

Gavin Dillingham, PhD

4800 Research Forest Drive
The Woodlands, TX 77381
gdillingham@harcresearch.org

Experience

Research Scientist - Clean Energy Policy, Houston Advanced Research Center

August 2012 – Present

- Direct the Gulf Coast Combined Heat and Power Program. The Program's mission is to promote combined heating and power (CHP) applications through education, outreach and technical assistance. Currently, lead the Department of Energy, State Energy Conservation Office's State Energy Program for Combined Heat and Power and Industrial Energy Efficiency
- Developed predictive model on the diffusion and innovation of energy efficiency and renewable energy policy across state and local governments; considering how networks, learning, competition and state characteristics affect the adoption of policy; currently have paper under review
- Conduct research to identify and evaluate effective energy management strategies that reduce costs and improve environmental performance, as well as assisting with identifying and evaluating renewable energy programs and policies. Current project areas include:
 - Assessment of existing micro-grid policies influencing the deployment of CHP, solar and storage in micro-grid setting
 - Utility energy management program evaluation for residential and commercial sectors
 - Energy management behavioral program effectiveness in Texas K-12 school districts
 - Policy design specific to the coordination of energy efficiency and demand response programs
 - Sustainable Action Plan for City of Houston
- Developing best practice white papers for local government benchmarking, energy financing and third-party energy code compliance through a grant from the State Energy Conservation Office

Manager, Energy and Sustainability at Houston ISD

November 2010 – August 2012

- Lead the development and implementation of a 30-million-square-foot energy efficiency retrofit with an expected yearly energy savings of \$12 million per year upon project completion;
- Manage the procurement of electricity and natural gas contracts for 300 campuses;
- Develop and deploy the Green School Challenge, a district-wide, behavioral-change program to reduce energy and water consumption at all district campuses;
- Lead the development of renewable energy projects at district; secured \$50,000 grant for solar installation at Wilson Elementary School; secured \$180,000 in equipment for solar-powered classrooms.
- Conduct legislative analysis specific to state and federal energy legislation and regulation. Provide cost/benefit analysis and risk assessment based on review and develop policy recommendations.

Director of Sustainable Growth at City of Houston - General Services

February 2009 - November 2010

- Led energy efficiency, renewable energy and sustainability grant development efforts for city securing more than \$53 million from the Department of Energy, State Energy Conservation Office and the Environmental Protection Agency;
- Implemented a \$75 million energy performance contracting project, resulting in more than \$6 million energy savings per year. The retrofit included City Hall, the Hobby Center for Performing Arts, the City's Administrative Building, police headquarters, Courthouse, parks, libraries, health facilities and police stations;

- Led Texas' largest weatherization assistance program managing a team to weatherize more than 8,000 residences in Houston;
- Assisted in the identification and assessment of solar energy projects including the 10 MW NRG utility scale project, a utility scale project at the City's Southeast Water Treatment Plant and a solar system at the Sunny Side Landfill Site;
- Led the development and publication of the city's emission reduction plan;
- Provided legislative review and analysis for energy and sustainability policies related to city activity.

Senior Business Consultant at BearingPoint Management and Technology Consulting; Oil and Gas Practice

June 2008 - February 2009

- Conducted financial analysis to determine suitability of business life-cycle management (BLCM) solution for upstream oil and gas companies;
- Conducted research and analysis on the affect federal government policy has on upstream exploration and production.

Staff Analyst - Public Policy Land Use Planning at City of Houston

January 2007 - May 2008

- Acted as a liaison between city council members, the Mayor's Office and the Planning and Development Department; worked to establish effective policies pertaining to annexation, land development and extra-territorial jurisdiction issues;
- Worked jointly with Public Works' Public Utilities Division on analyzing the feasibility and applicability of municipal utility district (MUD) creation and MUD annexations;
- Conducted legislative review and analysis for all Texas State Legislature bills concerning planning, land-use and economic development.

PhD Candidate at Rice University

August 2002 - January 2007

- Conducted research on land-use public policy analysis, development and adoption; institutional effectiveness and civic participation in environmental issues;
- Project manager for a National Science Foundation grant studying the effects of Hurricane Katrina on evacuees from New Orleans.

Environmental Specialist at Enron Corp

November 1998 - August 2002

- Actively worked with Chief Environmental Officer to develop Enron's renewable energy position and policy strategy toward state and federal legislation, specifically focused on with greenhouse gas and air quality issues;
- Participated in the development of the Enron Corp. greenhouse gas inventory utilizing the IPPC guidelines and global climate change policy;
- Participated in the design, content and publication of company's Corporate Responsibility and Sustainability report following Ceres transparency guidelines.

Teaching Experience

Lecturer - Public Policy Planning - Adoption and Innovation at Rice University

January 2013 - Present

- Taught a class on the public policy process with a specific focus on policy adoption and innovation. Presented a variety of key policy process topics including the advocacy coalition framework, punctuated equilibrium, network analysis and policy diffusion via economic competition and social learning. Discussed

topics related to energy efficiency, climate change, oil and gas exploration and production, gun control, public health and public education.

Lecturer - Energy Efficiency Policy at Rice University

August 2010 - December 2010

- Co-taught public policy seminar related to energy efficiency and the built environment. Class was held in the School of Architecture.

Education

Rice University

PhD, Political Science with concentration in Natural Resource Policy, Policy Adoption, Institutions and Econometrics, 2002 – 2008

Dissertation: Urban sprawl and economic competition: Explaining governments' adoption and the effectiveness of urban growth management policy, 2008

Texas Tech University

B.A, Psychology - Summa Cum Laude, 1997

Board Membership and Advisory Positions

- USGBC Green School Committee – January 2014 to Present
- Houston Air Alliance – Vice President - Board Member – March 2012 to Present
- Houston ISD Master Energy Plan Committee – April 2014
- Keeping PACE in Texas – Planning Group Lead for Program Document Development – 2013
- ANSI – Evaluation, Measurement and Verification Working Group - 2013
- CATEE – Clean Air Through Energy Efficiency – Advisory Board – 2012 to Present
- Houston Strider's Running Club – Vice President – 2010 to 2012
- Sierra Club – Clean Air Task Force Chairperson

Honors and Awards

- Leadership Houston - Leadership in Action Award for Environmental Improvement - 2012
- Ovetta Culp Hobby Fellowship in Public Policy - 2008

Publications

“Explaining the Diffusion of the Energy Efficiency Resource Standard (EERS) Across States.” expected August 2014. American Council for an Energy Efficient Economy.

“Texas School District Energy Management: The Status of Energy Management in Texas Schools.” April 2014. With Jennifer Duplessis. HARC

“Combined Heat and Power: Enabling Resilient Energy Infrastructure for Critical Facilities” April 2013. With Thomas Bourgeois, Isaac Panzarella, Anne Hampson. ICF Report

“Close Enough for Comfort: A Spatial Analysis of Gaming Initiatives in California.” 2012. With Fred Boehmke, Regina Branton and Richard Witmer. *The Journal of Politics* 74(3): 827-839

The Politics of Latino Education - Chapter 9. 2010. With Regina Branton, Johanna Dunaway and Beth Miller. Teachers College Press.

“Anglo Voting on Nativist Ballot Initiatives: the Partisan Impact of Spatial Proximity to the Border of Mexico.” 2007. With Regina Branton, Johanna Dunaway and Beth Miller. *Social Science Quarterly* 88(3):882-897.