

*Still Toxic After All These Years: Air Quality and Environmental Justice in the San Francisco Bay Area*  
By Manuel Pastor, Rachel Morello-Frosch, and James Sadd (February 2007)

**Fact Sheet**

- ❖ The study documents environmental disparity by analyzing air pollution exposures and characterizing related health risks for Bay Area communities. Even after controlling for income, land use and other factors often used to explain disparate patterns, the researchers found that race had an independent effect on estimated pollution burdens. Densely populated communities of color characterized by relatively low wealth and income and a large share of immigrants are most likely to live near large toxic releases and bear the highest health risks due to air toxics in the region.
- ❖ The study analyzes U.S. EPA Toxic Release Inventory (TRI) data for 2003 (self-reported toxic air emissions data from large industrial facilities); U.S. EPA National Air Toxics Assessment (NATA) data from 1999 (latest data set that estimates annual average ambient air toxics exposures from mobile and stationary sources); and 2000 U.S. Census demographic data (including income levels, ethnicity and English language fluency) by census tract for the nine-county Bay Area.
  - TRI data limitations include: data are self-reported estimates, not actual measures of releases; small area toxic emissions sources are not required to report; does not include toxic releases from mobile sources.
  - NATA data is used to estimate cumulative lifetime cancer risk and respiratory hazard associated with ambient air toxics exposure in an area, including diesel (using values from U.S. EPA and CalEPA).
- ❖ Two-thirds of residents who live within one mile of a TRI facility are people of color (including 30% Latino, 20% Asian and Pacific Islander, and 12% African American residents), while nearly two-thirds of residents who live more than 2.5 miles away are white. (See Figure 2.) Even after controlling for such factors as income, home ownership and land use, African Americans and Latinos are significantly more likely to live near a TRI facility. (See Table 2.)
- ❖ Recent immigrants are nearly twice as likely to live within one mile of a TRI facility as they are to live 2.5 miles away from one. (See Table 1.) Language capacity is a factor: households designated by the U.S. Census as “linguistically isolated” are significantly more likely to live within one mile of a TRI facility. (See Table 2.)
- ❖ While the likelihood of living near a TRI facility declines as income rises, there is still a racial disparity at every level of income. (See Figure 3.)
- ❖ While 70% of the estimated cancer risk from ambient air toxics in the Bay Area is related to mobile source emissions, facility-based emissions are still unevenly distributed and can be the main environmental health concern in certain communities.
- ❖ Areas with the highest health risk (of cancer and respiratory hazards) have greater proportions of people of color and immigrants, lower levels of home ownership, higher levels of poverty, a higher percentage of land devoted to commercial, industrial and transportation uses, and are more densely populated. Over 60% of residents with the highest cancer risk and two-thirds of residents with the greatest respiratory hazards are people of color, while about a quarter of such residents are recent immigrants. (See Table 3.) Race is a significant factor for those bearing the highest health hazards. (See Table 4.)
- ❖ The authors call on policymakers to adopt a new approach and develop new strategies to reduce exposures and minimize disparities using specific guiding principles: a cumulative impact approach to regulation, consideration of social vulnerability, meaningful community participation, and meaningful action.