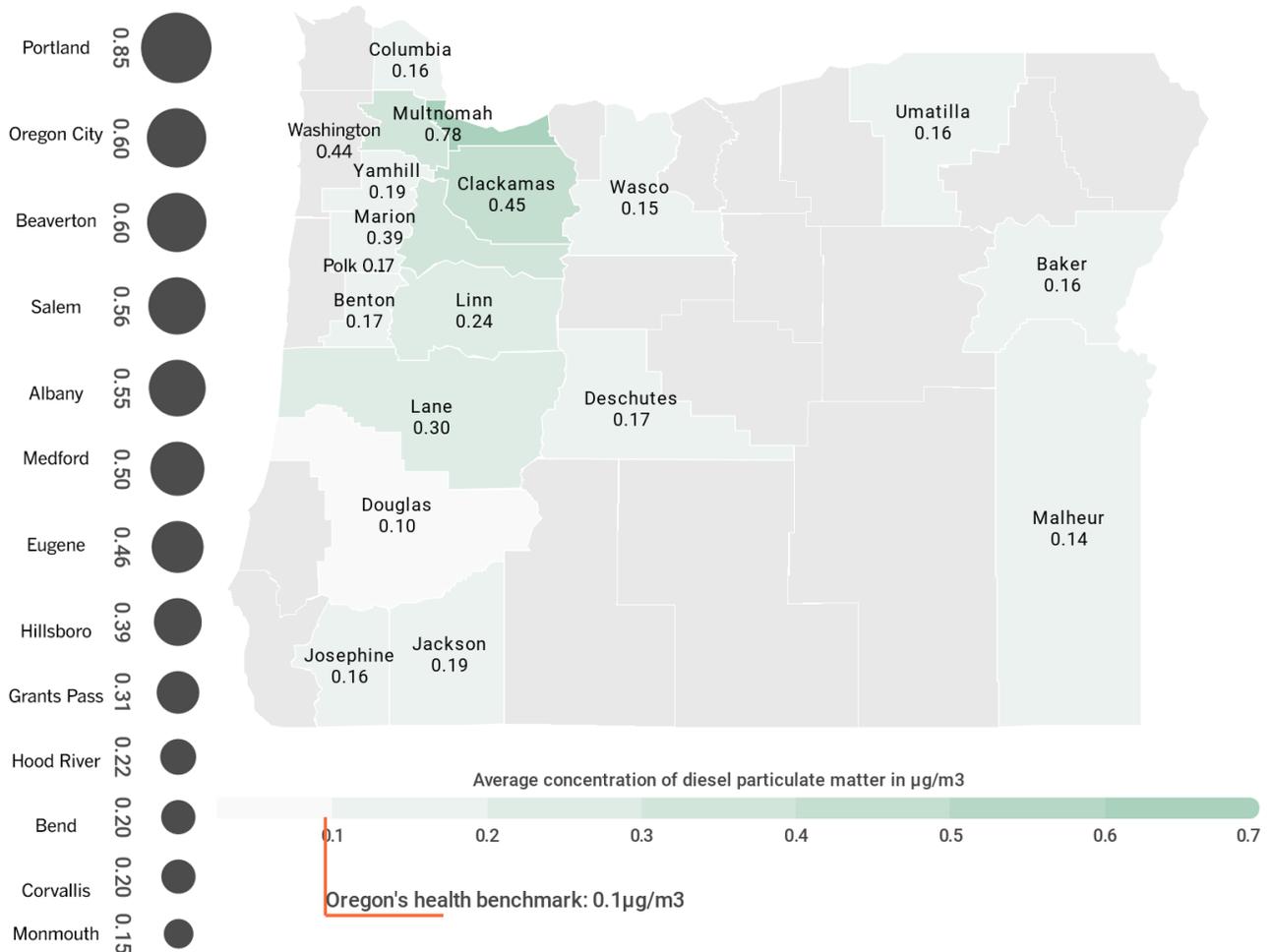


## Old Heavy-Duty Diesel Engines: Oregon's Air Quality Problem

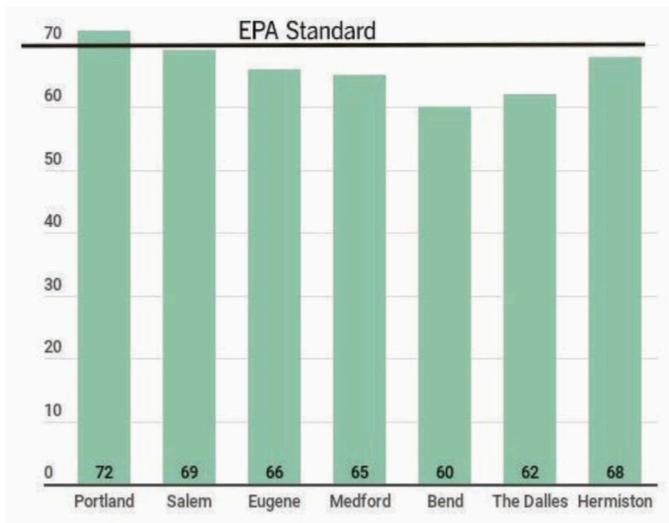
Oregon's health benchmark for diesel particulates in ambient air is set to protect people from excess cancer risk over a lifetime. To virtually eliminate cancer risk, ambient air concentrations must average no more than 0.1  $\mu\text{g}/\text{m}^3$ . Today, the areas where most Oregonians live exceed those levels.



These average ambient concentrations are based on 2014 data reported by the state of Oregon to the 2018 National Air Toxics Assessment (NATA). County averages are calculated by NATA. City averages are based on an average from census blocks, as calculated by NATA, that fall largely within city limits. <https://www.epa.gov/national-air-toxics-assessment>.

# Diesel pollution contributes to all four of Oregon's air pollutants of greatest concern.

## Ozone Levels In Oregon 2015 - 2017



Based on a 3-year average of the 4th highest 8-hour average. Data from OR Department of Environmental Quality.

### Sources of diesel pollution

On-road vehicles and construction equipment are the biggest sources of diesel pollution in Oregon.

According to Diesel Technology Forum, one diesel truck from 1988 can emit as much NOx pollution as 50 trucks that meet 2017 standards.

Oregon's old heavy duty trucks are staying in use longer than predicted. The US EPA estimated that at a rate of 10% a year, old engines would be retired by 2030. Oregon's current turnover rate is 4-6% a year.

Oregon DEQ estimates that 70,000 heavy duty trucks, buses, construction vehicle and other diesel engines in Oregon could be replaced with vastly cleaner alternatives.

**Fine particulate pollution (PM 2.5):** Diesel engines are responsible for 60% of fine particulate matter from transportation in Oregon.

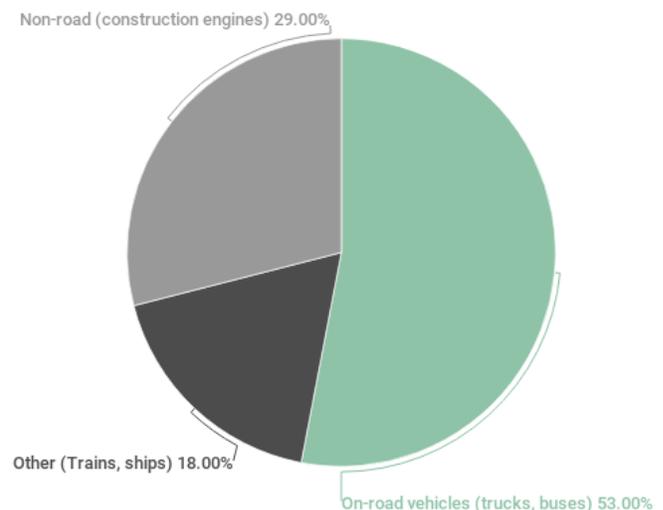
**Ground-level ozone (smog):** Diesel engines are responsible for 49% of NOx (a smog-forming pollutant) from transportation. Heavy duty vehicles are the largest source of NOx emissions in Oregon.

**Air toxics:** In addition to toxic diesel particles, exhaust contains toxic gases. Diesel is a source of both benzene and acetaldehyde, which are near or above health benchmarks in Oregon.

**Climate pollution:** Diesel exhaust contains carbon dioxide, which contributes to global climate change. In addition, about 70% of diesel particles are black carbon, which has immediate effects on the local climate. Black carbon changes the quality of clouds (altering precipitation), causes faster snow and ice melt, and contributes to warmer temperatures (absorbing solar radiation and emitting it as heat).

Read more at [http://bit.ly/DEQ\\_diesel](http://bit.ly/DEQ_diesel)

Sources of diesel pollution in Oregon (according to DEQ)



### For more information, contact:

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