

Application for CARB Health Analysis Consultant Position

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This is my Letter of Interest for a CARB Health Analysis Consultant Position. I have been an academic epidemiologist since 1973, I have focused on California air pollution epidemiology since 2002, and I have extensive expertise in the health impacts of air pollution. I will use position to: 1) review CARB's current health analysis methodology, 2) gather and review existing science and methodologies related to understanding air pollution health impacts in diverse communities, and 3) provide recommendations on integrating scientific findings and methods into CARB's evaluation of the benefits of its air pollution reduction programs. I request that CARB use proposed payment of \$6,000 per year for relevant data gathering, such as, measurement of actual human exposure to air pollution in poor communities.

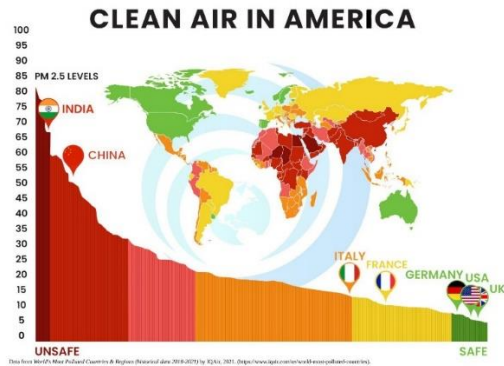
A summary of my academic background and relevant experience are described in my attached CV. I have the ability and willingness to meaningfully participate and provide thoughtful and actionable input to CARB. Ideas about how I would contribute to CARB's understanding of health analysis in California's socio-economically diverse communities are described briefly below.

1. Gather data on actual human exposure of Californians to air pollution, like PM2.5, Ozone, and CO2.
2. Assemble California-specific epidemiologic, toxicologic, and statistical evidence about air pollution.
3. Advocate for balanced presentation of evidence, like February 26, 2010 CARB Symposium "Estimating Premature Deaths from Long-term Exposure to PM2.5" (https://cal-span.org/meeting/carb_20100226/).
4. Critique claims of PM2.5 deaths in California, as done in my November 2, 2022 Criticism of SCAQMD 2022 Air Quality Management Plan (<http://scientificintegrityinstitute.org/SCAQMDES110222.pdf>) and my December 10, 2021 Public Comment to the EPA CASAC PM Panel regarding the PM2.5 NAAQS Reconsideration (<http://scientificintegrityinstitute.org/PMPanel121021.pdf>).
5. Examine the health effects aspects of the 46 current items of litigation regarding CARB policies or regulations discussed at the November 16, 2023 CARB Meeting (<https://ww2.arb.ca.gov/ma11623>).
6. Examine the health effects aspects of Public Comments submitted to CARB, such as, the detailed June 24, 2022 Los Angeles County Business Federation Letter opposing the 2022 CARB Scoping Plan Update ([https://www.dropbox.com/s/jih70j430wtc29q/Business%20Coalition CARB%20SCOPING%20PLAN_62422.pdf?dl=0](https://www.dropbox.com/s/jih70j430wtc29q/Business%20Coalition%20CARB%20SCOPING%20PLAN_62422.pdf?dl=0)).
7. Explain to CARB scientists the Major Facts about California Air Pollution summarized on the next page.

Based on a February 2021 California State Auditor report about CARB, there are serious problems with its greenhouse gas reduction efforts (<https://auditor.ca.gov/reports/2020-114/summary.html>). Based on the December 7, 2023 California Legislative Analyst's Office (LAO) Report, California faces a \$68 billion deficit beginning July 1, 2024, largely because of a severe (roughly 25%) revenue decline due to a poor state business climate. It will be necessary to cut most State programs, including a planned 33% reduction in spending for environmental protection (<https://lao.ca.gov/Publications/Report/4819>, Appendix 2). Thus, I will use this Health Analysis Consultancy to conduct a cost-benefit analysis of CARB air pollution regulations to determine if the assumed health benefits of these regulations are greater or less than the costs to the businesses that have been economically impacted by these regulations.

Major Facts About California Air Pollution That I Would Emphasize as a CARB Health Consultant

1. California has record low levels of air pollution that are below threshold of human health effects



2. Published evidence from six California cohorts has found that PM2.5 is NOT related to total mortality. Relative Risk (RR and 95% CI) of Total Mortality associated with increase of 10 $\mu\text{g}/\text{m}^3$ in PM2.5 shows:

California Cohort Studies	Author	Year	RR Table	F-U Years	RR	95%CI(L)	95%CI(U)
Adventist Health Study (AHSMOG)	McDonnell	2000	T3+	1977-1992	1.000	0.950	1.050
CA ACS Cancer Prevention (CA CPS I)	Enstrom	2005	T7	1983-2002	0.997	0.978	1.016
Medicare (MCAPS) Western US	Zeger	2008	T3	2000-2005	0.989	0.970	1.008
CA ACS Cancer Prevention (CA CPS II)	Krewski	2010	T2	1982-2000	0.968	0.916	1.022
California Teachers Study	Ostro	2015	Appx	2001-2007	1.010	0.980	1.050
CA NIH-AAPR Diet and Health Study	Thurston	2016	T2 F3	2000-2009	1.017	0.990	1.040
Fixed Effects Meta-Analysis			Summary RR		0.999	0.988	1.009
Random Effects Meta-Analysis			Summary RR		0.999	0.988	1.009

3. 2019 Age-Adjusted Total Death Rates (deaths per 1000) in California are among the lowest in the US

Location	Death Rate (95% CI)	Location/US Ratio
United States	7.15 (7.14-7.16)	1.000
California (2 nd lowest State)	6.02 (6.00-6.04)	0.842
Los Angeles County	5.75 (5.70-5.79)	0.804
Hawaii (Lowest State)	5.73 (5.62-5.84)	0.801
California Hispanics	5.23 (5.18-5.27)	0.731
Los Angeles Hispanics	5.07 (4.99-5.14)	0.709

More Data & References for Facts 1-3: (<http://scientificintegrityinstitute.org/CARBProp012323.pdf>).

4. Major risk factors for coronary heart disease are blood pressure, blood cholesterol, tobacco smoking, diabetes, family history of heart disease, obesity, age, gender, and stress. Air pollution is NOT a factor. (www.msn.com/en-us/health/condition/coronary-artery-disease/hp-coronary-artery-disease).

5. The causes of asthma are unknown. Factors known to trigger asthmatic symptoms are dust mites, animal dander, pollen, molds, cigarette smoke, certain chemicals, cold air, and sinusitis. Air pollution is NOT an established factor. (www.msn.com/en-us/health/condition/asthma/hp-asthma).