



## MEMORANDUM

March 12, 2013

**To:** House Subcommittee on Energy and Environment, Committee on Science, Space and Technology  
Attention: Clint Woods

**From:** Linda-Jo Schierow, Specialist in Environmental Policy, 7-7279, lschierow@crs.loc.gov

**Subject:** EPA Grants to Members of Selected EPA Advisory Committees

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This memorandum responds to your request for information about current and past grants from the U.S. Environmental Protection Agency (EPA) to members of the following two federal advisory committees that serve the EPA:

- Clean Air Scientific Advisory Committee (CASAC); and
- Science Advisory Board (SAB).

The results were obtained by searching the EPA's National Center for Environmental Research (NCER) Project Database. Members of each committee and the amounts and titles of grants that supported their work are listed in **Table 1**, organized by committee. It is important to note that only EPA research grants are included in Table 1. The table excludes state and local government grants (some of which may ultimately be funded by a federal grant to the state or local entity), as well as grants provided by the private sector, although some committee members have received such grants.

Another key clarification is that while we refer to these grants as being "to" particular committee members, in fact they typically are to the academic institution where the member is employed, and only a very small proportion, if any, of the grant may be paid in the form of salary to the member. Committee members were identified only if they were listed as Principal Investigators or Co-Investigators, whose role generally is to lend expert advice and to oversee work done by graduate students or post-doctoral fellows. In some cases, grants are for major national research centers that house numerous research projects and potentially involve dozens of students and post-doctoral fellows and several professors. Funding for specific projects supported by these centers is not specified in the NCER database and not reported in Table 1. Similarly, some research grants were for projects that are funded through the public-private Health Effects Institute or university consortia known as Hazardous Substance Research Centers. The latter centers were established under the Comprehensive Emergency Response, Compensation, and Liability Act (CERCLA) section 311(d) and are jointly funded by EPA and the National Institute for Environmental Health Sciences. NCER does not provide funding information for these projects, and Table 1 does not include such information.

Finally, it is also important to note that grants may be listed more than once if they were received by several committee members. In addition, some grants are provided by multiple agencies, and the multi-agency total for the project may be stated in the database, although only a portion of the funding derives

from EPA's budget. For this reason it would be inappropriate to sum the grant amounts to obtain a total EPA funding amount across committee members or for any single committee member. Grant amounts are rounded to the nearest \$1,000.

I hope that you find this information useful. Please call me if you would like further assistance.

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**Table I. EPA Grants to Members of Two EPA Advisory Committees**

<b>Member</b>	<b>Affiliation</b>	<b>Grants</b>
<b>Clean Air Scientific Advisory Committee (CASAC)</b>		
Frey, H. Christopher (Chair)	North Carolina State University (NC)	<p>2010-2013, \$500,000 - Framework for Context-Sensitive Spatially- and Temporally-Resolved Onroad Mobile Source Emission Inventories</p> <p>2008-2011, \$893,000 - Spatial temporal analysis of health effects associated with sources and speciation of fine PM</p> <p>2004-2009, \$680,000 - Advanced Modeling System for Forecasting Regional Development, Travel Behavior, and Spatial Pattern of Emissions</p> <p>1998-2001, \$553,000 - Development and Demonstration of a Methodology for Characterizing and Managing Uncertainties in Emission Inventories</p> <p>1998-1999, \$180,000 - Methods for Assessment of Pollution Prevention Technologies</p> <p>1998-2001, \$329,000 - Probabilistic Modeling of Variability and Uncertainty in Urban Air Toxics Emissions</p>
Allen, George A.	Northeast States for Coordinated Air Use Management (MA)	<p>1998-2003, \$3,000,000 - Investigations of Factors Determining the Occurrence of Ozone and Fine Particles in Northeastern USA</p> <p>1996-1999, \$380,000 - Development and Validation of a Novel Technique to Measure Ambient Particle Properties: Bound Water, Mass Density, and Mean Diameter</p> <p>1998-2000, \$527,000 - Time-Relevant Communication of Ozone and Particulate Air Pollution Data: A Pilot Project to Raise Public Awareness and Promote Exposure Reduction</p>
Diez-Roux, Ana	University of Michigan (MI)	<p>2011-2012, \$556,000 – Center for Integrative Approaches to Health Disparities – Environment Assessment Core</p> <p>2006-2009, \$576,000 - Heat-related Hospital Admissions Among the Elderly: Community, Socio-economic and Medical Determinants of Vulnerability and Economic Impacts</p> <p>2004-2014, \$32,999,000 - Prospective Study of Atherosclerosis, Clinical Cardiovascular Disease, and Long-Term Exposure to Ambient Particulate Matter and Other Air Pollutants in a Multi-Ethnic Cohort</p> <p>2003-2006, \$769,000 - Long-term Exposure to Ambient Particulate Matter and Subclinical Atherosclerosis</p>
Harkema, Jack	Michigan State University	<p>2011-2013, \$600,000 – Environmental Transformation and Biological Fate of Fresh and Aged Cerium Oxide Nanoparticles</p> <p>2011-2013, \$8,000,000 – Great Lakes Air Center for Integrative Environmental Research</p> <p>2005-2010, \$8,000,000 – Southern California Particle Center</p> <p>2004-2007, \$748,000 – Estrogen Elicited Gene Expression Network Elucidation in the Rat Uterus</p> <p>2001-2004, \$855,000 – Effects of Airborne Particles on Allergic</p>

Member	Affiliation	Grants
Suh, Helen	University of Chicago (IL)	Airway Disease 1999-2005, \$8,716,000 – Southern California Particle Center and Supersite 2000-2005, (Funded by the Health Effects Institute) – Effects of Prolonged Ozone Inhalation on Rats (five specific studies) 2005-2010, \$3,215,000 - Harvard Particle Center 2003-2006, \$934,000 - Chronic Exposure to Particulate Matter and Cardiopulmonary Disease 1999-2005, \$7,747,000 - EPA Harvard Center for Ambient Particle Health Effects
Weathers, Kathleen	Cary Institute of Ecosystem Studies (NY)	None
Wyzga, Ronald	Electric Power Research Institute	None

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**Science Advisory Board**


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Allen, David T. (Chair)	University of Texas (TX)	<p>2012-2015, \$500,000 - Analysis of Dynamic, Flexible NO<sub>x</sub> and SO<sub>2</sub> Abatement from Power Plants in the Eastern U.S. and Texas</p> <p>2012-2015, \$750,000 - Response of Regional Air Quality to Severe Drought</p> <p>2005-2008, \$969,000 - Texas Joint Center for Air Quality</p> <p>2005-2007, \$350,000 - Benchmarking Sustainability Engineering Education</p> <p>2004-2007, \$650,000 - Predicting the Relative Impacts of Urban Development Policies and On-Road Vehicle Technologies on Air Quality in the United States: Modeling and Analysis of a Case Study in Austin, Texas</p> <p>2004-2005, \$10,000 - Systems Approach to Recovery and Reuse of Organic Material Flows in Santa Barbara County to Extract Maximum Value and Eliminate Waste</p> <p>2003-2006, \$750,000 - Impacts of Climate Change and Land Cover Change on Biogenic Volatile Organic Compounds (BVOCs) Emissions in Texas</p> <p>2000-2003, \$325,000 - Development of Life Cycle Inventory Modules for Semiconductor Processing</p> <p>2000-2004 (Funded by the Gulf Coast Hazardous Substance Research Center) - Engineering of Nanocrystal Based Catalytic Materials for Hydroprocessing of Halogenated Organics</p> <p>2000-2004 (Funded by the Gulf Coast Hazardous Substance Research Center) - Catalytic Hydroprocessing of Chlorinated Wastes</p> <p>1997-2000 (Funded by the Gulf Coast Hazardous Substance Research Center) - Catalytic Hydroprocessing of Chlorinated Organics</p>
Alexeeff, George	California Environmental Protection Agency (CA)	None
Alvarez, Pedro J.	Rice University (TX)	<p>2009-2011, \$400,000 - Interactions of Natural Organic Matter with C60 Fullerene and their Impact on C60 Transport, Bioavailability and Toxicity</p> <p>2008-2011, \$400,000 - Effects of Quantum Dot on Microbial Communities</p> <p>2006-2009, \$400,000 - The Effect of Surface Coatings on the Environmental and Microbial Fate of Nanoiron and Feoxide Nanoparticles</p> <p>2005-2008, \$375,000 - Microbial Impacts of Engineered Nanoparticles</p> <p>2000-2002, \$195,000 - Effect of the Gasoline Oxygenate Ethanol on the Migration and Natural Attenuation of BTEX Compounds in Contaminated Aquifers</p> <p>1995-1998, \$246,000 - Biostimulation of BTX Degradation with Environmentally Benign Aromatic Substrates</p> <p>1993-2000 (Funded by the Great Plains/Rocky Mountain Hazardous Substances Research Center) – The Role of Metallic Iron in the</p>

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		Biotransformation of Chlorinated Xenobiotics
Arvai, Joseph	University of Calgary (Canada)	1999-2001, \$228,000 - Understanding Observed Differences in Time-Preference Rates
Burbacher, Thomas	University of Washington	2000-2005 (Funded by the Health Effects Institute) - Effects of Prenatal Exposure to Inhaled Methanol on Nonhuman Primates and Their Infant Offspring
Benitez-Nelson, Claudia	University of South Carolina (SC)	1996-1998, \$102,000 - Phosphorus Cycling in the Gulf of Maine: A Multitracer Approach
Burke, Ingrid C.	University of Wyoming (WY)	1996-1999, \$1,590,000 - A Regional Assessment of Land Use Effects on Ecosystem Structure and Function in the Central Grasslands
Burke, Thomas A.	Johns Hopkins University (MD)	2008-2011, \$500,000 - Longitudinal Indicators of Policy Impact on Pollution, Exposure and Health Risk
Carney, Edward T.	The Dow Chemical Company	None
Daniel, Terry	University of Arizona (AZ)	None
Daston, George	Procter and Gamble (OH)	None
Denson, Costel	Costech Technologies, LLC (DE)	None
Doering III, Otto C.	Purdue University (IN)	1996-1999, \$1,394,000 - Integrated Assessment of Economic Adaptation Strategies for Climate Change Impacts on Midwestern Agriculture
Dourson, Michael	Toxicology Excellence for Risk Assessment (OH)	None
Ducoste, Joel	North Carolina State University	2009-2012, \$570,000 - An Integrated Approach to Understanding and Reducing Fat, Oil, and Grease (FOG) Deposit Formation for Sustainable Sewer Collection Systems
Dzombak, David A.	Carnegie Mellon University (PA)	1998-2001, \$610,000 - Evaluation of Natural Amelioration of Acidic Deep Mine Discharges for Watershed Restoration 1997-1999, \$499,000 - Bioavailability and Biostabilization of PCBs in Soil
Eighmy, T. Taylor	Texas Tech University (TX)	None
Faustman, Elaine	University of Washington (WA)	2009-2015, \$5,417,000 (Funded jointly with the National Institutes of Health) - Center for Child Environmental Health Risks Research 2005-2008, \$750,000 - Integrating Innovative Biomarkers of Environmentally Induced Disease for Children in Agricultural Communities 2003-2008, \$3,652,000 - Center for Child Environmental Health Risks Research 1998-2003, \$3,545,000 - Center for Child Environmental Health Risks Research 1996-1999, \$391,000 - Improving Methods for Identifying Noncancer Risks Application of Cell Kinetic Models for Methylmercury Risk Assessment
Field, R. William	University of Iowa	2009-20013, \$899,000 - Applying Data Assimilation and Adjoint Sensitivity to Epidemiological and Policy Studies of Airborne Particulate Matter

Frey, H. Christopher	North Carolina State University	<p>2010-1013, \$500,000 - Framework for Context-Sensitive Spatially- and Temporally-Resolved Onroad Mobile Source Emission Inventories</p> <p>2008-2012, \$893,000 - Spatial temporal analysis of health effects associated with sources and speciation of fine PM</p> <p>2004-2009, \$680,000 - Advanced Modeling System for Forecasting Regional Development, Travel Behavior, and Spatial Pattern of Emissions</p> <p>1998-2001, \$553,000 - Development and Demonstration of a Methodology for Characterizing and Managing Uncertainties in Emission Inventories</p> <p>1998-2001, \$329,000 - Probabilistic Modeling of Variability and Uncertainty in Urban Air Toxics Emissions</p> <p>1998-1999, \$180,000 - New Methods for Assessment of Pollution Prevention Technologies</p>
Giesy, John P.	University of Saskatchewan (Canada)	<p>2004-2007, \$750,000 - Chemical Induced Changes in Gene Expression Patterns Along the HPG-axis at Different Organizational Levels Using a Small Animal Model (Japanese medaka)</p> <p>1996-1998, \$305,000 - Development of a Bioassay for AhR-mediated Toxicity to Rainbow Trout</p>
Harris, Cynthia M.	Florida A & M University	None
Johnston, Robert J.	Clark University	<p>2007-2008, \$199,000 - Meta-Analysis and Benefit Transfer at Different Levels of Aggregation: Comparing Group-Averaged and Individual-Level Models Using Hierarchical Bayesian Methods</p> <p>2005-2008, \$405,000 - Improved Valuation of Ecological Benefits Associated with Aquatic Living Resources: Development and Testing of Indicator-Based Stated Preference Valuation and Transfer</p>
Jones, Kimberly L.	Howard University (DC)	Final report dated 2000, project years unspecified (Funded by the Great Lakes/Mid Atlantic Hazardous Substance Research Center) - Membranes for the Separation, Recovery, and Reuse of Surfactant/Contaminant Solutions
Kahn, Bernd	Georgia Institute of Technology (GA)	None
Karr, Catherine	University of Washington	1999-2004 (Funded by the Research Center for Particulate Air Pollution and Health) - Epidemiologic Study of Particulate Matter and Cardiopulmonary Mortality
Khanna, Madhu	University of Illinois at Urbana-Champaign (IL)	<p>2003-2006, \$252,000 - Oregon Business Decisions for Environmental Performance</p> <p>2003-2006, \$287,000 - Pollution Prevention: The Role of Environmental Management and Information</p> <p>1999-2001, \$242,000 - Business-led Environmental Management: Economic Incentives and Environmental Implications</p>
Kim, Nancy K.	Health Research, Inc. (NY)	None
Laden, Francine	Harvard University and Brigham and Women's Hospital	<p>2003-2006, \$934,000 - Chronic Exposure to Particulate Matter and Cardiopulmonary Disease</p> <p>1999-2005, \$7,747,000 - EPA Harvard Center for Ambient Particle Health Effects</p>
Lue-Hing, Cecil	Cecil Lue-Hing & Assoc. Inc. (IL)	None

Matsui, Elizabeth	Johns Hopkins University	2009-2014, \$4,250,000 - Johns Hopkins Center for Mechanisms of Asthma-Dietary Interventions against Environmental Triggers 2003-2008, \$4,046,000 - Johns Hopkins Center for Childhood Asthma in the Urban Environment
Menon, Surabi	ClimateWorks Foundation	None
Mihelcic, James R.	University of South Florida (FL)	2004-2005, \$10,000 - P3 Design Project for an Interdisciplinary Team of Graduate Students: Development of Appropriate, Sustainable Construction Materials 1997-1999 (Funded by the National Center for Clean Industrial and Treatment Technologies) - Development of Environmental Indices for Green Chemical Production and Use
Moe, Christine	Emory University (GA)	2009-2012, \$600,000 - Measures of Distribution System Water Quality and Their Relation to Health Outcomes in Atlanta 2004-2007, \$590,000 - Examining Epidemiologic and Environmental Factors Associated with Microbial Risks from Drinking Water 2004-2007, \$1,223,000 - Drinking Water Quality and Emergency Visits for Gastroenteritis in Atlanta 2002-2005, \$1,821,000 - A Prospective Epidemiological Study of Gastrointestinal Health Effects Associated with Consumption of Conventionally Treated Groundwater 1998-2001, \$588,000 - Studies of the Infectivity of Norwalk and Norwalk-like Viruses
Moo-Young, Horace	California State University (CA)	None
Murphy, Eileen	Rutgers University (NJ)	None
Opaluch, James	University of Rhode Island (RI)	1998-2001, \$325,000 - Environmental Policy and Endogenous Technical Change: A Theoretical & Empirical Analysis 1995-1997, \$126,000 - Developing Conjoint Stated Preference Methods for Valuation of Environmental Resources Within Their Ecological Context
Patten, Duncan	Montana State University (MT)	2005-2007, \$293,000 - Land Use Land Cover Change Governing Watershed Nitrogen Threshold and Stream Water Quality 1999-2002, \$868,000 - Developing Effective Ecological Indicators for Watershed Analysis
Philbert, Martin	University of Michigan	1998-2003, \$2,831,000 - Michigan Center for the Environment and Children's Health
Polasky, Stephen	University of Minnesota (MN)	1998-2001, \$810,000 - Developing Methods and Tools for Watershed Restoration: Design, Implementation, and Assessment in the Willamette Basin, Oregon 1998-2000, \$131,000 - Land and Management with Biological and Economic Objectives 1997-1999, \$1,229,000 - Modeling Effects of Alternative Landscape Design and Management on Water Quality and Biodiversity in Midwest Agricultural Watersheds 1996-1998, \$271,000 - Decision-Making under Uncertainty in the Conservation of Biological Diversity
Pope, III, C. Arden	Brigham Young University (UT)	2011-2013, \$300,000 - The Effect of Air Pollution Control on Life Expectancy in the United States

		2011-2014, \$299,000 – Associations of Short-Term Pollution Exposures with Childhood Autoimmune Disease
		2000-2003, \$797,000 – Relationship between PM2.5 Semi-volatile Organic Material, Other PM2.5 Components, and Heart Rate Variability in the Elderly
		2000-2005 (Funded by the Health Effects Institute) - Daily Changes in Oxygen Saturation and Pulse Rate Associated with Particular Air Pollution and Barometric Pressure
Roberts, Stephen M.	University of Florida (FL)	None
Rodewald, Amanda	The Ohio State University (OH)	None
Sanders, James	Skidaway Institute of Oceanography (GA)	None
Schlesinger, William	Cary Institute of Ecosystem Studies	None
Solomon, Gina	Natural Resources Defense Council (CA)	None
Stram, Daniel O.	University of Southern California (CA)	2005-2010, \$8,000,000 - Southern California Particle Center 1999-2005, \$8,716,000 - Southern California Particle Center and Supersite
Thorne, Peter S.	University of Iowa (IA)	2004-2007, \$335,000 - Impacts of Manufactured Nanomaterials on Human Health and the Environment - A Focus on Nanoparticulate Aerosol and Atmospherically Processed Nanoparticulate Aerosol 1995-1998, \$635,000 - Indoor Air Quality in Large Office Buildings in the Midwest
Tolbert, Paige	Emory University (GA)	2010-2015, \$8,000,000 - The Southeastern Center for Air Pollution and Epidemiology: Multiscale Measurements and Modeling of Mixtures 2009-2012, \$599,000 - Measures of Distribution System Water Quality and Their Relation to Health Outcomes in Atlanta 2008-2012, \$900,000 - Improving Particulate Matter Source Apportionment for Health Studies: A Trained Receptor Modeling Approach with Sensitivity, Uncertainty and Spatial Analyses 2007-2010, \$500,000 - Development and Assessment of Environmental Indicators: Application to Mobile Source Impacts on Emissions, Air Quality and Health Outcomes 2004-2007, \$1,223,000 - Drinking Water Quality and Emergency Visits for Gastroenteritis in Atlanta 2002-2004, \$1,239,000 - Multiple Pollutants and Risk of Emergency Department Visits for Cardiorespiratory Outcomes in Atlanta 1996-1999, \$360,000 - The Michigan PBB Cohort 20 Years: Endocrine Disruption?
VanBriesen, Jeanne	Carnegie Mellon University	None
Vena, John	University of Georgia (GA)	2002-2004, \$325,000 - Material Selection in Green Design and Environmental Cost Analysis
Zoeller, R. Thomas	University of Massachusetts (MA)	2004-2008, \$739,000 - Low-Dose Effects of Thyroid Toxicants on Neurodevelopment

**Source:** Membership lists are from EPA websites at: “Members of the Advisory Council on Clean Air Compliance Analysis,”

<http://yosemite.epa.gov/sab/sabpeople.nsf/WebExternalCommitteeRosters?OpenView&committee=COUNCIL&secondname=Advisory%20Council%20on%20Clean%20Air%20Compliance%20Analysis%20>; “Board of Scientific Counselors, Executive Committee,” <http://www.epa.gov/osp/bosc/exec-comm.htm>; “Members of the Clean Air Scientific Advisory Committee,” <http://yosemite.epa.gov/sab/sabpeople.nsf/WebExternalCommitteeRosters?OpenView&committee=CASAC&secondname=Clean%20Air%20Scientific%20Advisory%20Committee>; “Members of the Science Advisory Board,” (<http://yosemite.epa.gov/sab/sabpeople.nsf/WebExternalCommitteeRosters?OpenView&committee=BOARD&secondname=Science%20Advisory%20Board>); and “Scientific Advisory Panel, Members,” <http://www.epa.gov/scipoly/sap/members.htm>. Grants are from the EPA National Center for Environmental Research (NCER) Project Database at ([http://cfpub.epa.gov/ncer\\_abstracts/index.cfm/fuseaction/search.welcome](http://cfpub.epa.gov/ncer_abstracts/index.cfm/fuseaction/search.welcome)).

**Notes:** Grants are for projects identified for which the person in question is either a principal investigator or a co-investigator. Grants generally are assigned to the academic institution where the member is employed, and only a very small proportion, if any, of the grant may be paid in the form of salary to the member. In some cases, grants are for major national research centers that house numerous research projects and potentially involve dozens of students and post-doctoral fellows and several professors at several institutions. In some cases, grants are for major national research centers that house numerous research projects and potentially involve dozens of students and post-doctoral fellows and several professors. Funding for specific projects supported by these centers is not specified in the NCER database and not reported in Table I. Similarly, some research grants were for projects that are funded through the public-private Health Effects Institute or university consortia known as Hazardous Substance Research Centers. The latter centers were established under the Comprehensive Emergency Response, Compensation, and Liability Act (CERCLA) section 311(d) and are jointly funded by EPA and the National Institute for Environmental Health Sciences. NCER does not provide funding information for these projects, and Table I does not include such information. Grant amounts are rounded to the nearest \$1,000. Project funding amounts also may be listed more than once, because more than one committee member may receive funding from the same grant. In addition, some grants are provided by multiple agencies, and the multi-agency total for the project may be stated in the database, although only a portion of the funding derives from EPA’s budget. For this reason it would be inappropriate to sum the grant amounts to obtain a total EPA funding amount across committee members or any single committee member.