

Perspectives on the US EPA's CASAC: A Survey of State Air Agencies

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Purpose

- ▶ To analyze responses from state air agencies on perspectives regarding
 - ▶ Transparency,
 - ▶ Barriers for nomination, and
 - ▶ Panel member representation
- ▶ Survey data indicates several potential areas for reform and additional transparency.

Clean Air Scientific Advisory Committee Background

- ▶ CASAC
- ▶ Scientific and technical advisory panel
- ▶ Provides advice to the EPA Administrator on setting NAAQS identified under the Clean Air Act
- ▶ EPA Administrator appoints CASAC
- ▶ At five-year intervals CASAC shall review criteria and recommend new standards and revisions

National Ambient Air Quality Standards

- ▶ NAAQS
- ▶ Six “criteria” pollutants
 - ▶ Carbon Monoxide (CO)
 - ▶ Lead (Pb)
 - ▶ Nitrogen Dioxide (NO₂)
 - ▶ Ozone (O₃)
 - ▶ Particle Pollution (PM)
 - ▶ Sulfur Dioxide (SO₂)
- ▶ Primary standards
 - ▶ Provide public health protection
- ▶ Secondary standards
 - ▶ Provide public welfare protection
- ▶ Costs are not considered
- ▶ Must be an adequate margin of safety

Clean Air Act section 109(d)(2)

- ▶ CASAC shall
- ▶ (A) shall complete a review of the criteria published under section 7408 of this title and the national primary and secondary ambient air quality standards promulgated under this section and shall recommend to the Administrator any new national ambient air quality standards and revisions of existing criteria and standards as may be appropriate under section 7408 of this title and subsection (b) of this section.
- ▶ Such committee shall also (i) advise the Administrator of areas in which additional knowledge is required to appraise the adequacy and basis of existing, new, or revised national ambient air quality standards, (ii) describe the research efforts necessary to provide the required information, (iii) advise the Administrator on the relative contribution to air pollution concentrations of natural as well as anthropogenic activity, and (iv) advise the Administrator of any adverse public health, welfare, social, economic, or energy effects which may result from various strategies for attainment and maintenance of such national ambient air quality standards.

CASAC Charter

- ▶ Financial and administrative support provided by EPA
- ▶ Refiled every two years
- ▶ EPA forms subpanels for reviews of individual NAAQS
- ▶ Membership appointed by EPA Administrator and must include
 - ▶ Chairperson
 - ▶ One member of the National Academy of Sciences
 - ▶ One physician
 - ▶ One person from a state air pollution control agency
- ▶ Time commitment
 - ▶ One two-day meeting
 - ▶ Teleconference meetings over 4-6 months
 - ▶ 20-40 hours spent outside of meetings

Becoming an Expert on CASAC

- ▶ SAB requests public nominations through a Federal Register notice
- ▶ Nominations from candidates in scientific and research organizations, professional societies, NGO organizations and direct contacts and letter from EPA and current SAB are considered
- ▶ Nominated expert is reviewed on
 - ▶ Scientific education
 - ▶ Training
 - ▶ Experience

CASAC Concerns

► Underrepresentation of State Agencies

2009-Present CASAC Committee				
Last Name	First Name	Affiliation	State	EPA Region
<i>Frey</i>	<i>Christopher</i>	<i>North Carolina State University</i>	<i>North Carolina</i>	4
Allen	George	NESCAUM	Massachusetts	1
Diez-Roux	Ana	Drexel University	Pennsylvania	3
Harkema	Jack	Michigan State University	Michigan	5
Suh	Helen	Northeastern University	Massachusetts	1
Weathers	Kathleen	Cary Institute of Ecosystem Studies	New York	2
Wyzga	Ronald	Electric Power Research Institute	California	9

*italics indicated Chairperson

*yellow indicates academic affiliation

CASAC Concerns

- Underrepresentation of State Agencies

2009-Present Ozone Review Panel				
Last Name	First Name	Affiliation	State	EPA Region
<i>Frey</i>	<i>Christopher</i>	<i>North Carolina State University</i>	<i>North Carolina</i>	4
Allen	George	NESCAUM	Massachusetts	1
Avol	Ed	University of Southern California	California	9
Bell	Michelle	Yale University	Connecticut	1
Brain	Joseph	Harvard University	Massachusetts	1
Chock	David	Independent Consultant	Michigan	5
Diez-Roux	Ana	Drexel University	Pennsylvania	3
Grantz	David	University of California at Riverside	California	9
Harkema	Jack	Michigan State University	Michigan	5
Jacob	Daniel	Harvard University	Massachusetts	1
Kleeberger	Steven	National Institutes of Health	North Carolina	4
Miller	Frederick	Independent Consultant	North Carolina	4
Neufield	Howard	Appalachian State University	North Carolina	4
Russell	Armistead	Georgia Institute of Technology	Georgia	4
Suh	Helen	Northeastern University	Massachusetts	1
Ultman	James	Pennsylvania State University	Pennsylvania	3
Vedal	Sverre	University of Washington	Washington	10
Weathers	Kathleen	Cary Institute of Ecosystem Studies	New York	2
Woodbury	Peter	Cornell University	New York	2
Wyzga	Ronald	Electric Power Research Institute	California	9

*italics indicated Chairperson

*yellow indicates academic affiliation

CASAC Concerns

Independence and Impartiality

- ▶ Members recommended by EPA and appointed by EPA Administrator
- ▶ Financial and administrative support provided by EPA
- ▶ Only 7 chartered members

Survey Design

- ▶ Anonymous, electronic survey
- ▶ Emailed Air Director from each state
- ▶ Two week deadline
- ▶ Questions regarding
 - ▶ Representativeness of CASAC
 - ▶ Barriers to CASAC
 - ▶ Transparency


Survey Participation

Survey Respondent Geographic Diversity by EPA Region



Familiarity with CASAC

Have you or anyone in your agency ever served on the chartered CASAC or on its subpanels since 2000?

- ☐ I have served on CASAC
- ☐ Someone at my agency has served on CASAC
- ☐ **No one at my agency has served on CASAC**  89%

Familiarity with CASAC

Have you or anyone in your agency been nominated for the chartered CASAC or individual NAAQS subpanels since 2000?

☐ Yes

☐ No  79%

Familiarity with CASAC

Have you or anyone in your agency participated in the CASAC review process through attending in-person meetings, providing written or oral comments to CASAC, or joining teleconferences?

- ☐ **Yes, often**  32%
- ☐ **Rarely**  36%
- ☐ **Never**  32%

Transparency of CASAC




Is the CASAC process for nominating and recommending expert candidates transparent and clearly understood?

☐ Yes  73%

☐ No

Barriers

What are the barriers to you or anyone in your agency serving on CASAC or its subpanels. Please select all that apply.

- ☐ **Lack of expertise**  42%
- ☐ **Lack of time to serve**  68%
- ☐ Lack of time to nominate
- ☐ Unaware of nomination openings
- ☐ Lack of interest
- ☐ **Low likelihood of being selected**  47%
- ☐ Confusion on the CASAC nomination process
- ☐ Conflicts with agency or institution policies

Adequate Representation

Do you feel that state and local agencies are adequately represented on CASAC and its subpanels?

☐ Yes

☐ No  61%

Adequate Representation

The Federal Advisory Committee Act requires advisory panels like CASAC to be fairly balanced in terms of the points of view represented and the functions performed by the advisory committee. Do you believe CASAC meets this requirement?

☐ Yes

☒ No  69%

Adequate Representation




Are the chartered CASAC and its subpanels sufficiently geographically diverse?

☐ Yes

☐ No  65%

CASAC Duties

In addition to recommending “to the Administrator any new national ambient air quality standards and revisions of existing criteria and standards as may be appropriate,” CASAC, under Section 109(d) of the Clean Air Act, “shall also...advise the Administrator on the relative contributions of natural as well as anthropogenic activity.” Do you believe that CASAC has carried out this duty?

- ☐ Yes, Regularly  26%
- ☐ Rarely  26%
- ☐ Never
- ☐ **More information is needed**  47%

CASAC Duties





Would CASAC advise on the “relative contribution to air pollution concentrations of natural as well as anthropogenic activity,” as part of the NAAQS review process, be helpful to your agency?

☐ **Yes**  88%

☐ **No**

CASAC Duties

In addition to recommending “to the Administrator any new national ambient air quality standards and revisions of existing criteria and standards as may be appropriate,” CASAC, under Section 109(d) of the Clean Air Act, “shall also...advise the Administrator of any adverse public health, welfare, social, economic, or energy effects which may result from various strategies for attainment and maintenance of such national ambient air quality standards.” Do you believe that CASAC has carried out this duty?

- ☐ Yes, Regularly  17%
- ☐ Rarely  33%
- ☐ Never  11%
- ☐ **More information is needed**  39%

CASAC Duties

Would CASAC advise on “any adverse public health, welfare, social, economic, or energy effects which may result from various strategies for attainment and maintenance of such national ambient air quality standards,” as part of the NAAQS review process, be helpful to your agency?

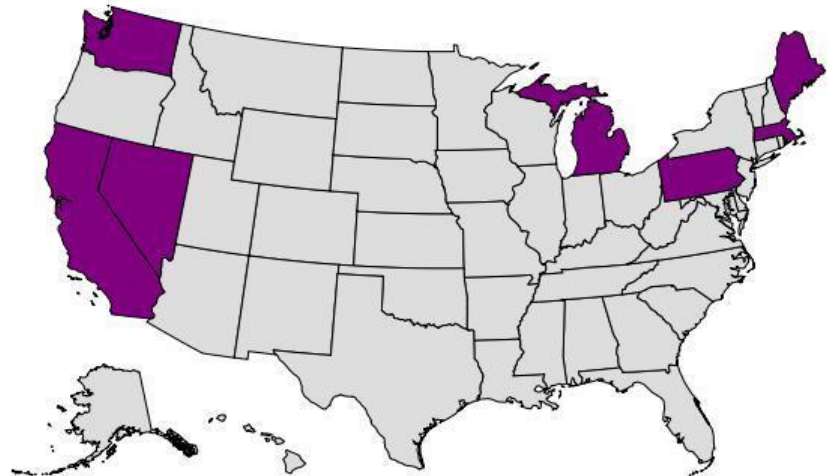
☐ **Yes**  81%

☐ No

Limitations

- ▶ Small survey population
- ▶ Focus on one target sample
- ▶ Survey included one map

Current Clean Air Scientific Advisory
Committee Membership 2016



Research Findings

- ▶ Survey data supports
 - ▶ Underrepresentation
 - ▶ Lack of balanced points of view
- ▶ Barriers
 - ▶ Lack of time to serve
 - ▶ Lack of expertise
 - ▶ Low likelihood of being selected

Acknowledgements

- ▶ Thank you to my supervisor Clint Woods (AAPCA) and my advisor Dr. Bromley-Trujillo