

MICHAEL BLACK

PhD Student, Department of Agricultural Economics, Texas A&M University

Water Quality and Site Choice: A Travel Cost Approach

Freshwater anglers' decisions about where to fish are influenced by a variety of characteristics, including surface water quality. Using a discrete-choice random utility model (RUM) with a travel cost specification, we elicit willingness-to-pay (WTP) estimates for changes in water quality for anglers in Texas. We consider specific water quality attributes (dissolved oxygen, transparency, temperature, conductance, and pH), across a large spatial scale (the state of Texas) with repeated measurements over time (2001 – 2015). We employ a two-stage regression that allows us to recover the short-term and long-term effects water quality has on the probability of choosing where to fish. The first stage is standard when controlling for unobserved site heterogeneity, but the second stage is seldom used in the travel-cost literature. Our contributions are thus twofold: an empirical application of the travel-cost method applied to a large spatial and temporal scale, and the employment of a two-stage estimator to separate short- and long-term effects of water quality on angler behavior.

Friday, September 14

12:00 pm

AGLS 200