples. For more information about Dyson's student organizations and programs, click [here](#).

[Impact Investing at Cornell \(IIC\)](#) is an entirely student-run consulting club whose mission is to provide a platform for undergraduates to gain tangible experiences and insight into the impact investing field.

Members from diverse academic backgrounds explore varied interests at the intersection of social impact and business, engaging in an Associate Development Program (ADP), various professional development events, and consulting project partnerships with established impact funds.

IIC works primarily with venture capital and private equity firms to provide an educational experience for our members while simultaneously producing valuable deliverables for partner organizations. IIC recruits 10-20 new members each semester through a robust, multi-stage interview process followed by an eight-week new-member development process, culminating with assignment to a project with a partner organization.

Member Ryan Cook explained, "These client engagements tend to last for a semester or an academic year, and we aim to meet with our clients at least bi-weekly for updates, feedback, and oftentimes insights into their careers, background, and impact investing as a whole. We aim to strengthen the platform of impact investing across Cornell by providing our team with access to exclusive opportunities to explore one of the fastest-growing fields in finance."

Recent events included a welcome dinner, E-Ship kickoff, the ADP Development Program, and the project Buoyant Ventures, launched in early November.

Upcoming Events include an Impact Speaker Series, launch of a CNote project with CNote, and the club's annual Cornell Impact Investing Pitch Competition (Dates TBA Spring 2023 semester). The club holds weekly governing body, executive board, project team meetings.



BLACKGEN CAPITAL

[BlackGen Capital](#), Cornell's first minority-owned investment fund, was launched in 2019 by Cheick Camara AEM '22 and Ermias Tadess AEM '22. Its intention to develop the next generation of industry professionals and close the access gap to active money management opportunities is alive and well. BlackGen Capital's expanding National Board includes chapters at Georgetown University, University of Michigan, New York University, Columbia University, and the University of Southern California.

BlackGen Capital's purpose is to empower underrepresented minorities by reducing barriers of entry to the financial services industry. Providing insights and networking opportunities to the business world via programming such as corporate-sponsored events and résumé workshops. BlackGen Capital also educates students so that they can leverage their skills and knowledge in their professional endeavors.

BlackGen members are provided a 10-week educational series covering essential topics including creating an investment thesis, understanding the three financial statements, and valuation methods including comparable companies analysis and discounted cash flow analysis. Student analysts conduct fundamental research in healthcare, technology and media, consumer, energy, or quant investment strategies, and use their findings to inform investment pitches.

BlackGen Capital's corporate sponsors include Morgan Stanley, J.P. Morgan, Vanguard, Vista Equity Partners, Warburg Pincus, Blackstone. BlackGen Capital students have landed competitive internships at firms such as BlackRock, Evercore, DE Shaw & Co, Deloitte, J.P. Morgan, Goldman Sachs, Bloomberg, Bank of America, Wells Fargo, UBS, and more!

For more information on BlackGen Capital, visit blackgencapital.com



BlackGen Capital's current Co-Presidents Adeolu Adetayo and Joshua Figueroa



SOCIAL ENTERPRISE GROUP AT CORNELL

Social Enterprise Group Cornell

This cross-Cornell undergraduate student organization is dedicated to “market-driven solutions to social issues.” The group pursues education and hands-on consulting experience with socially-responsible organizations and businesses. SEGC promotes social impact as a career through on-campus events, conference attendance, and open lectures. This spring, Dyson students Andrew Darby '23 and Apoorva Kumar '24 are managing projects.



Dyson students are engaged leaders around Cornell and around the world.

These are just a few examples!

For more information about Dyson's student organizations and programs, click [here](#).



Lawrence Jin

Associate Professor

Academic Content Area: Finance

Expertise: Finance, Behavioral Research, Decision Making

Lawrence J. Jin received his Ph.D. in Financial Economics from Yale University in May 2015. His research focuses on asset pricing, behavioral finance, neuroeconomics, and household finance. He holds a B.S. in Mathematics and Physics from Tsinghua University and a M.S. in Electrical Engineering from Caltech. He also spent two years as a research and trading analyst at Citigroup. Prior to coming to Cornell, Professor Jin was on the faculty at the Division of the Humanities and Social Sciences at Caltech. His research has been published in the *Quarterly Journal of Economics*, the *Journal of Finance*, the *Review of Financial Studies*, and the *Journal of Financial Economics*. He has received the Q-Group's Jack Treynor Prize, the AQR Top Finance Graduate Award, the MFA Outstanding Paper Award, and Caltech's ASCIT Teaching Award.

Wendong Zhang

Assistant Professor

Faculty Area: Applied Economics and Policy

Expertise: Food and Agricultural Economics, Environmental, Energy and Resource Economics and Policy, Emerging Markets



Dr. Wendong Zhang's research seeks to better understand the U.S. farmland market, agricultural water conservation, and Chinese agriculture. He is also an Associate Professor (on leave 2022-2023) in the Department of Economics at Iowa State University, where he is a Faculty Affiliate at the Center for Agricultural and Rural Development (CARD). Dr. Zhang led the Iowa Land Value Survey at Iowa State, co-founded the ISU China Ag Center, and served as the Academic Vice President of ASFMRA's Iowa Chapter. Dr. Zhang is currently an Associate Editor of *American Journal of Agricultural Economics*, as well as the *Journal of Soil and Water Conservation*. His research and extension program has won awards such as the AAEE Bruce Garner Memorial Prize for Applied Policy Analysis Award and the AAEE 2021 Winner of the Distinguished Extension/Outreach Program Award for Individual with Less than Ten Years' Experience. Dr. Zhang received his Ph.D. in Agricultural, Environmental, and Development Economics from the Ohio State University in July 2015, and he also holds a BSc in Environmental Science from Fudan University in China.

INAUGURAL ESG INVESTING RESEARCH CONFERENCE



Left: Tobias Adrian of the International Monetary Fund addresses attendees of the Inaugural ESG Investing Research Conference.
Right: Conference attendees at a regional farm-to-table event.

Global warming's many accelerating effects include biodiversity loss, food insecurity, and much more. Efforts to protect the environment will require conscious innovation in funding and financial models.

To this end, the [Cornell SC Johnson College of Business](#) brought together a selected group of finance faculty researchers and investment professionals to discuss cutting-edge discoveries and insights at the inaugural [Environmental, Social, and Governance \(ESG\) Investing Conference](#) in July. Several organizations at the SC Johnson College joined together to co-host the ESG Investing conference, including the Parker Center for Investment Research, The Center for Sustainable Global Enterprise, and the Investing at Cornell and Business of Sustainability interdisciplinary themes.

ESG investing challenges, ideas, and solutions are centrally important to investment researchers and professionals now. "Investors are seeking to support other societal benefits, including fairness and environmental protection," said [Scott Stewart](#), conference co-chair, clinical professor, and faculty co-director of the Parker Center.

While these concerns have increased dramatically over the past decade, best practices for profitable and responsible investing are still very much under review. "While assets invested in ESG funds have grown exponentially very recently, there is a lot of debate going on in public policy circles about how to build diversified portfolios, define metrics, and measure success," Stewart says. "The papers presented at the conference and the panel discussions all addressed these issues."

Stewart asserted that the event served as a truly successful exercise for both researchers and practitioners. "Researchers learned how the whole process of ESG investing is a design that hasn't been finalized yet," he said. "And the practitioners heard very high-quality research papers that show how we need to look harder at the details."

[Andrew Karolyi](#), Charles Field Knight Dean of the Cornell SC Johnson College of Business and professor of finance, served as conference co-chair. He and [John Tobin-de la Puente](#), Dyson professor of practice and academic director of Dyson's Grand Challenges Program, collaborated on a paper timed to coincide with the conference. In this work, [Biodiversity Finance: A Call for Research for Financing Nature](#), the authors plainly make the case for decisive commitments to biodiversity funding. In addition to Stewart and Karolyi, conference organizers included Dyson faculty [Jawad Addoum](#) and [Scott Yonker](#), as well as Johnson's [Sanjeev Bhojraj](#) and [Mark Milstein](#).

INAUGURAL ESG INVESTING RESEARCH CONFERENCE



L-R: Philip McInnis and Eduardo Repetto of Avantis Investors with MIT's Florian Berg and Andrew Karolyi. Berg's work received the conference's Best Paper Award.

"Closing the financial gap between what is currently spent and what is needed to be spent over the next ten years to mobilize private investment to maintain ecosystem integrity and biodiversity, and the services they provide, is estimated to exceed hundreds of billions per year," reads the authors' abstract. "Yet, there are no studies in the top-tier journals in finance that have framed the risks related to biodiversity loss, how those risks might be priced, or how the private financing flows need to be intermediated."

Hosting the inaugural 2022 Cornell ESG Investing Research Conference was one response to this dilemma. "We all find ourselves here because we see and agree that ESG investing research is the next grand challenge for sustainable finance," said Karolyi. "We are tremendously encouraged by the quality of research we've received and are sharing as part of this conference."

Rigorous evidence on ESG investing is needed to support effective decision making

This summer's conference was particularly timely, according to Andrew Karolyi. U.S. Securities and Exchange Commission (SEC) launched two new proposed rules targeting ESG investing, "The Enhancement and Standardization of Climate-Related Disclosures for Investors" (33-11042) and "Enhanced Disclosures by Certain Investment Advisors and Investment Companies about ESG Investment Practices" (33-11068).

"The first rule was initiated in 2021 and extended its deadline to June 2022 for public comment (over 10,000, so far)," said Karolyi. The second rule, launched in May 2022, is open for public comment. "Many comments refer to research by our Cornell colleagues, by members of our conference program committee, and by industry leaders who are attending."

Regulators overseas have also recently proposed new ESG rules for companies, mutual funds and retirement plans. Organizers designed the conference to provide opportunities for exploration of unpublished research and motivation of new research areas incorporating practical issues. Conference organizers hope that this conference will promote the publication of rigorous evidence on ESG investing to support effective decision making by practitioners, regulators, and researchers.

Robust response

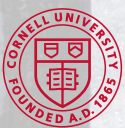
Conference co-chairs received 60 submissions in response to their February 2022 call for papers on ESG investing research – for six presentation slots. An external program committee of seven researchers reviewed the papers and selected finalists to present at the conference. The winning paper questioned the management practices of an ESG investing database widely-trusted by analysts.

IMPACT: DYSON

FALL / WINTER 2022

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