

Executive Order 12898: 2/11/1994

- “Each Federal agency shall make achieving ***Environmental Justice*** part of its mission by identifying and addressing, as appropriate, *disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations* in the United States.”
- ...when its rules have "disparate" and "disproportionate" impacts on minority communities, with respect to the development, implementation and enforcement of environmental laws, regulations and policies.

[Inside EPA, 6/21/2013]

Growing Importance of EJ for Environmental Policy

- 900 Nexis articles on “Environmental Justice” in last decade; 90 in all previous years combined, starting with Pres. Clinton’s Executive Order 12898
- In a January 2010 memo to EPA staff, the EPA Administrator cited **environmental justice** as one of the agency’s top priorities.
- “EPA Administrator Gina McCarthy is vowing to greatly expand the agency's environmental justice work” (Inside Cal/EPA, 9/13/2013)

It's not only Federal.

Ex.: San Diego's "Sustainable Communities Strategy" is Flawed

- The California Attorney General became involved in September 2011 by sending a comment letter on the draft EIR. The Attorney General suggested that the draft EIR was inadequate because CEQA requires **environmental-justice**-specific analysis...

EJ Imperative is not only Federal.

CARB Onboard? Check, since 2001

- [from CARB 2007 Diesel Regulations document] “As a matter of policy, ARB is committed to *integrating environmental justice in all of its activities*. On December 13, 2001, the Board approved Environmental Justice Policies and Actions, which formally established a framework for incorporating environmental justice into the ARB’s programs, consistent with the directives of State law. Environmental justice is defined as the fair treatment of people of all races, cultures, and incomes *with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies (ARB, 2001)*. These policies apply to all communities in California, but recognize that *environmental justice issues have been raised more in the context of **low-income and minority** communities.*”

What Environmental Justice Means

- Regulatory policies which *reduce* social inequities must be favored, so...
- Logically this requires that Regulatory policies which *increase* social inequities must be **avoided** (even if they are otherwise OK).
- Most previous EJ advocates consider negative health effects only by *regulated* emitters. But EJ says we must also consider the *regulators*.
- *There are virtually no real-world policies with 100% positive or 100% negative consequences: EJ is only meaningful if it accounts for both positives and negatives*
- **For consistency, EJ must ALSO weigh negative health effects resulting from the *costs of environmental regulations***

Key Determinants of Public Health

1. Socio-Economics	40%
2. Population's Health Behaviors	30%
3. Access to Medical Care	20%
4. Environmental	10%--with PM2.5 levels already approaching ambient, this could actually be 0%

4. is doubtful. We must look at 1., which is more certain.

Source: Different Perspectives For Assigning Weights To Determinants of Health, University of Wisconsin, Public Health Institute, 2010

1. *Income* is a Fundamental Inverse Predictor of Illness and Premature Mortality:

Age-adjusted Death rate proportional to $(\text{Income})^{-2/3}$
(e.g. 50% income drop raises mortality rate 33%)
[Brenner 2005, Intl J of Epidemiology 34, 1214]

For working-age persons, Increasing (1990's) Income
from 0 to \$10K to 20K to 30K:

Reduces mortality by 1.5, 2.5, 3.5 times
(but only minor benefits seen for further income gains)

[Backlund et al. 1996, Ann. Epidem. 6: 12]

Same thing is found at a county-wide level [Cheng&Kindig 2012]

2. *Unemployment* is a well-established risk factor for illness and premature mortality (since the '80s, “the science is settled”, same as 1.)

- Studies in multiple industrialized countries show that fully adjusted mortality rates are at least *doubled* by being unemployed

[eg. Lancet 348:909, BMJ 308:1135]

- 50% rise in unemployment rate produces 257,000 annual deaths /40 countries [Brenner 2011]

CARB goes 'All In' to eliminate PM2.5 from Diesels. Predicted Economic Costs of their Truck Regulations

- Almost 1.0 Million California trucks must be 'fixed' or replaced now (minus 20,000 exempted agricultural vehicles)
- CARB estimates >\$40K (2008) cost per diesel, since they hope some trucks can be retrofitted (\$20-40K cost, plus annual maintenance)
- CARB's "Clean Trucks Program" loans require payments of \$10,000 per year for 7 years with a balloon at the end (not surprising that the Daimler Financing organization predicted 40% of loanees may default--[*"Foreclosure on Wheels"* 2008, NAACP/LULAC])
- CARB predicts annual costs of \$0.57--0.97 Billion (2013, continuing for 5 yrs), mostly borne by Goods Movement, then Construction, then Wholesale/Retail
- Who exactly is going to pay??

PM2.5 Diesel Regulations-- CARB Predicted Economic Costs

- CARB: "For the 20 to 40% of fleets for which the regulatory costs exceed a 10 percent change in ROE, these fleets will have to pass through at least some of the costs to their customers in the form of higher prices for their services to maintain their profitability." [i.e., avoid bankruptcy]

- But cut-throat competition makes it unlikely that much of this cost could be 'passed on to shippers': truckers either eat the cost or lose the job:

"Because of the weak negotiating power of the port drayage sector, prices will only likely go up when a crisis occurs due to the inability of the LMCs to afford moving the freight. This analysis shows that by the time the transition in prices is over, many of the LMCs will no longer exist."

- [Husing, Brightbill, Crosby, "San Pedro Bay Ports Clean Air Action Plan", 2007]

• CARB Regulation Scenario 1 [Appendix J]: Assuming most costs are 'passed on' to rest of California, state output drops by \$1.3 Billion /year, and **13,600 jobs** in the rest of the state are lost [typo understated this by factor of 1000]

PM2.5 Regulation-caused Premature Deaths

What are the health effects of those “*negligible*” economic costs, if some of them fall on diesel workers (e.g. truckers, construction)?

Suppose incomes of 30,000 workers drop \$10K/year, this results in
 $0.3\% \times 30,000 =$

90 additional premature deaths annually

- Unemployment: If 14,000 lose jobs, their mortality rates double, ie. $1\% \times 14,000 =$

140 additional premature deaths annually

*As we'll see, these lost lives could be **larger** than the claimed reduction in (statistical) premature deaths from the diesel regulations. And their numbers are much more 'solid' than the guesstimated saved lives.*

CARB estimates of health benefits of its Clean Truck Program

- Rather than waiting for retired trucks to be naturally replaced with new cleaner ones, CARB decided to accelerate the reduction in PM2.5 by ~5 years. At their estimated cost of \$3.0--3.4 Billion, what health gains do they predict?
- Reduced premature deaths from PM2.5 is nearly all of the purported benefit
- Based on extremely thin epidemiological evidence, CARB claims the reduced PM2.5 emissions will 'save' 200 premature deaths annually [CARB-funded, and other research shows that this number could actually be Zero],

Which CARB values at ~\$5--9 Million each (depending on Discount Rate)

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“ARB staff estimates that the benefits to California of currently adopted air pollution control measures exceed their costs by about 3 to 1.”

mainly because they left out the economic-induced premature deaths

CARB estimates of health benefits of its Clean Truck Program

- Since the two big health COSTS of the Clean Truck regulations (due to reduced income and increased unemployment) were ignored by CARB, this looks like a Cost / Benefit Catastrophe:
- Cost/Benefit ratio could actually be larger than 1.0

But for now, let's suppose for the sake of argument that the CARB PM2.5 regulations actually *do* save (a few) more lives than they end up costing.

We still must ask:

How is this working out for Environmental Justice?

Negative Effects Heavily Concentrated Among Lower-Income and Minority Workers

- Consider one case study on the front line, diesel trucks at San Pedro ports
[Husing,Brightbill,Crosby, “San Pedro Bay Ports *Clean Air Action Plan*”,2007]
(which AQMD says produce 10% of the ports’ PM2.5 emission, 800--1800 tons, saving 13--80 premature deaths/year)
- In 2006 Truck Drivers’ Average Annual Income was \$29,000 (it has not risen since). A different survey found average wages \$12/hour. 86% of drivers netted less than \$40K/year. [Husing et al., 2007]
- Ports of LA/LB served by 1400 trucking companies with 17,000 drivers, 89% are foreign born, *93% are Latino*
- These workers--who will definitely bear a disproportionate share of the PM2.5 regulatory costs--should satisfy EPA’s EJ definition of an ‘overburdened community’*

*(although it has not yet been defined--GAO 2011: “EPA has yet to establish a strategy for how it will provide standard and consistent definitions for key **environmental justice** terms, such as ‘minority’ and ‘low-income communities,’ as called for by the EPA IG in 2004.)

Even just *slowing growth* costs lives

- Ex: San Pedro ports over-regulation scenarios could cost 150,000--300,000 jobs of lost growth by 2030

[Husing, Brightbill, Crosby 2007]

- That amount of Unemployment would cause ***thousands of annual premature deaths***

Who Pays the Higher Costs of Living?

Robert Husing: “Public health research groups like the Robert Wood Johnson Foundation find that socioeconomic difficulties, not environmental issues, are the principal causes of public health risks. In areas where large numbers of people are poor, marginally educated, unemployed or underemployed, researchers find life expectancies are shortened. In effect, *by cutting off job growth in the very sectors that can allow the state's most vulnerable people to move out of poverty, California's privileged classes are ensuring that they remain subjected to serious health risks.*”

Similar violations of fundamental principle of Environmental Justice are likely to be found throughout all of environmental regulation in California,

because *Transportation* and *Energy* costs are major components of cost-of-living essentials, which eat up most of the budgets of low-income people

\$32K Income:	Food	15%
[www.bls.gov/cex]2012	Housing/Utils	37%
	Transportation	17%
	Clothing	3.5%

Costs of Environmental Regulations are Extremely Regressive--this is not new.

1
Keeney and Green (RPPI Policy Study #225, June 1997)
estimated *income-loss induced fatalities* from
\$9 Billion expenditure to meet EPA's (then) PM2.5
(and Ozone) Air Quality Standards
(assuming every California household shares equally):

1632 Deaths,
of which 252 are Black;
989 are lowest-income (household <\$15K 1994)

And, most of all, costs of *energy*. For low-income people, this is similar to cost of living

- “Laws and policies that restrict access to America’s abundant energy resources drive up the price of energy and consumer goods,” **Congress of Racial Equality Chairman Roy Innis** points out. “They cause layoffs and leave workers and families struggling to survive. *They roll back the progress for which civil rights revolutionaries like Dr. Martin Luther King struggled and died.*”
- “**Robert Bullard** [the founder of EJ movement] addressed “energy apartheid” and who gets the benefits of clean energy[...and who pays]”

The above criticisms are consistent with GAO's 11/2011 Critique of EPA's pursuit of Environmental Justice:

- “Finally, EPA does not have performance measures for eight of its Plan EJ 2014 implementation plans. Without performance measures that align with EPA's Plan EJ 2014 goals, the agency will *lack the information* it needs for EPA managers to effectively *assess how the agency is performing* relative to its environmental justice goals and the *effect of its overall environmental justice efforts on intended communities.*”

Fairness and Equity are huge goals of government policy, and not easy to achieve. But at the least, we must avoid government policies which actually produce UNfairness and INequity.

- I believe it is time for EJ advocates to ‘get real’ about what they are trying to do.

Or else...support policies which maximize growth of jobs and incomes (and find another way to transfer cash to favored interest groups).

