



MarTREC UTC Project Information Form
 USDOT Tier 1 University Transportation Center
 Agency ID or Contract Number 69A3551747130

Project Title: Learning from USACE Open Data for Locks
Project Abstract (Brief Description): Now that USACE Open Data is coming online there is great opportunity to leverage key resources for statistical learning. MarTREC is well positioned to lead the way in this particular activity by showing what kinds of analysis could be done with the newly published Corps Locks Queue Archive and Public Lock Unavailability Detailed Report. Using this recent investment in data access to its greatest advantage should be of general interest to USACE and Maritime Transportation researchers. Identifying USACE Open Data as something which could introduce interesting new challenges to the field of applied regression would also bolster Maritime Transportation as an important context for engineering statistics education.
Describe Implementation of Research Outcomes:Of all 13 signifciant regressors produced by System A three of them appear in the model produced by System B: Commodities 10, Commodities 70, and Average Processing Time, directional effect and significance on Unscheduled Unavailabilities verified.
Impacts/Benefits of Implementation: <i>Our primary contributon to the literature is a recommendaton about how to prioritize Key Locks for upgrade and repair having identifed consistently signifcant factors in models of Unscheduled Unavailabilites.</i>
Web Links: martrec.uark.edu
Budget (Funding) Amounts & Source(s) (US DOT +Match(s) =Total Costs): \$84,660 from MarTREC and \$42,330 from department salary match. Total \$126,990
Project Start and End Dates: August 18-June 21. Project complete.
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