



Current Research and Engagement from PSU Centers

The Center for Rural Partnerships

Berlin Mural Project: As part of the restoration of the Brown Company Research & Development Building, PSU Students designed and installed a series of twenty-four 4'x8' painted mural panels depicting scenes that capture elements of Berlin's scientific and cultural history. For this work, the students were named inaugural recipients of the "Young Preservationists" award from the NH Preservation Alliance.

Weeks Act Celebration: The Weeks Act granted the federal government authority to acquire and maintain national forests, such as in the White Mountains region, to protect the watersheds of navigable streams. The Center was an active member of a broad partnership celebrating the 100th anniversary of this act with events, resources, and educational programming. Examples include a new "Weeks Act Legacy Trail," a self-guided web-and-smartphone-based driving tour freely available to residents and visitors, and a broadcast quality film.

Coös County Outreach Initiative: The Coös County Outreach Initiative reflects community-based interests in the form of projects, exhibitions, tools, and an evolving network of human and organizational resources. More than a dozen faculty-led projects have been implemented in the North Country, representing a variety of disciplines.

Live Learn and Play in Northern NH: In partnership with the North Country Health Consortium, this project provides health professional students with quality training experiences in medically underserved areas throughout rural northern New Hampshire.

Belknap County Corrections Data Management Partnership: A collaborative venture between Belknap County Corrections Center, the Center for Rural Partnerships and Plymouth State's Departments of Criminal Justice and Computer Science to develop user-friendly data management systems to improve jail utilization forecasting and resource allocation.

Rural Students Research Practice Group: This project identified gaps between extant university-sponsored research on rural, first-generation college students and communities of practice in K-12 education and family support organizations in the North Country of New Hampshire and Northeast Kingdom of Vermont.

Financial Stability Project: Center staff and graduate students conducted field research on intergenerational poverty in the Lakes Region.

New Hampshire Listens/Lakes Region Listens: The Center for Rural Partnerships is a participating member of NH Listens, a civic engagement initiative of The Carsey Institute at UNH. The Center also collaborates with the Lakes Region Listens affiliate, a group of local volunteers committed to strengthening community dialogue in the Lakes Region.

North Country Economic Index: The North Country Economic Index (NCEI) is a monthly economic report to gauge the performance of the economy in northern rural New Hampshire, which currently includes Coös County. NCEI also tracks the economic performance of the State of New Hampshire for the purposes of comparison. This is the first economic indexing project in the U.S. for a small rural population.

Economic Impacts of Coös Farmers' Markets: At the request of the New Hampshire Farmers' Market Association, Center researchers are determining the economic impact of markets local agricultural in Coös County.

Risk Management in Agritourism: For the past four years, the Center has developed educational programming for farmers interested in developing agritourism enterprises on their farms. Topics have included insurance, food safety, social media and e-commerce, and disaster planning.

White Mountain National Forest (WMNF) Socio-Economic Update: The Center for Rural Partnerships, the College of Business Administration, and the Institute for NH Studies have partnered to develop a 10-year update for the US Forest Service (USFS) describing the socio-economic importance of the WMNF to the surrounding region.

Alternative Transportation in the WMNF Region: A research team from the Appalachian Mountain Club (AMC), US Department of Transportation Volpe Center, the USFS and the Center for Rural Partnerships conducted research and community outreach to gather ideas and input about alternative transportation. This work resulted in the receipt of an implementation grant to expand area bike paths and the route of the AMC shuttle.

Food on the Border: This research project, based in New Hampshire, Vermont, and southern Quebec, explores the idea that participation in the local food movement is also driven by leisure and recreation, with specific relationships existing between local food infrastructure and leisure activities such as farm recreation consumers, agritourism, recreational husbandry, and home/community gardening.

Northern Forest Tourism Network (NFTN): The Center for Rural Partnerships has conducted survey research for the NFTN and compiled data for its Research and Development subcommittee. The Northern Forest Tourism Network creates collaborative capacity across the four state (ME, NH, VT, NY) Northern Forest Region in which multiple stakeholders join together around shared tourism goals to create models that attract, serve, and sustain visitor interest in rural locales.

Northern Forest Higher Education Resource Network (NFHERN): The Center for Rural Partnerships is the lead organization in an effort to facilitate collaboration among the institutions of higher education across northern New York, Vermont, New Hampshire, Maine, and bordering Canadian provinces.

Coös County Symposium: The Center for Rural Partnerships collaborates with the New Hampshire Charitable Foundation and other regional organizations to build stronger relationships, catalyze, and support efforts for a higher quality of life in Coös County.

Community Research Experience: The Center for Rural Partnerships and the Institute for New Hampshire Studies collaborate to provide students with real-world consulting opportunities. Students from across the University apply what they have learned at PSU for the benefit of partnering organizations across New Hampshire.

The Center for the Environment

Aluminum in the WMNF: Concentrations of aluminum in surface and ground water in the White Mountain National Forest are being studied to better understand how forest management activities can influence this metal in our forest.

Climate Change: Using geological and geochemical attributes of lake sediments from Iceland, the Center for the Environment hopes to determine if the North Atlantic Oscillation is associated with an oscillating chemical pattern that appears in some Icelandic lake sediments every 100 years or so, since AD 800.

Hubbard Brook Experimental Forest: Current research involves understanding the impact of forest fertilization on hydrology, tracing water sources with water isotopes, detecting decadal trends in the long-term hydrologic record, and studying snow hydrology.

Water Isotopes: PSU Professor Mark Green and graduate students are compiling water samples from across the White Mountains region and analyzing their isotopes of hydrogen and oxygen to better understand the region's hydrology.

Tropical Storm Irene: Tropical storm Irene in August 2011 generated an unprecedented opportunity for PSU & the Center to learn about the Pemigewasset River watershed, how it produces major floods, and the water quality during floods. The Center researchers collected approximately 50 samples from the Plymouth/Campton area.

Ore Hill Reclamation Project: The White Mountain National Forest (WMNF) has partnered with the Center for the Environment for monitoring water quality at the former Ore Hill Mine in Warren, NH.

Squam Lake Recreation Management Decision System: The Center is working on developing a Lake Recreation Management Decision System (LRMDS) for the Squam Lakes. The Squam LRMDS considers additional dimensions, gathers input from stakeholders, and establishes recreational zones and key indicator conditions to be monitored in these areas.

Monitoring Vegetation Changes on Altitudinal Transects: In partnership with the Margret and H.A. Rey Center in Waterville Valley, the Center for the Environment is monitoring vegetation changes along

altitudinal transects. This project was established on Mount Tecumseh in Waterville Valley, NH in 2008 and a second transect was established in 2010 on Mount Starr King in Jefferson, NH.

NH Water & Watershed Conference: The Center hosted the 2012 NH Water and Watershed Conference to be held on March 23 at PSU.

Newfound Watershed Plan: Center researchers have been involved in the management of water resources by providing a holistic framework to watershed communities for the application of management tools that meet water resources goals for the entire watershed.

Second Home Development in the Northern Forest: The Center has been involved in researching the social, economic, and ecological effects of second home development in the Northern Forest region.

Science Education: The Center has provided professional development for up to thirty K-5 teachers from the Newfound School District in the use of inquiry in science education utilizing the field of environmental studies.

Changing Homeowner's Lawn Care Behavior: This project applied environmental and behavioral research to educational efforts by Cooperative Extension offices to reduce the application of excess nutrients by homeowners in targeted, urbanizing neighborhoods throughout New England.

The Center for Active Living and Healthy Communities

Healthy People in a Healthy Place: The Center is leading a community-based participatory research project to fully engage PSU employees in the development of a worksite wellness plan.

Environmental factors affecting healthy eating and physical activity in young children: The center organized a broad collaboration of agencies that work with very young children and their families; Whole Village Family Resource Center, Pemi Youth Center, PSU Child Development and Family Center, Head Start, and others.

Post-graduate training program for Physical Activity in Public Health: Center staff completed comprehensive training and community outreach co-sponsored by the Centers for Disease Control and Prevention and the University of South Carolina.

The 2nd Annual Circle Trot: The Center developed a community walk/run event to benefit the Circle Program in Plymouth, engaging students in service learning.

Eco-Learning Farm Stand: The Center is assisting the Eco-Learning Gardens group to organize and manage five local teaching gardens and provide healthy produce to the community.

The 5th Eating Disorders Conference: The Eating Disorder Institute, *"Untangling the Web of Disordered Eating and Weight Disorders: Knowledge, Tools, Strategies"* provides up-to-date information on disordered eating and weight disorders, and covers new tools and strategies for dealing with these serious public health issues.