

Title: Spatial Analysis of Regional Economic Composition on Freshwater Usage in the US Counties

Article Content:

Idaho State University undergraduate researcher Ashok Bahadur Deuba conducting research to understand how the regional economic composition of freshwater usage across the US Counties.

My name is Ashok Bahadur Deuba, and I am working with my mentor Dr. Karl Geisler on a research project to examine the relationships between industry and water usage. The study uses water data from the USGS and industry data from the US Census Bureau.

The study uses the multiple spatial econometrics techniques to explore the question.

1.Which industries drive county water use?

2.Which regions tend to have the highest water usage?

3.Do the spatial relationships between the counties affect the water usage?

Through the SARE program, I have learned advanced econometrics topics, data analysis and statistical modeling. Additionally, I also present our research at the Idaho Conference on Undergraduate Research (ICUR) 2026 at Boise and We are still working on this project during fall and spring so we can publish a high-quality paper in the near future.

This SARE experience has strength mine interest in quantitative methods and data analysis to address in the economic fields.

Research Mentor: Dr Karl Geisler (Idaho State University)

Program: Summer Authentic Research Experience

