

## CENTER FOR ECONOMIC RESEARCH & POLICY ANALYSIS

### MISSION

**The Center for Economic Research & Policy Analysis (CERPA)** is a multidisciplinary unit at Appalachian State University. The mission of CERPA is to improve policy- and decision-making by producing rigorous research and disseminating relevant information on current economic and policy issues. To that end, CERPA maintains research programs in the specific areas of economic development, environment & energy, and experimental economics.

### 2024-25 HIGHLIGHTS:

#### *CONCERT Awards*

CERPA, along with the Appalachian Energy Center and the Southern Appalachian Environmental Research and Education Center, works to support and facilitate multidisciplinary research under the umbrella of the Research Institute for Environment, Energy and Economics. To that end, we created and manage the CONducting ComplEx Research Together (CONCERT) internal grant program. Each year, proposals are solicited for possible funding with the goal of supporting new, existing, or developing research projects that involve more than one of the RIEEE core research areas and are performed by collaborative, interdisciplinary teams. This year's program awarded approximately \$15,000 to three proposals.

#### *Appalachian Experimental Economics Laboratory*

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CERPA continues to manage the Appalachian Experimental Economics Laboratory (AppEEL) on the third floor of Peacock Hall. The laboratory supports the experimental economics program in the Department of Economics, which is ranked among the top 10% of institutions in the world. In the 2024-25 academic year, the research faculty affiliated with AppEEL conducted a total of 57 experimental sessions with 917 Appalachian State University student participants. In total, student participants earned \$18,342 with an average payment of \$20.11.

- a. **Funding.** Experiments were funded through multiple sources, including the Office of Student Research and the Walker College of Business Dean's Club. In addition, funds were provided by the University of Keio (Japan), Queen's University (Canada), and Richmond University through collaboration with faculty at those universities.
- b. **Student Research.** Faculty also supervise student research, which provides valuable experiential learning involving the formulation of testable hypotheses, experimental design, primary data collection in the lab, data analysis, as well as summarizing and presenting the results. The experimental faculty supervised 3 student research projects that received \$3000 in funding from the Barnes Program Student Research Grants. These students conducted 15 experimental sessions conducted in AppEEL. In addition, there were 15 students in the experimental economics course that assisted with experiments in AppEEL.
- c. **Participants.** The pool of student participants is diverse in terms of field of study with students from 35 different majors. The largest fraction is business majors, but most

participants are from majors outside the Walker College of Business. 22.5% of subjects are non-economics business majors, 7% are economics, 9% are psychology, 16.5% are undecided, 5% study education, and 5% study biology with the remaining come from almost 30 other majors. 59% percent of participants identify as female and 40% identify as male.

- d. Published Research.** In 2024-25, faculty associated with AppEEL published 15 research articles in the *Journal of Gambling Studies*, *Economic Inquiry*, *Theory and Decision*, *Journal Economic Behavior and Organization*, *Economics of Energy & Environmental Policy*, *Journal of Sleep Research*, *Economics Letters*, *Experimental Economics*, *B.E. Journal of Economic Analysis and Policy*, and *Journal of Risk and Uncertainty*.

### **Funded Projects:**

#### ***Completed Projects:***

#### ***Measuring the Socioeconomic Benefit of Hurricane-related Data from the Joint Polar Satellite System***

Principal Investigator: Ash Morgan

Funding: \$36,000 (National Oceanic and Atmospheric Association)

CERPA will work with the CISESS project team to develop approaches for an economic analysis in the select value chain sectors and decision contexts. CERPA will collaborate to determine benefit studies in select areas to develop economic assessment and models associated with improvements in select decision contexts. Where data are unavailable for primary analysis, literature will be drawn on to estimate the value of the selected benefit case studies. The outcomes of the quantitative and qualitative analyses above will be combined to quantify an approximate value of the JPSS data in terms of the selected socioeconomic outcomes for the select benefit cases.

#### ***Measuring the Impact of Recreational Infrastructure Across 25 Western North Carolina***

Principal Investigator: Ash Morgan.

Funding: \$100,000 (Mountain Bizworks)

Building Outdoor Communities is an outdoor-driven community economic development initiative of the WNC: MADE X MTNS Partnership, spanning 25 Western North Carolina counties and the Qualla Boundary. The Building Outdoor Communities program focuses on capacity building, technical assistance, training, connectivity, and education for communities seeking to advance their outdoor economy goals. In partnership with six regional Councils of Government, and West Virginia University's Brad & Alys Smith Outdoor Economic Development Collaborative, CERPA will coordinate with local Community Working Groups to strategically assess and prioritize outdoor infrastructure and economic development goals and develop pathways to implementation. CERPA will create an outdoor economic impact toolkit so that community leaders can be equipped with data to leverage future project investments.

***New Funded Research in Progress:***

***Changes in Outdoor Recreation and Associated Economic Effects due to Helene's Impact on the Outdoor Recreation Infrastructure Across Western North Carolina***

Principal Investigator: Ash Morgan

Funding: \$178,779 (USDA Forest Service Southern Research Station)

The purpose of the proposed research is to leverage a unique dataset of outdoor recreation participation in Western North Carolina (WNC) to investigate and quantify the economic losses associated with Hurricane Helene. This proposal seeks to conduct an online survey of outdoor recreation participants to the 25-county (plus Qualla Boundary) region of WNC. The research is a follow-up to the 2023 “Western North Carolina Outdoor Recreation Participation Survey” (<https://madexmtns.com/wnc-outdoor-recreation-survey/>). This earlier work estimated the economic benefits associated with outdoor recreation across WNC before Hurricane Helene devastated the region. The new proposed online survey will be administered through the same online data platform providing an opt-in marketing panel (Dynata). The sample population will again be derived from WNC outdoor recreation participants travelling from other parts of North Carolina and four adjacent states (VA, TN, GA, SC). We propose the follow-up survey and analysis to quantify changes in outdoor recreation and associated economic effects due to Helene's impact on the outdoor recreation infrastructure across WNC.

***North Carolina Retail Trade Economic Impact***

Principal Investigator: Ash Morgan

Funding: \$21,500 (North Carolina Retail Merchants Association)

The proposed report will investigate the statewide retail trade impact on North Carolina's economy by highlighting the importance of the retail industry to the state's economy. The report's findings will help substantiate the voice of the retail industry in North Carolina. Moreover, this report will use standard input-output modeling to estimate the total economic impacts of retail trade in NC and methods to forecast holiday and seasonal trends for the retail trade industry to better project its future impact and needs.

***Governing Deep Difference during Times of Crisis: Modus Vivendi, Polycentrism, and Institutional Diversity Part 2***

Principal Investigator: Shishir Shakya

Funding: \$9,500 (University of Pittsburgh)

This study examines the long-term impacts of violent and nonviolent revolutions on liberal democratic outcomes, using a generalized difference-in-differences approach on global panel data spanning 1900–2022. It finds that nonviolent revolutions significantly improve indicators such as rule of law, freedom of expression, accountability, and civil liberties while reducing polarization, whereas violent revolutions show no significant effects. The findings highlight the importance of civic participation and avoidance of repression in fostering democratic consolidation. This research contributes to understanding governance mechanisms in deeply

divided societies and offers empirical insights into institutional designs that promote peaceful coexistence and inclusivity.

***Proposals Under Review:***

***Cognition and Social Decision-Making***

Principal Investigator: David Dickinson

Funding: \$475,411 (National Science Foundation)

Social decisions are ubiquitous in everyday life, but people are often limited in their cognitive resource availability when making critical social decisions (e.g., distractions, stress, sleepiness, or emotional fluctuations). The proposed research will examine how cognitive resource availability and emotion states affect choices in simple social decision environments. A key objective is to study the social-behavioral effects of cognitive resource availability in simple social decision environments. Cognitive resource availability (i.e., cognition) will be exogenously varied using three validated measures. Another objective is to examine behavioral differences in at-risk populations. Finally, a secondary objective is to provide in-depth research training to undergraduate research assistants, who will also be given their own laboratory research budget to engage in faculty-mentored research.

***Leveraging the Nurse Practitioner Workforce to Expand Access to Primary Care and Improve Outcomes for Older Adults with Chronic Conditions***

Principal Investigator: Shishir Shakya

Funding: \$134,021 (National Institutes of Health)

The purpose of this project is to examine the impacts of expanding the scope of practice for nurse practitioners as an unusually innovative, transformative, evidence-based, interventionable, urgently needed state policy to improve spatial access to primary health care and several social determinants of health, including economic stability for key NIH-designated population subgroups including older adults, particularly those from racial and ethnic minority groups, who are at a higher risk for adverse health outcomes. The project involves active community partners, including older adults, clinicians, and policymakers, which will be facilitated through citizen participation and rigorous quasi-experimental designs.

***Socioeconomic impacts of shark depredation events in North Carolina's commercial and for-hire fisheries***

Principal Investigator: John Whitehead.

Funding: \$14,000 (NCSU North Carolina Sea Grant)

Shark depredation, the partial or complete removal of targeted fish species by sharks, has become a concern for participants in the commercial and for-hire vessel fisheries in North Carolina. The economic effects of depredation include losses from damaged catch, bait, and gear, and indirect costs such as increased fuel consumption, lost fishing time, and potential reductions in customer satisfaction for for-hire operators. This study aims to assess and quantify

these economic effects through analysis of data collected from surveys targeting three groups: commercial fishing firms, for-hire captains and for-hire customers. This study will assess the economic impact of shark depredation in North Carolina's commercial and for-hire fisheries. The research will focus on estimating economic losses resulting from catch and bait loss, damage to different types of fishing gear, and additional fishing expenses such as increased fuel costs and lost fishing time in the commercial and for-hire sectors. The study will assess the extent to which shark depredation affects for-hire customer satisfaction by measuring changes in customer demand for trips. A recreation demand model will be estimated with revealed and stated preference survey data to estimate potential changes in customer behavior due to depredation events. The number of affected commercial and for-hire fishing trips will be examined, allowing for an estimation of the aggregate economic effects.

***AIHE Lab at App: Advancing Health Equity among Appalachian Minority in Behavioral Health***

Principal Investigator: Shishir Shakya

Funding: \$100,000 (National Institutes of Health)

This project seeks to establish a collaborative, multi-Principal Investigator (PI) team to create the AI for Health Equity (AIHE) research lab at Appalachian State University (App), referred to as "AIHE Lab at App." The lab's mission aligns with the AIM-AHEAD North Stars III initiative, focusing on improving health equity for Appalachian minorities in behavioral health. AIHE Lab at App will leverage the team's multidisciplinary expertise in behavioral health research to develop foundational knowledge in AI and health equity through the AIM-AHEAD Program for Artificial Intelligence Readiness (PAIR) training programs. Additionally, the lab aims to secure Data Use Agreements (DUAs) for AIM-AHEAD databases and enhance grant writing and grantsmanship skills to formulate a comprehensive research plan aimed at improving health equity for Appalachian minorities in behavioral health. A key objective is to cultivate the next generation of researchers, particularly among underrepresented and low-income students at Appalachian State and securing nationally competitive NIH grants.