Use of NATA data to Evaluate Area-Specific HAPs of Concern

STEP 1: IDENTIFY AREA-SPECIFIC HAPS USING COUNTY OR TRACT-LEVEL STATISTICS: The specifics on and and an example on how to do this using county statistics is shown below. Instructions on how to do this using tract-level data is in the next section.

County Statistics

The NATA 1999 website provides summaries of county-level average risk and the pollutants. See the section entitled:

County-Level Risk Summaries (Excel spreadsheets)

Choose the following file: County-Level Pollutant-Specific Cancer and Noncancer (Respiratory and Neurological) Risk

Choose the appropriate counties of interest and identify and document HAPs of concern for those counties in the following table, and the corresponding risk or HQ (noncancer) using the values ni the table. Can choose single county in nonattainment area or multiple counties.

Fill out a table for each county identified.

EXAMPLE COUNTY: WAYNE (MICHIGAN)

TYPE OF RISK	Pollutant 1	Pollutant 2	Pollutant 3	Pollutant 4	Pollutant 5
Cancer risk (per million): total=76.1	Benzene 18.8	Coke Oven 14.1	Ethylene dibromide 6.45	1,3 Butadiene 6.07	Acetaldehyde 4.62
Noncancer risk: repiratory (HI)=8.41	Acrolein 7.52	Acetaldehyde 0.233	Formaldehyde 0.207	Chlorine 0.135	Bis_2_ethylhexyl_ phthalate 0.0926
Noncancer risk (neurological) (HI)=0.12	Xylenes 0.03	Manganese Compounds 0.02	Cyanide Compounds 0.02	Toluene 0.01	Etc

Compare to national-level average to see if your county has unique polluants (optional)

TYPE OF RISK	Pollutant 1	Pollutant 2	Pollutant 3	Pollutant 4	Pollutant 5
National avg. Cancer risk (per million): total=47.8	Benzene 10.1	Hydrazine *(over predicted for national) 5.0	Ethylene dibromide 3.99	1,3 Butadiene 3.99	Carbon tetrachloride 3.29
National avg. Noncancer risk: repiratory: 6.43	Acrolein 5.78	Formaldehyde 0.142	Acetaldehyde 0.151	Chlorine 0.0998	Bis_2_ethylhexyl_phthalate 0.09244
National avg. Noncancer risk neurological 0.119					

* spreadsheet with national statistics has error for hydrazine due to closed plant attributing to risk. Actual national average is likely lower, although new estimate not available at this time.[1]

Tract Statistics

You can fill in the same table as shown above by identifying the highest tract level risk in your county. To do this, use the NATA tract-level State summary files (by selecting your state of interest from the website.) These files are in MS ACCESS. Find the hightest census tract in your county by subsetting to your county and then sorting by risk in descending order.

Census Tract-Level State Summary Database (Microsoft Access)

State-specific census tract-level risk files including the contribution of each pollutant to overall risk (cancer, noncancer-respiratory and noncancer-neurological) and the source sector contribution to risk.

Select a State

STEP 2: IDENTIFY SOURCE SECTOR CONTRIBUTIONS FOR KEY HAPS USING COUNTY OR TRACT-LEVEL STATISTICS: Look at source sectors for key pollutants using ASPEN concentrations

Generally, benzene is primarily from mobile sources, but this may not necessarily be true for your specific area, so you can check this by looking at either the county-level or tract-level files for each specific HAP.

County Statistics

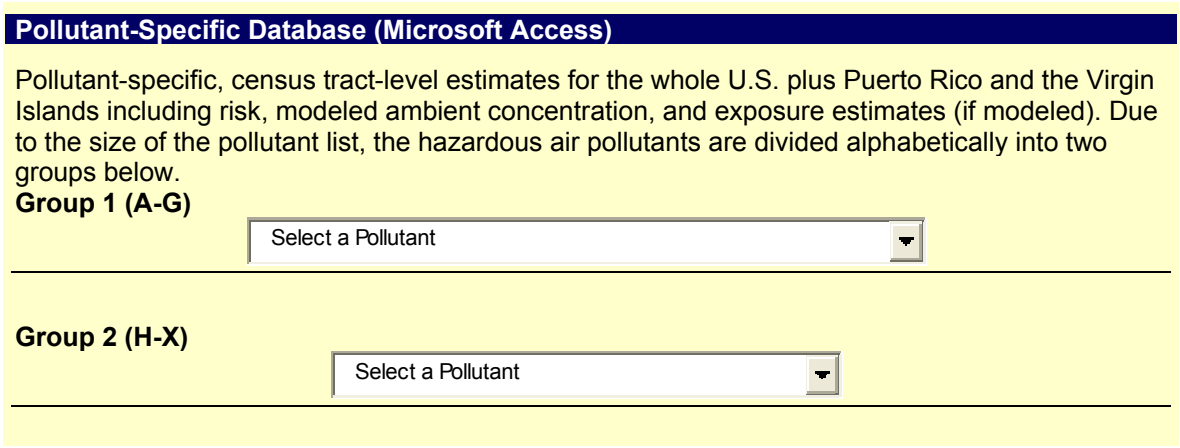
NOTE: The county level average concentration files are not now on the website but they will be.

EXAMPLE COUNTY: WAYNE (MICHIGAN)

	Major (micrograms/m3)	Area&other (micrograms/m3)	Onroad (micrograms/m3)	Nonroad (micrograms/m3)	Background (micrograms/m3)
Pollutant 1: _____					
Pollutant 2: _____					
Pollutant 3: _____					

[*] spreadsheet with national statistics has error for hydrazine due to closed plant attributing to risk. Actual national average is likely lower, although new estimate not available at this time.

Tract Statistics:
Download the HAP-specific file for each pollutant (see screen shot below). For the tracts with the highest risk identified in step 1, find the pollutant concentration from each source sector.



STEP 3: FIND PARTICULAR EMISSION SOURCE SECTORS FOR EACH OF THE KEY POLLUTANTS USING NEI DATA.

If you'd like to have more specific information about a source, use the NEI summary files posted at ftp://ftp.epa.gov/pub/EmisInventory/finalnei99ver3/haps/summaries/.
If the highest source sector is major, then look at the facility summary file and determine major source facilities in your county or surrounding counties.
If the highest source sector is area&other then look at the source category summary.
You may also need to look at the facility and nonpoint summaries depending upon what you find in the source category summary file.