

# Regulatory and Economic Analysis

Informing Policy Decisions to Protect Human Health and the Environment



Abt Associates is the leading provider of economic and regulatory analysis to the U.S. Environmental Protection Agency and other federal and state agencies. We are known for our ability to **develop new analytical methods** that withstand scientific and public scrutiny and **provide complete rulemaking** support within tight timetables.

## Our Team

Abt has one of the largest interdisciplinary research groups—comprised of economists, financial analysts, engineers, environmental modelers, health and environmental impact experts, and survey researchers.

## Our Work

Our commitment to economic and regulatory analysis also includes smart, efficient and creative responses to the challenges of climate change.

## Our Focus

- Estimating baseline and post-regulation environmental conditions and impacts, considering both health and ecological endpoints;
- Building integrated models that combine cost, risk, and benefits data to facilitate the calculation and analysis of the benefits and costs associated with alternative regulatory options;
- Collecting new data and mining existing information systems to complete more robust market profiles and assessment of regulatory and economic impact;
- Incorporating uncertainty analysis to better understand the range of potential impacts for decision makers' evaluation of alternative regulatory options and policies;
- Estimating regulatory impacts on specific subpopulations, such as small businesses, disadvantaged and minority populations, and children; and
- Quantifying the monetary benefits of cleaner air and water and the use of safer chemicals in commerce.



## Improving Our Water Quality

Abt is widely recognized for our work in improving water quality which includes:

- our cost-benefit and economic analysis of the impacts of proposed effluent guidelines and water quality standards under the Clean Water Act;
- our environmental models to estimate the loss-of-life associated with potential flood events; and
- our studies to protect the quality of surface and ground water resources and human health by improving the quality of drinking water.

## Protecting Our Air

We are proud of our work to improve air quality and reduce the incidence of diseases caused or worsened by air pollutants, including:

- our quantitative risk assessments to support environmental policy and regulatory decisions both in the U.S. and overseas, and
- our studies which contributed to EPA's establishment of national ambient air quality standards and other source specific regulations.

## Reducing Toxic Chemicals

Abt has been the leading provider of economic and policy analysis to EPA for national toxic chemical management and regulatory support for three decades.

Our work includes:

- supporting regulation activities using strong economic modeling and analysis skills to develop objective results for clients;

- using toxic chemical risk identification and risk assessment to help formulate policy solutions;
- promoting greener chemical design and supporting environmentally preferable products through Design for the Environment and life-cycle assessments; and
- developing the Risk-Screening Environmental Indicators (RSEI) model which uses toxicity data and environmental modeling to analyze potential risks to human health from chemical emissions reported to EPA's Toxics Release Inventory.

## Performing Health Risk Assessments

Our work in this area includes:

- developing new methods for quantifying risk;
- building computer models to calculate risk efficiently and cost-effectively;
- evaluating potential human health benefits of proposed air and drinking water regulations;
- assessing risks in vulnerable populations, such as children or those of low socioeconomic status;
- developing criteria air pollutants risk assessments; and
- conducting methods development and applying existing methodology.

## Clients

- U.S. Environmental Protection Agency
- U.S. Army Corps of Engineers
- National Oceanic and Atmospheric Administration
- U.S. Coast Guard
- U.S. Department of Energy

We also serve state and local governments and nonprofits and support international environment and climate change projects.

## Selected Projects

### The SafeWater CBX Drinking Water Benefit-Cost Model

SafeWater CBX has become the standard benefit-cost model for all drinking water regulations developed by EPA. The model incorporates variability across individuals and public water systems as well as known uncertainties around input parameters which allows for user-specified reporting categories (variability) and reporting confidence intervals around point estimates (uncertainty).

### Formaldehyde Emissions Standards for Composite Wood Products

Abt prepared economic analyses to support the proposed implementation rule of the Formaldehyde Standards for

Composite Wood Products Act. The incremental benefits associated with reduced risk for cancer, eye irritation, asthma, and reduced fertility were estimated and compared with compliance costs. Regulatory impact analyses were also conducted for small businesses and an environmental justice analysis was conducted to assess the impacts on disadvantaged and minority populations.

### Calculating the Benefits of Reducing Lead Exposure

EPA's Lead, Renovation, Repair, and Painting Program will reduce adverse health effects of inhaling or ingesting lead. The cost-benefit analyses accounted for the baseline use of lead-safe work practices, required the integration of exposure, risk, and economic models, and utilized Monte Carlo modeling techniques to capture variability and uncertainty.

### Estimating the Benefits of Reducing Hazardous Air Pollutants

For EPA, Abt prepared white papers and case studies which discussed and demonstrated a variety of dose-response methods useful for evaluating the noncancer health risks associated with air toxins.

### Meta-analysis of the Economic Impacts of Extreme Climate Events

Abt is conducting a regression-based meta-analysis of existing studies of the economic impacts of extreme climate events. The project will improve understanding the factors that contribute to the costs of natural disasters such as hurricanes, heat waves, droughts, snow storms, and floods.

## Contact

For more information on Abt Associates and our work in Regulatory and Economic Analysis, contact:

### Frank Divita

Principal Associate, Division of Health and Environment  
 Frank\_Divita@abtassoc.com  
 301. 347.5860

**Abt Associates** is a mission-driven, global leader in research and program implementation in the fields of health, social and environmental policy, and international development. Known for its rigorous approach to solving complex challenges, Abt Associates is regularly ranked as one of the top 20 global research firms and one of the top 40 international development innovators. The company has multiple offices in the U.S. and program offices in more than 40 countries.

