

<http://www.cuddyvalley.org/blogs/nimby/>

Jan de Leeuw, Ph.D., Comments Regarding
James E. Enstrom, Ph.D., and Lois Henry

<http://www.cuddyvalley.org/blogs/nimby/?p=449>

How Much is Scientific Integrity These Days ?

August 31st, 2010 [Jan de Leeuw](#) [Leave a comment](#) [Go to comments](#)

Lois Henry has [another Bakersfield Californian column](#) on the Enstrom affair. The famed Enstrom 2005 study, that has been ignored and mauled and misrepresented by unholy coalitions of researchers and agencies of all levels, says in its footnote:

The extended mortality follow-up and analyses presented in this article have been funded by the Electric Power Research Institute (EPRI).

EPRI is a membership organization *"whose mission is to discover, develop, and deliver advances in science and technology for the benefit of electric utilities, their customers, and society."* They fund the AIRS research on PM air pollution, but it is unclear to me what role peer review and what role the benefits of electric utilities play in their research. I tried to download the relatively recent *"Impacts of Particulate Matter on Human Health: An Updated Summary of EPRI Research"*, but the website informed me that the product was only available to funding members, and to members of the public that paid \$ 950. In the footnotes to Enstrom's earlier studies on the non-significance of secondary tobacco smoke inhalation effects it says, even more surprisingly,

This analysis has been funded primarily by Philip Morris USA.

Of course the funding source does not per se invalidate the research. If it did almost no drug research would be valid. In the same way, the fact that Enstrom's defenders are either representatives of the trucking industry, right-wing libertarians, or politicians who want to score points with major campaign contributors, does not invalidate his research.

What makes Enstrom's results problematic is the worldwide scientific consensus, which is overwhelmingly in support of serious PM-2.5 health effects. And the idea that PM-2.5 effects are different in California than in other parts of the world strikes me as peculiar. The idea of representing health effect by relative risk ratios, which tend to be positive but statistically either borderline significant or non-significant is suspect (although standard epidemiological practice). If one prefers estimation to testing, which I do, then a relative risk of 1.04 may very well be significant from the public health point of view, and it fact it will translate into thousands of deaths given a large enough exposure. One side reports non-significant risk ratios, the other side reports large extrapolated mortality numbers. Both sides are trying to make a case. But one must always be careful to distinguish *statistical significance*, which depends on the data but also on the replication framework, the model and the analysis technique, with actual *practical significance*, which in this case depends on how one weights public health considerations and the interests of electric utilities and the trucking industry. If public health considerations are given enough weight then a single premature death is enough to ban all diesel trucks.



Rogue Scientist attacking the Scientific Establishment.

The PM situation is really very much like the global warming debate. There is an overwhelming scientific consensus that man-made climate change is taking place, and that it is threatening to become an unstoppable destructive force, especially in places where poor people and people of color live. The only way to explain the unprecedented scientific consensus, if for whatever reasons one does not believe in climate change, is to assume

there is a conspiracy going on. Those are the only two possible alternatives. Same again for evolution versus intelligent design.

Here is the scenario. There are some heroic rogue scientists that stand up to the scientific establishment which is only interested in keeping their large tax-payer funded grants coming in. Fortunately there are some private philanthropic institutions, such as Philip Morris or EPRI or the Pacific Legal Foundation or the Discovery Institute or the Koch Brothers or Exxon-Mobile that are willing to support these idiosyncratic dare-devils. Again, this does not invalidate Enstrom's (2005) results and the very few who agree with him. But, on the other hand, we may also have an example here of the industry-funded paranoia that is so typical of both ancient and modern anti-scientific rhetoric. And the public, of course, loves and admires Lone Rangers fighting the establishment — perhaps because overflowing with this love and admiration relieves them of the responsibility to fight the establishment themselves. From where I stand the climate change deniers, the intelligent design people, and the PM health effects minimizers look a lot like a straightforward pseudo-scientific version of the Tea Party. With the same funders.

Since I am a statistician, I must of course defend my own industry, which is to design, to collect, to analyze, to summarize, and to present data obtained in quantitative research. You have to believe me if I say that most observational epidemiological research is only marginally related to modern statistics, and is closer to economic forecasting, structural equation modeling, and other forms of black magic. Nevertheless the never-ending stream of well-funded, large-scale, weak-effect, non-reproducible, fleeting-impact studies of this kind is interesting from a sociology of science point of view. Interesting enough to have a graduate seminar looking at the various research outcomes in PM health impact research next year.

No comments yet.

<http://www.cuddyvalley.org/blogs/nimby/?p=446>

The Epi Conspiracy

August 15th, 2010 [Jan de Leeuw](#) [Leave a comment](#) [Go to comments](#)



Lois Henry and a gaggle of libertarians on the barricades for non-conformity and academic freedom.

Read this first.

<http://www.bakersfield.com/news/columnist/henry/x1415295919/Independent-thought-not-wanted-at-UCLA>

Permit me to add some comments to Lois' inspiring and thought-provoking column.

- I don't know why James Enstrom "lost his job". He was not a tenured faculty member. He was a largely self-funded Associate Research Professor, of which there are quite a few in the Medical School.
- That universities maintain air pollution is dangerous **because** they want to ensure a continuous influx of research grants is a gratuitous and offensive insinuation. It should be supported by hard evidence and not just by innuendo. It's what the libertarians and right wingers also say about global warming research and what they used to say about cigarette smoking.
- Epidemiological observational research is fraught with difficulties, and each individual study can be easily criticized on multiple grounds.

- As with global warming research, the overwhelming consensus is that PM-2.5 is bad for your health (and thus influences mortality). The fact that the effects may be weak (who knows) does not make the studies unimportant.
- Jim Enstrom has a single PM-2.5 study in a single selected CA population. It is easy to find many, many studies from larger US samples, from European countries, from Australia, and so on, that do find detrimental PM-2.5 effects. Because they contradict Enstrom's study this can only be because there is a left-wing conspiracy of grant-hungry pseudo-scientists.
- Enstrom's "Scientific Integrity Institute", at <http://www.scientificintegrityinstitute.org/> likes to compare his situation to those of Russian geneticists under Stalin/Lysenko. That is grotesquely overblown and melodramatic, of course.
- For your reading pleasure:

http://www.sourcewatch.org/index.php?title=James_E._Enstrom

http://www.sourcewatch.org/index.php?title=James_E._Enstrom_in_his_own_words

<http://www.smokersclubinc.com/modules.php?name=News&file=article&sid=4191>

<http://www.no-smoke.org/document.php?id=333>

What can I say ? Where there is smoke, there is fire. Pun intended.

- That Enstrom's work "isn't about being politically correct, it's about honest research and being faithful to the science" may be true. But the other side has as much reason for saying the same thing. In fact, if science is cumulative and based on consensus between informed researchers, then the other side has a better case.
- I happen to know Beate Ritz, and one of my students is working with her data. She is an excellent researcher, and handles spatial, temporal, demographical confounders in air pollution impact studies as well as can be done. For me, her opinion counts for something.
- That Enstrom is out of step with the rest of his department can be explained either as "not politically correct" or as "poor quality science". Lois believes the first, without a shred of evidence, except that some people did not return her phone calls.
- It would be interesting to look into the political and financial connections of James Enstrom, Stan Young, Joel Schwartz, Robert Phalen, Matt Malkan. None of these scientists, by the way, have a PhD in Environmental Health Sciences or

Epidemiology. Such a background study might explain “editorializing” disguised as science on that side. And clearly epidemiological studies, with weak effects and infinitely many confounders, lend themselves to this type of controversy. See, for example, the review at <http://ehp.niehs.nih.gov/docs/2003/111-3/newbooks.html>. As in other situations, it is never a bad idea to follow the money, or (what often amounts to the same thing) the ideology.

- Of course being libertarian, being funded by tobacco and transportation interests, or working for a right-wing think tank, is not scientific misconduct. and by itself does not prove that one does bad research. Not even the fact that the California Dump Truck Owners Association quickly jumps to your defense is a disqualification of your scientific work. See <http://killcarb.org/2010081201-enstrom.html> (once again with the signature of Stan Young between the assorted truckers).
- Lois’ article is biased and buys, basically without questioning, the usual libertarian/right wingnut stories. That puts her in the same category as Sean Hannity and his “fish vs people” nonsense. We all dislike CARB because it is an institution that generally fails us, and is built on influence peddling and obnoxious compromises, but that dislike should not make us paranoid.
- The California Dump Truck Owners Association, James Enstrom, Robert Phalen, and Lois Henry make it abundantly clear that they oppose the CARB diesel regulations because of the (hypothetical) impacts on the California economy. This is the same argument as is used in favor of mountain top removal mining, deep sea oil drilling, shale gas exploration, asbestos plants, corn oil distilleries, waste dumps, unlimited Delta pumping, the Peripheral Canal, wolf delisting, second hand smoke, unbridled sprawl, privatizing water banks, and deregulating the mining and financial industries. In most cases these arguments are blatantly self-serving, and can be simply summarized as **“You cannot take what is mine and give it to somebody else, because I own it, I have a right to own it, and I happen to own a lot of it. Here is XXXXXX dollars, now go away”**.

If I can find the time, I will read the Enstrom 2005 paper and see what the fuss is all about. Although generally reading epidemiological research is statistically rather depressing. But the proof of the pudding, I guess, is still in the eating.



Dick Albright

August 16th, 2010 at 10:43 | [#1](#)

[Reply](#) | [Quote](#)

Ah, my pal, Jan!

Do you remember the '50's toothpaste commercial jingle: "YOU'LL WONDER WHERE THE YELLOW WENT WHEN YOU BRUSH YOUR TEETH WITH PEPSODENT"! Still around and pushing whiter teeth. Lately we're wondering where the sweet crude oil from the BP well went. Some say those pesky little microbes are digesting it. And why? Is it because oil and natural gas were created by the same process millions of years ago (that seems to be going on, by "nature" to this day)—and the microbes "like it! Well then, have you ever wondered why you can recycle a crude or diesel storage tank for potable water, unlike a "gasoline" tank that can't be reused for our drinking water? Perhaps there's an answer in the biological sciences (Ken?) that will help us.

http://wiki.answers.com/Q/How_was_crude_oil_formed

Now then, when there's smoke and fire aplenty, is there not always an unanswered controversy that might better be data-fed to your totally neutral and independent friends at "Cray" to help us understand?. And might that effort also include such "asides" and "influences" (and the significant Metrics and Algorithms therein) "subtly" suggested in the Henry article? Is the "smoke" (cigarette and diesel) also targeted and digested by similar "microbes"? And what about this "Epi Conspiracy"?

Were you referencing an "EPI (Environmental Performance Index) Conspiracy"?

<http://epi.yale.edu/>
<http://epi.yale.edu/Countries>
<http://epi.yale.edu/Metrics>

Seems as though we're in the same ballpark as, at least, Canada, Russia, the Netherlands, and South Korea in our targeted enviro goals (mid-60's %). Iceland has everyone beat at 93.1% ("naturally"). Poor China and North Korea (below 50%). Interesting picture of Lois with her "gaggle" (and "Wardrobe Malfunction"?).

By the by, how's the effort against FPE going? Has Ventura County been named as a contributing entity to that controversy? The jingle therewith, "IT'S THE WATER", may not be a "standalone" issue. Hopefully the truth will "out".

Please forgive the mention of multiple issues as I deplore "proselytizing". I always hope to encourage discussion on single issues, one at a time, in a simple manner. Not always possible, eh?

I look at the Henry article as "simply" seeking neutral transparency, detail and truth from a taxpayer-funded institution.

All the best, as always,

Dick Albright
Lockwood Valley

<http://www.cuddyvalley.org/blogs/nimby/?p=353>

Please Missus Henry

July 22nd, 2009 [Jan de Leeuw](#) [Leave a comment](#) [Go to comments](#)

NO HOLDS BARRED

COLUMNIST LOIS HENRY SAYS "WHAT THE...?!"



Lois Henry, of Bakersfield Californian fame, is [at it again](#). For reasons largely unknown she has singled out another study on the impact of air pollution on infant health for her withering criticism. [Yet another one](#), I should say. This time she does not operate by quoting some obviously biased industry shills, but she is on her high horse to defend the principles of science, something Bakersfield has always felt strongly about.

There are some parts of Ms. Henry's article I can readily agree with. Proprietary information, by definition, cannot really be scientific data. And research which is not reproducible is not really scientific research. On the other hand, the serious effects of air pollution on infant health are not in doubt. There are hundreds of studies each year all showing effects in the same direction, from all over the world. Many of these studies have case controls, adjust for regression effects, and have publicly available data sets. A good example is [Ritz and others](#) (Pediatrics, 118, 2006, 493-502) in which all 20,000 infant deaths in LA County over 10 years are matched with living infants of the same age in the same area. Readings from the closest air monitors shortly before death are retrieved. Effects are adjusted for income, education, and other obvious concomitants. Risk of infant death, especially from respiratory causes, increases dramatically with increasing degrees of CO and PM exposure.

Which brings us to the next question. Why this article ? Does Ms. Henry really care so much about the scientific method ? It may be true that some researchers exaggerate the importance of their results to increase the probability of getting their next grant. But even if that were true, there is no evidence whatsoever of a conspiracy of researchers that want to scare us to death. There is, on the other hand, plenty of evidence of a coalition of industry and agencies that want to lull our good citizens into air-complacency. So, to quote [Bob Dylan](#): "Please, Missus Henry, Missus Henry, please!" There are plenty of other causes, even in Kern County, worthy of your talents.

1.



Katherine King

July 22nd, 2009 at 21:48 | [#1](#)

[Reply](#) | [Quote](#)

Jan, this response and your other one on Henry's blog nail her. But go easy on Bakersfield. As the blog bears witness, one Henry does not an entirely stupid Bakersfield make.

2.



Gordon Nipp

July 22nd, 2009 at 15:52 | [#2](#)

[Reply](#) | [Quote](#)

Jan,

Good response to Lois Henry. Are you going to send this to her? It would be a good letter to the editor.

Hope all is well with you.

Gordon

3.



mary ann lockhart

July 22nd, 2009 at 15:39 | [#3](#)

[Reply](#) | [Quote](#)

Good going...have you shipped it out to the Californian? thanks for all your words!
mary ann

<http://www.cuddyvalley.org/blogs/nimby/?p=302>

Bad Smell from the Californian

January 19th, 2009 [Jan de Leeuw](#) [Leave a comment](#) [Go to comments](#)

Lois Henry wrote in her [blog in the Bakersfield Californian](#) today that claims about the effects of air pollution on public health are “largely hooey”. I am sure residents of the Valley, in particular those in rural communities such as Arvin and Lamont, will be immensely relieved to hear this from somebody who has really informed herself by talking to the experts. Unbiased experts.

[Joel Schwartz](#) is in the business of denying the health effects of air pollution and the reality of global warming. Or, more specifically, denying that the results are as dramatic and significant as they have been presented by an unholy lobby of regulators, environmentalists, epidemiologists and climate scientists. Joel Schwartz is not a scientist, and he is not controversial. He is a visiting fellow at the American Enterprise Institute, and his reports are published by various right-wing think tanks. Or whatever passes for thinking in these thinly disguised lobbying firms. His agenda is as clear and transparent as that of the imaginary lobby he opposes. He just lost two national elections in a row and his stock portfolio has lost more than half of its value.

James Enstrom is a scientist, [although a controversial one](#). His PhD is in physics, he has a Master's Degree in Public Health, and he is Associate Research Professor at the UCLA School of Public Health. He is fighting another lobby, this time one of regulators, epidemiologists, and doctors that are exaggerating the health effects of environmental tobacco smoke. His results, funded partly by Philip Morris, have been published in leading peer-reviewed journals. He recently branched out to the effects of particulate matter exposure, this time funded by the Electrical Power Research Institute, again finding that there are no significant long-term effects of PM exposure on mortality. He is the President of the somewhat delusionally named [Scientific Integrity Institute](#), which specializes in research on weak and/or controversial epidemiological relationships. In other words, if your industry is

negatively impacted by regulations based on weak relationships, then give me a call, and I am sure we can come to an agreement.

Both Schwartz and Enstrom are much maligned — according to their critics because they are shills for an industry that wants to fight regulations, and according to themselves because their integrity forces them to fight these mighty windmills of self-serving environmentalist organizations and regulatory agencies. Schwartz is just a sideline swiper, easily dismissed. But by definition Enstrom follows scientific protocol, because he publishes in peer-reviewed journals. And it is undoubtedly true that effects of environmental tobacco smoke are relatively small compared to effects of actually smoking cigarettes. But even the tiniest effects of a profit-driven artificially induced addiction with no compensating social and individual benefits are of the utmost importance. It is a matter of priority. And, in the case of air pollution, of environmental justice.

Of course the deniers thrive on weakness of the science. What is true in climate change research is even more true here as well. The effects of PM, like most epidemiological effects, are not strong and obvious. Some studies show one thing, other studies show something else. Many studies rely on idiotic practices such as statistical significance testing and building over-elaborate mathematical models. In particular regression type techniques, including survival analysis, vary in the number and definition of their covariates, in the quality of their outcome measures, and in the nature of their sample or population. All statements made are conditional on the validity of the statistical model, which means that a no-effect statement is as much a statement about the regression model and the study design as it is a statement about the real world. There is no truth, there is only design. There simply is no single number that tells us what the effect of PM concentration on mortality is. Epidemiologist A can go before a judge and testify one way, and epidemiologist B can testify the other way, and both can be truthful. It is instructive to think of measuring these effects in terms of the [Blind Men and the Elephant](#), with the understanding that in the epidemiological case the elephant is a theoretical construct that has no real objective existence, and that some monks have very wealthy sponsors.



[Click picture to enlarge](#)

But about the range or distribution of mortality effects of ozone, particulate matter, and even environmental tobacco there is a growing consensus. Meta analysis is just an attempt, clumsy sometimes, to quantify consensus, or the lack thereof. Enstrom's papers, because they are published in peer-reviewed journals, are part of this consensus, weighting in on the side of small or no effects. And the published critiques of his papers are parts of the meta-analysis as well.

The arguments of Schwartz and his fellow lobbyists are basically that the effects are weak and do not justify draconian thresholds that harm industry, and as a consequence do not help the living standards of many more Californians than are harmed by smoke and pollution. But this last argument is a political one, not a scientific one. There is not the slightest evidence that it has anything to do with facts. And it is obviously biased. The industries that are harmed happen to be the polluting industries that fund the research and consulting activities of the experts, not necessarily all industries — in fact solar, and wind, organic farming, and other green industries are doing quite well. And they could be doing better if the polluters did not have such a firm grip on local, state, and national politics. The arguments and facts presented by the experts, through the medium of Lois Henry, are largely specious, irrelevant, untrue, and conveniently selected. It is irrelevant that California has a low death rate, it is irrelevant that asthma rates are increasing while air pollution is decreasing, the recent John's Hopkins study shows a consistent effect on mortality of PM-10, air pollution in the Valley has not decreased by 60-80%, and so on.

Lois' final expert is Seyed Sadrehin, executive director of the San Joaquin Valley Air Pollution Control District. Although formally Seyed belongs to the lobby of Evil Regulators, he is clearly not as Evil as the ARB or the EPA. There is a simple explanation for this. In order to secure future funding the District has to argue that there has been tremendous progress in fighting air pollution, but there is at the same time still a lot of room for improvement. We are doing great, we have given ourselves an A+, please let us continue. As I have [argued elsewhere](#), the improvements in air quality are real, but they are much smaller than the District suggests, and they are limited to some pollutants and some areas.

It seems that Lois' choice of experts was somewhat unfortunate, to say the least. They give the impression at least that they are in it for the money, which is precisely their criticism of the powerful lobbies they have dreamed up and pretend to be fighting. As with campaign contributions, environmental impact reports, and clinical trials, you simply cannot expect objectivity if people with huge financial interests in the outcome pay for your efforts, not even if you are the President of the Scientific Integrity Institute. Whose bread I eat, his song I sing. And all of that in the Californian to push the good old Kern County refrain that these hysterical environmentalists and socialist regulators are completely out of control. And the Obama administration will only encourage this nonsense, that is why we in Kern massively voted for McCain-Palin, the competency ticket. Do I see some [black helicopters](#) over Bakersfield ?.



[Jan de Leeuw](#)

January 20th, 2009 at 21:31 | [#1](#)

[Reply](#) | [Quote](#)

I am proud my humble site attracts comments by such prominent global warming and air toxicity deniers. Dr. Dunn is a policy advisor of the [Heartland Institute](#), one of these wingnut think-tanks that for some reason do not know yet that the ground has shifted.

The mission of The Heartland Institute is to discover and promote free-market solutions to social and economic problems.

I guess this includes free-market solutions to the financial problems caused by unregulated free markets.

The Heartland Institute maintains a lively [global warming site](#). They are of course also agitating against the bailout, against all forms of taxes and regulations, against anti-smoking campaigns, against Medicaid, Medicare, and SCHIP, and so on. If for some reason you want to think, even for a moment, that the Cato Institute are a bunch of moderates, read the Heartland site. Mr. Schwartz, Professor Enstrom, and Dr. Dunn are clearly *heroes standing against the mob* — where the mob consists of government agencies, scientific elites, and trial lawyers, who are all driven by a mixture of perceived self-importance, collectivism, and personal greed. [Ayn Rand](#) lives ! Of course everybody with even a glancing knowledge of California politics knows that agencies are typically reluctant to regulate, and usually side with developers, big ag, power companies, and industry. But Dr. Dunn is from Texas, and things are always different in Texas.

My response is the same as always. Science is driven by peer review and consensus, and is consequently inherently self-correcting. In a complicated and controversial field it is safe to follow the consensus of the majority of published research in the leading scientific journals, even if they show a range of results. The same people who are now opposing CARB also opposed seat belts, motor helmets, gun control, and tobacco regulations. They are tragic heroes, who have won some skirmishes, but never a single battle.



1.

Anonymous

January 20th, 2009 at 20:58 | [#2](#)

[Reply](#) | [Quote](#)

I provide for your consideration, the same information I sent to Ms. Henry, which borrows from my submission to the CARB.

Ms. Henry,

I was one of the scientists that submitted criticism of the California Air Resources Board proposal on diesel on October 24, 2008. I am a physician and a public health researcher with particular interest in population toxicological epidemiology research. I asserted in my criticism of CARB that they had no basis for claiming thousands of Californians die from the current levels of air pollution in the state. I also believe their policy making is damaging to the California economy.

All the research cited by CARB in its position papers on diesel fails to meet the basic rules for proof in such studies. They are involved in putting up studies that dredge data for small effects that don't mean anything, certainly not that thousands die from small particles. Air in California continues to improve and is not toxic. People need to stop being so gullible when government agencies promote themselves as saviors. The claim of thousands of deaths is not supported by the research, but the CARB knew that. They continue their campaign knowing that their research shows small effects that don't pass the smell (pardon the pun) test, in fact according to the rules of evidence in Federal Courts, their research couldn't be admitted because observational population studies must show a Relative Risk (health effect) of 2 or more. All the CARB studies show effects well below 1.5.

Ms. Henry, you are quite right when you say that air quality in America and in California is no longer toxic and doesn't kill anyone. I am an emergency physician and have never seen anyone, ever die of air pollution. However CARB officials would be out of jobs were it not for panicky and anxious people like the ones who have commented on your blog. They believe that air is a toxic killer, but air in California doesn't kill anyone. In fact it has been more than 50 years since ambient air quality occurred in America that caused serious health effects.

The study you cited by Enstrom also creates a real problem for good scientists, including those at CARB. Enstrom, following the data and with a large cohort of Californians, showed no air pollution death effect and public commenters to CARB properly pointed out that the second half of the Arden Pope American Cancer Society study and the Krewski map from the Health Effects Institute Study both confirm the Enstrom analysis. Three studies refute the CARB assertion of death effects. In a fair and legitimate scientific debate that would mean CARB must take down its claims.

As snide and sneering as some of the comments were on your blog, they were also not based on any real understanding of the research. Sometimes science is inconvenient to fanatics or people with political agendas, but your writing captures the nature of this debate and the importance of rational adults maintaining a scientific mind—which means prove up the theory and don't ignore evidence that proves you wrong.

The CARB is also ignoring the uncertainties of global warming computer modeling in favor of another bout of scaremongering that will justify more economic damage. Both of these CARB agendas are easy targets for serious writers and scientists since

there is plenty of evidence in both debates to show the CARB is wrong. When proven wrong honest scientists start over and abandon their mistakes.

Enstrom is a 35 year distinguished epidemiologist specializing in lifestyle makes for long life research. He has a Ph.D. from Stanford in nuclear physics and a Masters in Public Health by Post Doctoral Studies at UCLA. Not bad, and Enstrom is also courageous to follow his data even when he knows the political power of the CARB will be arrayed against his results. Enstrom follows the data and ignores the politics, given that the politicians always vilify and condemn any dissent when money and power are at stake. As for Joel Schwartz, his portfolio and his education, including Cal Tech, are impeccable. Both Enstrom and Schwartz rely on the data and the analysis. Too often they endure silly personal attacks by people who don't understand epidemiology and public health toxicology studies or mendacity from agency apparatchiks who are energized by funding and power motives. What do regulatory agencies do—they regulate, that gives them funding and fulfills their need to portray themselves as saviors.

Ms. Henry, Keep up the good work. I attach here the CARB October 24, 2008 public comments, including those by Schwartz, Enstrom, Lipfert, and me.

You will note the short laudatory notes from various enviro groups, who enjoy very friendly relations with CARB. The serious and lengthy critiques are from the dissenters.

Lucky for Bakersfield, Ms. Henry, you keep your skeptical mindset and your analytic skills sharp. The mob who assume that air pollution is a serious danger should take a deep breath and reassess, like you have.

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