

Environmental Justice

**Chicano/Latino
Youth Conference**

**Sacramento City
School District**

March 25, 2007

**Álvaro Alvarado
Air Resources Board**



Respiratory Risk and School Performance in Los Angeles

Air pollution data from
cars
trucks
factories

LA Unified School District

Academic Performance Index

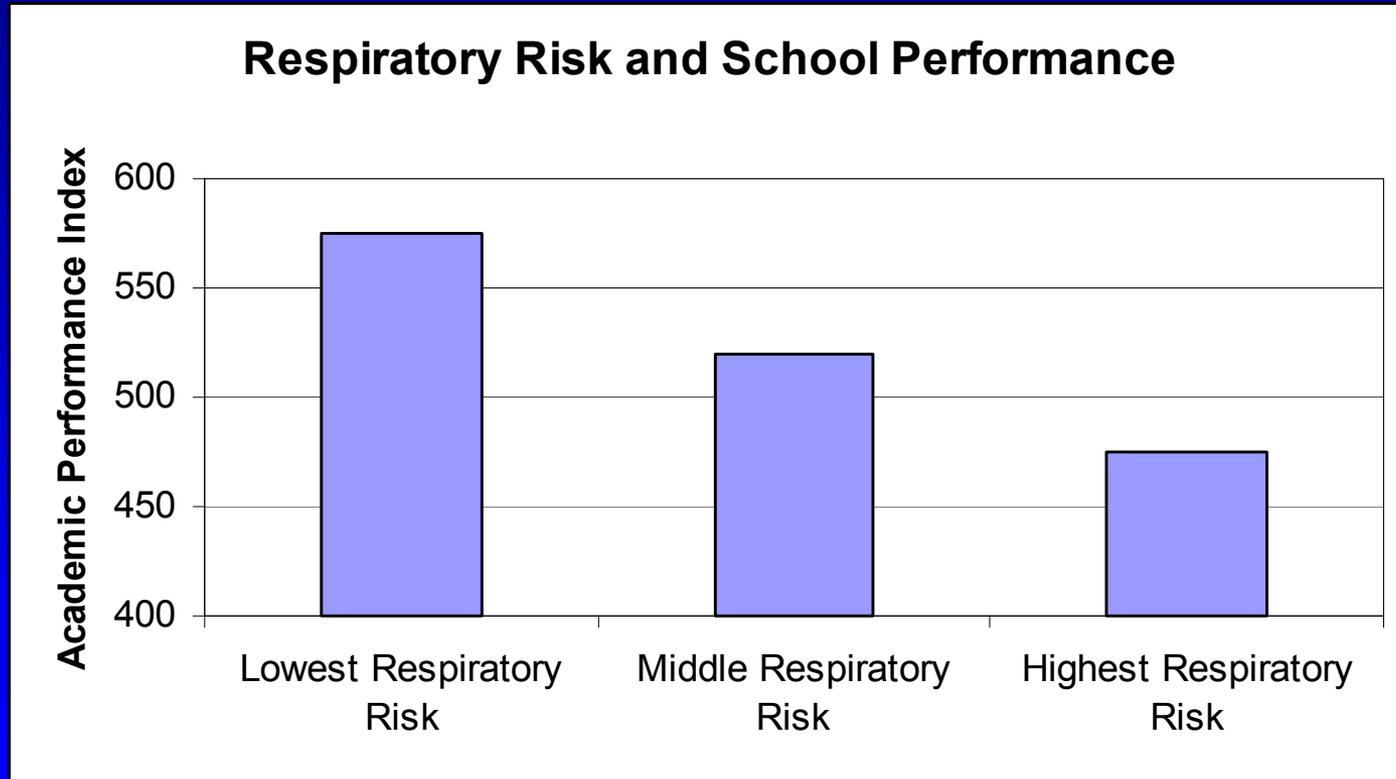


Photo: Green Action



Rachel Morello-Frosch, Manuel Pastor, And James Sadd (2002). Integrating Environmental Justice and the Precautionary Principle in Research and Policy Making: The Case of Ambient Air Toxics Exposures and Health Risks among Schoolchildren in Los Angeles. ANNALS, AAPSS, 584, November 2002
Funded by: CA Wellness Foundation, CA Endowment, and National Science Foundation

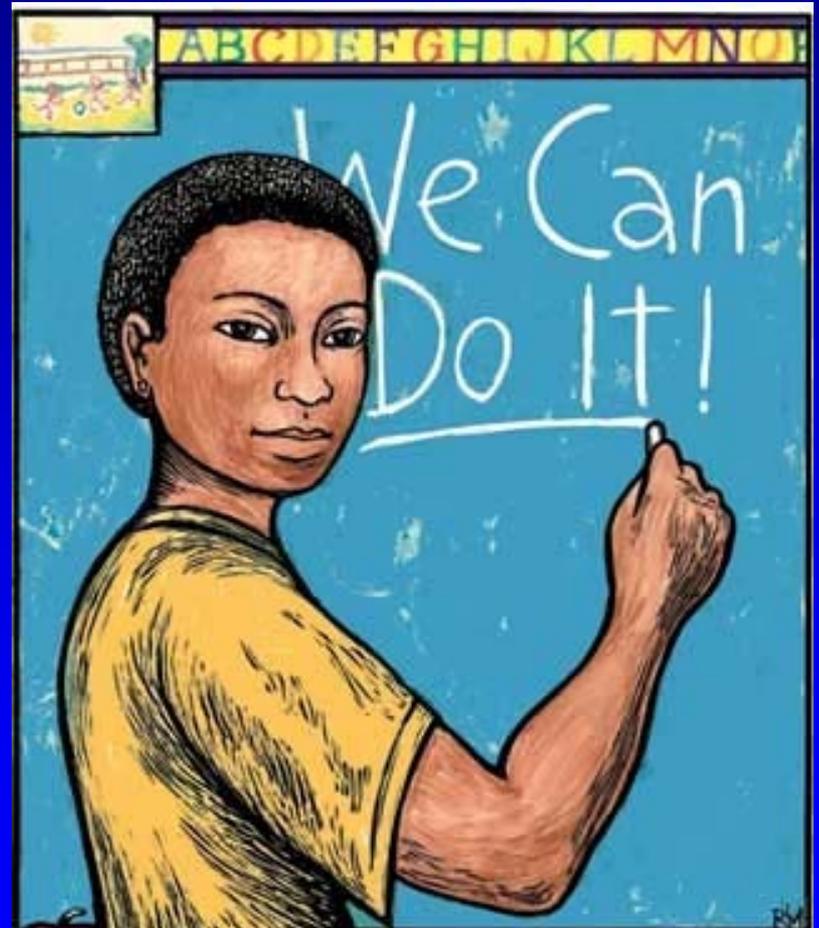
Respiratory Risk and School Performance in Los Angeles



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Respiratory Risk and School Performance in Los Angeles

- Association between respiratory risk and Academic Performance Index (API) score persists after controlling for:
 - % Students receiving free school lunch
 - % Teachers with emergency credentials
 - % English learners
 - % Students new to that school
 - Average class size
 - Parents' educational attainment



Artwork by Ricardo Levins Morales

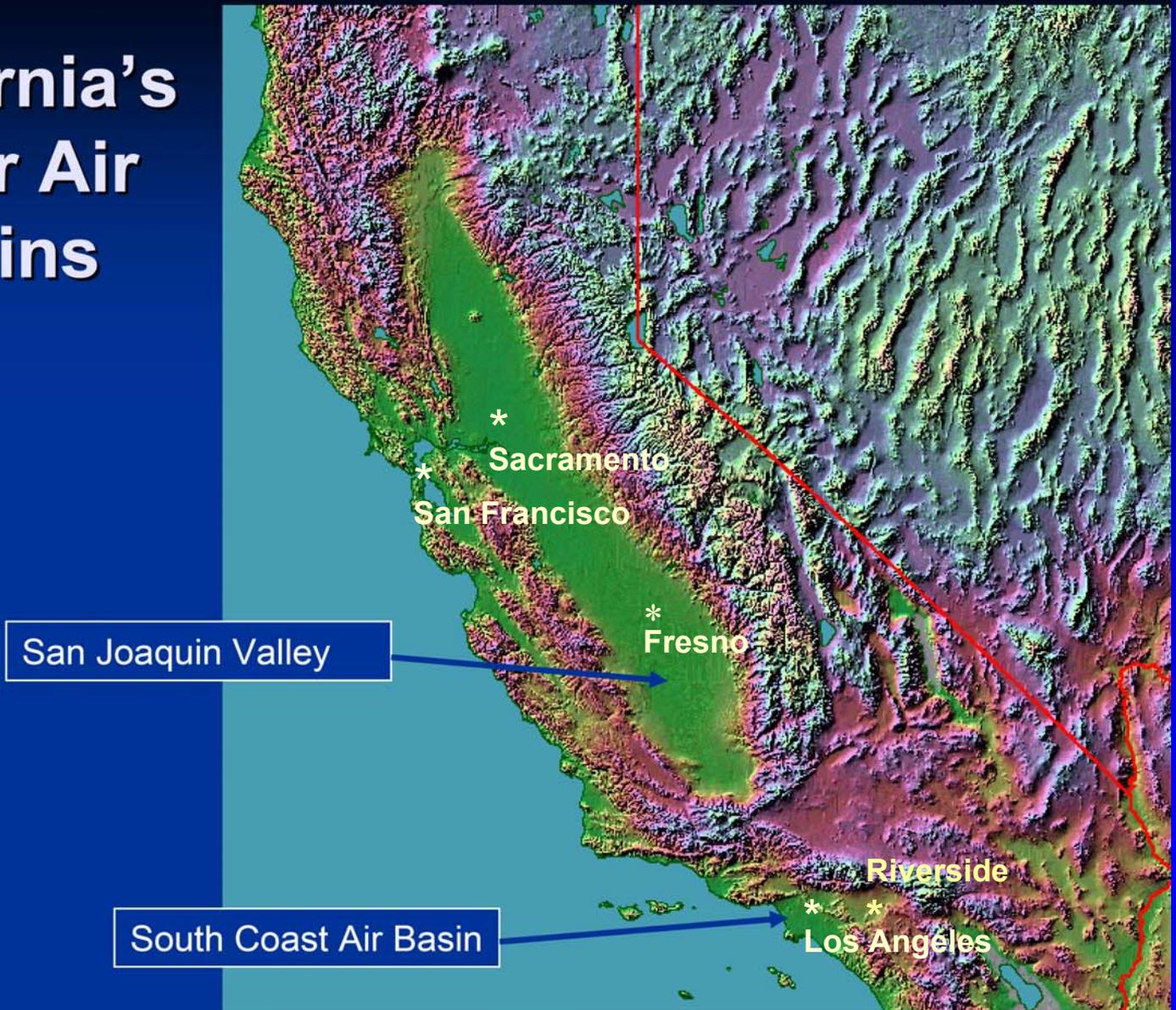
Race/Ethnicity and Proximity to a Toxic Release Facility in California

- Toxic Release Inventory (TRI)
- Demographics:
 - Race/Ethnicity and income

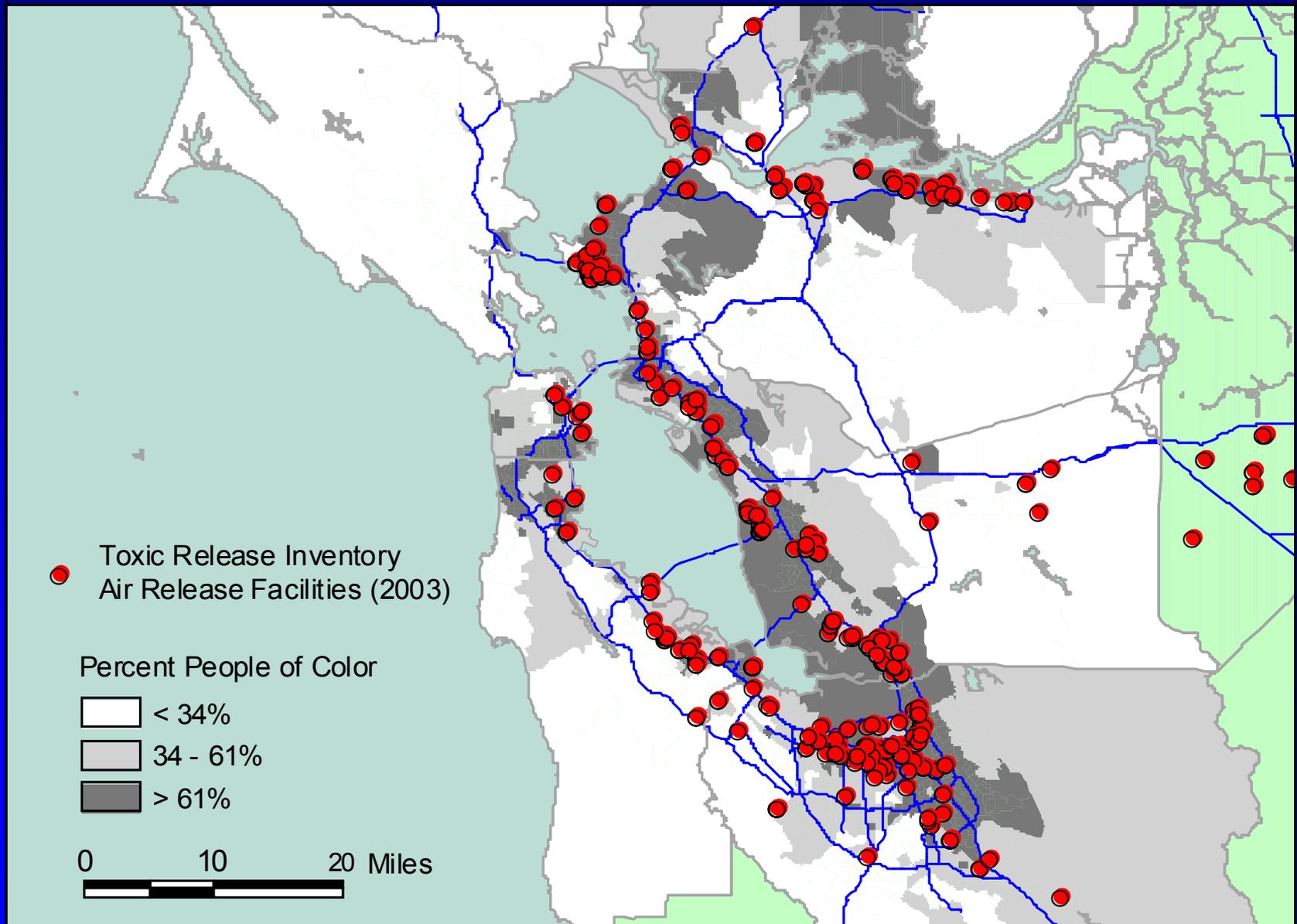


Rachel Morello-Frosch, Manuel Pastor, And James Sadd. Unpublished data, with permission, ARB contract, 'Air Pollution and Environmental Justice' (04-308).

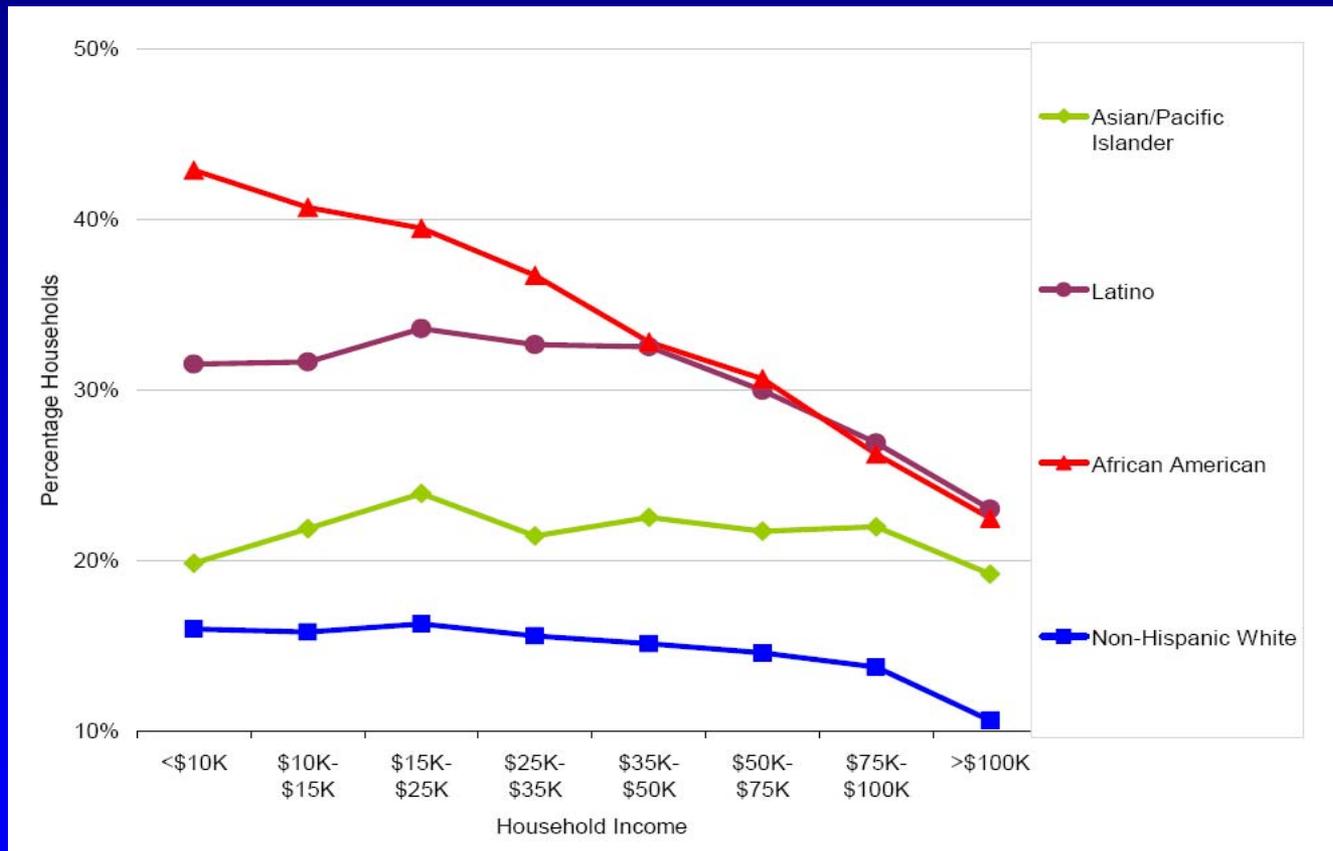
California's Major Air Basins



TRI Facilities Relative and Neighborhood Demographics



Percent Living Near TRI Facility



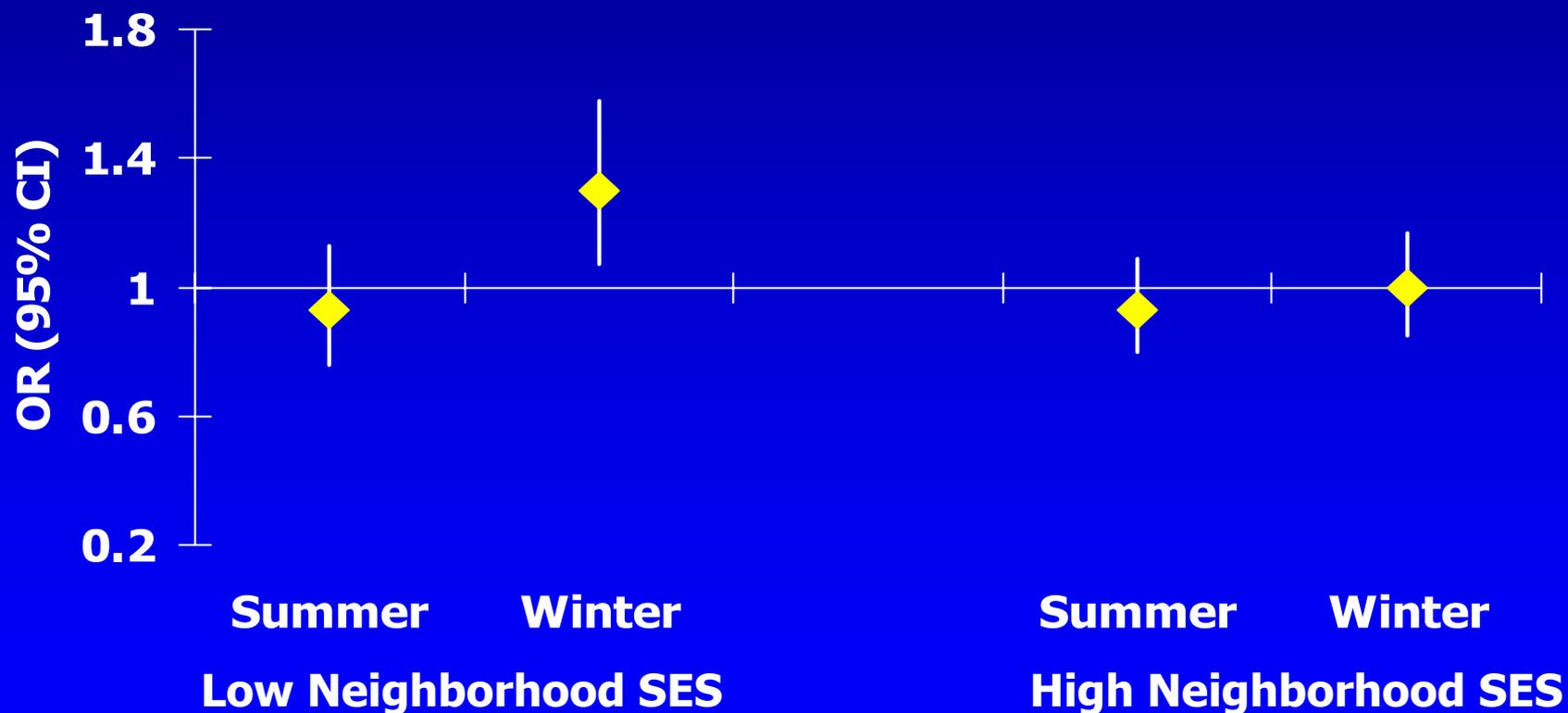
Rachel Morello-Frosch, Manuel Pastor, And James Sadd. Unpublished data, with permission, ARB contract, 'Air Pollution and Environmental Justice' (04-308).

Demographics and Birth Outcomes

- Pre-term Births
- High Traffic
 - Distance Weighted Traffic Density (DWTD)
- 59,700 births in LA County, 1994-1996
- Disadvantaged neighborhoods
 - high unemployment, high public assistance, and low income



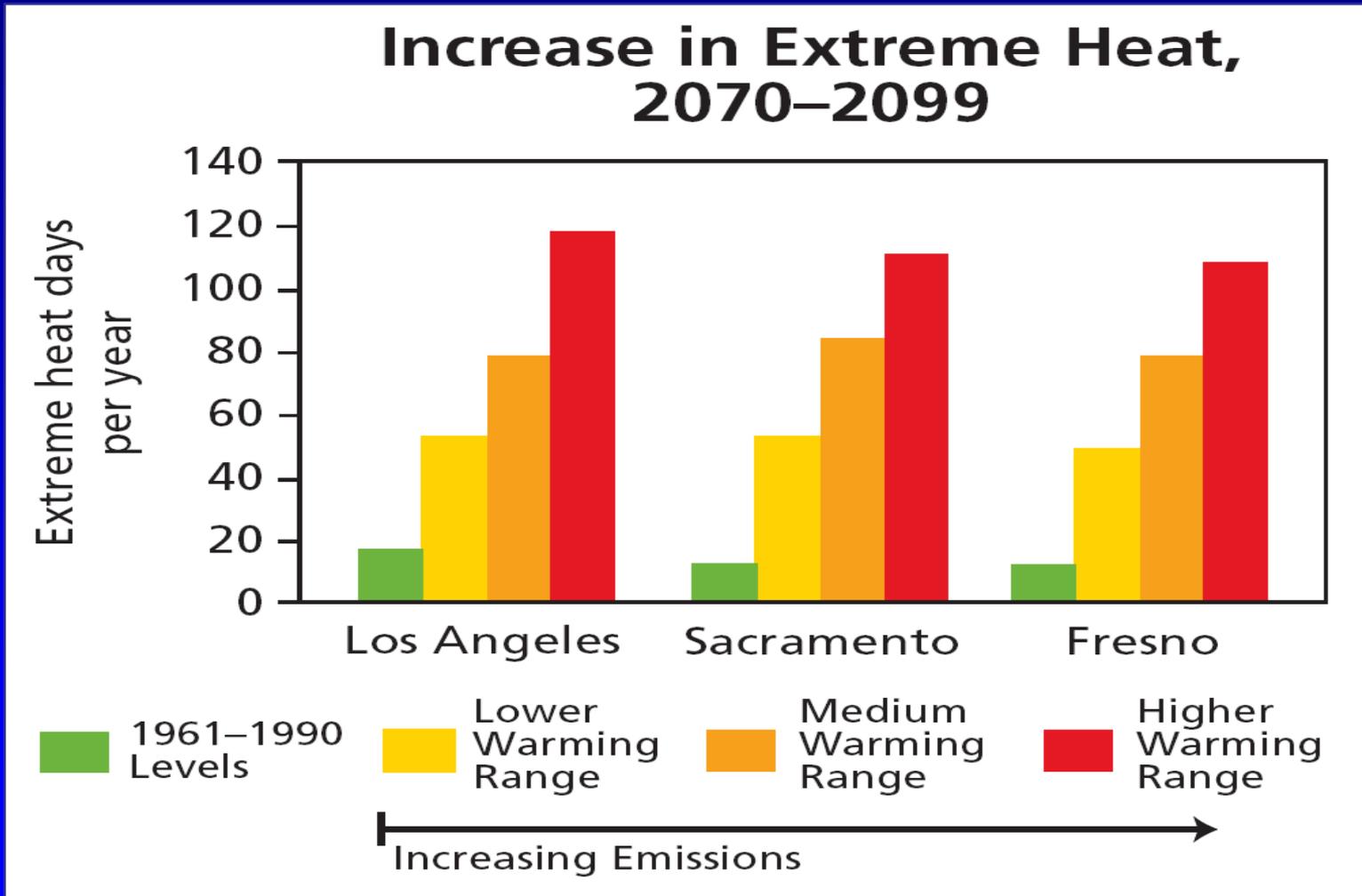
DWTD and preterm delivery Los Angeles 1994-1996



Ponce et al EHP (2005)

Is Climate Change a Latino Issue?

Projected Increase in Extreme Heat Days



Source: Hayhoe et al, 2004

More Heat Waves

In California, Heat Is Blamed for 100 Deaths

By JENNIFER STEINHAUER

Published: July 28, 2006

[Enlarge this Image](#)



Monica Almeida/ The New York Times

Farm workers drink water in the intense afternoon heat while picking bell peppers near Bakersfield, where temperatures soared.

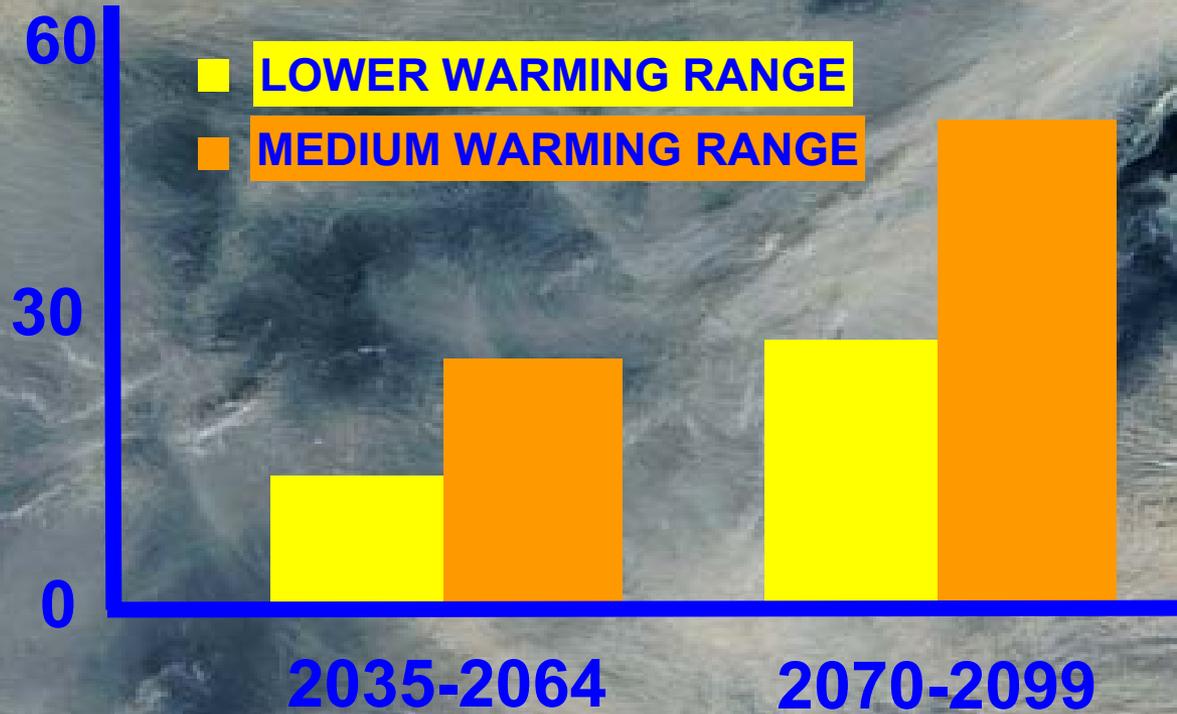
Correction Appended

FRESNO, Calif., July 27 — A searing heat wave nearly two weeks old is responsible for more than 100 deaths across [California](#), the authorities said Thursday. So overwhelmed is the local coroner's office here that it has been forced to double-stack bodies.



Increase in Wildfires

% CHANGE IN EXPECTED MINIMUM
NUMBER OF LARGE FIRES PER YEAR



Source of data : Westerling and Bryant, "Climate change and wildfire in and around California: Fire modeling and loss modeling" (2006), www.climatechange.ca.gov

What you can do



What you can do

- **Calculate your carbon footprint**
- **Carpool**
- **Get better gas mileage**
 - **Every 5mph you drive over 60 is like paying 20 cents more per gallon**
 - **Low tire pressure wastes 2 million gallons of gas each day**

Replace your light bulbs with CFLs

Turn off the lights

- CFLs last 10 times longer than standard bulbs & use 66% less energy
- If every house used only 1 CFL, it would remove the equivalent of 1 million cars from the roads
- Replace 3 of the most-used bulbs in your home and save up to \$60 / yr
- Proper disposal of CFL
 - They contain mercury!
 - See SMUD web page for locations



Talk to others

Many people are not aware of how serious a problem global warming is or what they can do about it

- Talk to your parents
 - A television uses 25% of its energy when it is turned off
 - Seal and insulate ducts, doors and windows
 - The average home causes more pollution than our car
 - Energy Star appliances use up to 40% less energy



Additional Resources

- **ARB's Climate Change page:**
 - www.arb.ca.gov/cc/cc.htm
- **Carbon footprint calculator:**
 - www.coolcalifornia.org/
- **Children's Health, Environmental Justice and Neighborhood Assessment**
 - www.arb.ca.gov/ch/programs/programs.htm

