



Thomas E. Dudley

Program Manager
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EDUCATION

North Carolina State University; Raleigh, NC
M.A. in Economics, Graduate minor in GIS, May 2012

North Carolina State University; Raleigh, NC
B.S. in Economics, May 2009

PROFESSIONAL EXPERIENCE

Mar. 2017 – Present
Jun. 2013 – Mar. 2017

Program Manager
Research Associate

OREd Laboratory

Manages the OREd program by leading long-range facility planning projects for public school districts across North Carolina. Oversees the technical and human capital workflow required to complete all OREd projects and serves as the primary OREd contact for all current and potential client districts. Communicates analytical recommendations to policy makers and the public via presentations to Boards of Education, County Commissioners, and other stakeholders.

Jun. 2012 – Feb. 2013

Staff Economist

Cardno-Entrix, Raleigh NC

Provided economic and statistical analysis for British Petroleum (BP) following the Deepwater Horizon oil spill in the Gulf of Mexico. Primary responsibilities included statistical programming of multivariate predictive models, data workflow QA/QC, and geospatial modelling.

Mar. 2012 – Aug. 2012

Evaluation Consultant

North Carolina Department of Health and Human Services

Evaluated the cost effectiveness of a federally funded smoke alarm giveaway and installation program using ArcGIS. Co-authored a peer reviewed publication describing the evaluation approach and results. Other duties included conducting a GIS lecture series for DPH epidemiologists and fulfilling ad hoc mapping requests.

Aug. 2011 – Mar. 2012

Renewable Energy Intern

North Carolina Solar Center, North Carolina State University

Conducted an economic feasibility study for biofuels in the North Carolina Piedmont. Developed business models to estimate how changes in production input prices and subsidies affect ethanol profitability. Potential feedstock location, estimated yields, soil suitability, transportation costs, and refining costs were also incorporated.

PROGRAMMING AND SOFTWARE

Statistical Programming

Multivariate regression analysis, data management, and quality control:

- SAS, JMP
- R
- STATA

Geospatial Modeling

Workflow automation, spatial prediction, geocoding, network and terrain modeling:

- ArcGIS
- Python

PUBLICATIONS

Dudley, T. E., Creppage, K., Shanahan, M., Proescholdbell, S. "Using GIS to Evaluate a Fire Safety Program in North Carolina." *Journal of Community Health*. Volume 38. Number 5. Pages 951-957. October 2013.

Dudley, T.E. "The Value of Landscape Amenities: Contrasting Feature Proximity and View." Master's Thesis. North Carolina State University. 2012.