

**Project/Activity Number:** NC1198

**Project/Activity Title:** Renewing an Agriculture of the Middle: Value Chain Design, Policy Approaches, Environmental and Social Impacts

**Period Covered:** October 16, 2019 – October 6, 2020.

**Date of This Report:** January 4, 2021

**Annual Meeting Date(s):** October 6-7, 2020, via Zoom.

**Participants:** Meeting attendees October 6-7, 2020 included:

Kathryn Anderson (UC Berkeley), Analena Bruce (Indiana University), Kate Clancy, David Conner (U of Vermont), Lindsey Day Farnsworth (U of Wisconsin), Kathryn De Master (UC Berkeley), Gail Feenstra (UC-Davis), Jill Fitzsimmons (U of Massachusetts-Amherst), Lauren Gwin (Oregon State University), Mary Hendrickson (U of Missouri), Vanessa Herald (U of Wisconsin), Clare Hinrichs (Pennsylvania State University), Mrill Ingram (U of Wisconsin), Becca Jablonski (Colorado State University), Jan Joannides (Renewing the Countryside), Patricia Kovacs (USDA-AMS), Sarah Lloyd (U of Wisconsin), Michelle Miller (U of Wisconsin), Marcy Ostrom (Washington State), Hikaru Petersen (U of Minnesota), Andrew Stevens (U of Wisconsin), Keiko Tanaka (U of Kentucky)

**Brief Summary of Minutes:**

- 1) Review of participant activities and sharing of information: This included an update on new and ongoing projects of interest to Agriculture of the Middle, which included new research on farm succession and transfer/land access dynamics, elderberries as a hedgerow crop, frozen regional foods, local food response to COVID-19 and positioning regional supply chains for future pandemics, as well as continuing research on hard cider value chains, grazing, hazelnuts, rural wealth creation, and value-added retail<p>
- 2) Project reports:<p>
  - Discussion of new Cider Apple survey, focus groups, and other progress on the multi-state cider project. (*Objective 1 and 2*) <p>
  - Discussion of the farmland access project, a collaboration between AOTM researchers at UMass, Penn State, Washington State, and NGO partner (Land for Good). (*Objective 1 and 2*).
  - Discussion by Colorado State researchers reported on a survey of low-income households in Denver, as well as a survey of COVID related shopping. Also reported on use of ARMS data to disaggregate market channels and to understand farmer performance matched with state level policy variables. Interested in understanding impacts by scale and commodity. (*Objective 1 and 5: Economics, Policy*) <p>
  - Discussion revolving around conceptualizing regional food systems, the role of values-based value chains, and the difficulty of transforming locally based network connections to regionally-based systems. (*Objective 2: Community Goals & Needs*) <p>

- Discussion of competition issues surrounding AOTM, including market access for small growers, as well as understanding how values shape both supply and demand curves, and how expectations of fairness can shape producer participation and influence competition policy. (*Objective 4 and 5 Governance and Policy*) <p>
  - Discussions also included the impacts of COVID-19 on research for AOTM, including household survey and dairy-related price crises, potential for moving toward a value-added grass-based dairy supply chain. (*Objective 2: Community Goals & Needs*) <p>
- 3) Policy Update and Interaction: <p>
- Discussion of policy related work with relevant stakeholders and interest groups. The NC-1198 policy goal is to “Build the capacity of project members to investigate, address, and communicate policy issues surrounding mid-scale supply chains.” One of the goals for the 2020 annual meeting was to identify relevant policy issues and opportunities for Agriculture of the Middle research, education and outreach, in light of (1) the election year, (2) the relatively recent NIFA move to Kansas City, and (3) the changed research landscape due to COVID-19. To this end, Kate Clancy led an interactive discussion on federal policy, and Lauren Gwin led a discussion about what NC-1198 members said were the (their) top two or three food and agriculture public policy issues in their states currently. From the latter discussion, we identified many areas of overlap, where there are opportunities for members to share ideas for how research has been or could be used effectively in shaping policy at the state level. We will share the notes from that discussion with participants and plan to update it at the next meeting. We will also find out whether participants have been in contact with each other on some of these issues.
- 4) Decisions Made:
- Future Leadership: Becca Jablonski 2020-2021, Lauren Gwinn 2021-2022.
  - Exploration of enhanced incorporation of Diversity, Equity, and Inclusion issues into a to-be-developed AOTM mission statement.
  - Discussion of website redevelopment and overhaul: De Master, Miller, Jablonski, Hendrickson, FitzSimmons
  - Website Updates: Miller, De Master, Jablonski, Hendrickson

### **Accomplishments:**

*Objective 1: Investigate key factors that influence economic performance and viability of mid-scale farms/ranches and their supply-chain partners.*

*Objective 2: Identify and assess the possibilities of mid-scale supply chains to contribute to community goals and needs.*

**California:** UC Davis/ UC ANR team focused on five main areas of research and outreach related to the Agriculture of the Middle and our NC 1198 project objectives. These five areas address Objectives 1 and 2. They include: (1) farm to school/ *farm to institution procurement from regional producers* (especially via food hubs); (2) *new market development and training*

*for small, mid-scale, beginning and immigrant producers and food hubs*; (3) *agritourism* as a strategy for small and midscale farmers to add value to their operations; and (4) *food and environmental justice and food security* for consumers and economic health for midscale farmers and (5) *urban agriculture* and small-scale producers. Our multiple projects allowed us to continue to examine perspectives and practices through the supply chain and understand challenges of farmers, distributors, processors, manufacturers, wholesalers, retailers and consumers who participate in these values-based supply chains.

***Farm to school/institution procurement.*** We continue to work with institutional buyers, helping to create new relationships between them and small/midscale producers, food hubs and values-based supply chains. We are finalizing a practical publication summarizing our work with the CSU and UC food service directors and food hubs to explore constraints and opportunities for regional sales and are continuing to engage in projects fostering value chain connections between local growers and regional food hubs. UC SAREP is partnering with the UC Davis Health's Center for Precision Medicine and Data Sciences to increase purchasing of California grown specialty crops by the medical center. We are also collaborating with Healthcare Without Harm on a national project to build markets between regional legume growers and hospital systems, focusing on high protein specialty crops (beans, nuts).

***New market development and training for small/midscale producers and food hubs.*** SAREP and UC Davis food safety academics have been working with food hubs statewide to provide training and technical assistance on FSMA compliance. We have also been working with elderberry growers to establish markets for elderberries that are currently part of hedgerows on their farms.

***Agritourism and small/ midscale farms.*** SAREP and collaborators at the University of Vermont created Twitter thread presentation summarizing results of a national agritourism survey. In California, we began work on a new Western Extension Risk Management project to conduct agritourism "intensive", multi-day workshops in two regions of the state.

***Food and environmental justice in agricultural and urban communities.*** SAREP continues to work with extension advisors and community organizations in Sonoma and Marin counties to explore opportunities to make farmers markets more inclusive. Additional focus groups were conducted to understand how consumers in these communities thought about and were able to access farmers markets during COVID. We also began collaborating with Cook Alliance and FoodNome in southern California to understand the policies, regulations and other practical issues involved in helping home cooks to prepare, serve and sell meals in their communities [Microenterprise Home Kitchen Operations – MEHKOs]. These are often cooks in low-income communities of color, hardest hit by impacts of COVID-19. The regulations could also apply to small agritourism operators who might want to cook and serve meals to farm customers.

***Urban agriculture.*** SAREP has been working with extension colleagues on a new project to examine how CSAs and box schemes in urban communities have pivoted as a result of COVID-19 and how small and midscale farmers are making changes to remain economically stable.

Research situated at **UC-Berkeley** conducted research on **farmland access and farmland investment** and examined ways that land access impacts mid-scale producers in Illinois, California, and Oregon. De Master also began new research on the agri-food tech sector and examined emerging issues around novel foods and agricultural technologies and how emerging trends will impact local food supply chains.

**Iowa:** For Objective 1: Using anonymized farm-level data collected by the Iowa Farm Business Association, the Iowa team analyzed the evolution of the financial situation of Iowa farms, what successful farms were doing differently, and discussed strategies to improve farm resiliency. Part of this included: chairing the ISU Farm Financial Stress Task Force in 2020, and delivering 2 presentations updating members on the financial situation of Iowa farms. Members of the Task Force include leaders from the Iowa Bankers Association, Iowa Mediation Services, Iowa Department of Revenue, Iowa Farm Service Agency, Iowa Concern Hotline, Iowa Department of Agriculture and Land Stewardship, ISU Beginning Farmer Center, and ISU Extension and Outreach.

**Michigan:** The project characterized consolidation in a number of food and agricultural industries, including the state of concentration globally, particularly for agricultural inputs, as well as seed industry impacts in the United States. Outreach publications included an update on consolidation in the US beer industry. Additional outreach included numerous interviews with stakeholders and journalists, which resulted in coverage by dozens of media outlets (e.g. Wall Street Journal, Farm Journal, Australian Broadcasting Corporation). Additional visualization and analysis of consolidation in food and agricultural industries was conducted for a second edition of *Concentration and Power in the Food System* (under contract with Bloomsbury Academic).

**Wisconsin:** Miller organized a Wisconsin team to participate on a five-state project organized by Hikaru Peterson entitled “Lessons from COVID-19: Positioning Regional Food Supply Chains for Future Pandemics, Natural Disasters and Human-made Crises.” Miller organized a national team to work on understanding food flow, “U.S. Food Flows: A Cold-Chain Network Analysis of Freight Movements to Inform Local and Regional Food Issues”. This is funded in part through a cooperative agreement with USDA-AMS-TSD. Miller brings AOTM concepts and challenges to the National Academies of Science Transportation Research Board’s Agriculture and Food Transportation Committee. The committee meets quarterly and is planning a food-centric workshop for the 100<sup>th</sup> Anniversary of the TRB in January 2021.

**Cider Project:** Team members from UVM, UW-Madison, MSU, and WSU, recipients of the USDA NIFA AFRI Small and Mid-Sized Farm Prosperity grant (USDA AFRI #2018-68006-28105), analyzed the previously conducted survey of 82 cider apple growers that addressed the economic performance, the environmental and natural resource aspects, and the community benefits of supply chains for craft hard cider production. A report was drafted for

journal submission to the journal *Hort Technology*. This paper details the characteristics, research and extension needs, and current goals of the cider apple growers. Additionally, focus groups with hard cideries were held in Washington, Wisconsin, Michigan, and Vermont to determine supply chain characteristics, obstacles, and opportunities. The project has been advised by a national stakeholder advisory committee and results will be analyzed and shared in the upcoming year.

Objective 4: Examine and assess governance structures and mechanisms of mid-scale supply chains and their role in mediating, communicating, and implementing values around food quality, economic performance, social equity, and environmental sustainability.

**Alabama:** Collaborating with colleagues at Auburn University, Penn State, and Pace University, a new project was started to look at the increased media and consumer attention to local foods in the era of COVID. This project, which is in the very early stages of data collection, will include both a nationwide twitter scrape, a twitter scrape of the southern black-belt counties, and a survey of CSA members in New York state. The southern data is currently being collected. A graduate student collected a new set of data from AL farmers to extend a feasibility study of the implementation process and regulatory requirements for water testing as specified in the FSMA Produce Safety Final Rule for small- and medium- scale fruit and vegetable producers. A previous student drafted preliminary results for publication suggesting that water quality is not a significant food safety concern in AL to date. Moreover, these results suggest inconsistencies among the recommended testing options and hence present an additional challenge for producers. Also, a graduate student and now colleague at Northwestern University developed a meal kit using community-based research methods with a low-income community. This meal kit was designed to be sold at a small grocer. Using these data, we extend the work to explore the feasibility of implementing the USDA's proposed America's Harvest Box initiative. Data suggest that it would not be viewed as an acceptable substitute for a portion of SNAP in part because it does not address the constraints of food work or consider food voice.

**Colorado:** Becca Jablonski and colleagues at Colorado State University continue to do significant work evaluating financial performance implications for U.S. farms and ranches of sales through non-commodity markets. As part of this body of work they examine factors such as scale, debt, labor as a share of variable expense, wages, beginning farmer status, and other explanatory variables to understand the relationship of farms with sales through local food markets. Three areas of particular emphasis this year have been: 1) examining the financial performance implications of sales through local food markets; 2) exploring utilization of Federal crop insurance by scale and market channel; and 3) examining characteristics associated with beginning farm and ranch profitability. As an example of their findings, positive expenditure on Federal crop insurance seems to be impacted by scale and not by market channel; as operations get larger they are much more likely to have Federal crop insurance. Results from this research

are helping to support USDA RMA and congress in determining if/how to create new insurance products to better serve small and mid-scale farms and ranches with sales through local food markets.

Additionally, Jablonski and team have put a significant amount of time into supporting producers - particularly those that are small and mid-scale - who were negatively impacted by COVID-19. Early in the pandemic the team created a food matchmaking tool to better link producers with emerging market opportunities, they conducted an economic impact assessment for the National Sustainable Ag Coalition to estimate losses for producers selling through local markets and provided it to congress to leverage support in the CARES act, they developed a series called "Voices in the Field" to highlight the stories of producers, and produced policy briefs to better guide policymakers, philanthropy, and nonprofits. More information can be found here: <https://foodsystems.colostate.edu/covid19/>

Finally, Jablonski and colleagues at Colorado State University continue to work to understand how urban food policies support farmers, ranchers, and rural communities, paying particular attention to how these policies impact mid-scale operations. The team uses an agent-based approach, which allows for the simulation of complex systems, and the emergent behavior that may result from the autonomous actions of agents with each other and with their environment. In this case, integrating economic data, social decision-making factors, biophysical crop data, and life cycle analysis allows them to model complex rural to urban food chains across several Colorado commodities and scales of production. In focusing on rural-urban linkages, this model allows them to simulate a variety of potential changes to the Denver food policy environment, and to observe any resulting effects or feedbacks throughout various stages of the supply chain, from school purchasing decisions to potential changes in producer planting regimes, which may affect environmental outcomes including soil health and CO2 emissions. The research is still ongoing, but the team has published some work recommending that sustainability standards be place specific and better incorporate producer voice. Further, midscale producers have been better integrated into conversations with institutional buyers in Denver to help determine if these markets represent viable opportunities for mid-scale operations. More information can be found here: <https://foodsystems.colostate.edu/community-impacts/urban-rural-linkages/>

Objective 5: Build the capacity of project members to investigate, address, and communicate policy issues surrounding mid-scale supply chains.

Kate Clancy and Kathy Ruhf are engaged in an ongoing project synthesizing journal articles, book chapters, websites and other resources in developing a report on regional food systems.

## ***Outputs:***

### Conference presentations:

- Brinkley, Catherine. “Food Banks and Local Food Networks,” *American Sociological Association (ASA)*, online-due to COVID-19, August, 2020
- Feenstra, Gail. “Farmers Market LIFE: Using participatory research to expand the customer base of farmers market shoppers,” created with Penny Leff and Julia Van Soelen Kim and sent out a Twitter thread on project results as part of the *Agriculture, Food and Human Values Society Twitter Conference*, July 23, 2020.
- Feenstra, Gail. “Promoting food and water justice in California’s Central Valley,” organized and introduced this session (online presentations) for the *Society for Nutrition Education and Behavior annual conference*, July 21, 2020.
- Feenstra, Gail, Engelskirchen, and Penny Leff. “Your Hub is Subject to FSMA, Now What? FSMA Implementation Tools for Food Hubs” workshop. *Wallace Center’s 2020 National Good Food Network Conference* March 10-13, 2020, New Orleans, LA.
- Feenstra, Gail, “Food security and community gardens: Who will feed future cities?” Chair and intro speaker of session at “*The Next Generation of Sustainable Cities*” conference, UC Davis, January 24, 2020 (60 attendees).
- Feenstra, Gail, David Conner, and Penny Leff. “Critical factors to agritourism success: Multi-State perspectives,” sent out a Twitter thread on project results as part of the *Agriculture, Food and Human Values Society* twitter conference, July 23, 2020.
- James, Harvey, Mary K. Hendrickson, Christine Sanders & Elizabeth Anderson. “Fairness Perceptions and Expectations in Agriculture: Lessons from the Case of Dicamba,” Poster presentation, *Agricultural & Applied Economics Association meeting*, August 10-11, 2020.
- Miller, Michelle. “Optimizing Food Systems,” Tri-Societies annual meetings, on-line November 9, 2020.
- Miller, Michelle. “Food Access and Food Equity,” Central Wisconsin Coop Conference, November 2, 2019.

### Invited Presentations to Community Groups, Students and Stakeholders:

- Brinkley, Catherine. “7<sup>th</sup> Annual One Health Symposium: The Future of Food.” University of California, Davis; November 8, 2020
- Brinkley, Catherine. “Opening address: Farm of the Future,” University of Pennsylvania, September 30, 2020 <https://vimeo.com/467473880>
- Brinkley, Catherine. “Opening address: past, present and future of planning during pandemics,” Center for Planning Excellence, September, 2020. <https://youtu.be/QZCSGHB6xSs>
- Brinkley, Catherine. “Food Shortages in a Pandemic, Mondavi Institute,” Savor Event May, 2020 <https://rmi.ucdavis.edu/events/savor-food-shortages-pandemic>

- Clancy, K. “Regional Food Systems” Online lecture in Organic and Sustainable Agriculture Policy course. New York University. March 18, 2020.
- Clancy, K. Presentation on regional food systems during online public forum “Toward a Regional (3 state) Food Equity Plan for New York” organized by City University of New York CUNY) Urban Food Policy Institute. March 25, 2020.
- De Master, Kathryn, Invited Discussant: “Agriculture Land and Climate Policy Virtual Roundtable,” Berkeley Food Institute, University of California, Berkeley, June 3, 2020. Berkeley, California.
- De Master, Kathryn. “Lessons from *Bite Back: People Taking on Corporate Food and Winning*,” Department of Environmental Science, Policy, and Management, Environmental Problem-Solving course guest panelist (with Saru Jayaraman), November 12, 2019.
- De Master, Kathryn. “Biting Back Against Corporate Food During the COVID-19 Crisis.” Global Environmental Theme House (GETH) series, April 6, 2020.
- De Master, Kathryn. “Agroecological Transitions and Food Sovereignty: Why the Middle Matters,” Department of Environmental Science, Policy, & Management, Agroecology course guest lecture, November 21, 2019.
- Feenstra, Gail. “Sustainable and equitable food systems,” speaker on a panel at the *Sacramento Valley Section’s Young Planners’ Group Pint Night*, July 8, 2020. (~27 attendees).
- Feenstra, Gail, G. Engelskirchen, P. Leff. Webinar: “Understanding Opportunities for Elderberry Sales” webinar, April 22, 2020: <https://sarep.ucdavis.edu/are/elderberry/webinar>
- Miller, Michelle. “Food Flow,” Miami-Dade Transportation Working Group webinar, October 9, 2019.
- Miller, Michelle. “Food Systems Mapping,” Wallace Center Food Systems Leadership Network webinar, April 29, 2020.
- Miller, Michelle. “Food Systems and COVID19,” Wisconsin Public Radio Ideas Network interview, May 4, 2020.
- Miller, Michelle. “Food Systems and COVID19,” UW Now Livestream presentation, May 19, 2020.
- Miller, Michelle. “Food Distribution,” Metro Washington Council of Governments webinar, June 25, 2020.
- Miller, Michelle. Oregon Public Radio interview on food systems, August 7, 2020.
- Miller, Michelle. “Food Ecosystems,” Local Food Trust webinar, August 19, 2020.
- Plastina, Alejandro. “Ag Trends, Opportunities, and Challenges,” Invited Presentation at the *Ag Forum on Agriculture and the Economy*, Successful Communities Speaker Series. Greenfield, IA. Mar 13, 2020.
- Plastina, Alejandro. “Farm Bill Decisions,” First National Bank, Eagle Grove, IA. Mar 6, 2020.

### **Impacts:**

**Farm transfer project:** A group of AOTM researchers began a USDA-funded project on farm transfer and farmland access: Hinrichs, C.; Fitzsimmons, J.; Joanides, J.; Ostrom, M; Ruhf, K.



“Farm Succession and Transfer Dynamics: Sustaining an Agriculture of the Middle in the U.S.”  
USDA NIFA AFRI, 2021-2024

**Wisconsin:** Results from the hard cider research project targeted to small and midsize growers and makers were summarized and released as a report (available at <http://www.cias.wisc.edu/comparing-apples-to-apples/>.) report (available at <http://www.cias.wisc.edu/comparing-apples-to-apples/>.) This preceded a 4-state AOTM team grant (Ostrom, WA State, PI; Howard, MI, Conner, VT, Miller, WI) of \$500,000 from USDA NIFA AFRI Small and Mid-Sized Farm Prosperity grant (USDA AFRI #2018-68006-28105 “Apple to Glass: Improving orchard profitability through developing regional craft ciders.”

Wisconsin: Lindsey Day Farnsworth and Michelle Miller have continued to work with the City of Madison on a business plan for a public food terminal/hub that would serve small and mid-size farmers. The City contributed \$135,000 for the work, and Farnsworth is completing work on terminal market structure and governance. CIAS is partnered with farm and food businesses on a grant from the Local Food Promotion Program (USDA-AMS), now in its third year. Lindsey Day Farnsworth took a position with University of Wisconsin – Extension as the Food Systems team lead. Michelle Miller is now serving on the NAS Transportation Research Board's standing committee on Agriculture and Food Transportation.

## **Publications:**

### *Journal Articles and Book Chapters:*

- Brekken, C., Dickson, C., Peterson, H., Feenstra, G., Tanaka, K., Ostrom, M., and Engelskirchen, G. (2019). Economic impact of values-based supply chain participation on small and mid-sized produce farms. *Journal of Food Distribution Research*, Volume 50, Issue 2, pp. 1-26. ISSN 2643-3354 (online); [https://www.fdrsinc.org/wp-content/uploads/2019/11/JFDR\\_50.2.pdf#page=6](https://www.fdrsinc.org/wp-content/uploads/2019/11/JFDR_50.2.pdf#page=6)
- Christensen, L.O., B.B.R. Jablonski, and J. O’Hara. 2019. School districts and their local food supply chains: Implications for farm to school programs. *Renewable Agriculture and Food Systems* 34(3):207-215. <https://doi.org/10.1017/S1742170517000540>
- Clark, J., B.B.R. Jablonski, A. Irish, S. Inwood, and J. Freedgood. A Contemporary Concept of the Value(s)-added Food and Agriculture Sector and Rural Development. Accepted. *Community Development*. <https://doi.org/10.1080/15575330.2020.1854804>
- Clay, L.; Perkins, K.; Motallebi, M.; Plastina, A.; Farmaha, B.S. 2020. "The Perceived Benefits, Challenges, and Environmental Effects of Cover Crop Implementation in South Carolina." *Agriculture* 2020, 10, 372. doi: 10.3390/agriculture10090372.
- Conner, D. (2020). Exploring Resource Management for Sustainable Food Businesses: Three Vermont Case Studies. *Journal of Agriculture, Food Systems, and Community Development*, 9(3), 99-107. <https://doi.org/10.5304/jafscd.2020.093.002>

- De Master, Kathryn Teigen and Malin, Stephanie. 2020. “Devil’s Bargains: Fractured Farms or Freedom?” in *Bite Back: People Taking on Corporate Food and Winning*, Kathryn De Master and Saru Jayaraman, eds., University of California Press: Berkeley.
- Didero, N., M. Costanigro, and B.B.R. Jablonski. Accepted. Promoting farmers market via information nudges and coupons: a randomized control trial. *Agribusiness: An International Journal*.
- Diekmann, L., and M. Ostrom (In Press). Growing Together: Participatory Approaches in Urban Agriculture Extension. In M. Egerer & H. Cohen (eds.), *Urban Agroecology: Interdisciplinary Approaches to Understand the Science, Practice, and Movement*. CRC Press.
- Fairbairn, Madeleine, James LaChance, Kathryn De Master, and Loka Ashwood. 2020. “*In vino veritas, in aqua lucrum*: Farmland investment, environmental uncertainty, and groundwater access in California’s Cuyama Valley. *Agriculture and Human Values*.
- Hancock, G., Y. Liu, A.R. Smith, and A. Plastina. "Motivations and Challenges of Cover Crop Utilization for Georgia Crop Production." *Journal of the American Society of Farm Managers and Rural Appraisers* 2020, pp. 122-128.
- Hendrickson, M.K. “Covid lays bare the brittleness of a concentrated and consolidated food system.” *Agriculture and Human Values* 37(3):579-580.
- Hendrickson, MK, SH Massengale, R. Cantrell. 2020. “No money exchanged hands, no bartering took place. But it’s still local produce”: Understanding local food systems in rural areas in the US Heartland.” *Journal of Rural Studies* 78, 480-490.
- Howard, Philip H. and Mary K. Hendrickson. 2020. The State of Concentration in Global Food and Agriculture Industries. Pp. 89-91 in *Transformation of Our Food Systems: The Making of a Paradigm Shift* (Hans Herren, Benedikt Haerlin & IAASTD +10 Advisory Group, eds.). ISBN 978-3-00-066209-6.
- Howard, Philip H. 2020. How Corporations Control our Seeds. Pp. 15-29 in *Bite Back: People Taking on Corporate Food and Winning* (Saru Jarayaman & Kathryn De Master, eds.). Oakland, CA: University of California Press.
- Jablonski, B.B.R., J. Casnovsky, J.K. Clark, R. Cleary, B. Feingold, D. Freeman, S. Gray, L. Schmitt Olabisi, X. Romeiko, C. Walsh, A.E. van den Berg. Accepted. Emergency food provision for children and families during the COVID-19 pandemic: Examples from five U.S. cities. *Applied Economic Perspectives and Policy*. <https://doi.org/10.1002/aep.13096>
- Jablonski, K.E., J.A. Dillon, J. Hale, B.B.R. Jablonski, and M.S. Carolan. Accepted. One place doesn’t fit all: Improving the effectiveness of sustainability standards by accounting for place. *Frontiers in Sustainable Food Systems*.
- Jablonski, B.B.R., A.G. Bauman, and D. Thilmany McFadden. 2020. Local food market orientation and labor intensity. *Applied Economic Perspectives and Policy*. <https://doi.org/10.1002/aep.13059>
- Jablonski, B.B.R., M. Sullins, and D.T. McFadden. 2019. Community Supported Agriculture Marketing Performance: Results from Pilot Market Channel Assessments in Colorado. *Sustainability* 11:2950. <https://doi.org/10.3390/su11102950>

- Jablonski, B.B.R., M. Carolan, J. Hale, D. Thilmany McFadden, E. Love, L.O. Christensen, T. Covey, L. Bellows, R. Cleary, O. David, K.E. Jablonski, A. Jones, P. Meiman, J. Quinn, E. Ryan, M. Schipanski, H. Summers, and M. Uchanski. 2019. Connecting Urban Food Plans to the Countryside: Leveraging Denver’s Food Vision to Explore Meaningful Rural-Urban Linkages. *Sustainability* 11(7):2022. <https://doi.org/10.3390/su11072022>
- Long, A.B., B.B.R. Jablonski, M. Costanigro, and W.M. Frasier. Accepted. The Impact of State Farm to School Procurement Incentives on School Purchasing Decisions. *Journal of School Health*.
- Miller, Michelle. 2020. “Innovations in Food Logistics” summary, in *Innovations in the Food System: Exploring the Future of Food: Proceedings of a Workshop*. National Academies of Sciences, Engineering, and Medicine. Washington, DC. Washington, DC: The National Academies Press, <https://doi.org/10.17226/25523>.
- Olimpi, E.M.\*, P. Baur\*, Echeverri, A., Gonthier, D., Karp, D.S., Kremen, C., Sciligo, A., De Master, K.T. (senior author). 2019. “Evolving Food Safety Pressures in California’s Central Coast Region.” *Frontiers in Sustainable Food Systems*. \*Both authors contributed equally to this publication.
- Ostrom, M., Goldberger J. R., and K. S. Smith. (Accepted). Market Makers: Exploring Gender Dynamics in Farmers Markets from Field to Booth, *Western Economics Forum*, Fall 2020 Issue.
- Prescott, M. R. Cleary, A. Bonanno, M. Costanigro, B.B.R. Jablonski, and A. Long. 2020. A systematic review of the impact of farm-to-school activities on student outcomes. *Advances in Nutrition*. 11(2):357-374. <https://doi.org/10.1093/advances/nmz094>
- Ransom, E., M. DuPuis, and M.R. Worosz. 2020. Why farmers are dumping milk down the drain and letting produce rot in the fields. Lead story in *The Conversation*, 23 Apr.( <https://theconversation.com/why-farmers-are-dumping-milk-down-the-drain-and-letting-produce-rot-in-fields-136567>)
- VanSandt, A, S. Low, B.B.R. Jablonski, and S. Weiler. 2019. Place-Based Factors and the Success of Farm-Level Entrepreneurship. *Review of Regional Studies*. 49(3).
- Walcott, E., Raison, B., Welborn, R., Pirog, R., Emery, M., Stout, M., Hendrix, L., and M. Ostrom (2020). We (All) Need to Talk About Race: Building Extension’s Capacity for Dialogue and Action. *Journal of Extension*. October. <https://www.joe.org>
- Worosz, M.R., Farrell, B. and C.A. Jenda. 2020. Teaching critical thinking via the “Wicked Problem” of food insecurity. *portal: Libraries and the Academy*, 20(4):621-53.

### Extension and Outreach Materials

- Farnsworth, L., Miller, M., and Lloyd, S. ACDS, LLC. *Madison Terminal Market Final Report*. Madison, WI: Report to the City of Madison. August 20, 2020. URL forthcoming.
- Feenstra, Gail, G. Engelskirchen, P. Leff. 2020. Website created: *Elderberries as a hedgerow crop for California farmers website and resources*: [California Elderberries \(ucanr.edu\)](https://ucanr.edu)
- Howard, Philip H. 2019. Recent Changes in the U.S. Beer Industry. <https://philhoward.net/2019/12/30/recent-changes-in-the-u-s-beer-industry/>

- Howard, Philip H. 2020. Organic Processing Industry Structure 2020.  
<https://philhoward.net/2020/09/24/organic-processing-industry-structure-2020/>
- Howard, Philip H. February 2020. “Consolidation in the Global Seed Industry: Drivers and Impacts.” Presentation at Genetic Engineering and Society Center Colloquium, North Carolina State University. Raleigh, NC.
- Lloyd, Sarah. Public webinar on dairy policy featuring agricultural economist Torsten Hemme from the International Farm Comparison Network, April 15, 2020.
- Lloyd, Sarah. Participatory modeling session on dairy supply management, October 28, 2020.
- Miller, Michelle and Sarah Lloyd. On-line viewing of the film “Gather,” a film about Native American food sovereignty, with a panel response, organized by Lloyd and Miller, October 21, 2020.