

MarTREC UTC Project Information Form USDOT Tier 1 University Transportation Center Agency ID or Contract Number DTRT13-G-UTC50

Project Title: Regional Impact Study of the McClellan-Kerr Arkansas River navigation System

Project Abstract (Brief Description): The McClellan-Kerr Arkansas River Navigation System (MKARNS) contains 440 miles of waterway and is a crucial part of the US transportation system. The MKARNS connects strategically the heartland of the US with the rest of the world. This study will investigate the economic impacts of the MKARNS to enhance the understanding of its importance and potential outcomes of a disruption.

Describe Implementation of Research Outcomes (or why not implemented): Forty-one states in the United States are connected via navigable inland waterways which provide a low-cost, reliable, and environmental friendly transportation system. The McClellan-Kerr Arkansas River Navigation System (MKARNS) contains 440 miles of waterways and is a crucial part of the United States' maritime transportation system. Thus, this project, funded by the Arkansas State Highway and Transportation Department, values the economic impacts of the MKARNS to enhance the understanding of its importance and potential outcomes of a disruption. Total economic impacts are obtained by combining the economic impacts of seven major activities of the system: 1) Hydropower, 2) U.S. Army Corps of Engineers Operations and Maintenance (O&M) Expenditures, 3) Private Sector Waterway Infrastructure Investment, 4) Port Activities, 5) Cargo Shipping, 6) Waterway Transportation, and 7) Recreation. Partnering with the Arkansas Waterways Commission, Oklahoma Department of Transportation, and University of Arkansas - Little Rock, our results shows that closure of the MKARNS would result in significant total losses to the national economy including \$8.5M in Sales, \$4.3M in Value Added (GDP), and 55,872 jobs. The findings of this study can inform future investment decisions into the MKARNS which can result in sustainable growth in the economy.

Impacts/Benefits of Implementation (actual, not anticipated)

The project implemented a multiregional social accounting matrix framework to estimate the economic impacts of the McClellan-Kerr Arkansas River Navigation System (MKARNS) found that the total economic impacts of the MKARNS nationwide are \$8.5 billion in sales, \$4.3 billion in gross domestic product (GDP), and \$2.5 billion in labor income.

Web Links: martrec.uark.edu

Budget (Funding) Amounts & Source(s) (US DOT +Match(s) =Total Costs): Match Project funded through Arkansas Highway and Transportation Department \$45,000

Project Start and End Dates: 04/16/14-08/30/2015 Completed project

Principal Investigator(s) and Contact Information: Heather Nachtmann, Ph.D.

Principal Investigator Institution (University): University of Arkansas