



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

November 4, 2003

OFFICE OF THE ADMINISTRATOR
SCIENCE ADVISORY BOARD

MEMORANDUM

SUBJECT: US EPA Science Advisory Board (SAB) Review of the EPA “Environmental Economics Research Strategy”

FROM: Thomas O. Miller */Signed/*
Designated Federal Officer
Environmental Economics Advisory Committee
EPA Science Advisory Board Staff Office (1400A)

TO: Vanessa Vu, Ph.D.
Director
EPA Science Advisory Board Staff Office (1400A)

THRU: Daniel Fort */Signed/*
SAB Ethics and FACA Policy Officer
EPA Science Advisory Board Staff Office (1400A)

This memorandum addresses the set of determinations that are necessary for forming a Science Advisory Board Panel. It provides background information on the subject SAB Activity and addresses:

- 1) the charge developed for the panel;
- 2) the type of Panel that will be used to conduct the activity, the name of the Panel and identification of the Panel Chair; the types of expertise needed to address the charge;
- 3) identification of parties who are potentially interested in or may be affected by the topic to be reviewed;
- 4) Conflict of Interest Considerations (whether the charge involves a Particular Matter and how conflict of interest regulations under 18 U.S.C. 208 apply to members of the panel;

- 5) how regulations concerning “appearance of lack of impartiality” under 5 C.F.R. 2635.502 apply to members of the panel;
- 6) how individuals were placed on the “Short List” posted on the SAB website as candidates for the panel; and
- 7) how individuals were placed on the final panel.

This memorandum serves to document the decisions on each of these topics and to document the SAB Staff Office Director’s approval of those decisions.

A. Background

The EPA Science Advisory Board was asked to conduct a review of the EPA Environmental Economics Research Strategy (EERS or Strategy). The Strategy draws together all relevant research conducted by EPA offices and labs into an understandable whole and provides a blueprint for economic research priorities for the agency. The Strategy “...identifies priorities and research gaps, evaluates research tools, sets out strategic research objectives and suggests responsibilities and sequences for conducting or sponsoring research.”

In preparing the strategy, EPA identified ten research categories that were important to EPA offices. These needs were then evaluated in order to select the areas that EPA would emphasize. The following were the objectives selected for EPA’s economics research focus: a) Environmental (compliance) behavior and decision-making; b) Benefits of environmental information disclosure; c) Ecological valuation; d) Health valuation; and e) Market mechanisms and incentives. Research will be conducted externally through cooperative agreements, grants, contracts, and internally at EPA’s National Center for Environmental economics and in the EPA Office of Research and Development.

B. Determinations

- 1) The Charge to the Panel: SAB Staff and the Agency negotiated the following charge:

Charge Question 1: For each of the major subject areas described in the EERS, EPA has attempted to articulate the most relevant research questions that EPA can effectively address given the available tools and resources. In this context, please address the following for the key research questions identified in the EERS in each of the subject areas.

- i) Is the characterization of each of the major research gaps in the literature, for the key subject areas **of relevance to EPA’s economic sciences, as identified in the EERS** adequate? Will these priorities and implementation approaches effectively address the areas of greatest scientific uncertainty?
- ii) Given the implementation strategy laid out in the EERS;

- To what extent is this research scientifically feasible at a high level of quality?
 - How successful is this research likely to be in answering policy-relevant questions for EPA within the next 8 -10 years?
- iii) What improvements in the design and implementation of the EERS would make each research project more useful to EPA and other environmental management agencies?

Charge Question 2: What methodological research needs in valuation should EPA investigate as a complement to the needs derived from the strategy interviews? In the valuation areas, EPA's expressed needs are primarily practical: better values for ecological and human health impacts of environmental policies. However, most grant proposals (and most journal articles) investigate practical questions as well as methodological or other questions (e.g. incentive compatibility or elicitation methods in stated preference or more refined models of behavior in revealed preference). EPA does not expect that researchers will propose to estimate only the practical values that EPA needs, but will also propose to investigate methodological issues. Since the research strategy interviews did not elicit methodological needs, and EPA believes that improving methodology while generating practical values provides useful synergy, further input on prioritizing methodological issues from the EEAC would be useful.

Charge Question 3: Can the EEAC identify by consensus any environmental economics issues of overriding importance to EPA that the EERS has missed, and that EPA should address provided that more resources be made available for Environmental Economics Research? Could the EEAC explain why this (these) issue(s) should be of high concern to EPA's research programs.

Charge Question 4: What is the best way for EPA to communicate the results of the research strategy and plans for achieving its long-term research goals to the wider research community, and other potential users?

- 2) Type of Panel that will be used to conduct the review, the name of the Panel, and identification of the Panel Chair, and types of expertise needed to address the charge:
 The SAB will conduct this review using the EPA SAB's Environmental Economics Advisory Committee (EEAC). The EEAC is an existing SAB Standing Committee which was established to advise and review environmental economics issues. Because some EEAC members are not able to participate, the SAB Staff Office has chosen to include additional experts from the membership of other SAB advisory committees and from nominations received from the public (see 68 FR 37151) for the announcement of this review and a solicitation of nominations to panel membership.

Dr. Maureen Cropper, Chair of the Environmental Economics Advisory Committee, will Chair the review panel. The expertise needs for this review include: benefits analysis,

cost analysis, cost-benefit analysis, ecological valuation, human health risk reduction valuation, benefits of environmental information disclosure, environmental compliance behavior, market mechanisms and incentives, and discounting/intergenerational equity.

3) D. Identification of parties who are potentially interested in or may be affected by the topic to be reviewed: Interested and affected parties will be those involved with economics analysis at EPA, in other federal agencies (OMB, DOE, USDI, DOD), in State and local environmental agencies, and some elected officials. In addition some in non-governmental organizations who focus on environmental policy development will be interested (e.g., NRDC, EDF, ACC, CEHN, CSIPI). Academic researchers involved with environmental economics, and those who are involved with integrated regulatory assessment techniques will also be interested in this topic.

4) Conflict of Interest Considerations: For Financial Conflict of Interest (COI) issues, The basic 18 U.S.C. 208 provision states that: “An employee is prohibited from participating *personally and substantially* in an official capacity in any *particular matter* in which he, to his knowledge, or any person whose interests are imputed to him under this statute has a *financial interest*, if the particular matter will have a *direct and predictable effect* on that interest [emphasis added].” For a conflict of interest to be present, all elements in this provision must be present. If an element is missing the issue does not involve a formal conflict of interest; however, the general provisions in the appearance of impartiality guidelines may still apply and need to be considered.

a) Does the charge involve a Specific Party Particular Matter? A “**particular matter**” refers to matters that “...will involve deliberation, decision, or action that is focused upon the interests of specific people, or a discrete and identifiable class of people.” It does not refer to “...consideration or adoption of broad policy options directed to the interests of a large and diverse group of people.” [5 C.F.R. 2640.103(a)(1)]:

The EERS does not constitute a particular matter in that it does not include matters that involve deliberation, decision or action that is focused upon the interest of specific persons, or a discrete and identifiable class of persons. Nor does this include matters which do not involve formal parties or extend to legislation or policy making that is narrowly focused upon the interests of a discrete and identifiable class of persons. Rather, it covers consideration or adoption of broad policy options [Fort, email October 20, 2003] and no conflict of interest exists.

b) Additional Elements in the Conflict of Interest Determination: Because of this does not constitute a particular matter involving specific parties, the chain of elements leading to a determination that a conflict of interest exists is broken and no such conflict exists and there is no need to pursue the additional elements in determining the existence of a conflict of interest (i.e., Personal and Substantial

Participation; Direct and Predictable Effect on Members Financial Interest

- 5) how regulations concerning “appearance of lack of impartiality” under 5 C.F.R. 2635.502 apply to members of the panel: The Code of Federal Regulations [5 C.F.R. 2635.502(a)]states that: “Where an employee knows that a particular matter involving specific parties is likely to have a direct and predictable effect on the financial interest of a member of his household, or knows that a person with whom he has a covered relationship is or represents a party to such matter, and where the person determines that the circumstances would cause a reasonable person with knowledge of the relevant facts to question his impartiality in the matter, the employee should not participate in the matter unless he has informed the agency designee of the appearance problem and received authorization from the agency designee.” Further, 5 C.F.R. 2635.502(a)(2) states that, “An employee who is concerned that circumstances other than those specifically described in this section would raise a question regarding his impartiality should use the process described in this section to determine whether he should or should not participate in a particular matter.”

Several individuals who serve on this panel now have in place, or are applying for, EPA grants that fit categorically within EPA’s economics research strategy. As such, some persons would judge that they have a potential “appearance of a lack of impartiality” under 5 CFR 2635.502. Persons with such research grants are permitted to participate in this review because of their knowledge of the field and EPA’s use of economic information.

- 6) How individuals were selected for the “Short List”: On October 7, 2003, the SAB Staff posted a notice on the SAB website inviting comment on Prospective Candidates for the Advisory Panel on the Environmental Economics Research Strategy. In the website entry, the Staff Office noted the background on the issue, the expertise needs for the review, the results of the widecast, the persons to be included on the “Short List” and asked for comments on the persons on this list. To arrive at this list, the SAB Staff Office reviewed fourteen Widecast nominees for individuals to supplement the EEAC membership. From that list, four candidates were identified for inclusion on the “Short List” in addition to the EEAC members who were available for service on the review panel. Selections were based on the qualifications, expertise, interest in participation, and availability of the nominees. The notice was posted for 21 days to allow for public comment. During the comment period the Staff Office DFO discussed the review with
- 7) How individuals were selected for the Final Panel: No comments were received on the candidates in response to the SAB Staff Office’s request for “information, analysis, or documentation” that should be considered in making a selection of members for panel membership.

SAB staff considered available information along with: a) the confidential financial disclosure form (EPA Form 3110-48), responses from Short List candidates to queries

about their “points of view” and relationship to the review material to be considered by the Panel, and c) *Curriculum Vitae* provided by candidates and supplementary materials provided by them. The prospective Panel make up was also discussed with the Committee Chair, Dr. Maureen Cropper. The proposed Panel consists of the existing Environmental economics Advisory Committee members (with the exception of two who are not available for the meeting).

The SAB Staff Director, the SAB Ethics and FACA and Policy Officer, and the DFO met on November 4, 2003 to discuss the proposal. The Staff Office Director approved the Panel Selection elements at that time and instructed the DFO to complete the preparation for the review.

Panel membership will consist of current members of the EEAC supplemented by Dr. James Hammitt, Advisory Council on Clean Air Act Compliance and Analysis and Harvard University, and Dr. Gary Yohe, Wesleyan University (nominated as a result of the solicitation).

Concurred,

/Signed/

11/4/2003

Daniel Fort
Ethics and FACA Policy Officer
EPA Science Advisory Board Staff Office

Date

Approved,

/Signed/

11/10/2003

Vanessa Vu, Ph.D.
Director
EPA Science Advisory Board Staff Office

Date

Attachments:

1. EERS Expertise Matrix
2. *Federal Register* Request for Nominations for the Advisory Panel on the Environmental Economics Research Strategy (68 FR 37151, June 23, 2003)
3. *Federal Register* announcement of meeting date and location (68 FR 61206, October 27, 2003)
4. Roster of individuals selected for the Panel

Attachment 1
EERS Expertise Matrix

Expertise	Member
-Environmental (compliance) behavior and decision-making (e.g., why and how firms react to government intervention in markets, voluntary programs, perceptions of environmentally related costs) (Essentially applied microeconomics re firm behavior re intervention, etc.)	<u>Burtraw</u> Goulder Helfand Levinson Segerson Sigman <u>Stavins</u>
Benefits of environmental information disclosure	Levinson Sigman Helfand Goulder <u>Stavins</u>
Ecological valuation	<u>Kling</u> Norgaard Segerson
Health valuation	Cropper Hammitt
Market mechanisms and incentives.	Goulder Helfand <u>Burtraw</u> <u>Kling</u> Levinson Segerson <u>Stavins</u>
Cost analysis	Kling Burtraw Goulder Yohe
Benefit-Cost analysis and Uncertainty analysis in BCA	All
Discounting; intergenerational equity	All