### Regulatory Reform and The CPP Repeal

What Does Repeal of the CPP Mean for Future Climate and Energy Policies

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#### **Outline**

- Repealing rules: nomenclature
- Ancillary benefits in RIAs
- Thresholds in concentration-mortality response functions and the RIA



# Repealing rules: Nomenclature

- Costs of a rule become cost savings of repeal
- Benefits become foregone benefits
- Net benefits of a rule = benefits minus costs.
   Net benefits of repeal = cost savings minus foregone benefits



### Ancillary benefits

"The Obama administration relied heavily on reductions in other pollutants emitted by power plants, essentially hiding the true net cost of the CPP by claiming benefits from reducing pollutants that had nothing to do with the rule's stated purpose."

- Not hiding anything
- Ancillary benefits are benefits.
- Do need to avoid double counting of benefits in multiple rules



### Thresholds: PM2.5 and Mortality

- Original Analysis: No thresholds → Big benefits of CPP, so big benefits foregone → big negative net benefits of repeal
- 2. Threshold at the NAAQS standard (12 ug/m3 annual average). Small foregone benefits
  → positive net benefits of repeal
- 3. Threshold at the lowest observed concentration level (5.8 ug/m3; 8.0 ug/m3). Not so small foregone benefits → negative net benefits of repeal

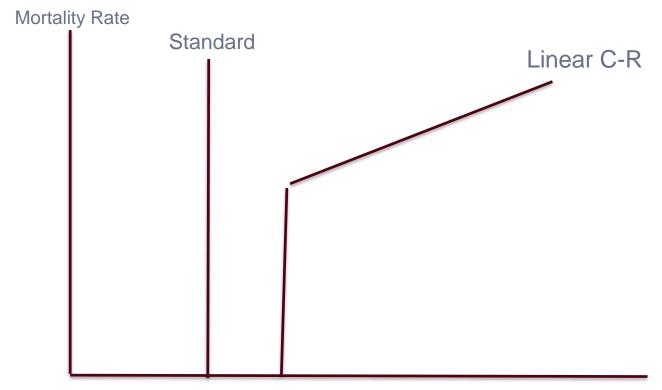


# Evidence and Interpretation

- Standards to be set "to protect public health with a margin of safety"
  - Plain English meaning: There is a threshold. Find it and set the NAAQS a bit tighter



# PM2.5 – Mortality Concentration-Response Functions: As originally envisioned in CAA



PM2.5 Concentration

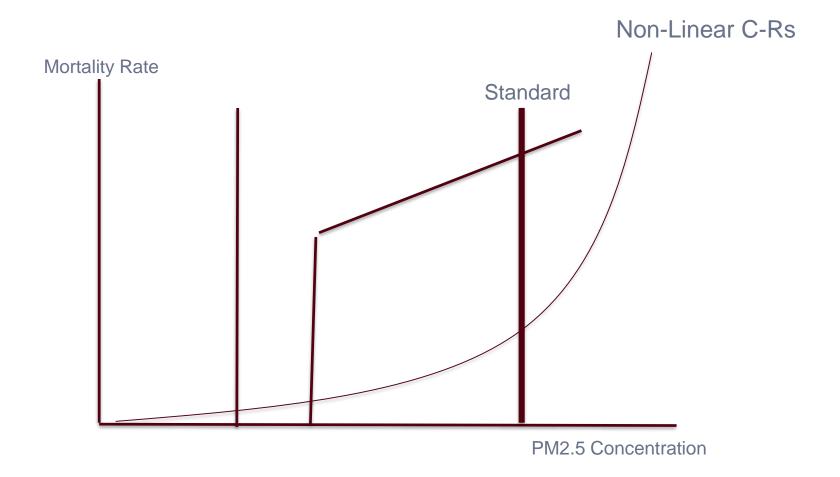


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- Standards to be set "to protect public health with a margin of safety"
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  - In reality: Thresholds with no effect have not been identified.
     Experts (CASAC) wrestle with the evidence to find a "knee in the curve" or a point where marginal observed health effects are smaller in number or less severe
  - Certainly, no evidence for threshold at the standard



# PM2.5 – Mortality Concentration-Response Function: In Reality





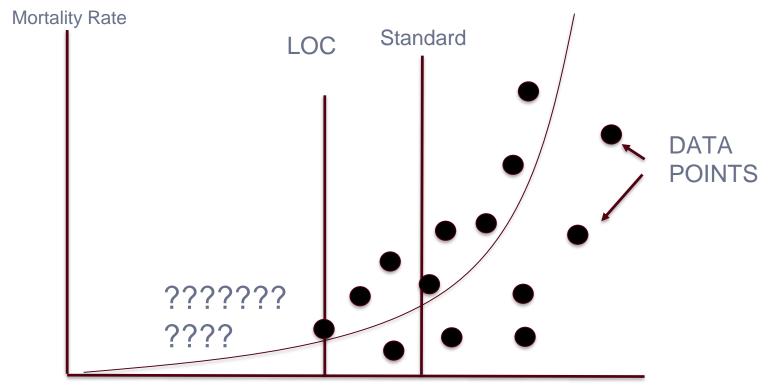
# Evidence and Interpretation

- Standards to be set "to protect public health with a margin of safety"
  - Plain English meaning: There is a threshold. Find it and set the NAAQS a bit tighter
  - In reality: Thresholds with no effect have not been identified.
     Experts (CASAC) wrestle with the evidence to find a "knee in the curve" or a point where marginal observed health effects are smaller in number or less severe → No clear stopping rule
  - Certainly, no evidence for threshold at the standard
  - Use the LOC as a threshold because of a lack of evidence beyond that point to zero.



# PM2.5 – Mortality Concentration-Response Functions: Threshold at Lowest Observable Concentration

Non-Linear C-Rs



PM2.5 Concentration



### Conclusions

- Ancillary benefits legitimate
- Assuming threshold at the standard for PM2.5mortality is not
- Acknowledging uncertainty below the LOC is legitimate, but
- Also acknowledge and model uncertainties that lead to benefits (foregone) being larger
- One suggestion: Find the threshold to equate foregone benefits and cost savings from repeal and ask: Is this threshold reasonable?

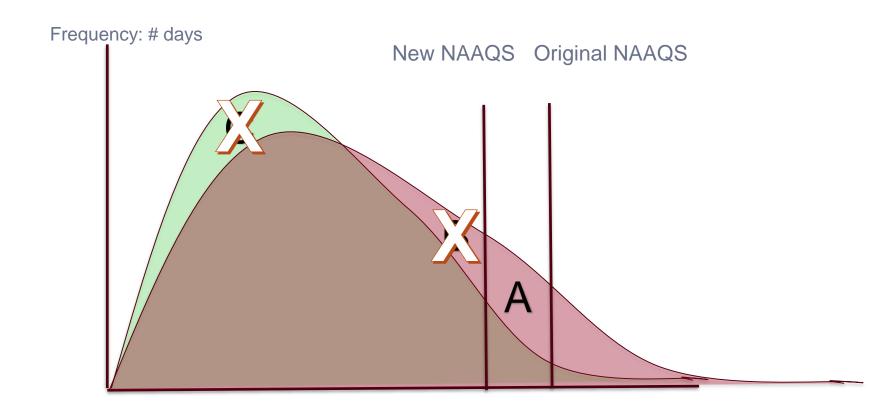


### **EXTRA**



### Air Quality Distributions and the NAAQS:

#### Threshold at the standard



PM2.5 Concentration

