



WHAT IS THE BEST WAY TO ENSURE CLIMATE JUSTICE IN OREGON?

OREGON LEGISLATORS NEED TO KNOW HOW TO BENEFIT DISADVANTAGED POPULATIONS.

July 2016

By Kristin Eberhard

Executive Summary

Sightline believes any climate policy must be effective, efficient, and fair. One important way to promote climate justice is to make polluters pay when they pollute and dedicate a portion of polluters-pay revenue to projects that both reduce pollution and benefit disadvantaged people.

California pioneered such a policy by implementing a science-based cap on climate pollution, investing cap-and-trade auction revenue in projects that reduce climate pollution, and ensuring that a portion of these projects directly benefit disadvantaged people. The Golden State dedicates 25 percent of climate auction revenue to pollution reduction projects that are geographically located in or that benefit the [25 percent of census tracts \(each census tract is an area with around 4,000 residents\)](#)¹ with the highest cumulative concentrations of environmental and social disadvantages, as measured by a 19-indicator environmental justice screen. Projects include improving transit, building affordable housing near transit, planting trees, and subsidizing electric vehicles.

1. The census bureau aims for each census tract to include around 4,000 people, though they range from 1,500 to 8,000. [Zip codes, by contrast](#), are not a census unit so they do not align with census data. They do not contain uniform populations; a zip code may include anywhere from a few hundred people to more than 30,000.

In 2016, Oregon advocates and legislators proposed a bill that would have followed a similar approach to climate equity. However, Oregon faces two major barriers:

1. Oregon's constitution likely requires all revenue from the transportation sector—almost all the available auction revenue from a possible future climate cap-and-trade program—be deposited in the Highway Trust Fund and **spent exclusively on roads**. The Oregon Supreme Court's interpretation of the state constitution prohibits Oregon from investing transportation sector money in transit, affordable housing, trees, electric vehicles, or most other projects that could benefit disadvantaged people while cutting pollution. Not only is Oregon cut off from these beneficial projects, but most Highway Trust Fund money is spent on highways. More and better highways can induce more driving, creating more pollution, and further disadvantaging nearby communities.
2. Directing money to the 25 percent of census tracts with the most pollution, people of color, and poverty **will not benefit most people of color or low-income households in Oregon**. The top 25 percent of census tracts identified by these three indicators include 402,572 people of color and 534,409 low-income people, while the other 75 percent of tracts include 470,174 people of color and 880,469 low-income people. Following California's lead and sending money to the most impacted census tracts may not be the most effective way to benefit low-income households and people of color in Oregon.

Oregon could design a homegrown approach to climate equity that takes into account these legal limitations and geographical realities. It could prevent the harms of spending more money on highways and instead create benefits by sending constitutionally restricted polluters-pay revenue to cities and counties. These cities and counties, in turn, would spend these funds on street maintenance and "complete streets," improvements designed to make streets safe and convenient for all users, subject to oversight by a board representing historically disadvantaged populations. Requiring that the money be used on local roads subject to community oversight could spur prudent local investments, improve safety (especially for the most at-risk Oregonians), and empower historically disadvantaged people in every city and county in the state to direct large sums of public funds.

Interestingly, the 2017 Oregon legislative session offers advocates an opportunity to pursue this homegrown Oregon approach through a statewide transportation investment package. Legislators are under extreme pressure to pass a package that

includes an increase in the state gas tax, which is losing value due to inflation. A gas tax can act as a proxy for a polluters-pay tax or fee, and gas tax revenue is subject to the same legal constraints that transportation sector revenue from a carbon tax or a cap-and-auction system would likely face. In 2017, advocates and legislators who care about climate and social justice could take advantage of the fact that transportation revenue is already in play to fight for a gas tax increase that requires resulting revenue be sent to cities and counties to be invested locally, subject to oversight by a local board representing disadvantaged populations.

The shortest path toward climate justice in Oregon in 2017, in other words, might traverse the legislative transportation debate rather than make another attempt at a comprehensive climate policy. In this report, we explore how California's climate justice approach may not work in Oregon and what policy options are available for ensuring climate stability and equity.

Background Information

Sightline has long held that [climate policy must be effective, efficient, and fair](#). A fair or [just](#) policy is one that recognizes that, while climate change is a universal menace, threatening hardship for everyone, not everyone will suffer equally. This is the [climate gap](#): people of color, low-income households, seniors, and children face the worst climate insecurity. Low-income families are most likely to live in floodplains or fire-prone forests. The urban elderly, particularly those who are low-income and of color, are less likely to have air conditioning for the [heat waves](#) that the Pacific Northwest is already experiencing and that scientists predict will only become more common as climate change advances. People of color and low-income people are less likely to have access to a car, making them more likely to be stranded without access to cooling stations or ability to move to safer ground. What's more, they are less likely to have health insurance to protect themselves from climate-induced disasters or hardships.

A policy that cuts climate pollution without addressing the climate gap risks exacerbating income and racial disparities, leading to social and economic instability and increased societal costs. In contrast, a policy that efficiently and effectively slashes pollution while also addressing inequities can solve multiple problems at the same time: stabilize the climate, serve historically underserved communities, create jobs, increase mobility and access to jobs, and reduce poverty.

In 2015 and 2016, Oregon legislators considered, but did not pass, comprehensive bills to cut greenhouse gas pollution statewide and spur Oregon towards a clean future. The [Oregon Healthy Climate Bill](#), proposed in 2016, would have addressed the climate gap using California's approach as an equity model.

But Oregon is not California.

That is not just an aphorism; legal and geographical differences make California's climate equity approach an awkward fit in Oregon. One big difference is that Oregon's constitution restricts the use of climate pollution revenue derived from the transportation sector. In pursuit of climate justice, California is investing transportation-sector-derived climate pollution revenue in affordable housing, transit, and tree planting to aid disadvantaged communities. But Oregon could not do the same. Oregon transportation-sector climate pollution revenue (whether from a carbon tax or a cap-and-trade auction) will almost certainly have to go to the state's Highway Fund.² The Highway Fund is restricted by the state constitution to road work, [mostly](#) on highways. Consequently, Oregon could find itself spending polluters-pay revenue³ counterproductively expanding highways. In turn, this could induce more pollution and exacerbate inequities for the communities near highways that already face disproportionate pollution burdens.

*Oregon may need
its own approach
to climate justice.*

A second difference between Oregon and California is that a geographic test for identifying the disadvantaged communities who should benefit from pollution revenue may not work as well in Oregon. California uses a geographic test to identify the 25 percent of census tracts that are

most disadvantaged and invest pollution revenue there. The 19-indicator California test reveals that pollution, poverty, and people of color, along with other measures of pollution burden and social indicators, tend to co-locate in the Golden State. Yet Sightline's preliminary geographic analysis of pollution, poverty, and people of color suggests that if legislators in Oregon intend to benefit communities of color, immigrants and refugees, and linguistically isolated populations, a geographic test of disadvantage may miss the mark. Compared with its southern neighbor, Oregon is much whiter; its polluted areas have less overlap with low-income people; and its communities of color, other than Native Americans living on reservations, are less geographically concentrated.

-
2. In [1992, an Oregon Supreme Court decision](#) held that "money raised from burdens imposed on motor vehicle fuel[s]" must go to the Highway Trust Fund, even if the money was raised from an air pollution emissions fee. Some observers argue that advocates should not accept this precedent as controlling for transportation-sector polluters-pay revenue. While a successful challenge differentiating or limiting the 1992 case would be welcome, Sightline's judgment is that it is prudent to plan for the likely legal limitations.
 3. Throughout this report we will use "climate pollution revenue" and "polluters-pay revenue" interchangeably.

Acknowledging these two differences means acknowledging that Oregon may need its own approach to climate justice.

Cap-and-invest and climate justice in California and in Oregon

[California's 2006 global warming pollution reduction bill, AB 32, caps pollution](#) from the largest polluters. To enforce the pollution cap, California issues a limited number of allowances and requires large polluters to surrender one allowance for each ton of pollution they emit into the air. Because the allowances are limited, only a fixed amount of pollution can be released each year. If a business pollutes without surrendering an allowance, it faces stiff monetary and criminal penalties.

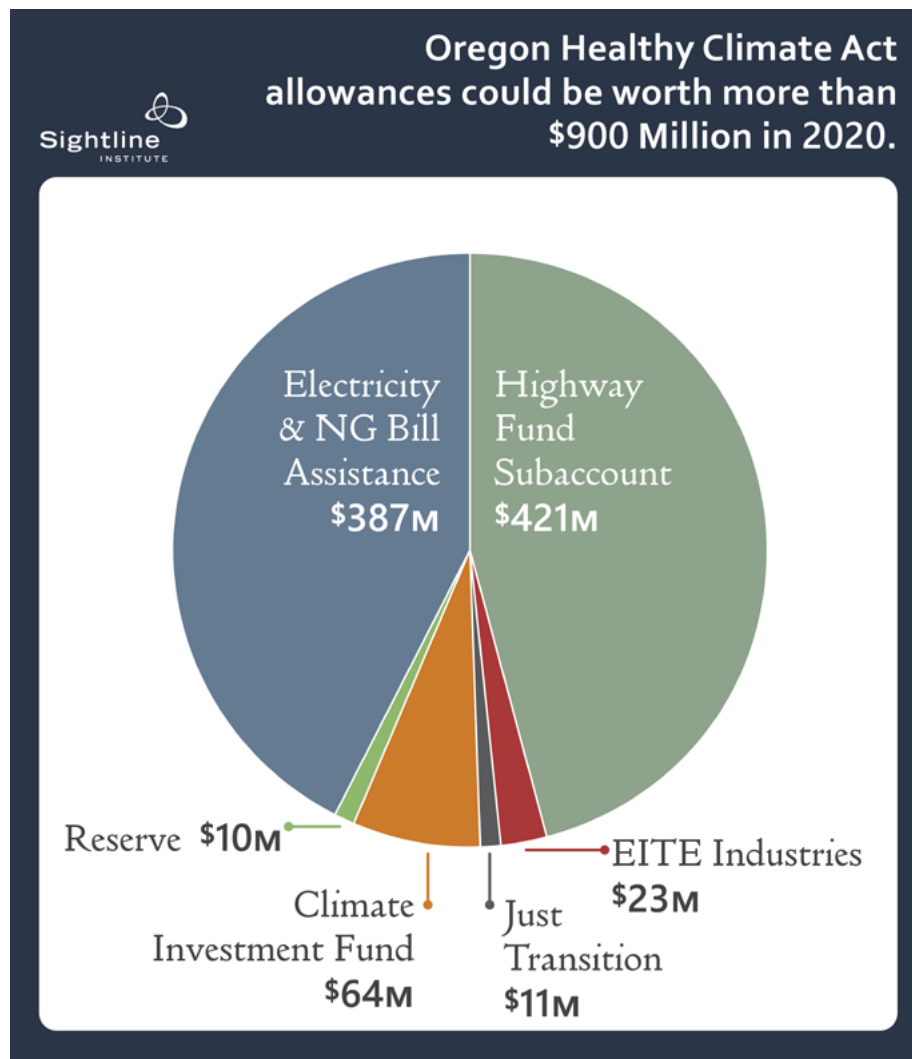
In California, about half the enforcement allowances are returned to electricity and natural gas utilities to help their customers pay their bills or to industrial facilities to immunize them from competitors located in states that don't limit pollution. The transportation sector accounts for roughly the other half of the pollution in the program; the large polluters in the transportation sector, oil companies, must purchase allowances in a state-run auction. California [invests the auction revenue](#) from the transportation sector in an [array of pollution-reducing projects](#), from funding bus and rail systems [to building affordable housing near transit, from electrifying cars, buses, and trucks to weatherizing low-income families' apartments](#).

California's [SB 535, passed in 2012, dedicated 25 percent](#) of the available auction revenue to pollution reduction projects that are geographically located in or that provide benefits to disadvantaged communities in California. As a result, California dedicates one-quarter of the auction revenue to affordable housing, transit, electric vehicles, energy efficiency upgrades, and other beneficial projects in disadvantaged communities.

To identify the disadvantaged communities that are eligible for dedicated polluters-pay revenue, California created a sophisticated cumulative impacts tool called CalEnviroScreen.⁴ The screen identifies the 25 percent of census tracts in California that have the worst combination of pollution and negative social indicators (more on the California test below).

4. [SB 535](#) orders the agency to identify disadvantaged communities "based on geographic, socioeconomic, public health, and environmental hazard criteria [including but not limited to]: (a) areas disproportionately affected by environmental pollution and other hazards that can lead to negative public health effects, exposure, or environmental degradation. (b) Areas with concentrations of people that are of low income, high unemployment, low levels of homeownership, high rent burden, sensitive populations, or low levels of educational attainment."

The Oregon Healthy Climate Bill would have set up a similar program, capping climate pollution from the largest polluters. Like California, Oregon would have returned some allowances to electricity and natural gas utilities for customer bill assistance (the blue wedge in the pie chart below) and some to certain industrial facilities to protect them from out-of-state competition (red wedge--“EITE” means [energy-intensive, trade-exposed industries](#) that face competition from outside Oregon). It also would have deposited some allowances into a reserve to be used in the future (lime green wedge). These three wedges in the chart below—“Electricity & NG Bill Assistance,” “Reserve,” and “EITE Industries”—would not have been available for other investments.



The “Climate Investment Fund” (orange wedge) and “Just Transition Fund” (gray wedge) would have been filled primarily with auction revenue from industrial polluters, and Oregon would have used all of it for projects similar to California’s investments that reduce pollution, promote clean energy, create jobs, and aid workers in transitioning to new jobs. California dedicates 25 percent of the available auction revenue to disadvantaged communities and is [currently working on a bill](#) to increase it to 35 percent. Oregon’s 2016 bill would have required that 40 percent of the “Climate Investment Fund” project money be dedicated to projects geographically located in or benefitting disadvantaged communities.

Almost half the capped pollution, and therefore almost half the allowances, would come from the transportation sector. Revenue from sale of these allowances would legally have to be deposited in the State Highway Fund (green wedge). Unfortunately, this wedge—money restricted exclusively to roads and highways—accounts for almost half the total value of pollution allowances and the bulk of the auction revenue available for projects.

Oregon’s legal restrictions on transportation sector revenue

California must invest all polluters-pay revenue in projects related to reducing pollution, but [Oregon likely must spend all transportation sector revenue on highways and roads](#). Article IX, Section 3 of the [Oregon Constitution](#) requires “any tax levied on, with respect to, or measured by the storage, withdrawal, use, sale, distribution, importation, or receipt of motor vehicle fuel” to be “used exclusively for the construction, reconstruction, improvement, repair, maintenance, operation and use of public highways, roads, streets, and roadside rest areas.” The [Oregon Supreme Court has interpreted this section broadly](#), saying that not only must “tax” revenue be funneled into the Highway Fund, “fees” and “assessments” also get siphoned to the Fund. If fees and assessments must go to the Highway Fund, it is likely that the revenue from a state-auctioned enforcement allowance must, too.

Legally, Oregon almost certainly **cannot** invest transportation sector money—the bulk of the pollution revenue, whether from a cap-and-auction program or a carbon tax—into making transit more frequent and affordable. It almost certainly **cannot** invest in building affordable housing. Nor in electrifying cars, buses, and trucks. Nor in weatherizing low-income homes. (See Appendix A for more discussion of the Oregon’s legal limitations.)

Only two clean-energy-related investments are definitely legal under current Oregon law:

1. the state could send the money to [cities and counties eager to invest in local streets](#), and
2. the state could pay to build electric vehicle charging stations located in public highways or rest stations.

The first is a good option. [Local streets are a sound public investment](#), and there are clear inequities in local transportation infrastructure that earmarked revenue could mitigate. The second is less promising. In the near term, electric vehicle charging infrastructure is not a very equitable use of climate money, because it will primarily aid wealthier individuals who own electric vehicles. (California equitably uses revenue to subsidize electric vehicles to aid car-dependent disadvantaged households, but unfortunately, that option is not legal in Oregon.) In addition, public money is best reserved for projects with public benefits that private sector players will not fund. [Tesla, Nissan and BMW](#), and [other companies](#) are building public chargers themselves. And privately owned electric utilities are realizing that [electric vehicles are their best hope for growing load](#) in the future and so are [installing charging stations](#), especially when spurred on by [laws](#) requiring utilities to contribute to the buildout of infrastructure to charge one million electric vehicles.

The unwelcome message: Oregonians watching California [invest millions of dollars of polluters-pay revenue in clean energy and affordable housing](#) in disadvantaged communities must, unfortunately, adjust expectations. (To be clear, the orange “Climate Investment Fund” wedge in the pie chart above can and should be used for California-style investments that reduce pollution and benefit disadvantaged people in Oregon. The constitutional limitation applies to the bigger “Highway Fund Subaccount” portion of the pie.)

Unless and until the people of the Beaver State manage to remove constitutional limitations on their pollution revenue, Oregon cannot invest it in transit and affordable housing. The good news is that Oregon advocates could direct polluters-pay revenue from the transportation sector towards local street projects that improve safety and increase walkability in underserved neighborhoods across the state. (More detail about Oregon’s options later in this report.)

With limitations on the use of the revenue in mind, we can now move to discussing how the results of a geographical methodology for identifying disadvantaged communities differ between California and Oregon.

Disadvantaged communities face multiple burdens

[In the United States, race, poverty, and pollution often overlap.](#) People of color and low-income households are more likely to live in less expensive neighborhoods, which in turn are more likely than better-off neighborhoods to be located near sources of pollution like ports, refineries, factories, and landfills. Together, multiple indicators of environmental and social vulnerability create historical and compounding disadvantages for communities.

States and agencies around the country have methodologies for identifying “environmental justice” or “highly impacted” or “disadvantaged” communities, for the purpose of extending benefits to or soliciting participation from people living in these communities. To pinpoint these communities, they may develop multi-factor analyses, consistent with best practices in [identifying disadvantaged communities](#). Complete analyses include:

1. Pollution indicators, such as air pollution levels, toxic releases, and proximity to pesticides;
2. Health indicators, such as asthma rates, emergency room visits, and birth weights or infant mortality; and
3. Social indicators, such as poverty, educational attainment, homeownership rates, unemployment, incarceration rates, foster care rates, and linguistic isolation.

Identifying “disadvantaged communities” in California and in Oregon

California’s Office of Environmental Health Hazard Assessment, with review from California Environmental Protection Agency and input from stakeholders and academics, spent several years developing a sophisticated methodology called [CalEnviroScreen](#) to identify “disadvantaged communities.” It is based on [19 different pollution, health, and social indicators](#):⁵

5. Reliable data are not available for many of these indicators outside of California. The State of California paid to develop both the CalEnviroScreen tool and the data sets.

Pollution Burden Indicators:

1. Ozone concentrations
2. [Particulate Matter \(PM\) 2.5](#) concentrations
3. Diesel PM emissions
4. Pesticide use
5. Drinking water contaminants
6. Toxic releases from facilities
7. Traffic density
8. Cleanup sites
9. Groundwater threats
10. Hazardous waste
11. Impaired water bodies
12. Solid waste sites and facilities

Population Characteristics Indicators:

13. Prevalence of children and elderly
14. Low birth-weight births
15. Asthma emergency department visits
16. Educational attainment
17. Linguistic isolation
18. Poverty
19. Unemployment

California's screen does not include race and ethnicity as an indicator. However, [race and ethnicity are highly correlated with the screen's results](#): Hispanic/Latinos are nearly five times as likely and African-Americans nearly four times as likely as whites to live in the most impacted census tracts.

Oregon's Healthy Climate Bill, which didn't pass out of the legislature in the 2016 session, would have directed the Oregon Environmental Quality Commission, in consultation with other state agencies, to develop a methodology similar to

California's, looking particularly at geographic areas with high concentrations or people of color, low-income households, immigrants or refugees, linguistic isolation, and exposure to pollution.

Oregon could emulate a multi-factor approach by building on the Oregon Health Authority's [Climate and Health Vulnerability Assessment](#). This assessment mapped 11 social vulnerability indicators—including pre-term births, race and ethnicity, poverty, educational attainment, and unemployment—at the census tract level.

Mapping three indicators of disadvantage in Oregon

The maps below are Sightline's attempt to begin a multi-indicator, census-tract-based analysis to identify disadvantaged communities in Oregon based on three readily available data sets specified in the proposed 2016 Oregon bill:

1. Measured levels of PM 2.5 air pollution,
2. Percent of people who live on incomes at or below 200 percent of the federal poverty level, and
3. Percent of people who are non-white (any census category other than white alone, non-Hispanic).

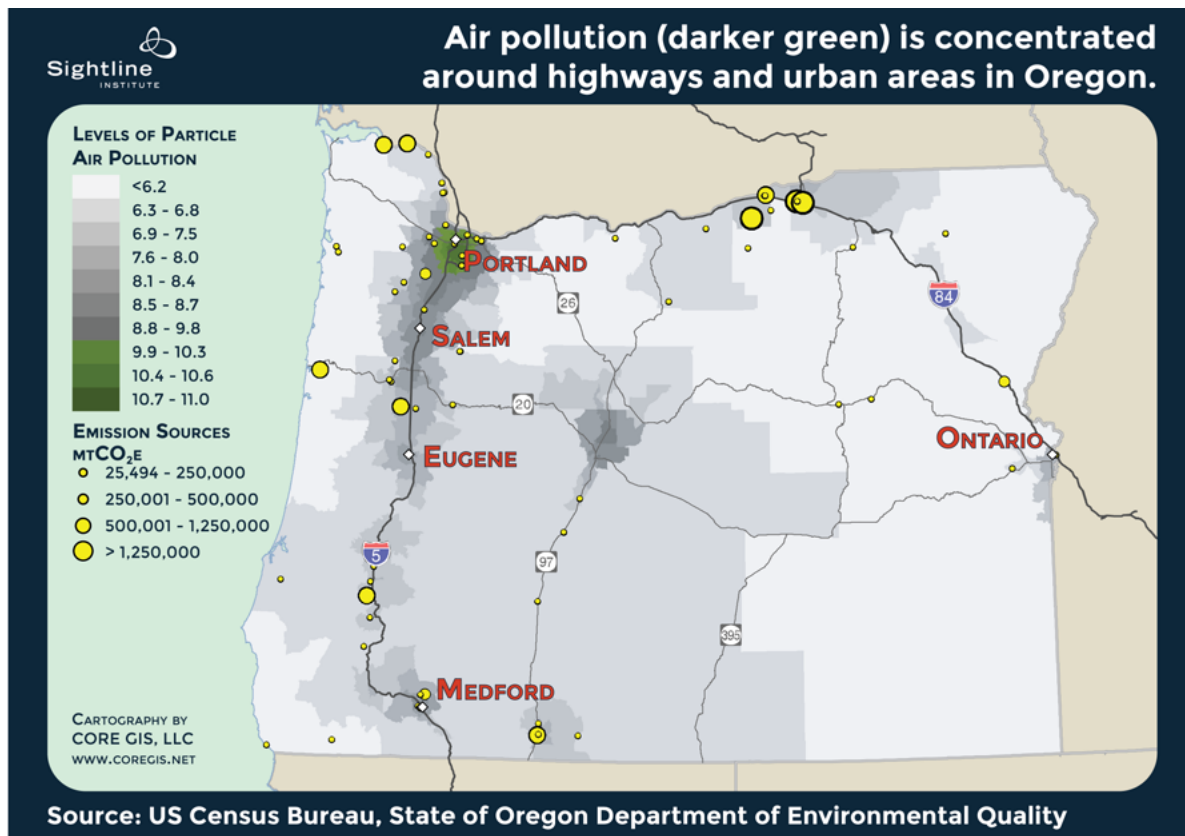
These maps offer rough, visual overviews of three indicators that could be included in a multi-indicator screen to identify disadvantaged communities.

The darker colors in each map show higher concentrations of the factor in question. The data are displayed by [census tract \(a geographic area with 1,200 to 8,000 people\)](#) and by decile (one decile is a group consisting of one-tenth of all census tracts. Each group of 10 percent of census tracts—each decile—has its own color on the map. The lowest seven deciles are shades of gray, and the top three deciles are colored. For example, in the green map below, the 10 percent of Oregon census tracts with the lowest measured levels of PM 2.5 pollution are colored the lightest shade of gray, and the 10 percent of Oregon census tracts with the highest pollution levels are colored the darkest green.

When looking at the maps, remember that they can trick your mind into equating land area with population. For example, you might subconsciously surmise that big [Malheur County](#) in southeast Oregon has 25 times more people than little [Multnomah County](#). In reality, roughly the same number of people are spread over 10,000 square miles in Malheur County as are tucked into 400 square miles in Multnomah County.

Where is the most polluted air in Oregon?

The map below shows measured levels of [PM 2.5, fine particles of pollution](#) that enter the air when a car, truck, power plant, industrial facility, construction equipment, or woodstove burns fuel. PM 2.5 is one of the most [dangerous air pollutants for human health](#), and it often [travels with emissions of air toxics such as benzene](#).

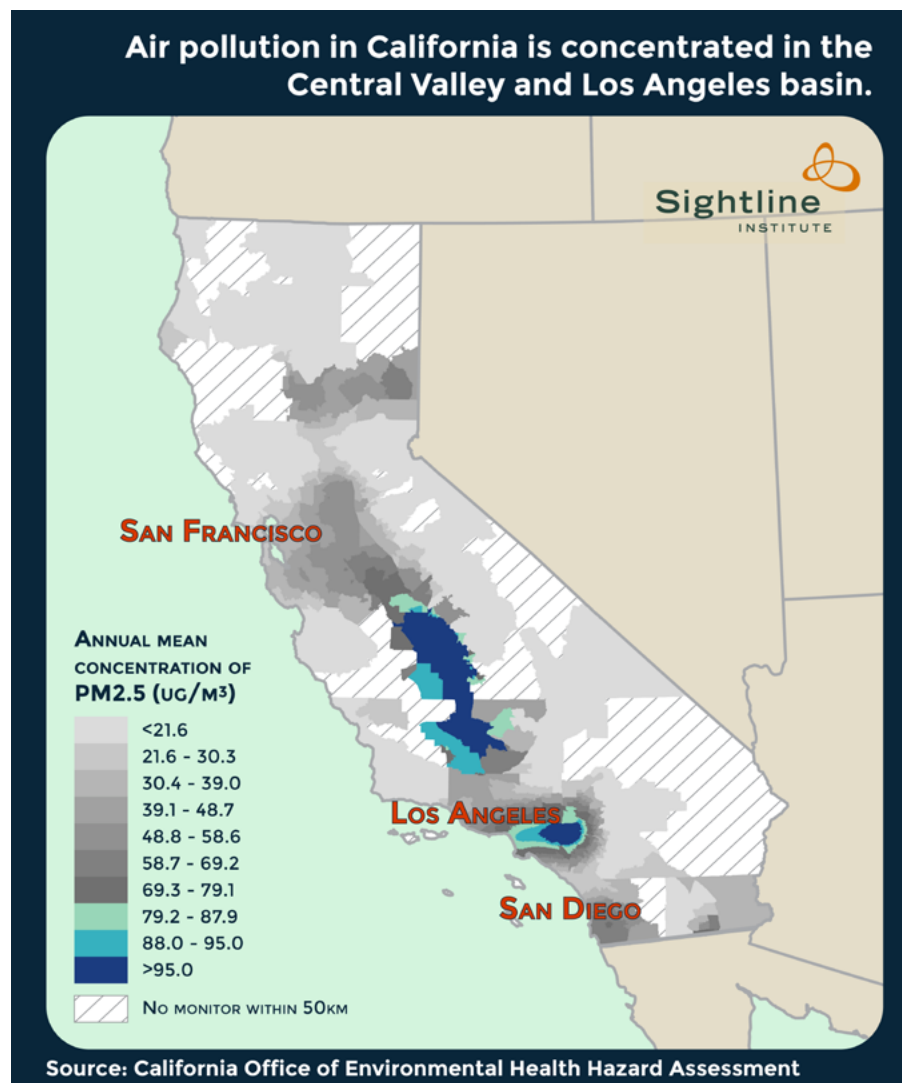


The yellow circles on the maps show the roughly 70 [large emitters of greenhouse gas pollution](#) that the Healthy Climate Act or a similar bill would regulate. These “stationary” or “point sources” (power plants, factories, and landfills, which all stay in one place) account for less than one-third of the state’s greenhouse gases. In Oregon, almost [40 percent of greenhouse gas pollution](#) comes from mobile sources (cars and trucks burning gasoline and diesel fuel as they drive). You can see above that high levels of PM 2.5 air pollution (darker green) cling to large highway corridors and traffic-filled population centers.

Although stationary sources (yellow circles) are more likely to be close to highways than far from them, PM 2.5 pollution does not seem to be independently correlated with stationary sources. In other words, people living near highways and urban centers in Oregon are most likely to be exposed to harmful air pollution; people

living near large stationary sources are only more likely to be exposed to pollution if they also live near highways or urban centers.

In California, too, most pollution comes from highways rather than stationary sources. The [map below from CalEnviroScreen 1.0](#) reveals a few key similarities to and differences from Oregon when using PM2.5 pollution as a geographic test of disadvantage:



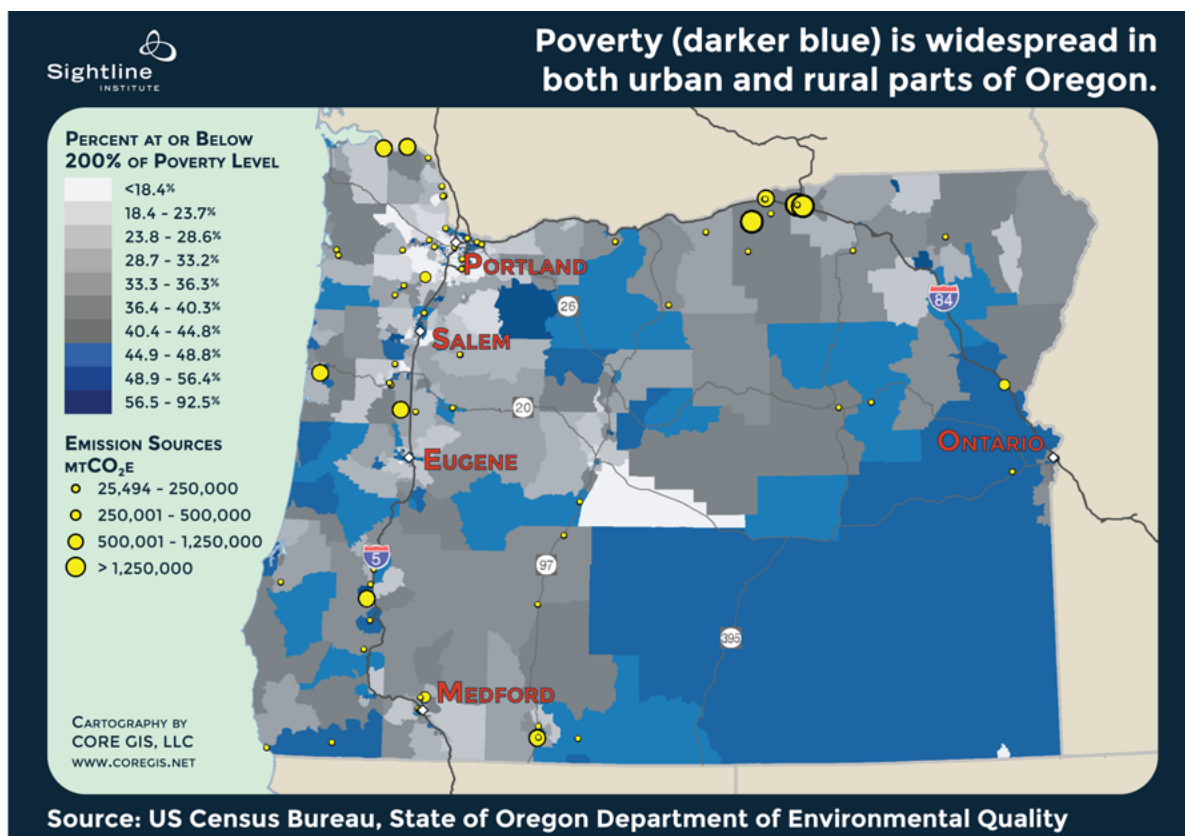
- Both states have polluted urban centers. Interstate Highway 5 runs through dense and diverse population centers in both states: Portland and Los Angeles.
- California has polluted, low-income, rural areas with large populations of color. Oregon does not. In California, I-5 runs through the Central Valley, an agricultural area largely populated by poorly paid Latino laborers. In

Oregon, the rural areas through which I-5 runs are also poor (see blue map below) but are largely white (see red map below).

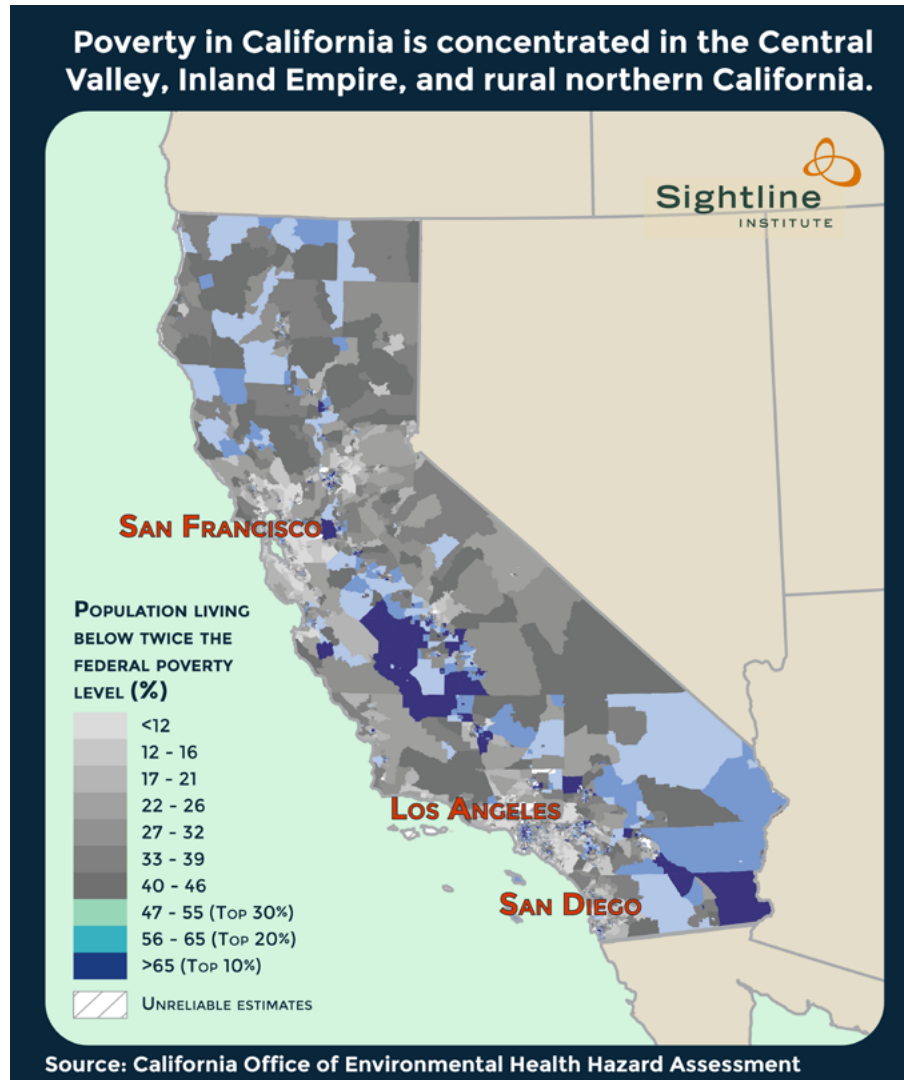
- California has refineries located in low-income communities of color. In the East Bay area and near the ports of Los Angeles and Long Beach in California, [multiple refineries and power plants spew pollution](#) into the surrounding densely populated neighborhoods, many of them home overwhelmingly to people of color, that are simultaneously bombarded with pollution from the trucks that service the ports. By contrast, Oregon has no refineries. The Port of Portland is a regional hub for goods movement, but the neighborhoods around it are less dense and more white than California's.
- PM 2.5 pollution is worse in California. Oregon's top decile of 10.7 to 11.0 parts per million is only in the sixth decile in California.

Where do low-income Oregonians live?

Poverty is widespread across Oregon, with urban pockets and rural strongholds. The map below shows that a whopping 40 percent of Oregon counties have tracts where more than 40 percent of residents live on incomes at or below 200 percent of the federal poverty level. For 2015, that means a family of four living on [\\$48,500 or less](#).



The map below from CalEnviroScreen reveals a few key similarities and differences between California and Oregon when using poverty as a geographic test of disadvantage:

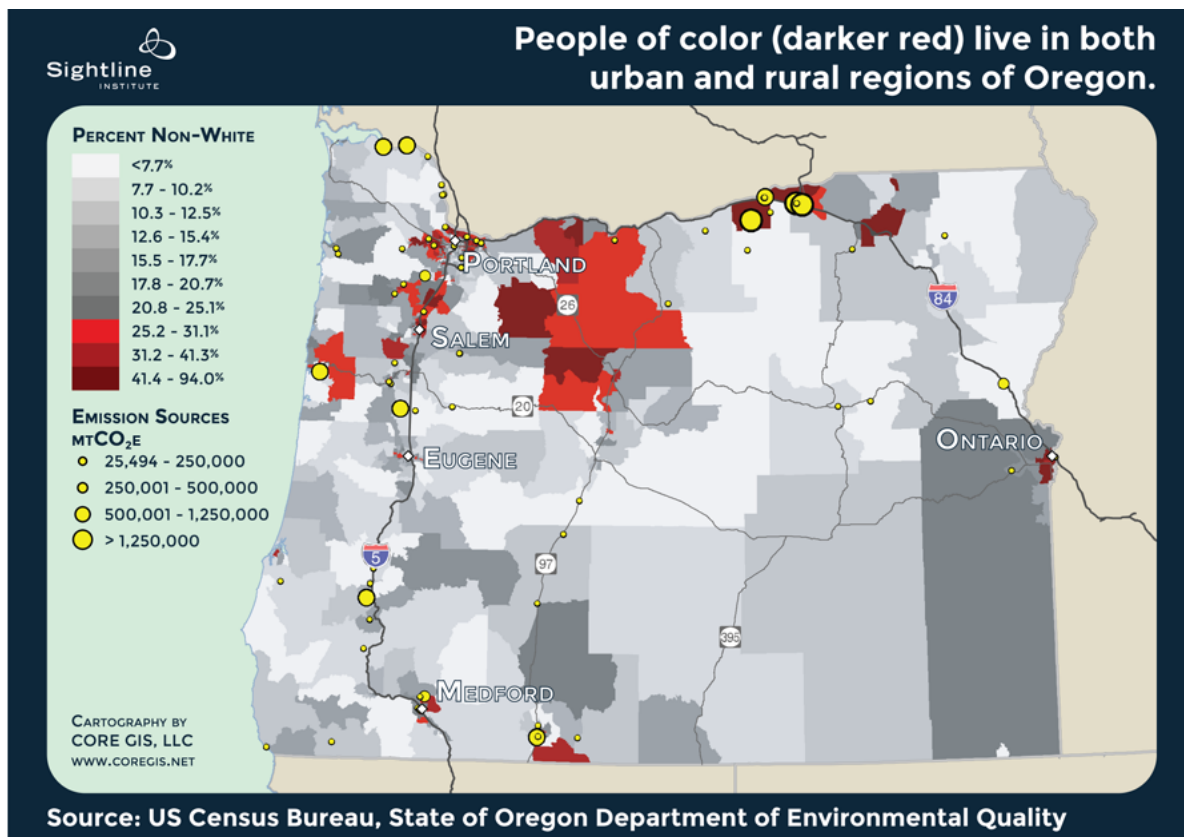


- In California, poverty, like pollution, is concentrated along the I-5 corridor, near the refineries in the East Bay area, and in Los Angeles. In Oregon, poverty doesn't line up well with pollution. At the statewide level, low-income populations (darker blue) do not correlate with the location of stationary sources of pollution (yellow circles) or highways. For example, poverty is particularly prevalent in rural eastern Oregon and some coastal areas that show up very light green on the map above and also have few or no point sources (yellow circles).

- However, both California and Oregon have rural regions with high poverty and low pollution—northern California and Eastern Oregon.
- Poverty rates are similar in both states, ranging from less than 20 percent to more than 50 percent of residents in a given census tract living on less than \$48,500 for a family of four.

Where do people of color live in Oregon?

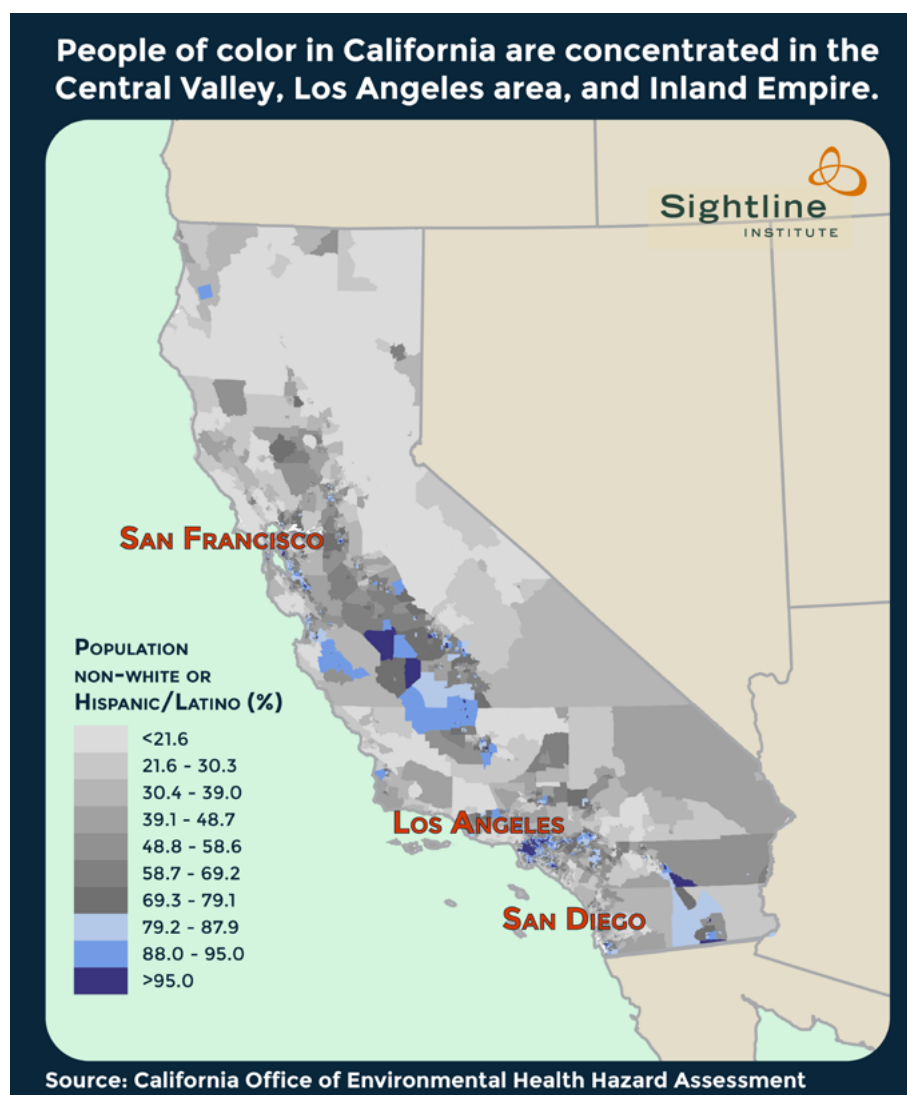
The map below shows that concentrations of people of color (darker red tracts) are spread across the state: Clackamas, Coos, Hood River, Jackson, Jefferson, Klamath, Lincoln, Malheur, Marion, Multnomah, Umatilla, Wasco, Washington, and Yamhill counties all have census tracts where more than 20 percent of residents are non-white.⁶



6. The map shows what percentage of the population of each census tract are people of color. Because there is some variation in how many people live in each census tract, it could be more illuminating to display the total number of people of color in each tract. However, to enable the best apples-to-apples comparisons with California's maps, this analysis uses percentages.

Some of these areas with high concentrations of people of color are on Oregon's seven [Native American reservations](#). People of color appear to live close to stationary sources of pollution (yellow circles) in some areas: parts of the Portland metropolitan area, Medford, Klamath Falls, and in the Boardman/Hermiston area—home to several power plants and also to several census tracts with more than 41 percent people of color. But the map also shows high concentrations of people of color but no major pollution sources (yellow circles) in East Clackamas, Hood River, Jefferson County, and Salem.

The map below from CalEnviroScreen reveals a few key similarities and differences between California and Oregon when using race or ethnicity as a geographic factor:



- California has a lot more people of color than Oregon does. Overall, [22 percent of Oregonians](#) are people of color (defined as any census race category other than white and census ethnicity category of Hispanic or

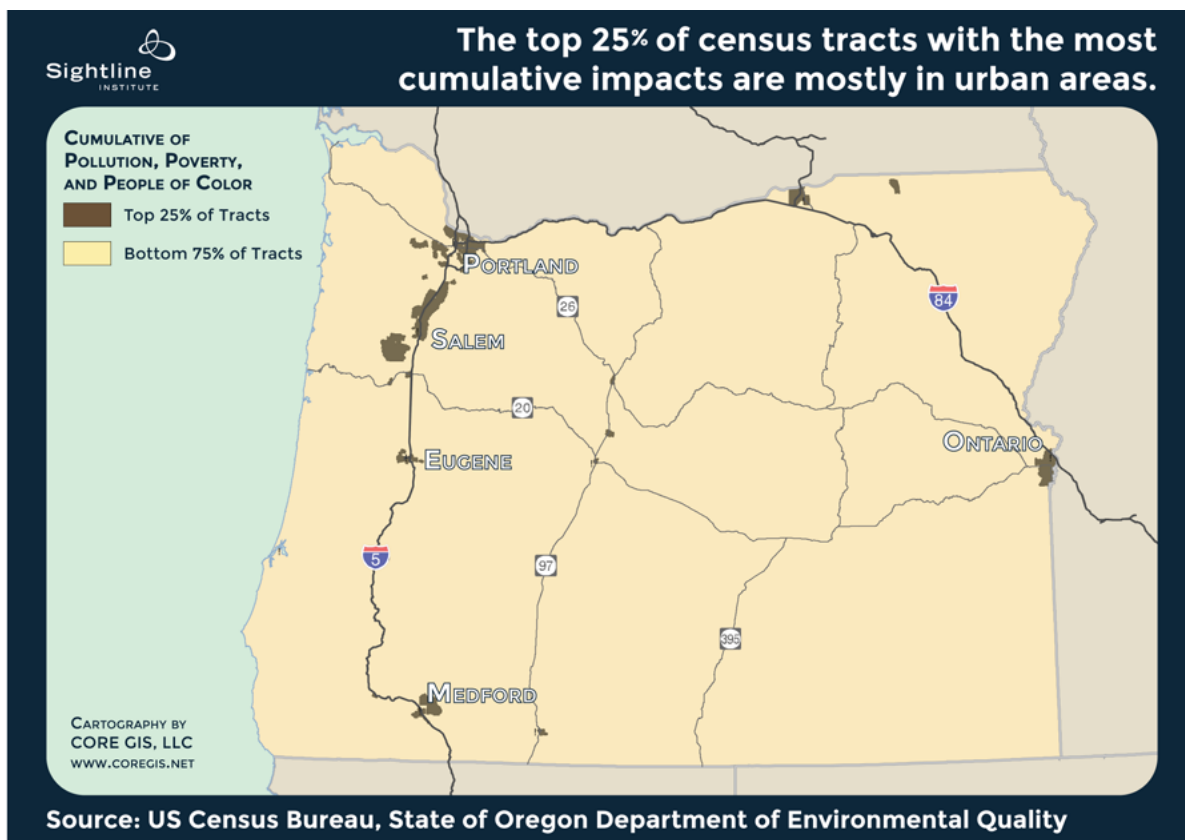
Latino).⁷ In contrast, nearly [62 percent](#) of Californians are people of color. In [only 10 percent of census tracts in California](#) do populations of color account for less than 21.6 percent of the census population, whereas 60 percent of Oregon tracts have populations composed of less than 21 percent people of color. The biggest difference is in the Hispanic/Latino population: this demographic accounts for 38.6 percent of California's population and just 12.5 percent of Oregon's. California also has larger Asian (13 percent, compared to 3.7 percent in Oregon) and African-American (6.5 percent, compared to 2 percent in Oregon) populations.

- Most California census tracts are close to or majority people of color: 60 percent of California tracts are 48.8 percent or more people of color, compared to just 3 percent of Oregon's census tracts that are majority people of color. One-third of California tracts have more than 75 percent people of color, compared to just 0.4 percent in Oregon. In the top 25 percent of California census tracts eligible for polluters-pay money because they have the worst cumulative impacts of pollution and social indicators, [84 percent of residents are people of color](#). In the top 25 percent of census tracts in Oregon, identified in this analysis by PM 2.5 pollution, people of color, and poverty, just 37 percent of residents are people of color, while 63 percent are white. A census tract-based test would primarily benefit white residents in Oregon and would probably not primarily benefit immigrants, refugees, and linguistically isolated residents in Oregon, as they are likely also people of color.
- The residential distribution of people of color in California follows a similar pattern to that of pollution and poverty: concentrated along the Central Valley, in Los Angeles, the Inland Empire, and certain parts of the East Bay Area. In Oregon, there is some overlap between pollution and people of color in the Portland and Salem I-5 corridors, and some overlap between people of color and poverty in east Clackamas County and south of Klamath Falls. But overall, the pattern of PM 2.5 pollution, poverty, and people of color is more fragmented in Oregon.

7. Census race and ethnicity categories do not perfectly reflect people of color. For example, [Oregon's Coalition of Communities of Color includes the Slavic community](#), who are white on the census. The Coalition has also found that the [census may undercount people of color](#), particularly Native Americans. However, the same data limitations apply to California, which also uses census data, so while census data may have shortcomings within Oregon, comparisons between Oregon and California are valid.

Putting all three indicators together

Because pollution and social indicators have a multiplicative effect, [researchers have found](#) that multiplying indicators together, instead of just adding or averaging them, can yield an accurate identification of the most disadvantaged populations. The map below uses the decile ranking for each census tract for each of the three indicators described above—PM 2.5 pollution, poverty, and people of color— and multiplies them together to illustrate the census tracts where all three factors exert the greatest force. The brown shows the areas with the highest multiplicative effects of pollution, poverty, and people of color.



A geographical analysis may be more fruitful within the Portland metropolitan area than it is at the statewide level. [Portland State University found \(p.84\)](#) that nearly 84 percent of Portland's African-American population lives within three-quarters of a mile of a known or potentially contaminated site, compared to 68 of the white, non-Hispanic population. The [Oregon Department of Environmental Quality](#) found that, in the Portland metropolitan area, air toxics [disproportionately impact populations of color \(page 8\)](#), though the toxics come from mobile sources and wood fires,

not from point sources. Portland is racially segregated—take a look at this [map of racial patterns in the US](#) and zoom in on Portland. Some of the pattern of racial segregation has [emerged in the past decade](#) because of the [gentrification of inner Portland neighborhoods](#).

However, on a statewide level in Oregon, the three factors overlap less, yielding a diffuse pattern of cumulative impacts. Highways and urban areas create more air pollution in Oregon than do power plants and factories. Most of the pollution and some of the populations of color cluster along the major highway corridors. Rural areas don't have major highways, nor as much pollution, but do have high levels of poverty. Several poor rural areas don't have high concentrations of people of color. At least for these three indicators, many census tracts score high on one or two indicators, but few score high on all three.

The result of directing money to census tracts in Oregon based on a cumulative impacts test could be that truly disadvantaged residents—for example, linguistically isolated, low-wealth immigrants in rural counties—might wrongfully miss out on benefits because their census tract scored too low on the test of disadvantage, while privileged residents—for example, well-off white people in Portland—might get funds meant for disadvantaged residents because their census tract scored high. Sending money just to the census tracts that scored highest on a cumulative impacts test will miss many of them and instead divert funds to many residents who may not be disadvantaged. If climate justice revenue went to the top 25 percent of census tracts identified in this three-indicator analysis, it would benefit census tracts where 402,572 people of color and 688,573 white people live, and where 534,409 low-income people live. But it would bypass census tracts where 470,174 people of color and 880,469 low-income people live.

The statewide pattern of disadvantage is much clearer in California. [CalEnviroScreen 2.0](#) multiplied 12 pollution indicators by 7 population indicators. The most impacted 25 percent of census tracts, mapped below, showed a clear pattern of disadvantage down the Central Valley, through Los Angeles and the Inland Empire. By directing money to these census tracts, California can be confident that it is targeting the parts of the state where many burdens come together and that most residents of these census tracts face multiple disadvantages.



This analysis only uses three indicators

Of course, Sightline's geographical analysis of Oregon is preliminary, relying on only three measures because the data are easy to find. A more thorough analysis might yield different results. In particular, economic indicators that reflect wealth (such as home ownership), not just income, might illuminate different divisions, because [African-American households in American tend to have lower wealth even when they have the same income as white households](#). Adding a pesticide indicator might show more convergence between pollution and poverty in rural areas of Oregon. A more thorough analysis might reveal the kind of geographic alignment among indicators of disadvantage found in California, but preliminary analysis suggests Oregon may need a different strategy for aiding disadvantaged people in the transition to a clean-energy, post-carbon future.

Sightline's suggestions

California's model of disbursing revenue for projects that reduce pollution and provide benefits to disadvantaged communities in the top 25 percent most disadvantaged census tracts would face legal and geographical impediments in Oregon. A census tract-based test that meets constitutional requirements could yield contradictory results in the Beaver State. For example, because many of the top 25 percent of census tracts are located along highway corridors, a legislative requirement that transportation sector revenue must be spent on projects geographically located in the top census tracts could perversely lead to Oregon expanding highways in disadvantaged communities, burdening highly impacted populations with more pollution.

Instead, Oregon might try a homegrown, localized approach to climate justice.

Dedicate transportation revenue to improving streets in Oregon's most vulnerable neighborhoods

If Oregon makes transportation sector polluters pay for their pollution—whether through a cap-and-auction, a carbon tax, or a pollution fee—instead of sending the transportation sector revenue to the Highway Fund, where it could counterproductively increase pollution and further burden polluted communities, Oregon could send transportation sector revenue to cities and counties to spend on equitable local street improvements. Oregon already sends [one-quarter of Highway Fund revenues to counties and 16 percent to cities](#), so the state could use the same administrative pathways to allocate transportation sector polluters-pay revenue to local jurisdictions, but with climate justice strings attached.

Properly targeted street improvements or “complete streets” measures that make streets safe and convenient for all users whether on foot, bike, wheelchair, using transit, or in a car, can contribute to climate and social justice goals. While not a replacement for improving access to transit or electrifying vehicles, by making it safe for people to get around outside of a private car, [complete streets can reduce pollution](#). And making streets safer in historically under served neighborhoods and making them safer for low-income residents and people of color who use transit more than wealthier and white people can reduce race- and income-based transportation disparities.

Making streets safer in historically underserved neighborhoods can reduce racial and income disparities.

Across the United States, [children, the elderly, people of color](#), and those living in [high-poverty communities](#) suffer disproportionately from traffic violence. Disconnected roadway networks, poorly designed and deteriorated streets, inadequate lighting, and limited sidewalks and crosswalks lead to more pedestrian deaths for African-Americans and Latinos, low-income residents, and children and the elderly. The same is true across Oregon: [children, the elderly, and people of color are disproportionately at risk when walking](#). For example, East Portland—an area of Portland where more low-income residents and people of color live—has [more unpaved streets](#), [fewer sidewalks](#), and [more traffic fatalities](#) than other areas of the city. As state and [federal gas taxes fail to keep up with inflation](#), Oregon cities and counties are increasingly [desperate for funds to maintain streets](#) and make them safer.

Oregon could develop oversight requirements and criteria for cities and counties to receive funds. The state could ensure that local jurisdictions invest transportation sector polluters-pay revenue in projects that make it safer and easier to get around without a car, remedy transportation inequity, and benefit historically disadvantaged populations.

Oversight requirements might include a rule that a city or county can only be eligible for funds if it has:

- set up a process for selecting an oversight board consisting entirely of representatives from disproportionately impacted populations in the city, including people of color, low-income people, children, and the elderly;
- given the oversight board the power and authority to direct funds to benefit the most disadvantaged people within the city or county;
- identified or has a plan to identify gaps in the local transportation network, particularly those that disproportionately impact disadvantaged populations;
- identified or has a plan to identify high crash locations, particularly those that disproportionately impact disadvantaged people.

Criteria might include giving preference to a city or county if it has done one or more of the following:

- adopted a transportation equity plan,
- adopted a [complete streets policy](#),⁸
- adopted or committed to follow the [National Association of City Transportation Officials' Urban Street Design Guide](#),
- adopted or committed to follow the [National Association of City Transportation Officials' Urban Bikeway Design Guide](#),
- adopted or committed to follow the [Institute of Transportation Engineers' Context Sensitive Approach](#), or
- committed to spend the funds on [pedestrian safety countermeasures](#).

By requiring the transportation sector polluters-pay money be spent on local roads, Oregon would abide by constitutional restrictions. But Oregon could still promote justice, benefit disadvantaged Oregonians, and give power to groups that are often disproportionately under-represented. By requiring each local jurisdiction to assemble an oversight board representing historically disadvantaged or vulnerable populations—people of color, low-income or low-wealth households, children, and the elderly—the state would put people of color and low-income representatives across the state in the powerful position of overseeing a large sum of important public funds and would ensure transportation sector polluters-pay revenue would benefit disadvantaged communities.

8. [Complete streets](#) ensure a city or county's streets and sidewalks are safe for all users, regardless of age, ability, or mode of transportation. Here is a [slideshow of examples of complete streets](#).

Fight for a climate-sensitive and socially just statewide transportation package

Advocates and legislators don't have to pass a carbon tax or a cap-and-auction bill to achieve the solutions described above. In the 2017 legislative session, legislators will be under intense pressure to pass a statewide transportation package, and environmental and social justice advocates could lock arms and fight for justice and against pollution as part of the package. Increasing the gas tax by 10 cents⁹ would have a similar market effect as a \$10 per ton carbon tax or \$10 per ton auction price. In the short term, advocates and legislators could accomplish similar results to an immediate \$10 transportation sector carbon price by passing a 10-cent gas tax increase with a requirement that a portion of the new revenue go into a protected subaccount within the Highway Fund to be spent on local improvements as described above.¹⁰ Such a victory would also set the stage to ensure that Oregon invests future polluters-pay revenue wisely and equitably.

Environmental and social justice advocates could lock arms and fight for justice and against pollution as part of the package.

9. If Oregon increased the state gas tax by a total of 10 cents per gallon for a total of 40 cents per gallon, it would still charge less than its [two closest neighbors](#). California charges around [50 cents in taxes and cap-and-auction costs](#). Starting in summer 2016, [Washington will charge 49.4 cents](#). Even Idaho and Nevada currently charge more than Oregon does.
10. The transportation package offers many opportunities to put Oregon on a path towards climate justice: Legislators and advocates could require the Oregon Department of Transportation to use the [Mosaic Least Cost Planning tool](#) to prevent boondoggles, and could give cities and regional governments the authority to make progress on climate and social justice. For example, the legislature could give Oregon cities the authority to improve safety by reducing speed limits on city streets and Orphan Highways (such as 82nd and Powell boulevards in Portland), to fund local street projects with local variable vehicle license fees (Oregon is one of [only 20 states](#) with a flat vehicle fee; allowing the fee to vary by fuel efficiency would encourage fuel efficiency and allowing it to vary by vehicle value would make it less regressive), could urge transportation districts such as TriMet and Lane County Transportation District to utilize their [existing taxing authority](#) to fund transit, or could empower regional agencies to create a stable revenue stream to fund transit. For example, the legislature could give Metro the authority to implement a utility fee as a dedicated source of transit funding, as the [City of Corvallis successfully did](#). [People of color in the Metro region are twice as likely to be transit riders](#) as are higher-income and white people, so authorizing Metro to create a dedicated source of funds for transit would benefit people of color and low-income people and [also reduce pollution](#).

Amend the State Constitution

The longer-term fight is to amend the state constitution so that Oregon can use polluters-pay revenue even more productively. Complete streets in disadvantaged neighborhoods are important, but to truly promote transportation equity and fight climate change, Oregon could fund transit service, improve transit access through free passes or free transit (as [Corvallis provides](#)), expand car-sharing, accelerate vehicle electrification, and clean up freight transport. Although several [past attempts to loosen the constitutional restrictions on transportation sector revenue](#) have failed, the time may be ripe for environmental and social justice advocates to join with biking advocates, pedestrian advocates, and maybe even freight and rail advocates to launch a campaign to amend the constitution to allow transportation sector polluters-pay revenue to be spent on creating a clean and equitable transportation system.

Conclusion

Oregon advocates have an opportunity to direct transportation sector polluters-pay revenue, whether from a cap-and-auction program, a carbon tax, or a gas tax that acts as a proxy for a pollution charge, towards constitutionally permissible but beneficial uses. Thinking bigger, and in preparation for a polluters-pay charge designed to stabilize the climate, it may be time for Oregonians to amend the constitution to legalize investing polluters-pay revenue in pollution-busting, equity-enhancing projects such as transit and vehicle electrification.

Acknowledgements

Thanks to Khanh Pham and Joseph Santos-Lyons of Asian Pacific American Network of Oregon (APANO), Tony DeFalco of Verde, Shawn Fleek of OPAL Environmental Justice Oregon, Robin Morris Collins of Willamette University, Maggie Tallmadge of the Coalition for Communities of Color, and Brendon Haggerty of Multnomah County Health Department for reviewing drafts of this report. Thanks to Brendon Haggerty and John Abbotts for helping compile the data. Thanks to Matt Stevenson at CoreGIS for designing the maps. Photo of healing walk by Ben Powless, used with permission.