

APPENDIX: MODEL ESTIMATION

The sample was drawn by Knowledge Networks, Inc., and consists of 7,786 households. The survey was conducted between November 16, 2011, and December 19, 2011, and focused on multiday trips for outdoor water recreation (omitting trips to water parks, cruises, etc.) any time between May 1, 2011, and October 31, 2011. The sampled households were observed to take a total of 14,722 trips that met these criteria. The choice set was defined as the 3,126 U.S. counties or county equivalents for which a driving travel cost could be calculated.

The estimated driving time and distance were calculated from each survey respondent’s place of residence to the population-weighted centroid of each county, using ArcGIS. Travel cost was calculated as the round trip travel distance times 24 cents per mile, plus the round trip travel time times one-third the respondent’s hourly wage rate. The 24 cents per mile was calculated from the EPA’s 2011 fuel efficiency estimates for vehicles by model and year, averaged over the shares of vehicles by model and year in the 2009 National Household Travel Survey (NHTS), using the EIA estimate of average retail gas price in August 2011, plus the per-mile cost of maintenance and tires from AAA’s report *Your Driving Cost: 2012 Edition*. Lodging costs were excluded from travel costs; the alternative-specific constants (described below) capture the average differences in lodging costs across segments.

In accordance with Figure 2, four segments were differentiated along the Gulf: (1) from the U.S.-Mexico border to the eastern border of Cameron Parish in Louisiana (Texas/western Louisiana; without oiling); (2) Louisiana east of Cameron Parish,

Land Economics 94:1, February 2018

“Lost Use-Value from Environmental Injury when Visitation Drops at Undamaged Sites,” by Garret Glasgow and Kenneth Train

Mississippi, and Alabama (eastern Louisiana/Mississippi/Alabama; with oiling); (3) the Alabama-Florida border to the eastern border of Franklin County (northwestern Florida); and (4) from the eastern border of Franklin County to the eastern border of Monroe County (southwestern Florida). Four dummy variables indicating these four segments were included in the model. Dummy variables were also included to indicate shoreline counties in the South Atlantic (the eastern border of Monroe County in Florida to the Delaware–New Jersey border), the North Atlantic (the Delaware–New Jersey border to the U.S.-Canada border), the Great Lakes, and the Pacific (including Alaska). The omitted dummy is for all nonshoreline counties.

County-level economic characteristics were obtained from the 2011 County Business Patterns data produced by the U.S. Census Bureau. Data was gathered on the number of establishments in each county that provide traveler accommodations (such as hotels and motels), and marinas.

As expected, the coefficient for travel cost is negative, while the coefficients for traveler accommodations, marinas, and shoreline counties are all positive. The estimated coefficients for the four Gulf shoreline segments assure, by construction, that the model correctly predicts the number of trips in the sample to each area.