Science, Democracy, and Advocacy: The Case of Particulate Matter

Gretchen Goldman, PhD Center for Science and Democracy

Concerned Scientists



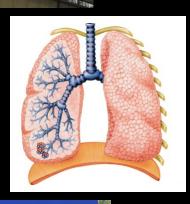
### From Sources to Health Impacts



**Emissions** 







Internal dosage



**Toxicity** 



**Parking** 

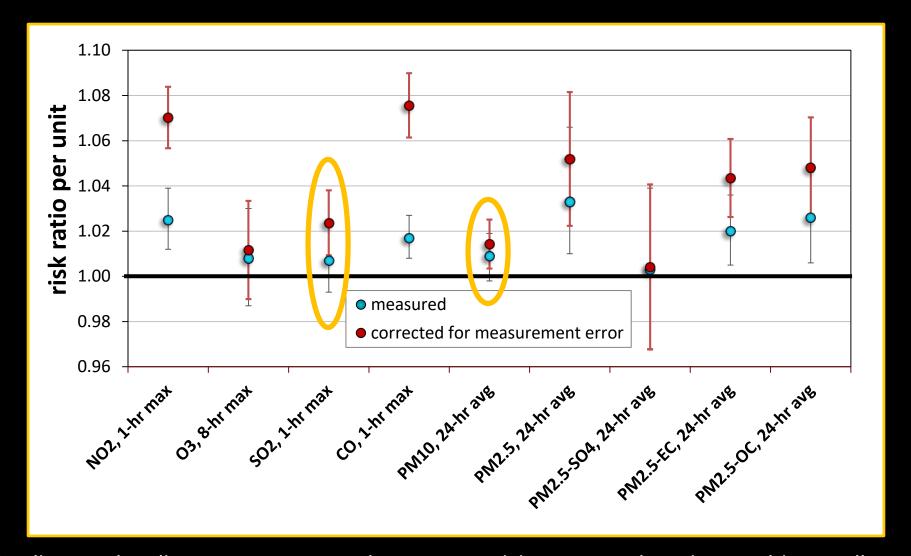


Biological response





# Risk estimates corrected for measurement error associated with central monitor measurement



Cardiovascular disease emergency department visits assessed against ambient pollutant measurements at the Atlanta downtown monitor (Metzger et al., *Epidemiology*, 2004)



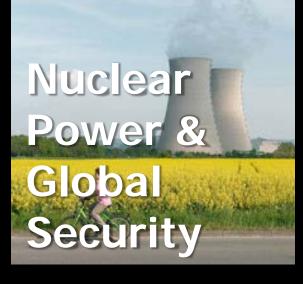
# Concerned Scientists healthy planet and safer world.



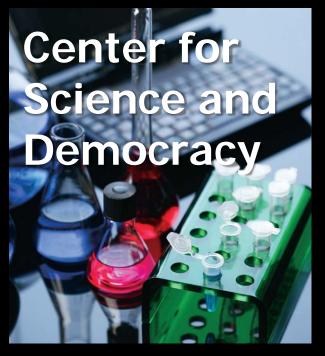
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#### The Clean Air Act Ambient Air Pollutant Policy Development Process

Scientific research on air pollutant and health and welfare effects EPA assesses the scientific research EPA receives independent science advice from its clean air science advisors and pollutant review panels EPA administration makes decision on air pollutant standards States and regions work to meet and

enforce air pollutant standards

# Particulate Matter Standard Update

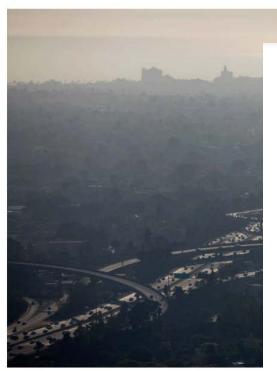
PM-2.5 Nonattainment Areas (2012 Standard)



## Particulate Matter Standard Update

#### The New York Times

#### E.P.A. to Disband a Key Scientific Review Panel on Air Pollution

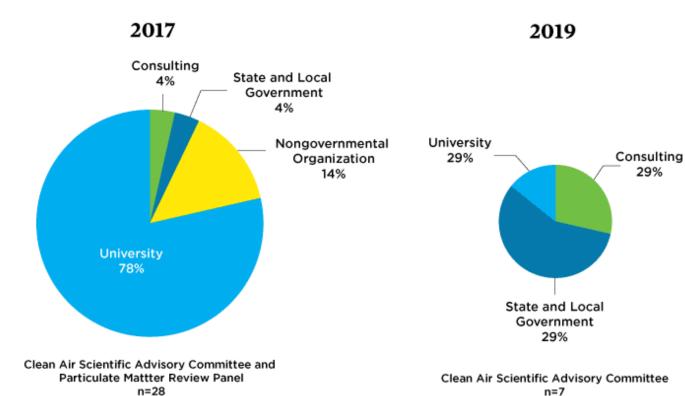


Dr. Goldman, an environmental engineer, wrote on Twitter that the E.P.A. quietly <u>telegraphed its latest move</u> in a personnel announcement Wednesday. In that announcement, the E.P.A. said that a smaller, seven-person umbrella advisory board would from now on be conducting reviews of federal air standards and that the administration hoped to complete any revisions by late 2020.



# A Diminishing Role of Science

#### Changes to EPA Science Advice on Ambient Particulate Pollution Standards







POLICY FORUM | SCIENCE AND REGULATION



Don't abandon evidence and process on air pollution policy



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Los Angeles Times

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Top advisor to Trump's EPA is called out in major journal for his 'fringe' ideas

By SUSANNE RUST and TONY BARBOZA MAR 21, 2019 | 11:00 AM









[ BLOG ] UNION OF CONCERNED SCIENTISTS



#### Uncharted Territory: The EPA's Science Advisors Just Called Out Administrator Wheeler

GRETCHEN GOLDMAN, RESEARCH DIRECTOR, CENTER FOR SCIENCE AND DEMOCRACY | APRIL 12, 2019, 11:16 AM EDT







Yesterday the EPA Clean Air Scientific Advisory Committee (CASAC) published a letter to Administrator Andrew Wheeler making recommendations on the agency's approach to updating the ambient air pollution standard for particulate matter (PM). Chiefly, the science advisors have now a also avvil a docad the a sometime has in a de questa avvo antica to a conduct the a nervious

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GRETCHEN GOLDMAN is research director for the Center for Science and Democracy at UCS.

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