

Zwick Center For
Food & Resource Policy
Report FY 2018-19

Department of Agricultural and Resource Economics
Department of Economics
University of Connecticut

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Dr. Charles Zwick (left) working with President Lyndon B. Johnson during his time as director of the U.S. Bureau of the Budget.

MISSION AND FOCUS

Mission

The Charles J. Zwick Center for Food and Resource Policy is driven by excellence in quantitative and policy oriented economic research on problems confronting food and energy markets, the use of natural resources, and the environment. The intent is to provide practical recommendations to improve the functioning of markets and related government policies and to advance and disseminate knowledge that impacts public policies to improve society's welfare. Key users include private firms, consumer organizations, non-profit organizations, scholars, public agencies, and policy makers.

Areas of Focus

The Center's endowment makes it possible to elevate the prominence of the Department of Agricultural and Resource Economics and to focus on high-priority policy and quantitative studies to solve problems in three signature areas:

- **Food Marketing and Industrial Organization**
- **Environmental and Natural Resource Economics and Policy**
- **Economic Development**

ADVISORY BOARD

Ronald Cotterill is Professor Emeritus of Agricultural and Resource Economics and Economics at the University of Connecticut, and Director Emeritus of the Food Marketing Policy Center—the predecessor of the Zwick Center. During his thirty years as a professor, he taught hundreds of students and authored dozens of books, monographs, journal articles, and other works. An internationally renowned expert on the organization and performance of the US food industries, he has testified before Congress and state legislatures regarding industrial and antitrust issues.

Richard DeFavero is the founder of the commercial construction company DeFavero Builders and an active supporter of the University of Connecticut. An alumnus of the University, he is a recipient of the Augustus and Charles Storrs Award and a lifetime member of the UConn Alumni Association. Mr. DeFavero provided the gift to endow the DeFavero Chair in Agricultural and Resource Economics.

Ben Freund is the owner and operator of Freund’s Farm, Inc., a dairy farm, and of Cow Pots, LLC, the manufacturer of biodegradable planting pots, both located in East Canaan, Connecticut. He serves on the board of the Federal Farm Credit Banks Funding Corporation. He is a member and former director of Farm Credit East, ACA.

Bryan Hurlburt is the current Connecticut Commissioner of Agriculture. In March 2019, he was appointed by Governor Ned Lamont to replace former Commissioner Steven Reviczky. Hurlburt, a former Democratic state legislator, has worked to promote farming in Connecticut and more recently as the head of a non-profit trade group.

Tom Cosgrove is Senior Vice President of Farm Credit East, ACA, which is part of the Farm Credit System, serving over 13,000 customers throughout seven Northeastern states through the provision of credit and affiliated services to those in agriculture and related industries. He has also worked with the CT delegation to the US Senate Committee on Agriculture, Nutrition, and Forestry.

Michael Willig is a Professor in the Department of Ecology and Evolutionary Biology and Director of the Center for Environmental Sciences and Engineering at UConn. His areas of expertise include the application of quantitative and statistical techniques to understand the ecology and conservation of coupled human and natural systems.

2018-19 Zwick Center Personnel

Professor and head of the Department of Agricultural and Resource Economics (2008-August 2019) and Director of the Zwick Center for Food and Resource Policy at the University of Connecticut (2011-August 2019). Dr. Lopez earned a Ph.D. in Food and Resource Economics from the University of Florida in 1979. His areas of expertise include agricultural and food policy, agribusiness marketing, and economic development. He has led research teams for various economic impact reports, including for the Connecticut dairy industry in 2009 and the first comprehensive economic impact study of Connecticut agriculture in 2010, and its update in 2017.



Rigoberto Lopez
Director, Professor
Food Marketing, Food Policy, Economic Development



Former postdoctoral fellow, jointly appointed to the Zwick Center for Food and Resource Policy and the Rudd Center for Food Policy and Obesity at the University of Connecticut. She earned her Ph.D. in Nutrition Science from the Friedman School of Nutrition Science and Policy at Tufts University in 2016. Her areas of expertise include dietary sustainability, food and nutrition policy, and local and regional food systems. During her time at the Zwick Center, Dr. Boehm was awarded substantial grants whose impact will outlast her time here. She has been published and cited various times this year for her work related to nutrition, health, and the environment, including in VICE Munchies, the Chicago Tribune, and The Washington Post. In December 2018, Dr. Boehm moved to Washington, DC, to work as an economist for the Union of Concerned Scientists.

Rebecca Boehm
Postdoctoral Fellow
Economics of Food, Health, and the Environment

Former postdoctoral fellow, appointed to the Zwick Center for Food & Resource Policy in May of 2017. Dr. Burney earned a Ph.D. in Agricultural Economics at the University of Kentucky, after which he joined the Zwick Center team as one of the core personnel, where he worked for a year. In the fall of 2018, he relocated to the University of Wisconsin-River Falls as an assistant professor.



Shaheer Burney
Postdoctoral Fellow⁴
Food Policy and Food Marketing

FACULTY AFFILIATES

Tatiana Andreyeva – Associate Professor
Health Economics, Food Policy

Emma Bojinova – Lecturer
International Economics, Industrial Organization

John Bovay – Assistant Professor and Extension
Economist
Food Policy, Environmental and Resource Economics

Boris Bravo-Ureta – Professor
International Agricultural Development, Production
Economics

Ronald Cotterill – Emeritus Director, Emeritus
Professor
Food Marketing and Industrial Organization, Food
Policy

Richard Dunn – Associate Professor
Health and Public Economics, Applied Microeconomics

Syma Ebbin – Associate Professor in Residence
Fisheries and Environmental Management

Nathan Fiala – Assistant Professor
Food Security, Environment, Development

Sandro Steinbach – Assistant Professor
Agricultural Trade, Health and Environmental
Economics

Robert Pomeroy – Professor
International Development, Fisheries, Marine Policy

Farhed Shah – Associate Professor
Natural Resource and Environmental Economics,
Water Policy

Stephen Swallow – Professor
Natural Resource and Environmental Economics,
Ecosystem Services, Land-Use Policy

Charles Towe – Associate Professor
Environmental Economics, Land Use, Policy Evaluation

FELLOWS

Chen Zhu
China Agricultural University

Michele Baggio
University of Connecticut

SUPPORTING

Mahdi Fallahi
Data Management

Andrew Rukakoski
Written Communications Assistant

HIGHLIGHTS

During 2018-19 fiscal year, the Zwick Center for Food and Resource Policy continued its mission of developing policy-oriented research, outreach reports, and recommendations to address problems and opportunities associated with food, natural resources, and the environment.

Some highlights include:

- * Center director Rigoberto Lopez was appointed to Governor-elect Ned Lamont's Committee on Agriculture in October 2018, and continues to serve on this committee.
- * During summer 2018, Drs. Lopez, Boehm, and Burney presented five papers at the Agricultural and Applied Economics Association annual meeting in Washington, D.C. During fall 2018, Rebecca Boehm, Jaime Foster (Rudd Center), Jiff Martin (Department of Extension), and Rigoberto Lopez conducted an update of the Connecticut food security study, which included the prevalent rates of obesity at the town level.
- * The Center staff also published several journal articles in *Food Policy*, *Applied Economics*, *Applied Economics Letters*, *Journal of Nutrition Education and Behavior*, and *Public Health Nutrition*.
- * Dr. Shaheer Burney took an assistant professor position at the University of Wisconsin-River Falls in August 2018, and Dr. Rebecca Boehm took the position of Economist in the Food and Environment program at Union of Concerned Scientists in Washington, D.C. in December 2018.
- * Grant activity by core personnel included a FINI grant for \$200,000 by PI Rebecca Boehm, transferred to ARE faculty (John Bovay and Nathan Fiala) after Dr. Boehm's departure. Another collaboration involved an NSF grant application that included Rigoberto Lopez as a collaborator to estimate impacts of alternative energy sources in New England.
- * As industrial hemp is now a top priority in Connecticut's agricultural policy, the Center will be responding by updating the cost of production and enterprise budget for this crop as well as agricultural activity that is currently being conducted without the benefit of quantitative analysis. Rigoberto Lopez is also conducting two economic impact studies funded by stakeholders, one for the University of Connecticut and another one for the Connecticut green industry.
- Looking forward, Kimberly Rollins has been appointed ARE Department Head and Interim Director of the Zwick Center, starting August 23, 2019. She will conduct long-term planning for the Center and develop a plan for its sustainability and growth.

Affiliates of the Zwick Center disseminate work at academic conferences and through the publication of the Working Paper Series, Outreach Series, and Research Report Series. Over 200 publications have been widely distributed since 2011 through these three publication series, in addition to over 100 presentations in academic and outreach settings.

Journal Articles

- **Boehm, Rebecca**, Ver Ploeg, S., Wilde, P., Cash, S. "Greenhouse gas emissions, total food spending, and diet quality by share of household food spending on red meat: results from a nationally representative sample of U.S. households," *Public Health Nutrition*, Volume 22, Issue 10, pages 1749-1806.
- **Boehm, Rebecca**, Read, M., Schwartz, M. "Juice displaces milk and fruit in high school lunches," *Journal of Nutrition Education and Behavior*, Volume 51, Issue 1, Pages 80-85.
- **Boehm, Rebecca**, Schuknecht, T., Cash, S.B. "Cool Intentions: Adding Refrigerators to Elementary Classrooms Improves Fruit and Vegetable Access in a Pilot Study," *Journal of Nutrition Education and Behavior*, Volume 50, Issue 7. Pages 746-747.
Finalist for 2019 Best General Education Material Paper, Journal of Nutrition Education and Behavior
- **Boehm, Rebecca**, Wilde, P., Ver Ploeg, M., Costello, C., Cash, S.B. "A Comprehensive Life Cycle Assessment of the Greenhouse Gas Emissions from U.S. Household Food Choices," *Food Policy*, Volume 79, Pages 67-76.
Best Economics Paper in Food Safety and Nutrition for 2018, AAEA
- Jelliffe, J., **Boris E. Bravo-Ureta**, C. Deom and D. Okello. "Adoption of High-Yielding Groundnut Varieties: The Sustainability of a Farmer-Led Multiplication-Dissemination Program in Eastern Uganda." *Sustainability*, Volume 10, Issue 5, Page 1597.
- **Burney, Shaheer**. 2018. "In-Kind Benefits and Household Behavior: The Impact of SNAP on Food-Away-From-Home Consumption." *Food Policy*, Volume 75, Issue C, Pages 134-146
- Hu, L., **Rigoberto.A. Lopez**, and Yu. Zeng. 2019. "The Impact of Credit Constraints on the Performance of Chinese Agricultural Wholesale Markets." *Applied Economics*, Volume 51, Issue 35, Pages 3864-3875. DOI: 10.1080/00036846.2019.1584385
- Lifang, Xun, **Rigoberto A. Lopez**, and Shuai Yang. 2018. "Energy-Milk Price Transmission at the Product Brand Level." *Agricultural Economics*, Volume 49, Page: 289-299.
- Hirsch, Stefan, Giulia Tiboldo, and **Rigoberto A. Lopez**. 2018. "A Tale of Two Italian Cities: Brand-Level Milk Demand and Price Competition." *Applied Economics*, Volume 50, Issue 49, Pages 5239-5252.
- **Lopez, Rigoberto A.**, Xi He, and Azzeddine Azzam. 2018. "Stochastic Frontier Estimation of Market Power in the Food Industries." *Journal of Agricultural Economics*, Volume 69, Issue 1, Pages 3-17.

Outreach and Research Reports

- Bovay, John and Boehm, Rebecca. 2018. "Consumer Purchases of Connecticut-Grown Food and Farm Products Update 2015". [or52.pdf](#)
- Bovay, John. and Boehm, Rebecca. September 2018. "Consumer Purchases of Connecticut-Grown Food and Farm Products Update 2015." [or52.pdf](#)
- Bovay, John. 2018. "Milk Cost of Production Estimates for April, May, and June 2018." [or51.pdf](#)
- Bovay, John. 2018. "Milk Cost of Production Estimates for January, February, and March 2018." [or50.pdf](#)
- Bovay, John. 2018. "Milk Cost of Production Estimates for July, August, and September 2018." [or53.pdf](#)
- Rebecca Boehm, Jiff Martin, Jaime Foster, and Rigoberto A. Lopez. 2019. "Food Insecurity and Obesity Incidence Across Connecticut." [or54.pdf](#)
- Sijia Chen and Rigoberto A. Lopez. 2019. "Establishments and Jobs in the Connecticut Agricultural System in 2017." [or55.pdf](#)
- Bovay, John. 2018. "Milk Cost of Production Estimates for October, November, and December 2018." [or56.pdf](#)
- Rehber, E. 2018. "Contract Farming in Practice: An Overview." Research Report 7, [rr7.pdf](#)
- Eubanks, Gunnar W. and Bravo-Ureta, Boris E. 2019. "Financial Analysis of Hay Production in Connecticut." [or57.pdf](#)
- Bovay, John. 2019. "Milk Cost of Production Estimates for January, February, and March 2019." [or58.pdf](#)
- Khanal, Binod. 2019. "Cost and Returns for Eggplant Production in Connecticut in 2018". [or59.pdf](#)
- Bovay, John. 2019. "Milk Cost of Production Estimates for April, May, and June 2019." [or60.pdf](#)

Working Papers

- **Nathan Fiala** and Patrick Premand. 2018. "Social accountability and service delivery: Experimental evidence from Uganda." [wp49](#)
- **Alicia Barriga** and **Nathan Fiala**. 2018. "The supply chain for seed in Uganda: Where does it all go wrong?" [wp50](#)
- **Binod Khanal, Rigoberto A. Lopez** and Azzeddine Azzam. 2018. "Testing Local Bias in Food Consumption: The Case of Fluid Milk." Working paper 51, Social Science Research Network. <http://dx.doi.org/10.2139/ssrn.3269848>,
- **He, Xi, Rigoberto A. Lopez, and Rebecca Boehm**. 2019. "The Impact of Medicaid Expansion on the Healthfulness of Non-Alcoholic Beverage Choices among Low-Income Households." [Working Paper 53](#). Also available as a Social Science Research Network Working Paper: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3400875

Presentations

- **He, X., Boehm, R., Lopez, R.**, “Medicaid Expansion Impact on Choice of Carbonated Soft Drinks Among Low Income Households,” Selected paper, Agricultural and Applied Economics Annual Meeting, August 2018, Washington, D.C.
- **Boehm, R., Burney, S., He, X., Lopez, R.**, “Medicaid Expansion Impact on Diet Quality among Low-Income U.S. Households,” selected paper, Agricultural and Applied Economics Annual Meeting, August 2018, Washington, D.C.
- **Kitchel, H., Boehm, R., Cash, S.**, “Does Consumer Climate Change Knowledge and Risk Perception Influence Willingness to Pay for Climate Mitigation in Beverage Crop Production?” poster presentation, Agricultural and Applied Economics Annual Meeting, Washington, D.C., August 2018
- **Burney, S., Boehm, R., He, X., Lopez, R.**, “Impact of the 2014 Medicaid Expansion on SNAP Participation,” selected presentation, Agricultural and Applied Economics Annual Meeting, Washington, D.C., August 2018
- **Boehm, R., S. Burney, and R.A. Lopez.** “The Impact of Medicaid Expansion on Food Purchases among Low-Income U.S. Households.” Selected paper, Agricultural and Applied Economics Association Meetings, August 5-7, 2018, Washington, D.C.
- **Xie, Z., R.A. Lopez, X. Zhu, and C. Lin.** “Technical Measures, R&D Investment, and Technical Progress: Firm-Level Evidence from Chinese Exporters.” Selected paper, Agricultural and Applied Economics Association Meetings, August 5-7, 2018, Washington, D.C.
- **Binod, K., R. A. Lopez, and A. Azzam.** “Local Bias in Milk Consumption.” Selected poster, Agricultural and Applied Economics Association Meetings, August 5-7, 2018, Washington, D.C.
- **Burney, S.**, “The Impact of the ACA Medicaid Expansion on SNAP Participation and Benefits.” 2018. Agricultural and Applied Economics Association (AAEA) Annual Meeting, Washington, D.C.
- **Boehm, R.** “Community Food Security Data in Connecticut.” Hungry for Change Fall Conference sponsored by the Connecticut Food Bank and FoodShare, Hartford, CT, September 20, 2018.

Funding

- Rigoberto Lopez and Steven Lanza, “Economic Impact of the University of Connecticut on the State Economy,” \$29,775. Sponsored by UConn Office of Budget and Planning.
- Rigoberto Lopez, “The Impact of the Connecticut Green Industry on the State Economy,” \$5,036. Sponsored by Connecticut Nursery and Landscape Association.
- Rebecca Boehm, Implications for Market Structure and Farm Profitability of Expanded Production of Food in Greenhouses in the Northeast to Serve Local Markets. Role: Co-PI with Drs. John Bovay, University of Connecticut and Pengfei Lui, University of Arkansas. USDA Agriculture and Food Research Initiative Foundational grant (\$490,000). Not funded.
- Zhang, Chuanrong (Principal), Helton, Ashley (Co-Investigator), You, Liangzhi (Co-Investigator), Willig, Michael (Co-Investigator), Li, Baikun (Co-Investigator), Briggs, M (Supporting), Boyer, Mark A (Supporting), Li, Weidong (Supporting), **Lopez, Rigoberto** (Supporting), Luh, Peter B (Supporting), Paxton, Alexandra E (Supporting), Rajasekaran, Sanguthevar (Supporting), Segerson, Kathleen (Supporting), Bayulgen, Oksan (Supporting), Day-Lewis, F. (Supporting), Fahey, Robert T. (Supporting), Fu, P. (Supporting), Parent, Jason R (Supporting), Swallow, Stephen (Supporting), Presley, S. (Supporting), Wang, Bing (Supporting), Varanka, D. (Supporting), Witharana, Chandi (Supporting), Zhang, Peng (Supporting), "*INFEWS/T2: Towards a Resilient and Sustainable Food, Bioenergy, Water, and Biodiversity (FEWB) System in Northeastern United States*". Sponsored by NSF, Submitted. \$2.3 million. Not Funded.

Other Activities

Data purchases:

- Kilt Marketing Center datasets, University of Chicago, cost-shared (\$5000 out of \$7000) with the Rudd Center, the Dept. of Economics, and the School of Business:
 - a) Consumer Panel Homescan dataset
 - b) IRI Retail Scanner datasetBeing used by ARE, Business, and Economics faculty members and PhD students, faculty members and grad students.
- Global Trade Atlas dataset on recycling materials flows (\$3000), cost-shared with Prof. Sandro Steinbach (total data cost: \$10,000).

Student, staff, and postdocs:

- Funded ARE PhD students Xi He (5 hours/week in fall 2018) and Sijia Chen (5 hours/week spring 2018 and fall 2019) to work on food and health research and an employment report for Connecticut agriculture.
- Partial support (50%) for postdoc Rebecca Boehm in fall 2018 and January 2019 and support for postdoc Shaheer Burney in July/August 2018.
- Student labor to post reports and update website.
- Co-sponsored ARE seminars in fall 2018 and spring 2019.

Seminar Series

FALL 2018

- * September 29 – Speaker: Rebecca Boehm, Dept. of Agricultural and Resource Economics, University of Connecticut.
- * October 3 – Speaker: Thomas Krumel, Dept. of Agricultural and Resource Economics, University of Connecticut
- * October 3 – Speaker: Deepak Saraswat, Dept. of Economics, University of Connecticut.
- * October 10 – Speaker: Tim Murray, Dept. of Agricultural and Resource Economics, University of Connecticut.
- * October 17 – Speaker: Wei Zhang, Dept. of Economics, Connecticut College.
- * October 29 - Xi He, Dept. of Agricultural and Resource Economics, University of Connecticut.
- * November 1 – Julian Alston, Dept. of Agricultural and Resource Economics, UC Davis.
- * November 14 – Keith Evans, School of Economics, University of Maine.
- * November 28 – John Bovay, Dept. of Agricultural and Resource Economics, University of Connecticut.

SPRING 2019

- * January 28 – Matthew Woerman, Dept. of Agricultural and Resource Economics, University of California, Berkeley
- * February 1 – Sandro Steinbach, Dept. of Agricultural and Resource Economics, University of Connecticut
- * February 4 – Marianne Bitler, University of California, Davis
- * February 15 – Mahesh Dahal, Dept. of Agricultural and Resource Economics, University of Connecticut
- * March 8 – Carolyn Dimitri and Juan Carlos Sanchez Herrera, Dept. of Nutrition and Food Studies, New York University
- * March 25 – Chen Zhu, College of Economics and Management, China Agricultural University
- * March 27 – Teevrat Garg, School of Global Policy & Strategy, University of California, San Diego
- * March 29 – Brandon McFadden, Dept. of Applied Economics and Statistics, University of Delaware
- * April 5 – Kenneth Gillingham, School of Forestry & Environmental Studies, Dept. of Economics, School of Management, Yale University
- * April 17 – Rigoberto Lopez, Dept. of Agricultural and Resource Economics, University of Connecticut

Media Coverage

June 11, 2018. Washington Post and Chicago Tribune. Dewey, C. “U.S. diet is a climate disaster. Here are four easy fixes.” Available online at: <https://www.washingtonpost.com/news/wonk/wp/2018/06/11/the-u-s-diet-is-a-climate-disaster-here-are-four-easy-fixes/>

July 23, 2018. Public News Service. “Consumer Food Decisions Can Cut Climate Pollution.” Available online at: <https://www.publicnewsservice.org/2018-07-23/climate-change-air-quality/consumer-food-decisions-can-cut-climate-pollution/a63394-1>

October 10, 2018. Vice Munchies. Rothman, L. “How to Cook, Snack, and Shop in the Age of Seriously Scary Climate Change.” Available online at: https://www.vice.com/en_us/article/negkkm/how-to-cook-snack-and-shop-in-the-age-of-seriously-scary-climate-change

November 5, 2018. Leonardo DiCaprio Foundation blog. Boehm, R. “U.S. household food purchasing a major source of greenhouse gas emissions.” Available online at: <https://www.leonardodicaprio.org/u-s-household-food-purchasing-a-major-source-of-greenhouse-gas-emissions/>

November 15, 2018. TuftsNow Magazine. Clark, J., “The Fridge-in-the-Classroom Test.” Available online at: <https://now.tufts.edu/articles/fridge-classroom-test>

December 26, 2018. HealthDay “Is Juice on School Menus a Problem?” Available online at: <https://consumer.healthday.com/vitamins-and-nutrition-information-27/food-and-nutrition-news-316/is-juice-on-school-menus-a-problem-739822.html>

February 2, 2019. Naturally@UConn. “Researchers study food security and obesity in Connecticut.” Available at <https://naturally.uconn.edu/2019/02/05/researchers-study-the-link-between-food-insecurity-obesity-in-ct/>

Examples of Impacts

To illustrate some of the Center’s impacts, we have outlined a few examples of recent work of applied research integrated with outreach programs in partnership with governments, academics, and stakeholders.

Growing Local Milk

One example of the type of impact the Zwick Center has had in recent years is with the dairy program research performed by the Center since 2011. This research has resulted in over a dozen publications from the Zwick Center, as well as support for the administration and continuation of a dairy support program to aid dairy farmers in Connecticut. In support of Public Act 08-164, *An Act Concerning Assistance for Dairy Farmers*, the Center was pivotal in supplying the legislature-required economic impact study as well as quarterly cost of production estimates needed to release payments to state farmers. Over \$6 million has been distributed to dairy farmers resulting in the addition of about 75 jobs per year and roughly \$10 million in additional annual sales for the industry. Finally, the Center has continued to profile and quantify the segments likely to buy local milk, identify price premiums associated with locally labeled milk, and assess the effectiveness of alternative marketing practices to expand consumption of local brands in New England.

Community Food Security

A second example is the community food security work that the Zwick Center has continued with the most recent report's release in January 2019. After the initial report in 2005 and the subsequent 2012 report, this research has generated substantial media attention through television, print, and the internet, not just in Connecticut but across the United States, including Washington, DC and San Francisco, California. This report has facilitated the organization of several advocacy groups and has prompted legislators and NGO's to focus on the problems associated with food security in Connecticut towns. The report focuses on the population at risk for food insecurity, participation in public assistance programs, mapping the areas of food insecurity and obesity incidence, and measurements of food affordability throughout the state. The Zwick Center has also sponsored a study of food and economic choices by the extreme poor in the inner cities of Connecticut, led by Professor Nathan Fiala and a PhD student.

Economic Impacts

A third example is the 2017 study of the considerable economic impacts of Connecticut's agricultural industries. Not only does the \$4 billion estimated impact lend support to agricultural policies in the state, but the study was covered nationally, reaching 65 million readers. In addition, the Zwick Center has produced four more economic impact reports on agriculture in the region: the 2009 report for the Connecticut State Legislature in support of dairy payments, the first comprehensive report on agricultural impact in Connecticut in 2010, and two reports, in partnership with Farm Credit East, on Northeastern agriculture, forest products, and commercial fishing. Currently, two economic reports have been commissioned and funded externally, one by the University of Connecticut on UConn's impact on the state economy and another one by the Connecticut Landscape and Nursery Association on the economic impact of the green industry. Both are due to be released in early fall 2019.

Future Directions

The Zwick Center for Food and Resource Policy at the University of Connecticut is positioned to lead cutting edge research, education, and outreach in economic and business analyses in Connecticut. This includes a combination of compelling research studies on agricultural impact, quantitative evaluation of public policies, feasibility studies, increasing local and healthy food consumption, and enhancing food security and environmental sustainability. In addition to established relationships with state agencies and agricultural industry stakeholders, potential partners with whom we have existing relationships include state and city governments, the Connecticut Food Policy Council, and the Governor's Council for Agricultural Economic Development, in addition to collaborations within UConn with the Department of Extension, the Rudd Center for Food Policy and Obesity, and the Center for Environmental Science and Engineering. Dr. Kimberly Rollins, the incoming interim director of the Zwick Center, will develop a 10-year strategic plan for the Center. Because one purpose of the Center is to enhance programmatic areas in the College of Agriculture, Health and Natural Resources (CAHNR), this exercise will be cast simultaneously with the

strategic plans for CAHNR and ARE. In the next 10 years, the Zwick Center will continue on its path of excellence in research and outreach, with a focus on quantitative assessments of policy impacts that inform policy decisions to ensure that the agriculture, forestry, and fishery industries in Connecticut and beyond are both economically and environmentally sustainable for current and future generations.