



Using Shiny to Develop an Interactive Benchmarking Tool

Presentation to Omaha R Users Group

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- **Housed in Economics Department in College of Business**
- **Perform Grant and Contract Work**
 - Clients include government agencies, trade organizations, and industry clients
 - Collaborate with other academic units to conduct basic research
- **Structure**
 - 3 positions
 - Director, Assistant Director, Senior Research Associate
 - Bureau Scholars
- **Part of Association of University Business and Economic Research (AUBER)**

UNL BBR Scholars Program

- **Program began in Fall 2017**
 - Formalized existing program with undergraduate research assistants
 - Currently 12 students in program
- **Projects**
 - Students help applied research projects for clients
 - Students assist with research for BBR personnel
- **Example Projects**
 - Economic Impacts of Military Spending in Nebraska (Property Taxes)
 - Economic Impacts of Breweries on Nebraska Economy (also Quality of Life)
 - Relationship between Social Media Marketing and Real Estate Sales in NE

BBR Shiny Applications

- **Scraping from Bureau of Labor Statistics**
 - Labor and Employment statistics for State of Nebraska from HTML
 - Wage statistics for State of Nebraska from Text
- **BBR Leading Economic Indicators**
 - BBR collects economic indicator data through surveys and original data collection
 - Information is used to develop forecasts of economic activity in the state
 - Monthly reports are issued
 - Used this information to build first Shiny App to be built by a BBR Scholar
 - <https://bbreconomicindicator.shinyapps.io/Dashboard/>

BBR Collaboration with Rural Futures Institute

- **BBR Barometers**
 - Omaha Barometer
 - https://www.omahachamber.org/wp-content/uploads/2018/04/Barometer-2018_V6_Reduced.pdf
- **Sought to do something similar for Rural Nebraska**
 - Present key metrics for rural regions in Nebraska
 - Allow for benchmarking against other economic development regions in Midwest/Great Plains
 - Eight separate indices
- **First needed to identify appropriate comparison regions**
 - https://unlbbr.shinyapps.io/rfi_dashboard/

Future Directions

- Continue to Refine Shiny Dashboard for RFI Collaboration
- Continue to Refine BBR Leading Indicators Report Shiny App
- Use R Markdown to Automate Residential Real Estate Market Reports
- R will continue to serve as primary data analysis and visualization tool for BBR Scholars

Contact Us

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