



# **The Florida State University Center for Economic Forecasting and Analysis (CEFA)**

**FSU CEFA**

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# Outline

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# CEFA – An Introduction

- Specializes in applying advanced, computer-based economic models and techniques to perform economic analyses
- Examine public policy issues across a spectrum of applied research areas
- FSU CEFA also serves as a foundation for training students on the uses and applications of advanced economics and statistical tools



# CEFA – An Introduction

## □ Key Areas of Expertise:

- Economics
- Sustainable Energy
- High Tech Economic Research
- Environmental/Natural Resources
- Economic Development
- Econometrics
- Economic Impact Analysis
- Specialty Areas (e.g., Education, Health, and Tax Economics, etc.)



# CEFA within Florida State University

- CEFA is a specialized Center within FSU under the Institute of Science and Public Affairs, or ISPA<sup>1</sup>. ISPA is a department at FSU
- ISPA provides a gateway to university resources and expertise for government agencies and private organizations
- There are 15 specialized centers under ISPA:
  - Center for Economic Forecasting and Analysis (CEFA)
  - Center for the Advancement of Human Rights (CAHR)
  - Florida Center for Prevention Research (FCPR)
  - Beaches and Shores Resource Center (BSRC)
  - Center on Better Health and Life for Underserved Populations (BHLC)
  - Center for Information Management & Educational Services (CIMES)
  - Center for Biomedical and Toxicological Research (CBTR)
  - Center for Prevention and Early Intervention Policy (CPEIP)
  - Center for Higher Education Research, Teaching and Innovation (CHERTI)
  - Center for Advancement of Learning and Assessment (CALA)
  - Florida Conflict Resolution Consortium (FCRC)
  - Florida Resources and Environmental Analysis Center (FREAC)
  - Florida State Climate Center (FSCC)
  - Institute for Academic Leadership
  - The John Scott Dailey Institute of Government (IOG)



# Organizational Structure

## ■ Director: Dr. Julie Harrington

- (Director 2006 - Current; Associate Director from 2001-2005)
- is a founding member of the Florida Climate Institute, <http://www.flclimate.org> the FSU Institute for Energy Systems, Economics and Sustainability (IESES) <http://www.ieses.fsu.edu> and the Florida Center for Advanced Aero-Propulsion (FCAAP) <http://www.fcaap.com>

## ■ Senior Researchers

- PhDs Primarily
- Applied Economics Experience
  - Current Senior Researchers expertise in Education, Health, and Tax Economics

## ■ Researchers

- Graduate Students (Typically) from Departments at FSU
  - Economics
  - Askew School of Public Administration and Policy
  - Business
  - Mathematics
  - Others



# Research Objective

- ❑ **To Conduct University-Applied Economic Research**
  - CEFA Obtains its Funding Support Through Primarily “Soft” Money/Grant Awards
  - CEFA’s Funding Covers Project Payroll and Operations/Maintenance Expenses
- ❑ **University Training/Teaching and Outreach**
- ❑ **CEFA’s Clients Typically Include:**
  - Public (Federal, State, and Local Government) & Universities
  - Private (Commercial, Industry, Small Business)
  - Non-Profits
  - Pro Bono (Educational/Advisory)
- ❑ **CEFA Provides Results/Deliverables That Are Often Used To Assist to Frame Policy Options/Decisions, and Further Economic Research**



# Researchers

## □ Student Researchers Gain Valuable Expertise in:

- Searching for Economic Research Grant or Project Opportunities, and Writing Grant Proposals (According to Guidelines)
- FSU Sponsored Research Grant Proposal and Award Process
- Economic Research Project Management Including Budgets
- Networking and Forming Collaborative Research Relationships With Other Researchers from FSU and Other Primarily Florida-Based Universities
- Data Collection, and Securing the “Best Available” Data
- Data Analysis; Working with Econometrics, Statistics, and Other Software
- Data Results Interpretation; Statistical Significance, Patterns, Trends, etc
- Economic Impact Analysis (Using Software), Comparison with Baseline, Scenario (or Alternatives) Analysis
- Participation/Contribution on Journal Papers, Articles, Reports, Presentations, etc.





## Recent Economic Research Project Examples (Years 2010 - 2012)

- The Economic Impacts of Aerospace in Florida
- Economic Contributions of the State University System of Florida in Fiscal Year 2009-10
- An Economic Analysis of EPA vs. FDEP Numeric Nutrient Criteria in Florida and Statement of Regulatory Costs (SERC)
- Florida *Cap-and-Trade* and Upstream Carbon Pricing
- Conversion of Life-Insurance Policies to Long-Term Care Benefit Plans in Florida
- Making Florida's Manufacturing Sector Competitive
- Energy Efficiency and Renewable Energy in Florida
- Assistance Project for Wakulla County OSTDS and Decentralized Wastewater Systems Management Program



## Recent Research Papers/Reports/Posters/Conference Presentations

- **Siddiqui, Z., "The Policy and the Economics of Smart Grid: An Analysis of the Adoption of AMI and AMR Meters by the Municipally-Owned Utilities in the U.S".** Poster presented at the Florida Energy Conference, Orlando. Sept. 2012
- **Akande, E., Hardin, T., Wu, C., and Tischner, C. "A System to Track Aerospace and Aviation Research – R&D Opportunities for Aerospace & Aviation Within Florida Universities and Commercial Companies. " Final Report to Space Florida, August, 2012**
- **Siddiqui, Z., Kury, T. and Harrington, J. 'An Upstream Carbon Pricing Modeling Approach to Establish a Financing Authority for Clean Energy,** submitted and under review: *Journal of Economics of Energy & Environmental Policy*, Elsevier Press. June, 2012
- **Siddiqui,Z. "Can the Green be Greener? An Investigation of MOUs Policies Regarding Green Pricing Programs"** Poster presented at the Askew School Annual Competition and got the honorable mention for the *Natalia Trojan Memorial Prize*
- **Hodges, A., J. Harrington, T. Stevens, M. Niekus, R. Clouser, and K. Baker. "Economic Contributions of the State University System of Florida in Fiscal Year 2009-10." Report and Presentation to the Florida Board of Governors, January 2012**



## Recent Research Papers/Reports/Posters/Conference Presentations

- Harrington, J., H.J. Lee, and M. Niekus. "An Economic Analysis of EPA vs. FDEP Numeric Nutrient Criteria in Florida and Statement of Regulatory Costs (SERC)", *Final Report to the Florida Department of Environmental Protection*, January 2012
- Harrington, Julie. "Economic, Policy and Other Issues Related to Climate and SLR Research in Florida". Presentation at the *Florida Climate Institute Symposium*, Nov. 2011
- Siddiqui, Z., D. Duch, and J. Harrington. "The Economic Impact of the Trend of Physicians Shifting from Private Practice to Hospital-Based Employment in Florida. FMA, November, 2011
- Niekus, M., J. Harrington, and M. Powell. "Tapping into Offshore Wind Resources", Presentation at the *Florida Energy Systems Consortium*, Sept. 2011
- Harrington, J., and Ted Kury. "The Marginal Effects of the Price for Carbon Dioxide: Quantifying the Effects on the Market for Electric Generation in Florida." *Journal of Electricity*, Vol. 23 Issue 4, May 2010
- Harrington, J., E.Sander, T. Kury, B. Awad, A. Adams, J. Sullivan. "Energy Efficiency and Renewable Energy in Florida"; *Final Report and Presentation to the Florida Energy and Climate Commission*, March 2010



# Training and Outreach

- Local Advisory Functions (Field Questions from Public/Private)
- Media (Respond to Media/Press Inquiries)
- Serve on Committees/Conference/Workshop Panels; Providing Expertise to Public
- Collaboration with Other Researchers in:
  - Academic Departments (e.g., Applied Economics MS students)
  - Multi-University Consortia (FCI, IESES, FCAAP, FESC, etc.) Research Activities
  - Developing Conferences/Workshops/Other
  - Partnerships in Development/Creation of Research Centers and/or Institutes and/or Other Innovations



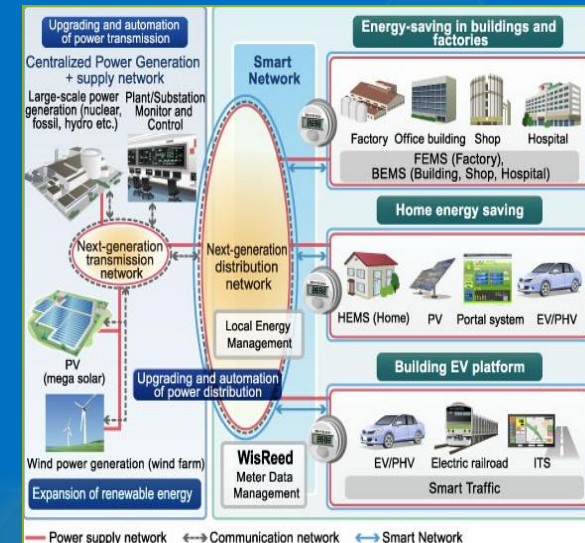
# An Example of Recent Research

## □ The Politics and the Economics of Smart Grid:

- What are the political and economic drivers of adoption of smart grid by the municipal-owned utilities in the U.S.?
- The model:

$$\ln [p/1-p \{AMI \& AMR\}] = \beta_1(\text{Independent\_Utility\_Board (1)}) + \beta_2(\text{Form\_of\_govt (1)}) + \beta_3(\text{Environmental\_NGOs}) + \beta_4(\text{Political Ideology}) + \beta_5(\text{Fiscal Status}) + \beta_6(\text{Electricity\_Price\_retail}) + \beta_7(\text{Energy\_Efficiency\_Spending}) + \beta_8(\text{Net\_Generation}) + \beta_9(\text{Heating\_Degree\_Days}) + \beta_{10}(\text{Cooling\_Degree\_Days}) + \beta_{11}(\text{Board X Environmental NGOs}) + \beta_{12}(\text{Median household income}) + \beta_{13}(\text{Percentage\_of\_white}) + \beta_{14}(\text{City Population})$$

- Model Results: Significant drivers are identified as:
  - Presence of Independent Utility Board
  - Electricity Price
  - Energy Efficiency Spending
  - & Interaction Effects





# CEFA Employment Opportunities

## ☐ Researchers Typically Remain Employed for the Duration of their Degree Program

- PhDs – 3-5 Years, Ms – 2-3 Years, BS 1-2 Years
- Typical Employment is 20 Hours per Week
- Researcher Desired Characteristics:
  - Flexibility; some weeks more labor intensive than others. Director aims to work within researchers schedule
  - Solid quantitative / analytical skills (Problem solving/solutions oriented); good foundation and interest in economics, statistics, policy areas
  - Good communication skills
  - Inquisitive / creative / willing to think “*Outside the Box*”
  - Research team player, self motivated, and results / outcomes oriented



# Conclusions and Contact Info

- **How Does the FSU CEFA Experience Transfer to the Work Environment for FSU Students/Researchers?**
  - Based on historical data of CEFA Employee Graduates, they typically are hired in the following positions:
    - 1) University Faculty Positions
    - 2) Government Positions (Federal, State & Local)
    - 3) Consulting Firm(s)
    - 4) Banks/Finance Firms
    - 5) Other Specialty (Director of Baku Stock Exchange, among others).

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