Air quality considered a local concern until late 1960’s

Federal government sponsored only environmental research in early years

**1967 Air Quality Act**

fed. gov. assisted states in setting ambient standards for six air pollutants:

Ozone (O3)

sulfur dioxide (SO2)

nitrogen oxides (NOx)

particulate matter (PM10)

carbon monoxide (CO)

lead (Pb)

“criteria pollutants” - pervasive in the US

Act initially gave federal government limited enforcement of ambient standards

**Clean Air Act amendment 1970**

Set national standards for criteria pollutants

Charged newly created EPA to uphold standards

Standards: <https://www.epa.gov/criteria-air-pollutants/naaqs-table>

**Primary** and **secondary** standards

EPA officially does not consider the economic cost in setting, enforcing standards

Counties evaluated yearly, divided into attainment, non-attainment

States with non-attainment counties has to submit plan to reach attainment (**SIP**)

EPA may penalize states with non-attainment counties by denying some federal highway funds

Attainment counties are also regulated so as not to grow out of compliance

Ozone is important indicator air quality

Ground level ozone generated from emissions of Nitrogen oxides/other compounds

 During summer pollutants are heated and form ground level ozone

 Ozone triggers health problems: chest pain, coughing, throat irritation…

 Worsens bronchitis, emphysema, and asthma

[Areas out of compliance with current Ozone standards](https://www.epa.gov/green-book/green-book-8-hour-ozone-2015-area-information)

Firms are more regulated and [taxed](http://milesfinney.net/334/handouts/emissions%20fees%202020.pdf) in counties out of compliance with ozone and other pollutants

In 2008 Ozone ambient standard lowered to .075

EPA in 2010 proposed revised ozone standard to .06ppm

Obama administration approved lowering standard to 0.07 - went into effect December 2015

Why would lowering standard generate economic costs?

1970 Clean Air Act

 set emission standards for autos

 car companies in violation would pay fines and have plants shut down

Volkswagen!

[Emissions Standards for Autos](https://www.dropbox.com/s/ahfdiutdtnp9fy5/The%20main%20emissions%20from%20mobile%20sources%20are%20hydrocarbons%20%28sometimes%20called%20vol-.pdf?dl=0)

 Uncontrolled emissions in 1970 much larger than controlled

Cars forced to give up power, size

Standards were single largest cause of decrease in urban smog

Mandated decreases in emissions have outstripped increase in miles travelled in urban areas

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