Snapshots

Wildfire Smoke in the San Francisco-Oakland Metro Area

Wildfires have been increasing in frequency, duration, and intensity, measurably affecting communities. Heavy smoke is denser and more likely to be harmful or disruptive. Wildfire smoke can travel thousands of miles, potentially impacting industrial and commercial centers far from fires.

How is wildfire smoke changing?

A “person-day” (one person being under smoke for one day) describes the potential impact of smoke to a region. The annual average person-days of heavy smoke in the San Francisco–Oakland metro increased 6,455% in 2017–2021, compared to 2011–2015.

The average person in the San Francisco-Oakland metro area went from experiencing about 3 days per year of medium smoke overhead to an average of 13 days per year in the second half of the decade.

Possible economic impact of wildfire smoke

Wildfire smoke is more likely to disrupt and harm frontline workers. The San Francisco-Oakland region, home to 350,000 frontline workers, experienced more than 6 million frontline worker-days of heavy smoke in 2021.

<table>
<thead>
<tr>
<th>Utilities, Warehousing &amp; Transportation</th>
<th>Agriculture, Fishing &amp; Mining</th>
<th>Construction</th>
<th>Manufacturing</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of the industry in frontline jobs</td>
<td>54%</td>
<td>50%</td>
<td>68%</td>
</tr>
<tr>
<td>frontline workers as % of SF-Oakland workforce</td>
<td>5%</td>
<td>&lt;1%</td>
<td>5%</td>
</tr>
<tr>
<td>industry’s economic output (2020)</td>
<td>$5B</td>
<td>$500M</td>
<td>$21B</td>
</tr>
</tbody>
</table>

Prioritizing resilience through the Community Reinvestment Act (CRA)

Communities that experience dramatic increases in disruptive smoke – such as low- and moderate-income and underserved or distressed communities – may be eligible for existing financing programs through the CRA that could help build resilience to smoke-related damages.

33% of the SF-Oakland Metro population is CRA-eligible

Data in this snapshot comes from the SF Fed research brief "Disruptions from Wildfire Smoke: Vulnerabilities in Local Economies and Disadvantaged Communities in the U.S." and from the U.S. Bureau of Economic Analysis. Learn more at https://sffed.us/wildfire-smoke.