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# SAB Research Budget Work Group Meeting—Economics and Decision Sciences

National Center for Environmental Economics

March 3, 2011



# Outline

- Economics and Decision Sciences (EDS) Program
- NCEE Internal Research
- Other Upcoming Activities
  - Workshops and Products
  - PACE survey
  - Children's Health



# EDS Program

- Prior to 2008, ORD's National Center for Environmental Research (NCER) was responsible for administering and funding the EDS program
- The program was moved in FY2008 from NCER to OPEI under the Regulatory/Econ Management and Analysis program project
- Thirty-eight (38) active grants were moved from NCER to NCEE
- When the EDS program moved funding was cut by 50% (\$1million) and cut again due to 40 percent OPEI-wide cut
- OPEI absorbed substantial cut in the FY2009 continuing resolution, but rebounded in FY2010 for temporary(?) increase.
- Funding: FY2008 and FY2009 Obligations: \$0 M; FY2010:\$1.2M; FY2011 Pres Bud: \$0.6M and FY2012: \$1.0M



# Current/Future Awards

- Funded seven grants (out of 22 applications) to support environmental economics workshops from 2008 base NCEE research program
  - some single event, topic-focused (land use, meta-analysis, experimental methods, micro-econometrics)
  - others multi-year to support dissemination of research findings (Heartlands, Camp Resources, NBER Summer series)
- Recommended six awards (out of 11 applications) for dissertation/early career research in environmental economics from 2009 EDS competitive solicitation
  - “...for gathering data for use in doctoral dissertations and other early career research in those areas of environmental economics involving pollution control.”
- Recommended three awards (out of 23 applications) for research on market mechanisms in 2009 EDS competitive solicitation
  - “...normative or positive research in the design of policies for pollution control using market mechanisms, particularly second-best and piecemeal approaches to regulation as well as multiple, hybrid, or adaptive policies to control one or more externalities or other problems.”
- Completing funding recommendations and awards for additional workshop and dissertation/early career research projects. Anticipate making awards five awards (out of 21 eligible applications).



# NCEE Internal Research

- NCEE economists and scientists engage in research to fill gaps in knowledge, often with support from other EPA offices.
- NCEE staff research continues to present research at professional conferences, and to publish in peer reviewed journals, producing between 20-30 papers per year in economics and risk science fields
- NCEE added 12 entries in its Working Paper series in FY 2010 (there are 85 papers total in the series)
- Ongoing research includes efforts to:
  - account for uncertainty in the economic analysis of climate change policies
  - link EPA's air quality data with the National Center for Health Statistics survey data
  - analyze how regulation-based induced technological change impacts emissions and marginal abatement costs over time
  - measure economic benefits of reducing air toxics emissions
  - prepare a series of retrospective costs studies to help evaluate whether there are systematic biases or errors influencing EPA's predictions of regulatory compliance



# Other Activities: Workshops and EDS Products

- Hosted *Economic Benefits of Information Disclosure* workshop in January 2011, with presentations by EDS recipients and other researchers on the following topics:
  - energy efficiency labels
  - effectiveness of Toxics Release Inventory
  - interaction of inspections and audits
- After establishing standard method for valuing social cost of carbon emissions in federal regulatory impact analyses, EPA organized and co-sponsored with DOE two workshops on ways to improve the scientific and economic understanding of the potential impact of climate change on human well-being, focusing on ways to improve Integrated Assessment Modeling tools.
- Hosted workshop (June 9-10, 2010) on analytical methods for assessing environmental justice implications of environmental regulations. The workshop gathered a small group of economists, regulatory experts, and EJ community leaders to discuss methods for incorporating EJ analyses into EPA's regulatory process



# Other Activities: Pollution Abatement Costs and Expenditures (PACE) Survey

- Survey of ~20,000 U.S. manufacturing facilities - data on overall pollution abatement expenditures (by type and media), but not designed for collecting cost information on impacts of specific regulations
- Census conducted and funded the PACE Survey from 1973-1994; Census collected PACE data in 1999 and 2005 with funding by EPA
- EPA uses PACE data in some regulatory analyses and for periodic reports on national or program costs (e.g., Cost of Clean and Environment Investments), CAA 812 Retrospective Cost Analysis, EPA's Strategic Plan)
- Government & academic researchers use PACE data to analyze the impact of environmental regulations on important economic and environmental outcomes (e.g., job growth; competitiveness; environmental performance; opening and closing of manufacturing facilities; and productivity growth)
- Future of PACE – highly uncertain
  - Proposed to examine use of PACE survey to study GHG-related control and monitoring costs
  - Sought to establish more routine and continual administration of the survey (annual cycle)
  - Budget uncertainty, and steep price set by Census to administer survey, may necessitate reconsidering scope and reporting cycle



# Other Upcoming Activities:

- Children's Health Protection
  - Framework using *Handbook for Children's Health Valuation* (2003)
  - Targeted development of new valuation data and methods, through:
    - Applied research and data analysis from outside experts
    - NCEE in-house research and analysis
- Water Valuation Research
  - Exploring potential to prepare report that studies the overall economic benefits and costs of the Clean Water Act (companion to the Section 812 benefit-cost analysis of the Clean Air Act and Amendments)
  - Modeling cost-effective nutrient management options for Chesapeake Bay watershed
  - Modeling welfare impacts of ocean acidification (also part of Climate-related research)