

Hatch NE2251 Tourism Resilience and Community Sustainability: Adaptation and Recovery of Rural Businesses and Destinations

NE2251 Objectives:

1. Assess, inventory, and classify the impact of current and potential external shocks on rural tourism at the multi-state level
2. Investigate the resilience, adaptability, and recoverability of different components of the rural tourism system (i.e., suppliers, buyers, and destinations)
3. Identify, implement, and evaluate strategies for tourism businesses and destinations to cope with external shocks.

Projected Outputs

- Publications in scientific articles/reports Webinars/workshops
- Crisis recovery frameworks and theory development Inventory of tourism assets in rural areas under examination
- Assessment of tourism performance pre, during, and after crisis Creation of a rural tourism resilience index dashboard Graduate students engaged in multi-state projects
- Extension programs engaged
- New Extension programs developed

Projected Outcomes or Projected Impacts

- A better understanding of the role of the tourism industry in local and regional economy and how dependency on tourism sectors influences local/regional economic resiliency.
- Development of future funding proposals that promote collaborative research and extension activities on tourism resiliency and community sustainability in the U.S.
- Development of best practice toolkit for rural tourism responses to external shocks. Development of strategies to recover from external shocks.

Key Milestones

- (2022):Apply for competitive funding to support objectives • Fine-tune the project objectives and methods with input from Extension specialists • Identify and recruit participating states and investigators • Recruit research participants • Identify agency/community partners
- (2023):Implement research activities for each objective • Disseminate practical findings through Extension research partners
- (2025):Continue with years 2023-2024 research activities • Continue extension and project results transfer • Disseminate outcomes through academic and practical outlets • Plan for next phases

**NE2251 Hatch Integrated Multistate Research Project
ANNUAL REPORT**

Project Number: NE2251

Project Title: Tourism Resilience and Community Sustainability: Adaptation and Recovery of Rural Businesses and Destinations

Chair: Doug Arbogast, West Virginia University, Morgantown, WV

Period Covered: October 1, 2022 through September 30, 2023

Date of this Report: November 24, 2023

Annual Meeting: September 24, 2023, Milwaukee, WI

Summary of Minutes from September 24, 2023 Annual Meeting

The meeting was held from 3-6 pm Central on September 25th at the Hyatt Regency Hotel in Milwaukee, WI in conjunction with the 2023 National Extension Tourism conference

Meeting Participants registered in NIMSS as of 9-24-23. Highlighted were not present at annual meeting

Arbogast, Douglas	West Virginia - West Virginia University	Doug.arbogast@mail.wvu.edu
Deng, Jinyang (zoom)	West Virginia - West Virginia University	Jinyang.deng@mail.wvu.edu
Eades, Daniel C	West Virginia Cooperative Extension	Daniel.eades@mail.wvu.edu
Chase, Lisa	Vermont - University of Vermont	Lisa.chase@uvm.edu
Curtis, Kynda	Utah - Utah State University	Kynda.curtis@usu.edu
Entsminger, Jason	Maine Cooperative Extension	Jason.entsminger@maine.edu
French, Charles (Jada Lindblom represented UNH)	New Hampshire Cooperative Extension	Charlie.french@unh.edu
Goetz, Stephan	Pennsylvania - Pennsylvania State	Sjg16@psu.edu
Jasper, Cynthia R	Wisconsin - University of	crjasper@wisc.edu

(zoom)	Wisconsin	
King, Brian (zoom)	Texas AgriLife Research	Brian.king@ag.tamu.edu
Lee, Seunghoon (zoom)	Texas AgriLife Research	shlee@tamu.edu
Knollenberg, Whitney	North Carolina - North Carolina State University	wgknolle@ncsu.edu
Lamie, Ronald	South Carolina - Clemson University	dlamie@clemson.edu
Phillips, Miles D	Oregon - Oregon State University/Sea Grant Extension	Miles.phillips@oregonstate.edu
Qian, Xinyi	Minnesota - University of Minnesota	qianx@umn.edu
Yeager, Emily (could not participate but provided update)	East Carolina University	Yeagere18@ecu.edu

Meeting Participants who were not registered in NIMSS as of 9-24-23 but attended the annual meeting and participated in the conference.

Fred Schumann	University of Guam	schumannf@triton.uog.edu
Kristina Siayai	University of Guam	kristina@triton.uog.edu
Jake Powell	Utah State University	Jake.powell@usu.edu
Adam Hodges	West Virginia State University	Ahodges7@wvstateu.edu
Whitney Knollenberg	North Carolina State University	wgknolle@ncsu.edu
Ann Savage	North Carolina State University	aesavage@ncsu.edu
Sharon Morllog	2020 Farms Coop	
Kelli Hepler	Aianta	khepler@aianta.org
Shawn Dorius	Iowa State University	sdorius@iastate.edu
Jada Lindblom	University of New Hampshire Extension	Jada.lindblom@unh.edu

The meeting was called to order by Doug Arbogast at 3:00 PM EST.

- 1. We began by welcoming folks to the meeting, reviewing the meeting agenda, and reviewing the NE2251 integrated, multi-state group objectives.**

2. Update from NIFA National Program Leader Ashley Mueller

- NIFA updates
- Funding updates and opportunities (encouraging us to consider a conference grant to support future meetings)
- Upcoming opportunities and announcements.

3. Discussion on how to make sense of Hatch funding especially for Extension in order for them to feel that they have a role and to increase opportunities for integrated teams and engage academic research faculty that have potential to leverage Hatch funding.

- What can we do to make sure that Extension faculty can access travel funds (only one person in attendance was a “traditional” faculty member affiliated with a research station)
- Can we do a NIFA travel grant since most folks can’t tap Ag. Experiment Station (AES) funds?
- Part of this work is to secure external funds so hopefully we can leverage the Hatch label to secure resources
- Work with Extension Directors to encourage policy changes that would allow Extension to access funds
- How to pull in resources for folks that are NOAA funded via Sea Grant (Marine Experiment Stations?)
- Opportunities to secure private industry funding e.g., North Face
- Increasing engagement with faculty that can access McIntire-Stennis since New England activities often happen in forested areas
- Special journal issue in discipline specific journal to encourage AES research faculty to engage
- Message to ag./applied econ. or rural sociology department heads (other relevant ag. college departments) to notify them of team activities.
- RRDC’s can assist with strategy to recruit academic and Extension faculty and assist in overcoming roadblocks to access Hatch funding.

4. Members in attendance provided brief state reports. Detailed reports were submitted to the PI following the meeting.

Kynda Curtis has a reporting document for activities, outcomes, presentations, etc. that team members can use to share information about their current relevant work to be added to the annual report.

- Short slide presentations:

- WVU/Penn State/NERCRD/VT/NH measuring rural tourism change post-COVID
 - WVU/MN/MI “big data” research
 - Texas A&M – faculty are required to get Hatch grant within 9 months of employment (Brian has brought on four tenure track faculty); partnerships and leadership in strengthening resilience of rural tourism businesses
- Cynthia in WI – consumer behavior and retail in post-COVID
 - Guam – Entrepreneurship in response to tourism shutdown, especially agritourism and value-added ag. (case studies of businesses to demonstrate how to scale up activities)
 - MN – Farmers market and local food promotion, on farm events, farm to table menus; big data proposal mentioned above; legislative citizen committee on MN...youth focus in Rochester area; MN Sea Grant involved in equitable access to North Shore tourism opportunities; customer service training.
 - Utah State – Wineries and distilleries, role of drink tourism in rural areas, gender issues in the industry; gateway natural amenity region (GNAR) from a planning perspective; statewide outdoor rec plan
 - VT – Agritourism national network development; multi-state roundtable event (NSF funded research on establishment of the network, like how networks form and work); USDA-AMS director of agritourism operations across the U.S.
 - NERCRD – COVID impact to beverage industry, population threshold models; broadband and tourism; NPS visitation data with emphasis on Black and minority populations
 - AIANTA - National cooperative, Mt. Rainier - how interpretive workers can build better cultural relationships, and communicate about native American cultural land practices; Colorado food, sovereignty to reconnect tribal members to foodways/traditions
 - MD (1890?) - Agritourism
 - NC State - First Impressions program; economic impact work; disaster preparedness/resilience/recovery; Renewable Resources Act, outdoor recreation, gateway programming and planning; breweries and the use of local agricultural products; state park access for underserved populations; travel and retirement decisions
 - WV State - National Coal Heritage Area; community arts
 - Iowa State - recreation, Gateway communities; secondary analytics; programming around research, outputs; beverage tourism – how many is too many?

- UNH – Faculty from three departments created Developing Interconnections for Regional Trails (DIRT) biz network, needs assessments, workshops, research and evaluation; barn trail
- Maine – EDA block grant funds to work with state outdoor recreation office and outdoor industry businesses (e.g. Old Town, L.L. Bean), Todd Gabe conducting IMPLAN analysis of industry, business model changes in light of climate change, youth workforce and entrepreneurship initiatives; private forest land management issues
- Oregon (Sea Grant) – Fermentation science degree; rural coastal tourism; establishing destination marketing organization with local, private business investment; agritourism – \$750k grant to understand sourcing and consumption of local seafood; guide training certification (GORP); wildlife viewing and conservation; wildlife photography as PTSD therapy.

5. Members in attendance discussed the potential for future collaborative activities. Intersections for potential collaboration identified across research topics/projects included:

- Business resilience and entrepreneurship
- Linking public and private investment
- Breweries and craft beverage tourism
- Tribal and indigenous populations
- Agritourism
- Outdoor recreation
- Disaster resilience
- Experiential learning

- 6. The group discussed potential new members to encourage to join primarily targeting academic faculty affiliated with an AES**
- 7. Discussion on the 2024 annual meeting aligning with an academic conference possibly the Travel and Tourism Research Association conference**
- 8. The meeting was adjourned at 6 PM Central Time**
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Presentations from NE2251 participants at the 2023 National Extension Tourism Conference included:

<u>Authors</u>	<u>Title</u>
Ann Savage	Outdoor Recreation Stewards Program Supports Trail Blazing Community Members in Montgomery County, NC
Miles Phillips	Destination planning and training to help meet your organizations goals through enhancement of high quality guided experiences for visitors.
Xinyi Qian	Understanding post-COVID safety concerns towards the use of shared mobility in Greater MN
Rachel Szczytko, Ann Savage, Whitney Knollenberg	Assessing the Role of Travel on Retirement Decisions in North Carolina
Charanya Srinivasan, Micaela Nardino, Whitney Knollenberg	Development of the Sustainable Tourism Case Study Clearinghouse
Ian Munanura, Miles Phillips, Randall Rosenberger	Mountain biker survey results and the story of Extension and rural community tourism and bike trails in county commercial forest.
Jake Powell, Jordan Smith, Danya Rumore, Jordan Katcher	Preparing, Piloting, and Training for Gateway Community Resilience
Jake Powell	Building Stewards, Stewarding Assets: Utah's Trail Master Steward Program
Doug Arbogast, Daniel Eades, Lauren Weatherford, Ami Cook	The West Virginia Sustainable Rural Tourism Webinar Series
Jake Powell, Doug Arbogast	Co-Creating Extension's Role in the Outdoor Recreation Economy: Seeing, Strategizing, and Seizing the Opportunity
Daniel Eades, Doug Arbogast, Jinyang Deng, Luyi Han, Stephan Goetz	Rural Community Well-Being: Using Tourism Indicators to Identify, Understand and Address COVID Pandemic Impacts and Strategies for Resiliency
Lisa Chase, Kristen Devlin, Chadley Hollas, Jake Powell, Claudia Schmidt	Developing a National Agritourism Support Network
Kynda Curtis	Role of women in the drink tourism industry and associated impacts on rural economic development

Xinyi Qian, Ami Choi	Minnesota Welcome Centers: Comparison of sociodemographic characteristics and spending between visitors and non-visitors
Claudia Schmidt, Jason Entsminger, Lisa Chase, Chadley Hollas, Stacy Tomas	Setting the Course for a Sustainable Future for Agritourism Operators
Xinyi Qian, Ami Choi	Minnesota Welcome Centers: Visitor experience, satisfaction, and the impact of visiting a welcome center on visitors' behavior
Lindsey Pashow, Lisa Chase	A Worldwide Perspective on Regenerative and Sustainable Agritourism
Chadley Hollas, Claire Whitehouse, Lori Dickes, Dave Lamie, Lisa Chase	Virtual, Hybrid and In-person Extension Programming: An Evaluation of Agritourism Gatherings
DeeDee LeMier, John Gruidl, Xinyi Qian	Environmental Sustainability & Community of Minnesota Resorts
DeeDee LeMier, Xinyi Qian	Myth Busting - A use case for mobile data analytics in community tourism development
Jinyang Deng, Doug Arbogast, Daniel Eades	Rural Tourism Sustainability Indicators: A Comparative Analysis of Visitors' Perceptions Among Three Rural Gateway Destinations in the Eastern United States

Station Updates NE2251
October 1, 2022 through September 30, 2023

NE2251 Participants were asked to submit information on work during the annual report period that aligned with the NE2251 objectives (HIGHLIGHT WORK WITH OTHER STATES ON COMMITTEE) report items “as appropriate” including state-only projects (a premium is placed on cross-state work but other work is also of interest):

West Virginia University

- **Name of the Extension/Research Faculty/Researcher(s). If submitting as a team please include all participants/contributors and define their role(s):** Doug Arbogast, Daniel Eades, Jinyang Deng
- **Title(s):** Extension Professors, Professor Recreation, Parks, and Tourism Resources
- **Specialization(s):** Rural Tourism, Rural Economics, Sustainable Tourism Development
- **University/Institution Address:** West Virginia University
- **Email(s):** doug.arbogast@mail.wvu.edu; daniel.eades@mail.wvu.edu; jinyang.deng@mail.wvu.edu

Activity

(Organized and specific functions or duties carried out by individuals or teams using the scientific method to reveal new knowledge and develop new understanding.)

Major activities during this project’s first year were focused on recruiting participants and exploring researchable questions. To that end, Stephan Goetz and Doug Arbogast co-hosted an informational webinar held on October 20, 2022, aimed at raising awareness about the opportunities for collaboration posed by the project, and at recruiting new participants, and attended the project’s first in-person meeting, held in Milwaukee, WI, on September 24, 2023.

In 2023 West Virginia University academic faculty and Extension specialists conducted multiple research and Extension activities in support of the NE2251 objectives. Funded by a 2022 AFRI grant, research continued to identify indicators of sustainable rural tourism with primary and secondary data collection occurring in rural destinations in the northeast. This project features collaboration among academic and Extension faculty in West Virginia, New Hampshire, Vermont, and Pennsylvania. Research outputs included conference presentations at the Northeast Travel and Tourism Association annual conference as well as the National Extension Tourism conference. Publications included a conference proceeding as well as a journal article under review. In addition, Extension faculty assisted in the coordination of the National Extension Outdoor Recreation Economies Working Group to support the implementation of the USDA Recreation Economies MOU with a USDA Recreation Economy agency partners keynote presentation at the National Extension Tourism conference and regional Extension and academic faculty partnerships

emerging. Extension faculty are leading a proposal for USDA Recreation Economies implementation in the northeast.

Additional multistate, integrated partnerships emerged with Penn State, University of Michigan, University of Minnesota on a Rural Tourism Development with Big Data and Artificial Intelligence proposal submitted to USDA as well as a Rural Tourism Institute proposal submitted to the Appalachian Regional Commission that included collaboration with North Carolina State University and the University of Kentucky.

Outputs and Dissemination

- **Academic Presentations:**

Arbogast, Doug, Stephan J. Goetz, Ashley Mueller, Sarah Rocker, and Matt Wilson. 2022. "New Hatch Project on Tourism Resilience and Community Sustainability." Presented as a National Extension Tourism webinar, online, October 20.

Bloom, T., McDermott, T., Rocker, S., Arbogast, D., (September 25, 2023). National Extension Tourism Conference, "Expanding Recreation Economies across Rural America through USDA Partnerships," Milwaukee, WI.

Eades, D. C., Arbogast, D. W., (September 27, 2023). National Extension Tourism Conference, "Rural Community Well-Being: Using Tourism Indicators to Identify, Understand and Address COVID Pandemic Impacts and Strategies for Resiliency," Milwaukee, WI.

Deng, J., Eades, D. C., Arbogast, D. W., (September 26, 2023). National Extension Tourism Conference, "Rural Tourism Sustainability Indicators: A Comparative Analysis of Visitors' Perceptions Among Three Rural Gateway Destinations in the Eastern United States," Milwaukee, WI.

Deng, J., Arbogast, D. W., (April 15, 2023). Northeast Travel and Tourism Research Association 2023 Annual Conference, "Destination Management Organizations' Perceptions of Tourism Clusters in the Appalachian Region," Northeast Travel and Tourism Research Association, Philadelphia, PA..

Deng, J., Eades, D. C., Arbogast, D. W., Lindblom, J., (April 15, 2023). Northeast Travel and Tourism Research Association 2023 Annual Conference, "Identification and Perceptions of Sustainable Tourism Indicators in Rural America: A Mixed Approach Involving Academics, Destination Stakeholders, and Visitors," Northeast Travel and Tourism Research Association, Philadelphia, PA.

- **Refereed Conference Proceedings:**

Deng, J., Eades, D. C., Arbogast, D. W., Lindblom, J. (2023). Perceptions of Sustainable Tourism Indicators in Rural America: Consensus on Priority Indicators and an Importance-Performance Analysis for the Upper Valley Region of Vermont and New-Hampshire. *Northeast Travel and Tourism Research Association 2023 Conference Proceedings*. Travel and Tourism Research Association. <https://www.nettra.org/2023-conference-proceedings.html>

Goetz, S., Han, L., Eades, D. C., Entsminger, J. S., Arbogast, D. W. (2022). The U.S. Recreation

Economy: Data, COVID-19, and Implications for Extension. *National Extension Tourism 2021 Conference Proceedings* (1st ed., vol. 0, pp. 6-12). Kansas City: Extension Foundation.
<https://online.flippingbook.com/view/1050836521/6/>

- **Refereed Journal Articles:**

Han, L., Goetz, S., Eades, D. C., Entsminger, J. S., Arbogast, D. W. (2022). An Early Assessment of COVID-19's Impact on Tourism in U.S. Counties. *Tourism Economics*, 0(0), 1-21. <chrome-extension://efaidnbmnnnibpcajpcgclefindmkaj/https://journals.sagepub.com/doi/pdf/10.1177/13548166221107814>

- **Book Chapters:**

- **Grants, Contracts, and/or Other resources obtained by one or more project members as a result of the project's activities (include the recipients, funding source, amount awarded and term if applicable):**

Arbogast, D.W. (Principal), Deng, J., Eades, D., Goetz, S., Schmidt, C., Crissy, H., Chase, L., Whitman, P., "Tourism, Resiliency, and Indicators for Post-Pandemic Planning," Sponsored by U.S. Department of Agriculture Program Area: Agriculture Economics and Rural Communities (AERC) Program Area Priority: Rural Economic Development, Code: A1661, Federal, \$648,285.00. (January 1, 2022 - December 31, 2026).

Pan, B. (Principal), Van Berkel, D., Arbogast, D., Qian, X., Goetz, S., Schmidt, C., Tomkins, S., "Rural Tourism Development with Big Data and Artificial Intelligence," Sponsored by U.S. Department of Agriculture Program Area: Agriculture Economics and Rural Communities (AERC) Program Area Priority: Rural Economic Development and Data Science for Food and Agriculture Systems, Federal, \$650,000.00. (July 1, 2024 - December 31, 2028).

Arbogast, D.W. (Principal), Eades, D., Singh-Knight, D., Savage, A., Knollenberg, W., Frazier, M. "The Rural Tourism Institute: Leveraging Land-Grant Universities to Support Sustainable Rural Tourism Development in Appalachia," Sponsored by Appalachian Regional Commission, ARISE, Federal, \$416,713.00. (June 1, 2024 – June 1, 2025).

- **Grants, Contracts, and/or Other resources identified for potential funding by one or more project members**

Penn State University

- **Name of the Extension/Research Faculty/Researcher(s).** Stephan Goetz
- **Title(s):** Director, Northeast Regional Center for Rural Development
- **Specialization(s):** Ag Economics
- **University/Institution Address:** Penn State University
- **Email(s):** sjg16@psu.edu

Activity

(Organized and specific functions or duties carried out by individuals or teams using the scientific method to reveal new knowledge and develop new understanding.)

Major activities during this project's first year were focused on recruiting participants and exploring researchable questions. To that end, Stephan Goetz and Doug Arbogast co-hosted an informational webinar held on October 20, 2022, aimed at raising awareness about the opportunities for collaboration posed by the project, and at recruiting new participants, and attended the project's first in-person meeting, held in Milwaukee, WI, on September 24, 2023.

Work also has commenced on the development of future funding proposals that promote collaborative research and extension activities on tourism resiliency and community sustainability in the U.S. This work is being carried out via Penn State's role in the National Extension Outdoor Recreation Working Group (NEORWG), which formed in November 2022 to convene a community of Extension professionals to engage with the goals of the USDA inter-agency Memorandum of Understanding (MOU) on supporting the nation's outdoor recreation economy. Goetz is serving on the NEORWG Steering Committee, which is planning to work regionally to develop regional pilot projects that will leverage the MOU. Each regional group will work with their respective RRDC to develop a funding proposal based on the pilot project.

Complementary efforts include contributing to Agritourism research under separately funded USDA NIFA project (#2020-68006-31683). A significant finding from this work is that agritourism and direct farm sales complement one another when they occur within the same community. The findings could help farmers and the local organizations that support them plan strategically for farm resilience and growth. Another outcome of this work is the release of a set of 50 fact sheets for all US states, describing the demographics of U.S. farms that offer agritourism activities or sell food directly to consumers or both. The fact sheets are intended to help local decision makers, farmers and the organizations that support them in their efforts to strengthen and expand agritourism enterprises.

Penn State/NERCRD collaborators conducted research on agritourism and direct sales clusters in the U.S., together with Lisa Chase of University of Vermont and Chadley Hollas (a private sector researcher and consultant at <https://cultivatingtourism.com>). Using spatial statistical analysis to identify "hotspots", they found that agritourism and direct sales reinforce

each other within the same county but not consistently across neighboring counties. Penn State faculty and the same collaborators also prepared a study on “Farm income, direct sales, and agritourism: What the data tell us, and what they do not.” Penn State and Bloomsburg University faculty presented a paper on the impact of broadband access on agritourism operations in the United States at the Agricultural & Applied Economics Association Annual Meeting, Washington DC; July 23-25, 2023. The paper found that broadband matters only under certain conditions for agritourism success and is currently in review at a journal for publication consideration.

Outputs and Dissemination

- **Academic Presentations:**

Arbogast, Doug, Stephan J. Goetz, Ashley Mueller, Sarah Rocker, and Matt Wilson. 2022. “New Hatch Project on Tourism Resilience and Community Sustainability.” Presented as a National Extension Tourism webinar, online, October 20.

Schmidt, C., L. Han, A.K. Moghadam, S.J. Goetz (2023) “Impact of Broadband Adoption on Agritourism Operations in the United States,” Agricultural & Applied Economics Association Annual Meeting, Washington DC; July 23-25, 2023. In review for publication.

- **Refereed Conference Proceedings:**

Goetz, S., Han, L., Eades, D. C., Entsminger, J. S., Arbogast, D. W. (2022). The U.S. Recreation Economy: Data, COVID-19, and Implications for Extension. *National Extension Tourism 2021 Conference Proceedings* (1st ed., vol. 0, pp. 6-12). Kansas City: Extension Foundation. <https://online.flippingbook.com/view/1050836521/6/>

- **Refereed Journal Articles:**

Han, L., Goetz, S., Eades, D. C., Entsminger, J. S., Arbogast, D. W. (2022). An Early Assessment of COVID-19’s Impact on Tourism in U.S. Counties. *Tourism Economics*, 0(0), 1-21. [chrome-extension://efaidnbnmnnibpcajpcgclcfindmkaj/https://journals.sagepub.com/doi/pdf/10.1177/13548166221107814](https://journals.sagepub.com/doi/pdf/10.1177/13548166221107814)

Schmidt, C., Z. Tian, L. Chase, C. Hollas and S.J. Goetz (2023) “Agritourism and Direct Sales Clusters in the United States,” *Agricultural and Resource Economics Review*. 52 (1), 168-188 doi:10.1017/age.2023.1

Hollas, CR, C. Schmidt, L. Chase, Z. Tian, and S.J. Goetz (conditionally accepted) “Farm income, direct sales, and agritourism: What the data tell us, and what they do not,” *Journal of Agriculture, Food Systems, and Community Development*.

- **Book Chapters:**

- **Grants, Contracts, and/or Other resources obtained by one or more project members as a result of the project's activities (include the recipients, funding source, amount awarded and term if applicable):**

Arbogast, D.W. (Principal), Deng, J., Eades, D., Goetz, S., Schmidt, C., Crissy, H., Chase, L., Whitman, P., "Tourism, Resiliency, and Indicators for Post-Pandemic Planning," Sponsored by U.S. Department of Agriculture Program Area: Agriculture Economics and Rural Communities (AERC) Program Area Priority: Rural Economic Development, Code: A1661, Federal, \$648,285.00. (January 1, 2022 - December 31, 2026).

Pan, B. (Principal), Van Berkel, D., Arbogast, D., Qian, X., Goetz, S., Schmidt, C., Tomkins, S., "Rural Tourism Development with Big Data and Artificial Intelligence," Sponsored by U.S. Department of Agriculture Program Area: Agriculture Economics and Rural Communities (AERC) Program Area Priority: Rural Economic Development and Data Science for Food and Agriculture Systems, Federal, \$650,000.00. (July 1, 2024 - December 31, 2028).

Utah State University

- **Name of the Extension/Research Faculty/Researcher(s):** Kynda Curtis
- **Title(s):** Professor and Extension Specialist
- **Specialization(s):** Consumer economics, food marketing, agritourism
- **University/Institution Address:** Utah State University
- **Email(s):** kynda.curtis@usu.edu

Brief Description of project activities and outcomes that relate to NE2251 Objectives. Please consider including the list of items below as appropriate and relevant to the project.

Activity

Conducted online surveys of wineries, breweries and distilleries in the US West in the Fall of 2022. Research purposes include 1) Examine resiliency factors in rural drink tourism enterprises, which builds on rural winery resiliency research conducted with S. Slocum, published in Sustainability, and 2) Examine opportunities and hurdles for women in drink tourism enterprises/industry. Initial survey results were presented at the 2023 NET conference in Milwaukee, WI.

Conducted DEAI in Agritourism workshop and published conference proceedings paper with committee members from three states (Utah, New Jersey, and Main). See citations below.

Outputs and Dissemination

Outreach/Industry Presentations:

- Workshop: Farm and Food Tourism: Exploring Opportunities, March 1, 2023, Provo, UT. All day workshop, 9 am to 5 pm. 35 attendees.

Outreach/Industry Publications:

- Curtis, K., and N. Chin, (2023). "Building Diversity, Equity, Access, and Inclusion in Tourism Outreach." NET Publication. Online at: <https://extensiontourism.net/wp-content/uploads/NET-DEAI-case-statement-2023.pdf>.

Academic Presentations:

- Curtis, K. "Role of Women in the Drink Tourism Industry and Associated Impacts on Rural Economic Development." Selected presentation at the National Extension Tourism Network Annual Meeting, Milwaukee, WI, September 2023.
- Curtis, K., S. Slocum, C. Gil Arroyo, and J. Entsminger, "Understanding and Enhancing Diversity, Equity, Access, and Inclusion in Agritourism: Innovative Research and Outreach in Entrepreneurship." Selected

discussion session presented at the International Workshop on Agritourism, Burlington, VT, August 2022.

- Curtis, K., “Models of Resiliency Among Smaller-scale and Family-owned Agricultural Enterprises.” Selected paper presented at the Agricultural and Applied Economics Association Annual Meeting, Anaheim, CA, August 2022.

Refereed Conference Proceedings:

- Curtis, K., S. Slocum, C. Gil Arroyo, and J. Entsminger, (2023) “Understanding and Enhancing Diversity, Equity, Access, and Inclusion in Agritourism: Innovative Research and Outreach in Entrepreneurship.” *Proceedings of the 2022 International Workshop on Agritourism*, pages 33-38. Online at: <https://extensiontourism.net/wp-content/uploads/2022-iwa-proceedings>.

Refereed Journal Articles:

- Slocum, S., T. Drugova, and K. Curtis, (2022). “The Influence of Social Norms on Sustainable Consumption Behaviors: The Unique Ethos of Renaissance Festivals as a Moderator of Sustainability.” *Journal of Sustainable Tourism*, 30(6):1423-37.
- Curtis, K. and S. Slocum, (2021). “Rural Winery Resiliency and Sustainability through the Covid-19 Pandemic.” *Sustainability*, 13(18).

Book Chapters:

- Curtis, K., D. Tropp, and A. Hagerman, (2023). “Overcoming Institutional Discrimination in USDA Programmes: Food and Agricultural Tourism.” Chapter 6 in *Inclusion in tourism: Understanding institutional discrimination and bias* (Ed.). London, Routledge. ISBN: 978-1032186191.
- Sleipness, O., J. Powell, and K. Curtis, (2022). “Public-Private Partnerships: A Framework for National Park Gateway Community Development.” In Slocum, S.L., P. Wiltsher, & J. Read IV (Eds.) *Tourism Transformations in Protected Area Gateway Communities* (Chapter 10). Wallingford, United Kingdom: CAB International. ISBN: 9781789249033.

North Carolina State University

Name of the Extension/Research Faculty/Researcher(s). If submitting as a team please include all participants/contributors and define their role(s):

- Whitney Knollenberg, Associate Professor, Department of Parks, Recreation and Tourism Management
- Ann Savage, Tourism Extension Associate

Title(s):

Specialization(s):

- Tourism, Advocacy, Leadership, Collaboration, Community Engagement

University/Institution Address:

- College of Natural Resources
NC State University
2820 Faucette Drive
Raleigh, NC 27695

Email(s):

- whitney_knollenberg@ncsu.edu
- aesavage@ncsu.edu

Activity

(Organized and specific functions or duties carried out by individuals or teams using the scientific method to reveal new knowledge and develop new understanding.)

- 1. *North Carolina Local Food Program Team Economic Impact Working Group Food Systems Disaster Needs Assessment. (LFPT)***
 - a. Project was developed as a response to the disruptions caused by the COVID-19 pandemic and other natural disasters that occurred during that time to better prepare North Carolina county extension professionals to both respond to disaster and identify needs for longer-term recovery
- 2. *Promoting North Carolina Outdoor Recreation Stewards in Montgomery County, NC. Funder: USDA Renewable Resources Extension Act (ORS)***
 - a. As the number of day visitors to the Uwharrie National Forest in Montgomery County, NC, increased over the pandemic, but visitation to the towns in Montgomery County did not. Yet the counties around did see an increase. This program was designed to take those already involved in the county and the outdoor recreation areas to think about needs and want to develop a more robust tourism outdoor recreation economy.
- 3. *Promoting sustainable state park management in North Carolina through the identification of equitable pricing strategies. Funder: NC Dept of Cultural & Natural Resources (NCSP)***
 - a. Designed as a response to the unsustainable continued growth of visitors to the NC State Parks while the funds for operation and maintenance remain more the same. The project team has set out to identify potential management actions that can increase revenue and disperse users as well as, more specifically, identify barriers for people of color to accessing parks and recreation areas.

- 4. *Family farms' resilience and challenges under COVID-19 containment measures in North Carolina. (FamilyFarms)***
 - a. Developed during the pandemic to understand family farm resources during the COVID-19 pandemic to highlight networks and resources to tap into for future disasters.

- 5. *Leveraging tourism-dependent coastal community insights to develop a virtual disaster preparedness hub. Funder: NC Sea Grant (Virtual Hub)***
 - a. Building off a previous NSF-funded RAPID project, the team laid out a blueprint for developing a virtual disaster preparedness hub for two communities rebuilding from Hurricane Dorian when the COVID-19 pandemic set in. The project addressed the needs and priority areas for the hub in these tourism-dependent remote communities.

- 6. *Establishing tools to measure the relationship between travel and retirement decisions in North Carolina. Funder: Visit NC (RetireNC)***
 - a. Working closely with the state tourism office, the team identified the relationship travel plays in the retirement decisions of those interested in retiring to North Carolina. The team identified a suite of factors potential retirees consider and the importance of these factors in their decision-making.

- 7. *Impact of COVID on US Travel Intentions (US Travel)***
 - a. Application of a geospatial lens to investigate the intersection between political ideology and likelihood of travel during the COVID-19 pandemic in the United States. Examined whether political ideology and likelihood to travel if COVID-19 conditions remain the same differ by geographic regions of the USA.

- 8. *EmPOWERing mountain food systems: Cultivating a profitable local food industry cluster through entrepreneurial and business support, infrastructure development, training, leadership development and capacity building. Funder Appalachian Regional Commission (EMFS)***
 - a. Interviews and workshops with agritourism stakeholders across 7 counties and the Eastern Band of Cherokee Indians in North Carolina to identify and cultivate agritourism development opportunities.

- 9. *Strengthening local food systems through children: The role of agritourism in agricultural literacy and purchasing behaviors of local foods. Funder: USDA NIFA AFRI Competitive Grants Program (AgT)***
 - a. While the economic benefits of agritourism to farmers have long been discussed, this research identified agritourism visits impact on the purchasing behavior of families visiting farms using pre and post test surveys during visits. Thus keeping more dollars local and strengthening the local economy

10. Leveraging technology to promote local food systems: A user typology and itinerary functionality assessment of the Visit NC Farms mobile app Funder: USDA NIFA AFRI Education and Workforce Development Program (*VisitNCFarms*)

- a. Use of semi-structured interviews with app administrators and survey with current and potential app users to identify opportunities to enhance app engagement and benefits.

11. Synergies in Tourism and Craft Beer Production (*CraftBeer*)

- a. The team has been crafting ways for the craft beer industry to understand their role in tourism. Additionally, the team is currently working on creating stronger ties between North Carolina farmers and brewers.

12. Sustainable Tourism Case Study Clearinghouse (*Case Studies*)

- a. Undergraduate students utilize feedback from destination organizations and tourism professionals to develop case studies highlighting solutions to major challenges the tourism industry faces (e.g., Affordable Workforce Housing)

13. Mariculture tourism: Cultivating consumer demand and coastal community supply. Funder: NOAA Social, Behavioral, and Economic Research Needs in Aquaculture Program (*NCOT*)

- a. Multi-step process for identifying existing mariculture tourism assets and market demand for mariculture tourism in coastal NC communities. Supported the development of experiences on the North Carolina Oyster Trail (*NCOT*).

14. Planning for advocacy efforts: Best practices from tourism industry associations. Funder: American Society of Association Executives (*AAI*)

- a. Development of tourism-industry facing resources for advocacy planning based upon interviews with 26 tourism destination leaders.

Outputs and Dissemination

Numbers correspond to project activity numbers above

● **Outreach/Industry Presentations:**

1. LFPT - None

2. ORS:

- **Savage, A. (2023).** Outdoor Recreation Stewards Workshops. Monthly 1.5 hour workshops with facilitated discussions and topics around outdoor recreation and tourism in rural Montgomery County in NC. February - June 2023
- **Savage, A. (2023, September).** *Outdoor recreation stewards program supports trail-blazing community members.* Oral presentation at the National Extension Tourism Conference, Milwaukee, WI.

3. NCSP - None

4. Family Farms - None

5. Virtual Hub
- **Savage, A., Knollenberg, W., Seekamp, E., Cutts, B., & Russell, Z.** (2022, November). *Critical elements of a community-driven disaster recovery and resilience information hub*. Oral presentation at the North Carolina Coastal Conference, Raleigh, NC.
6. Retire NC
- Szczytko, R., **Savage, A., & Knollenberg, W.** (2023, September). *Retirement and Travel Survey Results*. Oral presentation to Retire NC Communities Quarterly Meeting, Raleigh, NC.
 - **Savage, A., Szczytko, R., & Knollenberg, W.** (2023, May). *Understanding the relationship between travel and retirement decisions*. Oral presentation at the National Association of Community Development Extension Professionals Annual Conference, Coeur D'Alene, ID.
 - Szczytko, R., **Savage, A., & Knollenberg, W.** (2023, September). *Assessing the Role of Travel on Retirement Decisions in North Carolina*. Oral presentation at the National Extension Tourism Biannual Conference, Milwaukee, WI.
7. US Travel - None
8. EMFS - None
9. AgT
- Barbieri, C., Strnad, R., Driscoll, L., **Knollenberg, W., Brune, S., & Stevenson, K. T.** (2022, October). *Agritourism: Enhancing educational and marketing impacts*. Oral presentation at the NC Cooperative Extension Conference, Greensboro, NC.
10. Visit NC Farms - None
11. Craft Beer
- **Savage, A. & Knollenberg, W.** (2022, November). *Your role as a tourism asset*. Oral presentation at the North Carolina Craft Brewer's Association Conference, Winston Salem, NC.
12. Case Studies
- Srinivasan, C., Nardino, M., & **Knollenberg, W.** (2023, September). *Development of the Sustainable Tourism Case Study Clearinghouse*. Oral presentation at the National Extension Tourism Conference, Milwaukee, WI.
13. NCOT
- Harrison, J. & **Knollenberg, W.** (2023, March). *Developing an oyster farm tour: Lessons from the NC Oyster Trail*. Oral presentation at the Oyster South Symposium, Savannah, GA.
- **Outreach/Industry Publications:**
 1. LFPT - None
 2. ORS
 - Settlemyer, C. & **Savage, A.** (2023). *Community Spotlights on Engagement and Conservation*. NC State Tourism Extension Resource. Available at: <https://go.ncsu.edu/uyq07tl>.

- **Savage, A. & Settlemyer, C. (2023).** Outdoor Recreation Stewardship Program Progress Report. Report Prepared for Montgomery County & NC Commerce.
3. NCSP - None
4. Family Farms - None
5. Virtual Hub
- **Savage, A., Knollenberg, W., Seekamp, E., Cutts, B., Russell, Z. (2023).** *Blueprint for a virtual community-based disaster preparedness hub.* Report prepared for North Carolina Sea Grant.
6. Retire NC
- Szczytko, R., **Savage, A., & Knollenberg, W. (2023, August).** *Understanding the Relationship between Travel and Retirement Decisions in North Carolina.* Report prepared for Visit North Carolina.
 - Szczytko, R., **Savage, A., & Knollenberg, W. (2023, August).** *Measuring the Economic Impact of Retirement Decisions.* Report prepared for Visit North Carolina.
7. US Travel - None
8. EMFS
- **Knollenberg, W., Barbieri, C., Riley, C., Lappas, C., & Stroker, A. (2022).** *Strategies to strengthen agritourism in North Carolina's western region.* Report prepared for the Appalachian Regional Commission.
9. AgT - None
10. Visit NC Farms - None
11. Craft Beer - None
12. Case Studies
- Nardino, M. & **Knollenberg, W. (2023).** *Sustainable tourism case study: Policies and planning strategies for tourism workforce housing.* Available at: <https://go.ncsu.edu/dhpkcm0>
 - Srinivasan, C. & **Knollenberg, W. (2023).** *Sustainable tourism case study: Use of oyster reefs to reduce coastal degradation in tourism destination communities.* Available at: <https://go.ncsu.edu/dhpkcm0>
13. NCOT
- **Knollenberg, W., Yeager, E., Barbieri, C., & Harrison, J. (2023).** *Visitor profiles inform the development of oyster tourism in North Carolina.* North Carolina Cooperative Extension Service, Raleigh, NC. Available on-line at: <https://content.ces.ncsu.edu/visitor-profiles-inform-development-of-oyster-tourism-in-north-carolina>
14. AAI
- **Knollenberg, W. & Schroeder, A. (2023).** *Actionable advocacy insight: Perceived obstacles to advocacy efforts in tourism.* DOI: <https://doi.org/10.52750/667898>
 - Schroeder, A. & **Knollenberg, W. (2023).** *Actionable advocacy insight: Identifying resources to advocate for tourism.* DOI: <https://doi.org/10.52750/933947>

- Schroeder, A. & Knollenberg, W. (2023). *Actionable advocacy insight: The perceived effectiveness of advocacy strategies*. DOI: <https://doi.org/10.52750/220764>
 - Knollenberg, W. & Schroeder, A. (2022). *Actionable advocacy insight: Involving a broad and diverse range of stakeholders in advocacy*. DOI: <https://doi.org/10.52750/210830>
 - Knollenberg, W. & Schroeder, A. (2022). *Actionable advocacy insight: Communicating the value of tourism*. DOI: <https://doi.org/10.52750/148130>
- **Academic Presentations:**
 1. LFPT - None
 2. ORS - None
 3. NCSP
 - Lee, K., Han, J., Smith, E., Knollenberg, W., Seekamp, E., Savage, A., Supak, S., Kim, J., & Chen, P. (2023, July). *The relationship between racial discrimination and park visitation: The case of North Carolina State Parks*. Oral presentation at the 2023 Leisure Studies Association Conference, Dorset, UK.
 - Smith, E., Knollenberg, W., Lee, K. J., Savage, A., & Seekamp, E. (2023, June). *Understanding gateway community stakeholders' perspectives on management actions for increasing revenues and dispersing visitor use in North Carolina State Parks*. Oral presentation at the Travel and Tourism Research Association (TTRA) International Conference, St. Louis, MO.
 4. Family Farms - None
 5. Virtual Hub
 - Russell, Z., Savage, A., & Knollenberg, W. (2023, June). *Identifying attributes for a virtual community-based disaster preparedness hub: Examples from two coastal communities*. Oral presentation at the Travel and Tourism Research Association (TTRA) International Conference, St. Louis, MO.
 6. Retire NC - None yet
 7. US Travel - None
 8. EMFS - None
 9. AgT
 - Barbieri, C., Brune, S., Knollenberg, W., & Stevenson, K.T. (2023, July). *Agritourism and social change: The local food system angle*. Oral presentation at the Advances in Hospitality and Tourism Marketing and Management conference, Rome, Italy.
 10. Visit NC Farms
 - Brune, S. & Knollenberg, W. (2023, June). *Introducing a framework to develop a user typology for the Visit NC Farms mobile app*. Poster presentation at the Travel and Tourism Research Association (TTRA) International Conference, St. Louis, MO.
 11. Craft Beer - None
 12. Case Studies - None
 13. NCOT - None

14. AAI
- **Knollenberg, W.,** Schroder, A., Post, H., & **Savage, A.** (June, 2023) *Putting Research into Practice: Three examples of communicating academic research to industry partners.* Poster presentation at the Travel and Tourism Research Association (TTRA) International Conference, St. Louis, MO.
- **Refereed Conference Proceedings:**
 1. LFPT
 2. ORS
 3. NCSP
 4. Family Farms
 5. Virtual Hub
 - Russell, Z., **Savage, A.,** & **Knollenberg, W.** (2023). *Identifying attributes for a virtual community-based disaster preparedness hub: Examples from two coastal communities.* Proceedings of the 2023 Travel and Tourism Research Association (TTRA) International Conference, St. Louis, MO. Available at: <https://scholarworks.umass.edu/ttra/2023/>
 6. Retire NC
 7. US Travel - None
 8. EMFS
 9. AgT
 - Brune, S. & **Knollenberg, W.** (2023). *Introducing a framework to develop a user typology for the Visit NC Farms mobile app.* Proceedings of the 2023 Travel and Tourism Research Association (TTRA) International Conference, St. Louis, MO. Available at: <https://scholarworks.umass.edu/ttra/2023/>
 11. Craft Beer
 12. Case Studies
 13. NCOT
 14. AAI
 - **Knollenberg, W.,** Schroder, A., Post, H., & **Savage, A.** (2023) *Putting Research into Practice: Three examples of communicating academic research to industry partners.* Proceedings of the 2023 Travel and Tourism Research Association (TTRA) International Conference, St. Louis, MO. Available at: <https://scholarworks.umass.edu/ttra/2023/>
 - **Refereed Journal Articles:**
 1. LFPT - None
 2. ORS - None
 3. NCSP - None
 4. Family Farms
 - Brune, S., **Knollenberg, W.,** & Vila, O. (2023). Agritourism resilience during the COVID-19 crisis. *Annals of Tourism Research*, 99, 103538. DOI: 10.1016/j.annals.2023.103538
 - Brune, S., **Knollenberg, W.,** & Vila, O. (2023). Family farms' resilience under the COVID-19 crisis: Challenges and opportunities with agritourism. *Land Use Policy*, 143 DOI: <https://doi.org/10.1016/j.landusepol.2023.106902>
 5. Virtual Hub - None

6. Retire NC - None

7. US Travel

- Vukomanovic, J., Barbieri, C., **Knollenberg, W.**, Yoshizumi, A., & Gil Arroyo, C.* (2022). To travel or not to travel during COVID-19? The influence of political ideology on travel intentions in the USA. *Annals of Tourism Research Empirical Insights*, 3(2). DOI: 10.1016/j.annale.2022.100078.

8. EMFS - None

9. AgT

- Brune, S., **Knollenberg, W.**, Barbieri, C., & Stevenson, K. (2023). Towards a unified definition of local food. *Journal of Rural Studies*, 103, 103135.
- Reilly, C., Stevenson, K. T., Cutts, B. B., Brune, S., **Knollenberg, W.**, & Barbieri, C. (2023). Family matters: intergenerational influences on children's agricultural literacy. *The Journal of Environmental Education*, 1-15.
- Reilly, C., Stevenson, K., Warner, W., Park, T., **Knollenberg, W.**, Lawson, D., ... & Barbieri, C. (2022). Agricultural and environmental education: a call for meaningful collaboration in a US context. *Environmental Education Research*, 28(9), 1410-1422.

10. Visit NC Farms - None

11. Craft Beer - None

12. Case Studies - None

13. NCOT - None

14. AAI - None

- **Book Chapters: N/A**
- **Grants, Contracts, and/or Other resources obtained by one or more project members as a result of the project's activities (include the recipients, funding source, amount awarded and term if applicable):**
- **Grants, Contracts, and/or Other resources identified for potential funding by one or more project members**

11. Craft Beer - Working with NC Craft Brewers Guild to apply for a grant (e.g., Specialty Crop Block Grant) to support local farmers sourcing to local brewers

UNIVERSITY OF MAINE

- **Name of the Extension/Research Faculty/Researcher(s).** If submitting as a team please include all participants/contributors and define their role(s):
 - Jason S. Entsminger, PhD
- **Title(s):** Assistant Professor of Entrepreneurship and Innovation (Maine Business School) and Assistant Extension Professor and State Extension Specialist for Small Business (UMaine Cooperative Extension)
- **Specialization(s):** Innovation, Entrepreneurship, and Small Business
- **University/Institution Address:** 5723 Donald P. Corbett Business Building, Orono, Maine 04469
- **Email(s):** jason.entsminger@maine.edu

Activity A	<p><u>Roadmap for the Maine Recreation Economy.</u></p> <p>This strategic roadmap will identify trends, challenges, and opportunities for growth and diversification of the outdoor recreation economy, inclusive of travel/tourism, recreation services, and recreation-focused products (such as gear, apparel, equipment, and digital applications). The roadmap will provide a guiding framework for stakeholders connected to Maine’s outdoor economy and help them align and act on key initiatives.</p> <p><i>This activity is supported by funding from the U.S. Economic Development Administration under the Travel, Tourism, and Outdoor Recreation Program.</i></p>
Outcomes (short-term)	<p>This project began in August 2023. In this start-up phase, outcomes are focused on project initiation and include:</p> <ul style="list-style-type: none"> • Initial planning and convening of stakeholders, including scheduling of first data collection activities in November 2023 • Hiring and on-boarding of project coordinator • Drafting of RFPs for project sub-components • Planning of baseline assessment procedures
Milestone	<ul style="list-style-type: none"> • Completion of baseline economic impact assessment. • Preliminary stakeholder listening sessions completed
Intended outcomes and impacts	<ol style="list-style-type: none"> 1. Provide a baseline/current state analysis of the value of the outdoor economy to the State of Maine 2. Define Maine’s outdoor recreation economy and its potential in a sector wide branding initiative 3. Identify key strategies and investment needed to fuel the growth of the outdoor economy statewide for the next 10 years 4. Form partnerships and collaborations necessary to secure additional investment to implement the strategies identified
Outputs and Dissemination	None so far. Project is in first months of initiation.

Opportunities for Expansion	Based on findings, this project will inform development other critical investments in research and Extension/outreach education programming.
Activity B	<p><u>Business model innovation within the recreation economy sectors under environmental and climate change.</u></p> <p><i>This activity is supported by funding from the U.S. Economic Development Administration under the Travel, Tourism, and Outdoor Recreation Program. It is a primary subcomponent of Activity A.</i></p>
Outcomes (short-term)	<p>This project began in August 2023. In this start-up phase, outcomes are focused on project initiation and include:</p> <ul style="list-style-type: none"> • Drafting of vacancy announcement for post-doctoral research associate who will staff project (currently within University approval process)
Milestone	<ul style="list-style-type: none"> • Successful approval, recruitment, and on-boarding of post-doctoral associate position • Research program design and approval by IRB • Data collection initiation
Intended outcomes and impacts	This activity will improve understanding of firm behaviors under processes of uncertainty and transition under environmental change. Through this improved understanding, recommendations can be made to inform changes in policy and programming among public and private actors to improve the success of entrepreneurial ventures in the recreation economy to make this sector more resilient.
Outputs and Dissemination	None so far. Project is in first months of initiation.
Opportunities for Expansion	It is hoped that this project will act as a pilot study that will lead to additional sponsored program proposals that expand the pilot approach to a regional or national scope through additional resources.

Activity C	<p><u>Creating an effective support system for small- and medium-sized farm operators to succeed in agritourism.</u></p> <p>This activity is supported by funding from the USDA NIFA under the AFRI FAS Program (Grant No. 2020-68006-31683).</p>
Outcomes (short-term)	<ul style="list-style-type: none"> • Improved understanding of issues and challenges in supporting the development of agritourism operations • Recommended best practices that are utilized by support organizations to improve viability and resiliency of agritourism operations
Milestone	<ul style="list-style-type: none"> • Complete data collection of agritourism support organization national survey and analyze data • Draft instrument and begin data collection for agritourism operations national survey • Draft and submit conference proceedings article • Draft and submit journal article applying entrepreneurial ecosystem model to agritourism • Draft and submit journal article presenting findings of support organization survey
Intended outcomes and impacts	<p>This project aims to enhance the viability of small- and medium-sized farms through agritourism income diversification strategies, by providing guidance and research-based information to farmers and the organizations that support and regulate agritourism operations, thereby contributing to the long-term viability and sustainability of US agriculture. Objectives are to:</p> <ol style="list-style-type: none"> 1. Understand the role and educational needs of county, regional and state-wide organizations in supporting agritourism 2. Understand factors that contribute to growth/stagnation in agritourism at the level of US counties. 3. Develop, pilot-test, and deliver outreach materials for farmers, county, regional and statewide organizations, policy makers, agricultural lenders and insurance companies and agents using the research-based insights generated in objectives 1 and 2.
Outputs and Dissemination	<p><u>Conference Proceedings & Symposia</u></p> <p>Curtis, K., Slocum, S., Gil-Arroyo, C., Entsminger, J. (2023) Understanding and Enhancing Diversity, Equity, Access, and Inclusion in Agritourism: Innovative Research and Outreach in Entrepreneurship. In Chase, L., Hollas, C., Qian, X., & Whitehouse, C. (Eds.) Proceedings of the 2022 International Workshop on Agritourism. Burlington, Vermont. https://extensiontourism.net/wp-content/uploads/2022-iwa-proceedings.pdf</p> <p><u>Conference Presentations</u></p>

	<p>Schmidt, C., Entsminger, J., Chase, L., Hollas, C., & Tomas, S. (2023, September 27). Setting the Course for a Sustainable Future for Agritourism Operators. National Extension Tourism Network Biennial Conference, Milwaukee, Wisconsin.</p> <p>Chase, L., Lamie, D., Devlin, K., Entsminger, J., Hollas, C., Powell, J., & Schmidt, C. (2023, September 26). Developing a National Agritourism Support Network. [Panel Discussion and Workshop] National Extension Tourism Network Biennial Conference, Milwaukee, Wisconsin.</p> <p>Chase, L., Lamie, D., Devlin, K., Entsminger, J., Hollas, C., Powell, J., & Schmidt, C. (2022, October 25). Agritourism Resources: What’s Missing? National Agricultural Marketing Summit, Pensacola, Florida.</p> <p>Curtis, K., Slocum, S., Entsminger, J., & Gil-Arroyo, C. (2022, August 30). Understanding and Enhancing Diversity in Agritourism: Innovative research and outreach in entrepreneurship, marketing, and networking [Panel Discussion and Interactive Workshop]. International Workshop on Agritourism, Burlington, Vermont.</p> <p>Schmidt, C., Hollas, C., Tomas, S., Schweichler, J., Chase, L., Windon, S., Entsminger, J., Goetz, S. J., & Tian, Z. (2022, August 30). Agritourism Support Systems in the United States: Not A Level Playing Field. International Workshop on Agritourism, Burlington, Vermont.</p> <p><u>Fact Sheets and Bulletins</u></p> <p>Schmidt, C., Lo, K., Chase, L., Hollas, C., Entsminger, J., Tomas, S., and Goetz, S. (2023). Agritourism in...** ** series containing a total of 51 distinct fact sheets.</p> <p>Chase, L. (2022). Agritourism is a Growing Sector. (J.S. Entsminger, ed.) National Extension Tourism Network. https://extensiontourism.net/net-agritourism-fact-sheet/</p> <p><u>Interactive Tools</u></p> <p>Schmidt, C., Powell, J., Entsminger, J. S., Chase, L., & Hollas, C. (2022). Agritourism Support Networking Map. National Extension Tourism Network and Penn State University. https://harryc.maps.arcgis.com/apps/webappviewer/index.html?id=2282517656c94c76a6544a74bbfd4878</p>
<p>Opportunities for Expansion</p>	<p>Through project partnerships, researchers at UMaine and Penn State are exploring collaboration that would seek additional funding to develop and pilot entrepreneurship education curriculum focused on agritourism contexts. Such a collaboration would include new faculty at UMaine not currently engaged in NE 2251 or in the underlying NIFA AFRI project.</p>

University of Vermont

- **Name of the Extension/Research Faculty/Researcher(s).** If submitting as a team please include all participants/contributors and define their role(s): Lisa Chase
- **Title(s):** Extension Professor
- **Specialization(s):** Agritourism and Recreation
- **University/Institution Address:** 130 Austine Drive, Suite 300, Brattleboro, VT 05301-7040
- **Email(s):** Lisa.Chase@uvm.edu

Activity

(Organized and specific functions or duties carried out by individuals or teams using the scientific method to reveal new knowledge and develop new understanding.)

We conducted qualitative and quantitative research on agritourism to better understand its role in supporting rural communities and working lands. We then used the research to inform development and dissemination of resources.

Outputs and Dissemination

Many of these outputs include others on this Hatch project.

- **Outreach/Industry Presentations:**

Chase, L. Promoting Agritourism: Community-Managed Agritourism. Keynote Presentation at the Hybrid Workshop on Promoting Agritourism and Its Environment, (invited, virtual). Partido State University, San Jose Campus Del Carmen, San Jose, Camarines Sur, Philippines, September 12, 2023. 50 attended in person in the Philippines.

Chase, L., Singh-Knights, and Arbogast, D. Best Practices in Agritourism in Vermont and West Virginia. West Virginia Sustainable Tourism Webinar Series, (invited, virtual). August 28, 2023. 25 attended.

Chase, L., Harrington, E., and Wilcox, B. Cannabis Farm Tours & Cannabis Tourism in Vermont. The Vermont Cannabis & Hemp Convention, (invited, in person), May 6-7, 2023. 35 attended.

Chase, L., and Baryamujura, M. Back to Our Roots. 2023 FoodTreX Global Summit, (invited, online), April 27-28, 2023. 12 attended.

Chase, L., Pereira, T., Lane, D., and Charlebois, I. Cultivation & Collaboration: The Building of an International Culinary Trail. 38th Annual Vermont Tourism Summit (peer-reviewed, in-person). StoweFlake Resort, Stowe, Vermont. April 26-27, 2023. 40 attended.

Chase, L. and Hollas, C. Supporting Agritourism in the United States. Agritourism Training for America's Small Business Development Centers (SBDCs) hosted by SBDC Rural Ag Special Interest Group, (invited, virtual), January 26, 2023. 69 attended.

Lame, D., Chase, L., Schmidt, C., and Singh-Knights, D. National and International Agritourism Trends, The Illinois Food, Farmers Market & Specialty Crop Conference hosted by the Illinois Farm Bureau (peer-reviewed, hybrid). Springfield, Illinois, January 11-13, 2023. 30 people in person.

Agritourism Resource Share. Organized with the Vermont Farm Bureau, Silloway Maple, Randolph,

Vermont, (in person) April 6, 2023. 38 attended.

Webinars: (*led by Claudia Schmidt at Penn State)

*November 30, 2022, Offering Niche Farm Stays: Low-cost and Low-maintenance Overnight Farm Stays, 374 registered representing 9 countries, 190 attended representing 8 countries.

February 8, 2023, Hosting a Food Focused Event on Your Farm. Organized with Conservation Law Foundation Legal Food Hub Webinar (invited, virtual), 117 registered, 56 attended.

*February 21, 2023, Adding Lavender to Your Farm, 248 registered, 110 attended.

*March 23, 2023, Incorporating Classes into Your Agritourism Business, 274 registered from 15 countries, 130 attended.

March 29, 2023, Marketing Your Farm, 495 registered, 238 attended.

*April 3, 2023, Low-infrastructure Agritourism: Picnicking and Walking Trails, 312 registered from 21 countries, 148 attended.

April 11, 2023, Global Agritourism Network (GAN) Launch, 676 registrants from 81 countries and 271 live participants from 55 countries.

June 15, 2023, North America Meeting of the Global Agritourism Network (GAN), 129 registrants, 65 live participants.

September 19, 2023, North America Meeting of the Global Agritourism Network (GAN), 123 registrants, 67 live participants.

October 4, 2023, Legislation to Support Agritourism in the United States, 391 registrants, 206 live participants.

Conference:

38th Annual Vermont Tourism Summit. Stoweflake Resort, Stowe, Vermont. April 26-27, 2023. Board of Directors and Planning Committee. 200 participants.

- **Outreach/Industry Publications:**

Chase, L., and Baryamujura, M. (2023). Agriculture & Rural Trends in Food Tourism. In Wolf, E. (Ed.) 2023 State of the Food Travel Industry, World Food Travel Association.

<https://www.worldfoodtravel.org/annual-industry-report>

- **Academic Presentations:**

Chase, L., Devlin, K., Entsminger, Hollas, C.R., J., Lamie, D., Powell, J., Schmidt, C., & Singh-Knights, D. Developing a National Agritourism Support Network, 2023 National Extension Tourism Conference, (peer-reviewed, in-person workshop), Milwaukee, Wisconsin, September 24-27, 2023. 25 attended.

Hollas, C. R., Whitehouse, C., Dickes, L., Lamie, D., & Chase, L. Virtual, Hybrid and In-person Extension Programming: An Evaluation of Agritourism Gatherings, 2023 National Extension Tourism Conference, (peer-reviewed, in-person), Milwaukee, Wisconsin, September 24-27, 2023. 18 attended.

Pashow, L. and Chase, L. A Worldwide Perspective on Regenerative and Sustainable Agritourism, 2023 National Extension Tourism Conference, (peer-reviewed, in-person), Milwaukee, Wisconsin, September 24-27, 2023. 20 attended.

Schmidt, C., Entsminger, J., Chase, L., Hollas, C., & Tomas, S. Setting the Course for a Sustainable Future for

- Agritourism Operators. 2023 National Extension Tourism Conference, (peer-reviewed, in-person), Milwaukee, Wisconsin, September 24-27, 2023. 17 attended.
- Chase, L. History, trends, and the future of agritourism. Lecture for course on Latest Trends in Tourism, Hospitality and Events (invited, virtual). MODUL School of Tourism and Hospitality Management, Nanjing, China. September 25, 2023. 28 students attended in person in China.
- Rose, N., Reynolds, T., Belarmino, E., Chase, L., Kolodinsky, J. Consumer perceptions of the healthfulness of 'ultra-processed' food products: a cross-sectional study in Vermont, Society for Nutrition Education and Behavior 2023 International Annual Conference, (peer-reviewed, in-person), Washington D.C., July 20-23, 2023.
- Hollas, C., Begerowski, S., Dickes, L., Shuffler, M., Whitehouse, C., and Chase, L. Can cross-disciplinary conferences improve perceived productivity?, 53rd Annual Travel and Tourism Research Association International Conference, (peer-reviewed, in-person), St. Louis, Missouri, June 13-15, 2023. 16 attended.
- Hollas, C., Begerowski, S., Dickes, L., Shuffler, M., Whitehouse, C., and Chase, L., Strengthening International Collaboration on Agritourism Research, 2023 Conference of the Association for the Study of Food and Society (ASFS) and the Agriculture, Food & Human Values Society (AFHVS), (peer-reviewed, in-person), Boston, Massachusetts, May 30 – June 3, 2023. 15 attended.
- Hollas, C., Whitehouse, C., and Chase, L., Developing a National Network and Resource Repository for Agritourism, 2023 Conference of the Association for the Study of Food and Society (ASFS) and the Agriculture, Food & Human Values Society (AFHVS), (peer-reviewed, in-person), Boston, Massachusetts, May 30 – June 3, 2023. 4 attended.
- Soroshnia, S., Conner, D., and Chase, L. Factors associated with agritourism operations revenue in Vermont, ASFS/AFHVS 2023 Conference, (peer-reviewed, in-person), Boston, Massachusetts, May 30 – June 3, 2023. 20 attended.
- Hollas, C., Chase, L., Schmidt, C. Developing an Effective National Support Network and Resource Repository for Agritourism Operators in the US. National Association of Community Development Extension Professionals (NACDEP) 2023 Conference (peer-reviewed, in-person workshop). Coeur d'Alene, Idaho, May 3, 2023. 8 attended.
- Schmidt, C., Chase, L., Entsminger, J., Singh-Knights, D., and Cornelisse, S. Agritourism Risk Education Programming: The Evolving Landscape of the Support Ecosystem. Extension Risk Management Education (ERME) National Conference, Chicago, Illinois. March 28, 2023. 25 attended.
- Hollas, C., and Chase, L. Agritourism Service Providers Roundtable, NAFDMA – International Agritourism Association (invited, in person), Austin, Texas, February 3-6, 2023. 31 attended.
- Chase, L. and Lamie, D. Agritourism Resources -- What's Missing? National Agricultural Marketing Summit (peer-reviewed, in person). Pensacola, Florida, October 23-25, 2022. 25 people in person.

- **Refereed Conference Proceedings:**

- Chase, L., Hollas, C., Qian, X., & Whitehouse, C. (Eds.). (2023). International Workshop on Agritourism 2022 Conference Proceedings. <https://extensiontourism.net/wp-content/uploads/2022-iwa-proceedings.pdf>
- Hollas, Chadley R.; Begerowski, Sydney; Dickes, Lori; Shuffler, Marissa; Whitehouse, Claire; and Chase, Lisa, "Can cross-disciplinary conferences improve perceived productivity?" (2023). Travel and Tourism Research Association: Advancing Tourism Research Globally. 18. https://scholarworks.umass.edu/ttra/2023/oral_resentations/18

- **Refereed Journal Articles:**

Quella, L., Chase, L., Conner, D., Reynolds, T.W., & Schmidt C. (2023). Perceived success in agritourism: Results from a study of US agritourism operators. *The Journal of Rural and Community Development*, 18(1), 140–158. <https://journals.brandonu.ca/jrcd/article/view/2115/601>

Schmidt, C., Z. Tian, S. J. Goetz, C. Hollas, and L. Chase. (2023). Agritourism and direct sales clusters in the United States. *Agricultural and Resource Economics Review*, Volume 52, Issue 1, pp. 168 – 188. <https://doi.org/10.1017/age.2023.1>

- **Book Chapters:**

Chase, L.C., B. Amsden, and R. Phillips. 2023. Stakeholder engagement in tourism planning and development, Pages 317-333 in Muzaffer Uysal, Richard R. Perdue, and Joseph Sirgy (eds.), *Handbook of Tourism and Quality-of-Life Research II: Enhancing the Lives of Tourists and Residents of Host Communities*. Springer, Dordrecht, The Netherlands. Book online at <https://link.springer.com/book/10.1007/978-3-031-31513-8>. Chapter online at https://link.springer.com/chapter/10.1007/978-3-031-31513-8_22.

- **Grants, Contracts, and/or Other resources obtained by one or more project members as a result of the project's activities (include the recipients, funding source, amount awarded and term if applicable):**

- \$201,966 from the USDA AMS for Agritourism: Understanding Producer Benefits, Challenges and Needs throughout the US, 9/30/2023 to 9/30/2025.
- \$49,965 from the Northeast Extension Risk Management Education Center on Agritourism Business Planning, 4/1/2023 to 9/1/2024.

Texas A&M University

- **Participant**
 - Dr. Brian King (Professor and Department head of Hospitality, Hotel Management and Tourism at Texas A&M University)
 - Lead the project - establishing conceptual frameworks, identifying local stakeholders, and contacting stakeholders.
 - Seunghoon Lee (Ph.D. Candidate of the Department of Hospitality, Hotel Management and Tourism at Texas A&M University)
 - Assist the project – researching the previous literature and preparing data collection.
- **Title(s):** The Role of Partnerships and Local Networks in the Resilience of Tourism and hospitality Businesses in Non-Metropolitan Regions
- **Specialization(s):** Resilience, non-metropolitan area, tourism businesses
- **University/Institution Address:** Texas A&M University / 400 Bizzell St, College Station, TX 77843
- **Email(s):** Brian.king@ag.tamu.edu / shlee@tamu.edu

Brief Description of project activities and outcomes that relate to NE2251 Objectives.

Activity

Dr. Brian King

- Developed a conceptual framework to assess the resilience, adaptability, and recoverability of local businesses, with a focus on tourism businesses, in the non-metropolitan area of Bryan, TX, in response to external shocks.
- Contacted stakeholders to conduct a meeting.

Seunghoon Lee

- Conducted a comprehensive search of existing literature relevant to the project's objectives.
- Completed a literature review.

Short term outcomes

(Quantitative measurable benefits of the research outputs as experienced by those who receive them. Examples: adoption of a technology, job creation, access to more nutritious food, change in policy.)

1) Academic outcomes

- a. **Publication in relevant tourism journals**

2) Practical outcomes

- a. **Policy recommendation**

- i. BCS (Bryan/College Station) chamber of commerce
- ii. Brazos Valley Hospitality Association
- iii. Destination Bryan (destination marketing organization for Bryan)

Milestone

(Key intermediate target necessary for achieving or delivering outputs of a project within an agreed timeframe. Useful for managing complex projects.)

Projected Dates	Event
October, 2023	<ul style="list-style-type: none">- Meet with the Chief Executive of <i>Destination Bryan</i>- Finalize the research framework
November, 2023	<ul style="list-style-type: none">- Select interview participants- Prepare interviews and survey questions
December, 2023	<ul style="list-style-type: none">- Contact interview participants- Start writing papers for publication- Conduct survey
January - March, 2024	<ul style="list-style-type: none">- Conduct interview- Analyze data- Share the result with stakeholders
April - May, 2024	<ul style="list-style-type: none">- Finish writing papers and submit

Intended potential long-term outcomes and impacts

(Committees should build information around the activity's milestones, as identified in the original proposal. The report should also reflect on the items that stakeholders want to know, or want to see. If the committee is filing an annual report, the impacts will cover only the current year of the project; for termination reports, list impacts from the entire span of the project.)

1) Academic outcomes and impacts

- a. Enhancing understanding of the non-metropolitan area tourism sectors and their resilience and adaptive strategies for external shocks.
- b. Providing guiding principles for improving resilience and adaptability in local tourism businesses and partnerships

2) Practical outcomes and impacts

- a. Policy guideline: offering insights for policymakers to support non-metropolitan area tourism businesses during and after crises
- b. Strategic planning for local businesses: providing real examples of resilience-building for other non-metropolitan area partnerships and networks
- c. Crisis management: lessons from this project may be applied to future crises
- d. Education and training: establishing education programs designed to train future leaders of local partnerships and networks, including local business owners
- e. Sustainable local tourism: contributing to encourage local actions for sustainable and responsible tourism

Outputs and Dissemination

Though we do not currently have any outputs or dissemination, we anticipate forthcoming industry presentations and publication of a research paper in a refereed tourism journal.

East Carolina University

- **Participant**
 - Dr. Emily Yeager
- **Title(s):** Assistant Professor Department of Recreation Sciences, Interim Director of the Crisp Small Business Resource Center in the Miller School of Entrepreneurship
- **Specialization(s):**
- **University/Institution Address:** East Carolina University
- **Email:** yeagere18@ECU.EDU

Here at ECU, one of the primary related initiatives that we are working on is the continued development of a template for regional rural sustainable community development anchored in recreation and tourism. The template is called “Blue Economy Corridor”.

We are piloting this template in the Tar-Pamlico River Basin:

<https://storymaps.arcgis.com/stories/7b317fd4dd0445a7928b29a03d524857>.

We will be presenting about this process at the upcoming [Engagement Scholarship Consortium](#) in October (poster attached).

We also have submitted a manuscript for this process to the Journal of Higher Education Outreach & Engagement.

Additionally, through my role as the [Crisp Center director](#), I have applied for us to host an [EDA Economic Recovery Corps Fellow](#). We are not supposed to publicize this, but we have made it to the final accelerator selection round of this program.