### To determine the percent contribution of each indicator, we systematically break down each step of CalEnviroScreen’s methodology, tracing how individual indicators contribute to the final score.

### **Step 1: Calculate Subcategory Scores**

### ***CalEnviroScreen Methodology:*** Each census tract receives a **percentile rank** for the 21 indicators, grouped into four subcategories: Exposures, Environmental Effects, Sensitive Populations and Socioeconomic Factors The average **percentile rank** is calculated for each subcategory separately.

#### **How We Calculate Indicator Contribution:** Within each subcategory, we determine how much each indicator contributes by calculating its **percentage of the total subcategory score.** This ensures that the total of all indicators within a subcategory sums to 100%.

### **Step 2. Compute Pollution Burden and Population Characteristics Scores**

***CalEnviroScreen Methodology:*** The **Pollution Burden Score** is computed by averaging the mean Exposures score and the mean Environmental Effects score. However, Environmental Effects is **weighted at half the value of Exposures** before averaging. The **Population Characteristics Score** is computed by averaging the mean Sensitive Populations score and the mean Socioeconomic Factors score, with both subcategories weighted equally.

#### **How We Calculate Indicator Contribution:** Each indicator’s contribution to its broader category **(Pollution Burden or Population Characteristics) is** determined based on its **relative share of its subcategory score.**

* **Pollution Burden Indicators:**
  + Indicators in **Exposures** retain their full contribution.
  + Indicators in **Environmental Effects (EE)** are **weighted by 0.5** before being combined with Exposures.
* **Population Characteristics Indicators:**
  + Indicators in **Sensitive Populations** and **Socioeconomic Factors** contribute equally to Population Characteristics.

### **Step 3. Scale the Category Scores**

***CalEnviroScreen Methodology***: The Pollution Burden and Population Characteristics scores are then **scaled** using statewide maximum values: **Pollution Burden is** divided by **81.9** and then **multiplied by 10. Population Characteristics is** divided by **96.4** and then **multiplied by 10.**

#### **How We Calculate Indicator Contribution:** Each indicator’s contribution to its scaled category score is adjusted using the same scaling factors. This ensures that when Pollution Burden and Population Characteristics are combined, the proportion of each indicator’s influence remains consistent with its weight in the original category.

### **Step 4. Calculate the Final CalEnviroScreen Score**

***CalEnviroScreen Methodology***:

The final CalEnviroScreen score is computed by **multiplying the scaled Pollution Burden Score by the scaled Population Characteristics Score.**

#### **How We Calculate Indicator Contribution:** Each indicator’s **final contribution** to the total CalEnviroScreen score is computed based on its **category-level contribution** and the **interaction between Pollution Burden and Population Characteristics**. Specifically:

* **Pollution Burden indicators** are weighted by the scaled **Population Characteristics Score.**
* **Population Characteristics indicators** are weighted by the scaled **Pollution Burden Score.**