

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

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OFFICE OF THE ADMINISTRATOR
SCIENCE ADVISORY BOARD

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Governor Christine Todd Whitman
Administrator
United States Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Subject: Importance of Maintaining the Annual Pollution Abatement Cost and Expenditures (PACE) Survey

Dear Governor Whitman:

This Commentary was developed by the Environmental Economics Advisory Committee (EEAC) of the EPA Science Advisory Board (SAB) subsequent to a discussion with staff of the U.S. EPA's National Center for Environmental Economics and other Agency officials at the EEAC's public meeting on November 30, 2001. The Committee prepared this Commentary to bring to your attention the great importance of maintaining the annual Pollution Abatement Cost and Expenditures (PACE) Survey, the only source of consistent nationwide information available on the costs of environmental protection.

The PACE Survey was conducted annually from 1973 through 1994 by the U.S. Bureau of the Census, when it was suspended by the Bureau for budgetary reasons. In November of 1998, the EEAC held a discussion with the former Assistant Administrator for Policy, Planning, and Evaluation, and followed up with a Commentary to Administrator Browner in January, 1999, on the "Importance of Reinstating the PACE Survey." Four months later, EPA announced that it would reinstate the PACE Survey, with support from the Bureau of the Census. A workshop was then held at Resources for the Future to improve the Survey instrument, and in the year 2000 a Survey was carried out of 1999 costs.

The time has come (and perhaps has gone) for a Survey of year 2000 costs, but the Committee is concerned that time and resource constraints might prevent or delay implementation of the next PACE cycle. This is partly due to a provision in the original "Terms of Clearance" for the Survey which requires that an evaluation of the PACE Survey instrument be carried out prior to additional data collection. Given the limited resources for the Survey, the Committee is concerned about whether EPA can support both the evaluation and the Survey in a single year. There has also been discussion of the possibility of saving funds by carrying out Surveys in the future on a biennial basis. *The Committee views the maintenance of an uninterrupted, annual PACE Survey as an exceptionally high priority.*

The PACE Survey data provide a truly unique tool for evaluation of the costs of compliance with environmental regulations. The collection of these data has provided the United States with an important source of information to facilitate the evaluation of environmental programs and, in turn, to improve the design and performance of these programs. EPA has used the PACE data in its Cost of Clean reports, the Section 812 Clean Air Retrospective Cost Analysis, numerous sector-specific studies, Regulatory Impact Analyses, analyses of recycling

activities, and national studies of environmental protection activities. The relatively low cost of the PACE Survey, combined with its great benefits to EPA, means that the annual Survey provides the Agency with a tremendous return on its investment.

In addition, the existence of the Survey data has seeded considerable academic interest and activity. Staff from EPA's National Center for Environmental Research (in the Office of Research and Development) indicated at our November 30th EEAC meeting that in the past year it had received more than a dozen proposals that involved the use of PACE Survey data.

At once, the PACE Survey provides a means to assess the costs of environmental regulations in aggregate and individually, and it provides important data with which to compare the cost-effectiveness of alternative regulatory approaches. The systematic collection of information on these costs of regulation is essential to meet expanding legal requirements for review of the costs of regulation, and it is important for EPA's efforts to develop sound and effective regulations.

The PACE Survey provides data at three distinct levels, each valuable to EPA. First, the published PACE Survey provides aggregate data on pollution abatement spending, both for new capital expenditures and for operating costs. This supports calculations for numerous EPA reports, and provides an overall benchmark for examining trends in abatement expenditures over time.

Second, the PACE Survey provides abatement cost spending data at the industry- and state-specific level. EPA has used these data for sector-specific studies and Regulatory Impact Analyses. These data have also been used to examine the relationship between abatement costs and productivity growth at the industry level and to calculate indices of state regulatory intensity using differences in PACE-based abatement costs across states.

Third, the plant-level data collected for the PACE Survey can be linked with other Census-collected data for those plants, and accessed by researchers working at Census Research Data Centers around the country under strict controls to maintain confidentiality. These data have already been used in projects analyzing a number of important questions: how abatement costs are related to productivity levels across plants, how abatement investment affects other capital investment, how effective abatement spending is in reducing emissions, and whether abatement costs are related to local benefits from pollution abatement.

The value of any set of data of the type collected through the PACE Survey is significantly enhanced as the longevity and consistency of the data series is expanded. In other contexts, the Agency has argued that inconsistent funding of monitoring programs, leading to interruptions in monitoring data, has undermined the validation of the achievement of environmental goals. The same reasoning applies to the collection of data on the costs of compliance with environmental laws and regulations.

It is exceptionally important that the Survey continue to be conducted annually, to provide continuous plant-level data. This is especially important for capital expenditures: these data tend to be sporadic, and collecting the data less than annually would result in missing large amounts of investment and weaken the ability to identify the pollution abatement capital stock at a plant. Examining the timing of the impact of abatement costs on plants requires a complete time-series of data.

The PACE Survey has significant spill-over benefits affecting the various program offices in the Agency, and a number of other agencies. Therefore, the cost of the Survey should

be shared with offices across and even outside the agency, rather than being concentrated in any one office or agency. The funding of the National Health and Nutrition Examination Survey could serve as a useful model in terms of multi-agency support.

With annual private sector expenditures for environmental compliance now exceeding \$100 billion, an annual expenditure of less than \$2 million seems to be a modest and exceptionally sound investment to acquire the only systematic information available of the costs of environmental regulation.

We hope this Commentary offers some insight into the importance of the PACE Survey to EPA for achieving its mission, and we urge you to take immediate action to support the maintenance of an uninterrupted, annual PACE Survey. The Committee will be pleased to answer any questions you or your staff may have.

Sincerely,

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Dr. William Glaze, Chair
EPA Science Advisory Board

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Dr. Robert N. Stavins, Chair
Environmental Economics Advisory Committee
EPA Science Advisory Board

**U.S. Environmental Protection Agency
EPA Science Advisory Board
Environmental Economics Advisory Committee
November 30, 2001**

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