



Analysis of Air Pollution and Poverty Indicators in the United States

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ESRI GIS Health Conference

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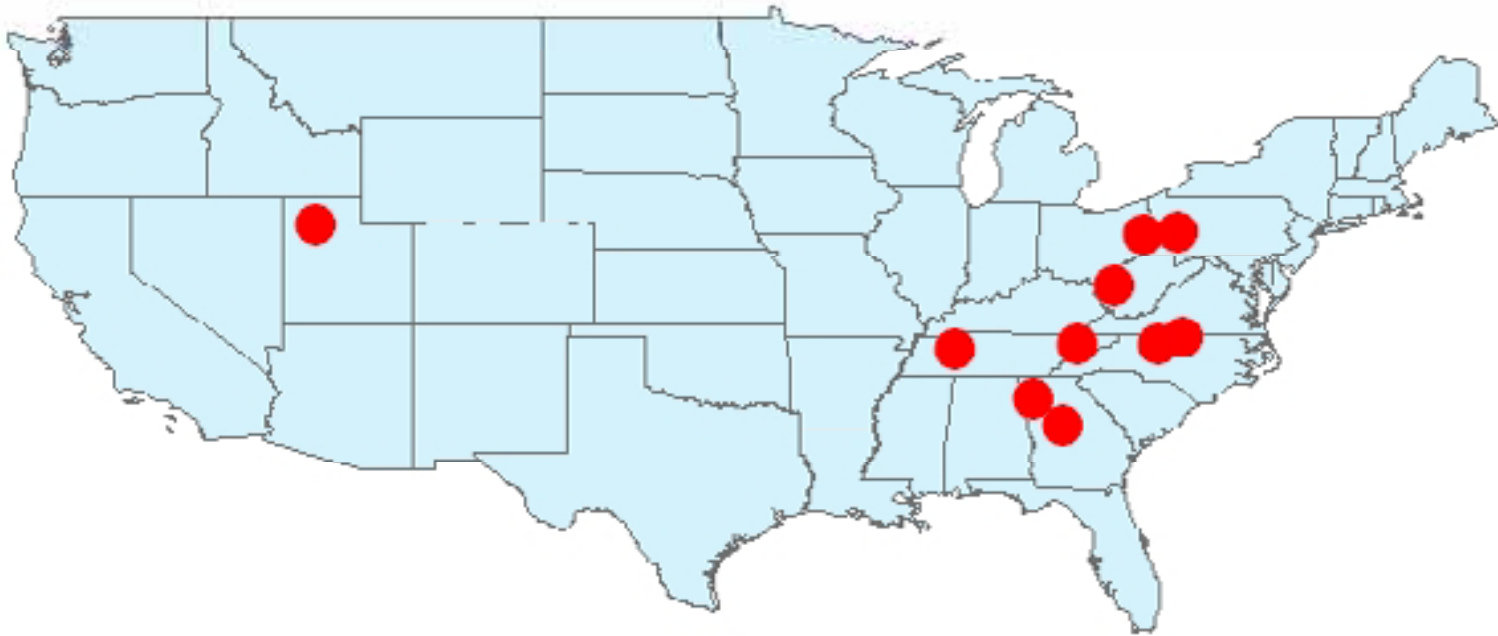
Analysis of Top Polluting Facilities in the United States by TRI.

- TRI (Toxics Release Inventory)
 - List created by EPA
 - Contains 581 individually listed chemicals and 30 chemical categories.
 - A few examples
 - Dioxin, Asbestos, etc
 - **A complete list can be found at**
 - <http://www.epa.gov/tri/chemical/chemical%20lists/RY2006ChemicalList.pdf>

Top Ten Polluters

Rank	State	Name	Pounds of Pollutants
1	GA	GEORGIA POWER BOWEN STEAM ELECTRIC GENERATING PLANT	20,461,933
2	TN	LENZING FIBERS CORP	18,130,261
3	WV	AMERICAN ELECTRIC POWER AMOS PLANT	17,761,852
4	PA	RELIANT ENERGY KEYSTONE POWER PLANT	16,202,800
5	TN	U.S. TVA JOHNSONVILLE FOSSIL PLANT	16,146,541
6	GA	GEORGIA POWER SCHERER STEAM ELECTRIC GENERATING PLANT	15,222,163
7	UT	US MAGNESIUM L.L.C	14,764,000
8	NC	DUKE ENERGY BELEWS CREEK STEAM STATION	13,706,861
9	OH	W. H. SAMMIS PLANT	13,140,593
10	NC	CP&L ROXBORO STEAM ELECTRIC PLANT	12,165,091

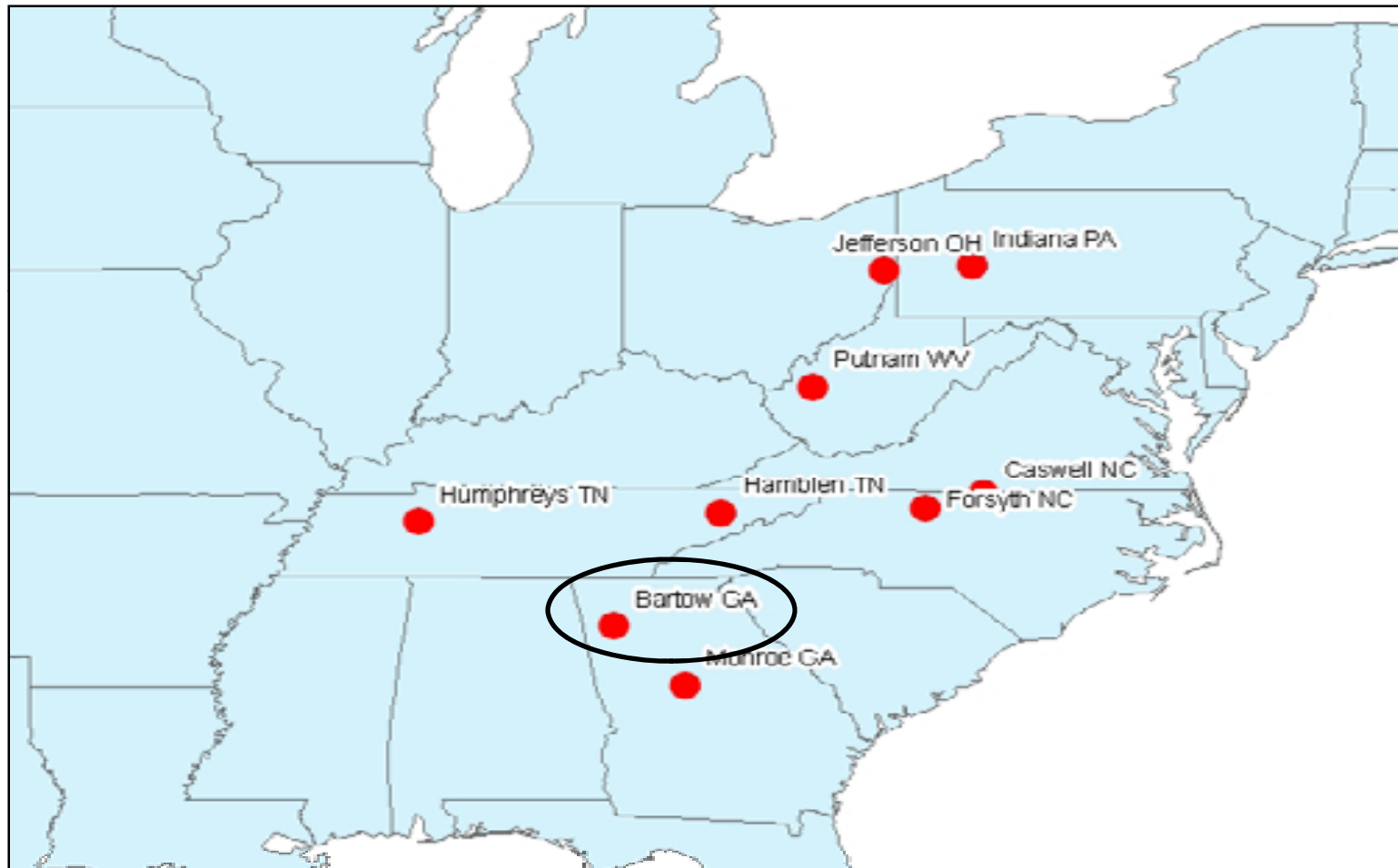
Where are the facilities located?



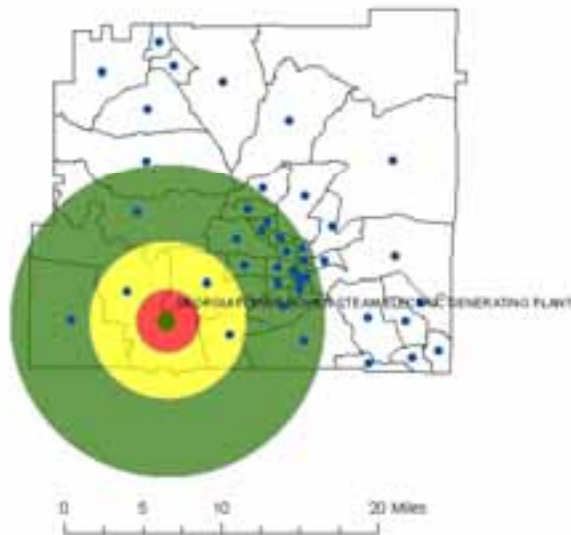
County-by-County Analysis

- Proximity Buffer
 - 2 Miles, 5 Miles, 10 Miles
- Block Centroids
 - Representing population in each census block group
- 2000 U.S. Census Data
 - What percentage of the citizens are living below the 1999 poverty levels?
 - Defined by Census Block Group

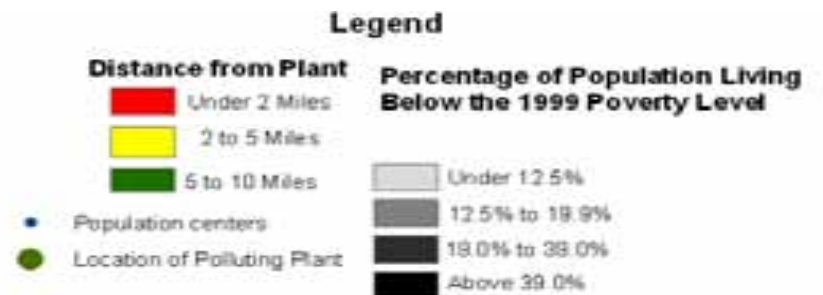
Top Polluter 1: Bartow, GA



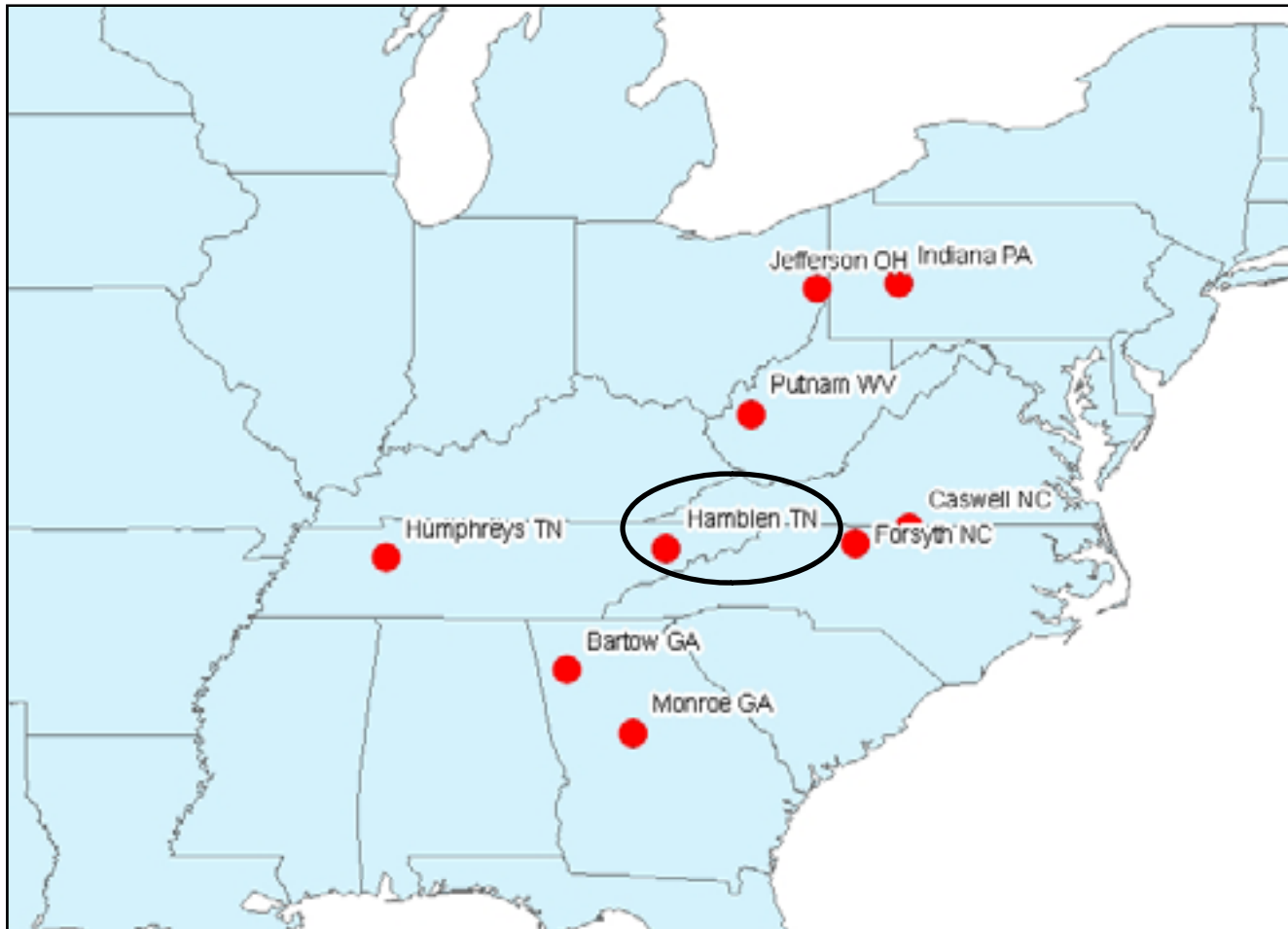
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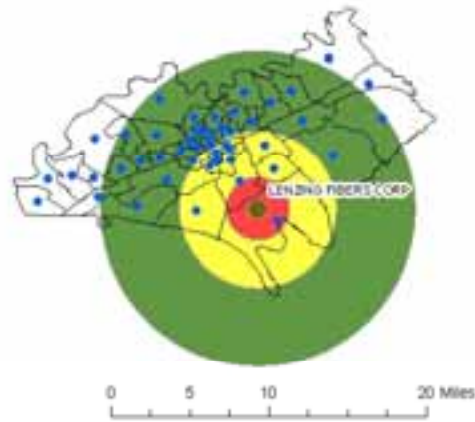
Population Living in Proximity to Plant			
	2 Miles of Plant	5 Miles	10 Miles
Total Population	0	8939	28542
Below 1999 Poverty Line	0	458	2639



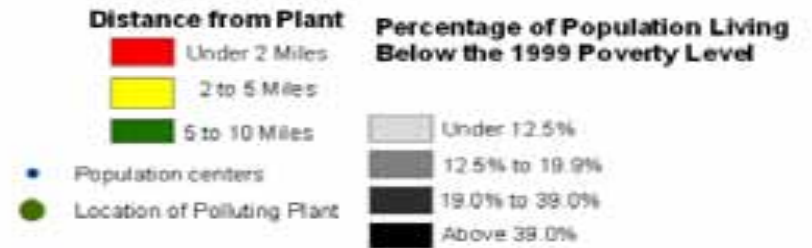
Top Polluter 2: Hamblen, TN



Hamblen, TN

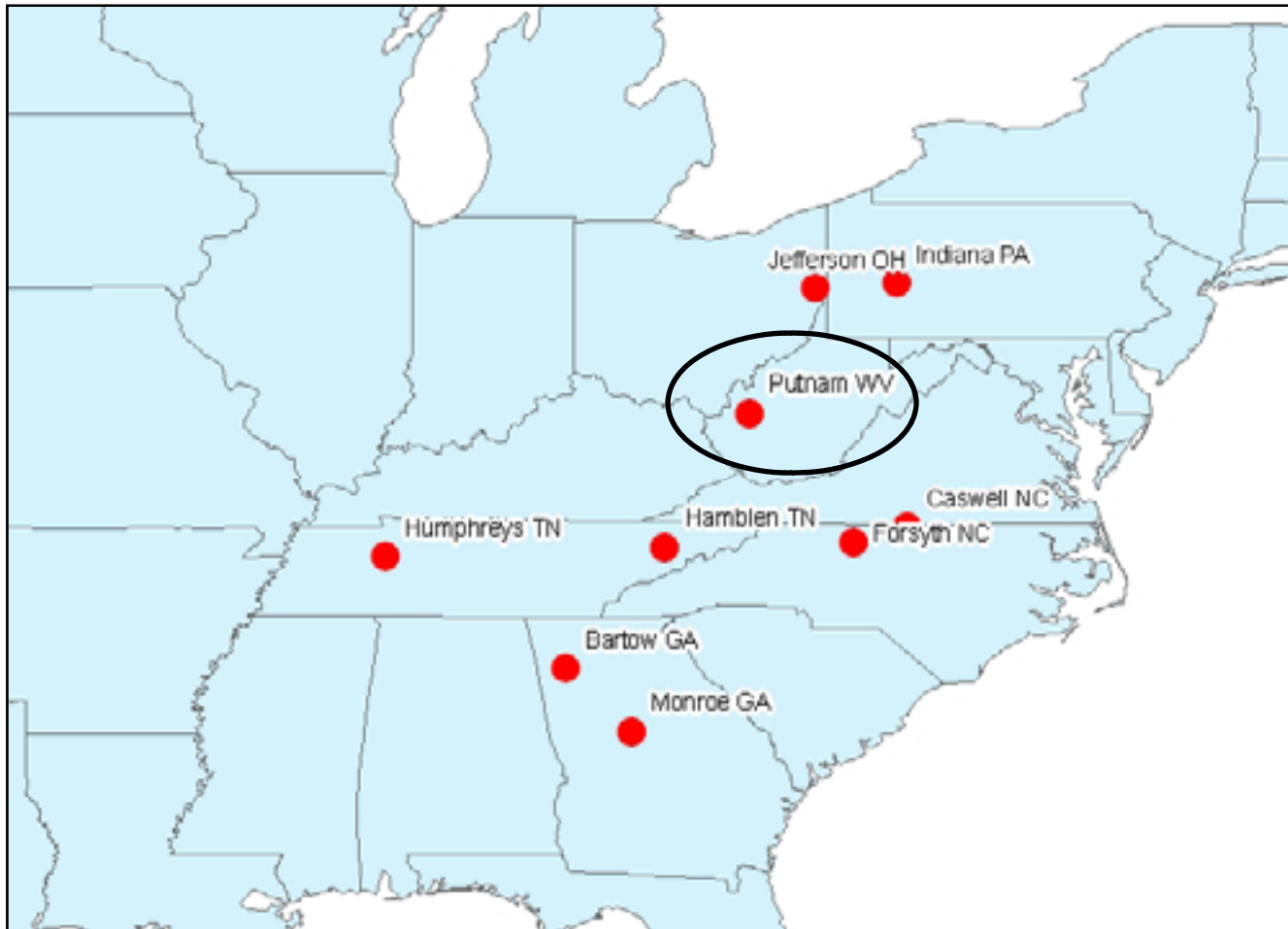


Legend



Population Living in Proximity to Plant			
	2 Miles of Plant	5 Miles	10 Miles
Total Population	1478	10,778	34,982
Below 1999 Poverty Line	281	2037	5295

Top Polluter 3: Putnam, WV

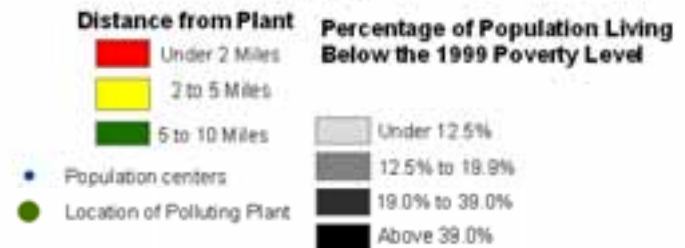


Top Polluter 3: Putnam, WV

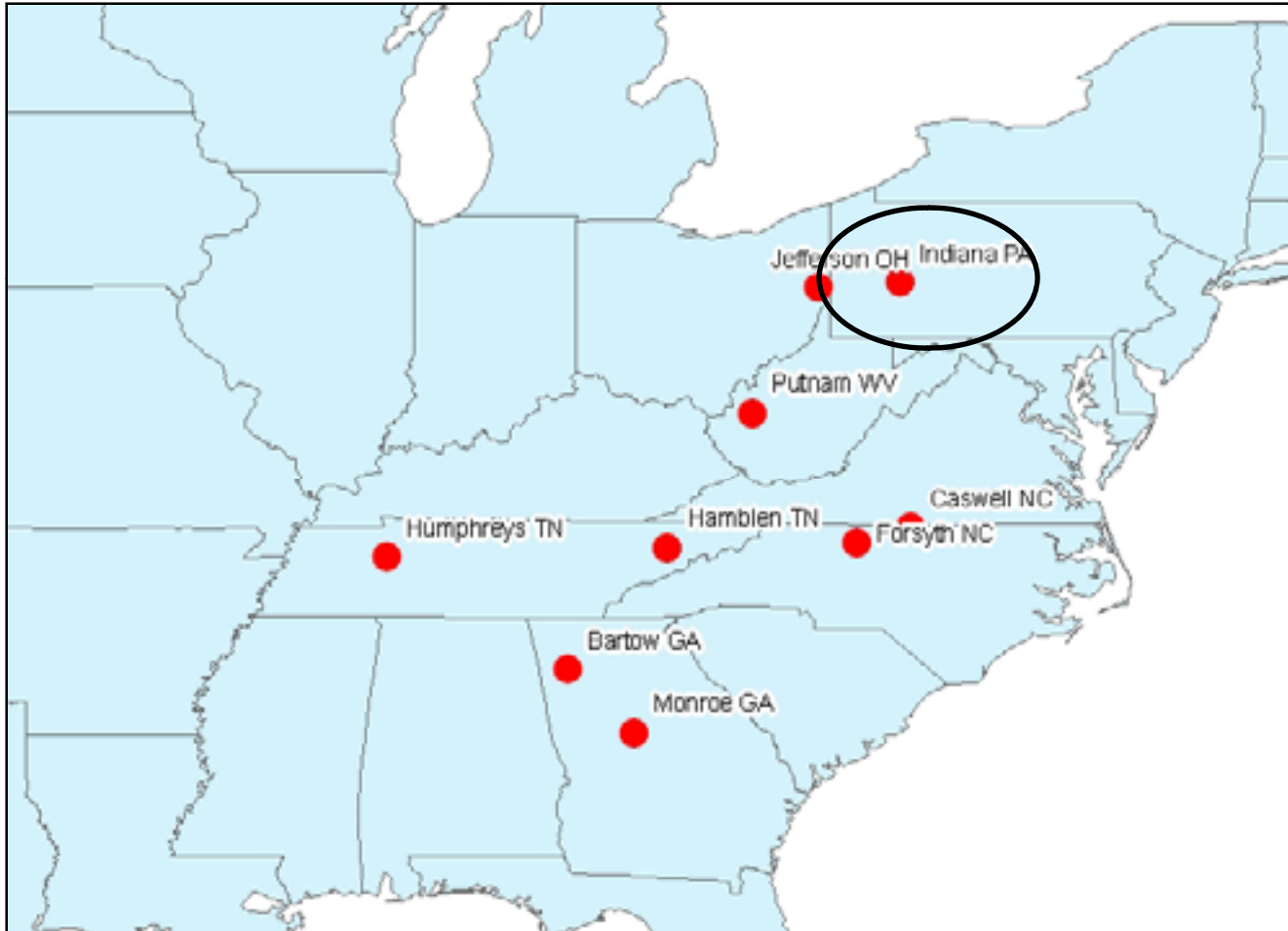


Population Living in Proximity to Plant			
	2 Miles of Plant	5 Miles	10 Miles
Total Population	1593	10,346	
Below 1999 Poverty Line	65	1048	

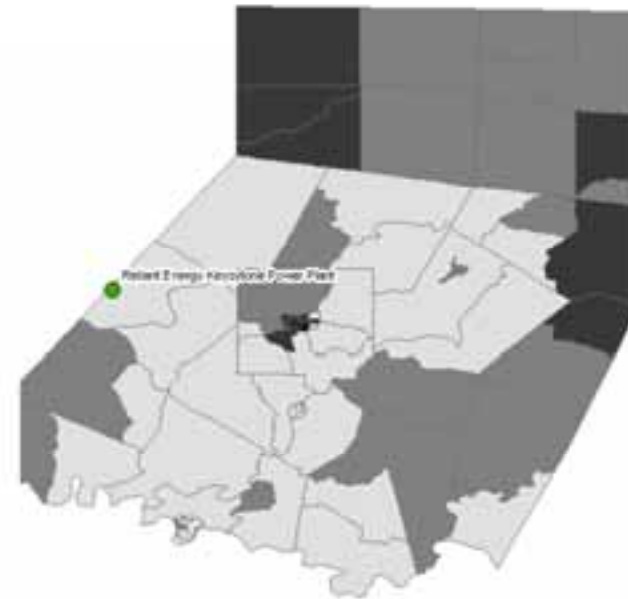
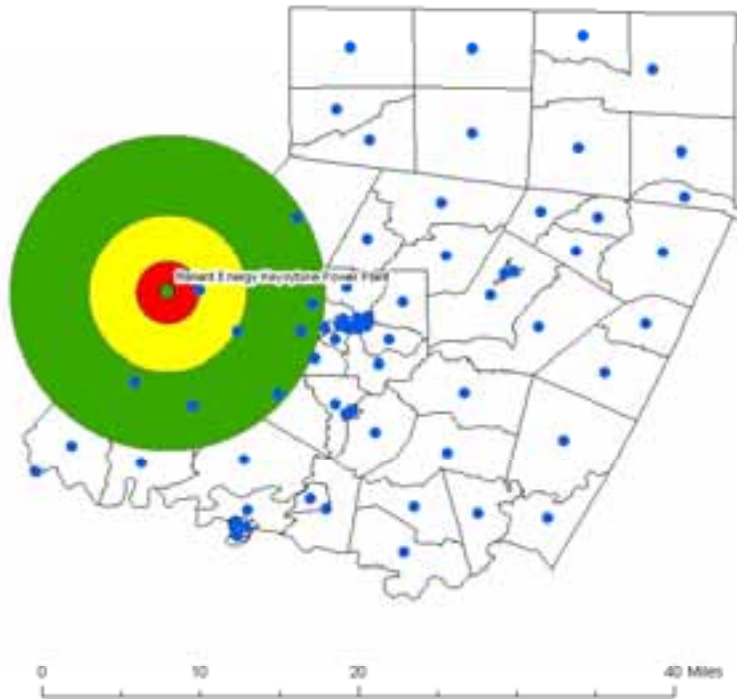
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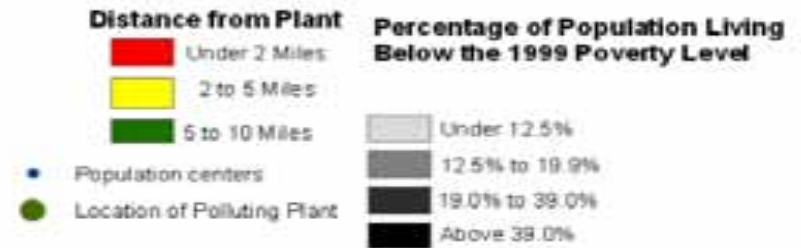
Top Polluter 4: Indiana, PA



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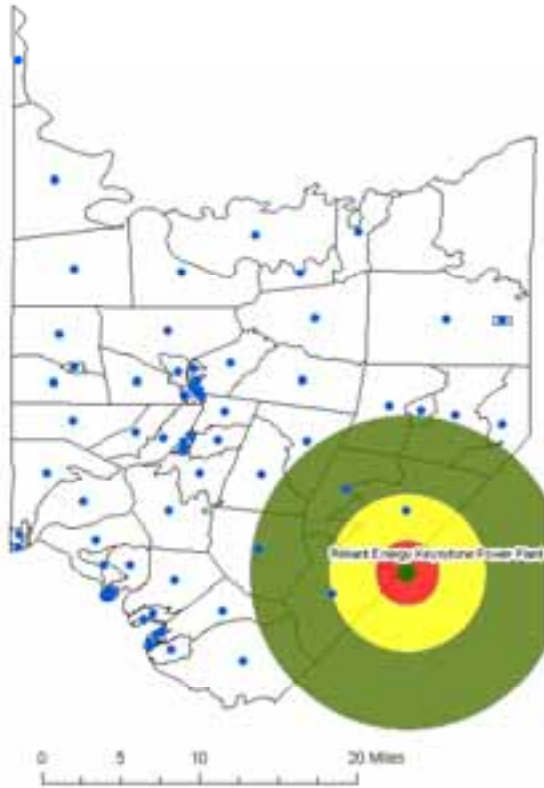


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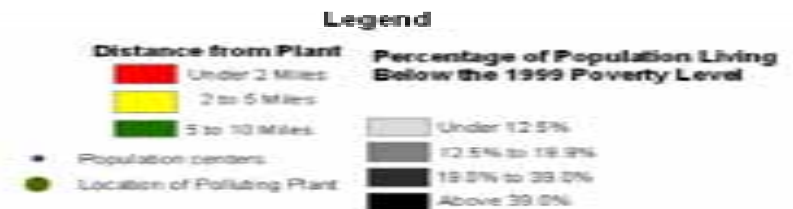


Population Living in Proximity to Plant			
	2 Miles of Plant	5 Miles	10 Miles
Total Population	0	1584	9834
Below 1999 Poverty Line	0	149	972

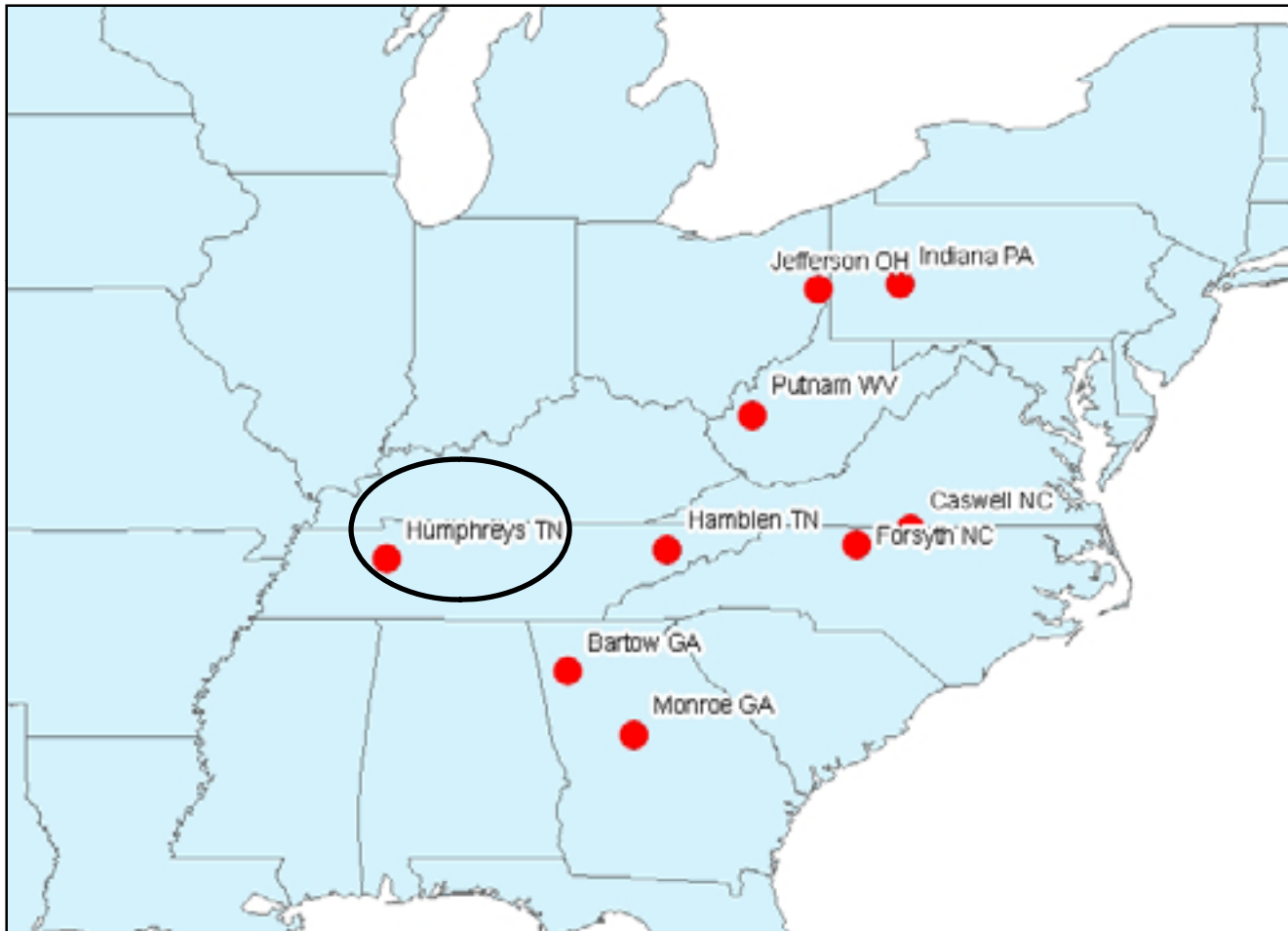
Top Polluter 4: Armstrong, PA



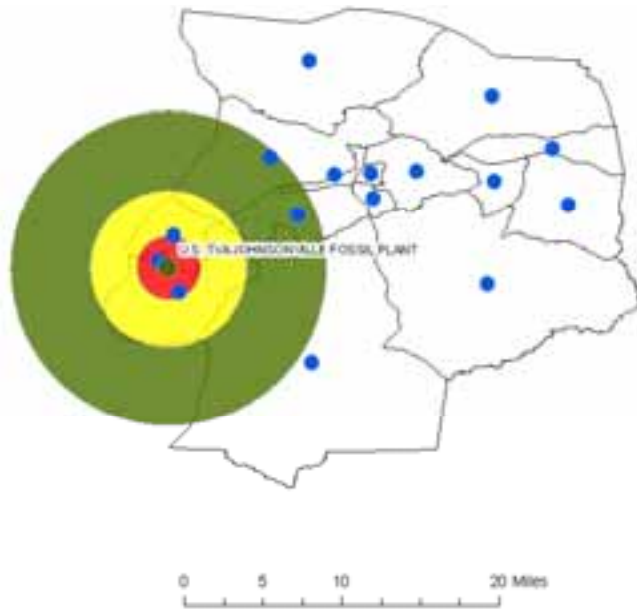
Population Living in Proximity to Plant			
	2 Miles of Plant	5 Miles	10 Miles
Total Population	0	1073	3053
Below 1999 Poverty Line	0	246	411



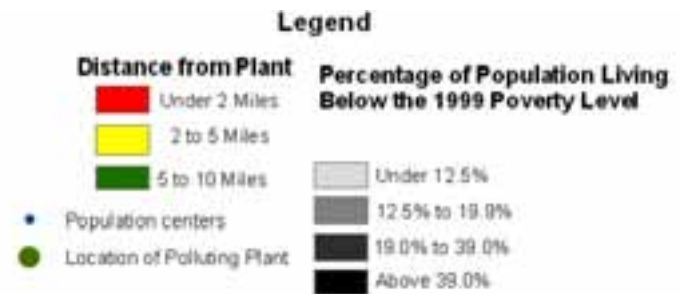
Top Polluter 5: Humphreys, TN



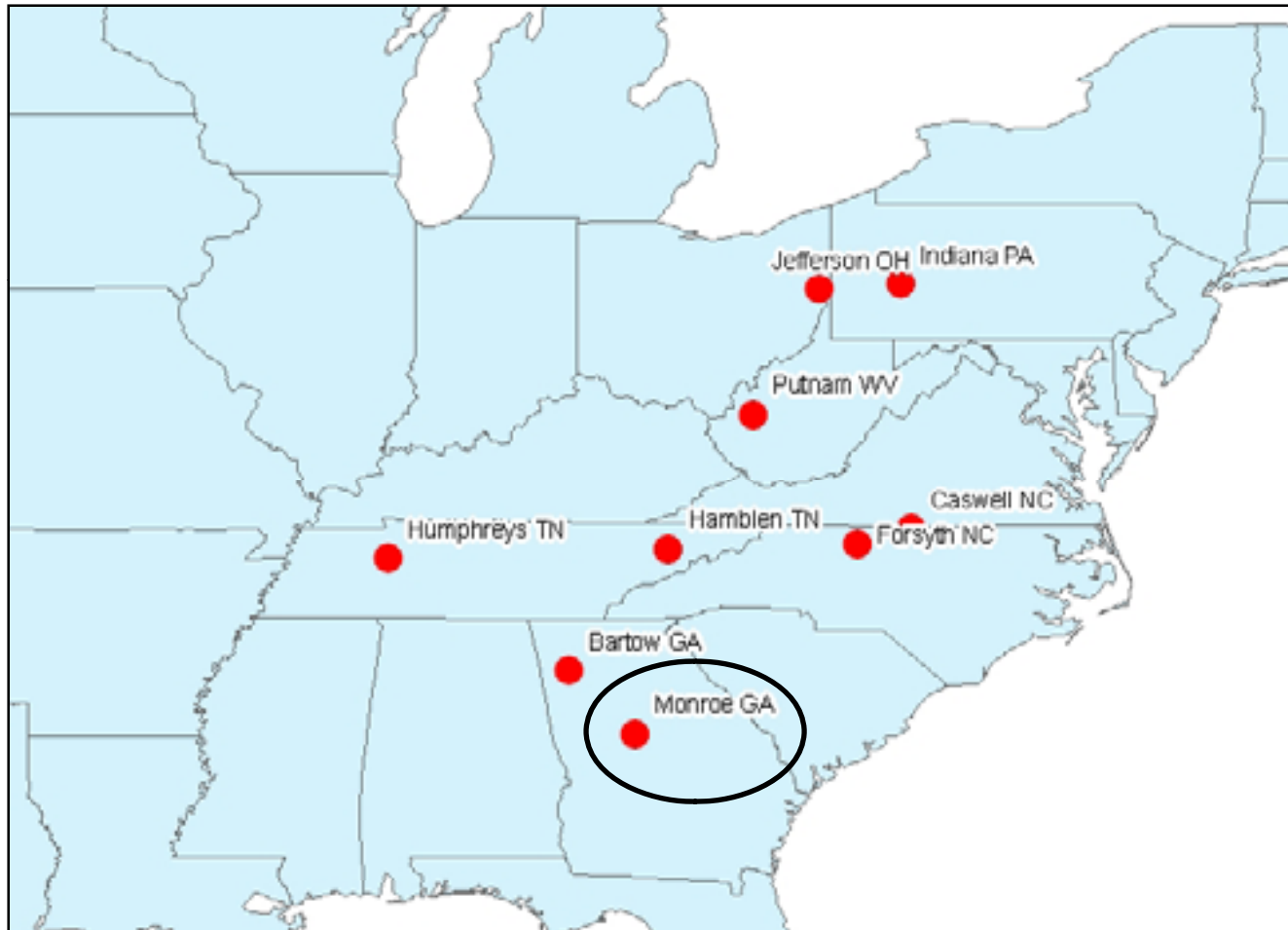
Top Polluter 5: Humphrey, TN



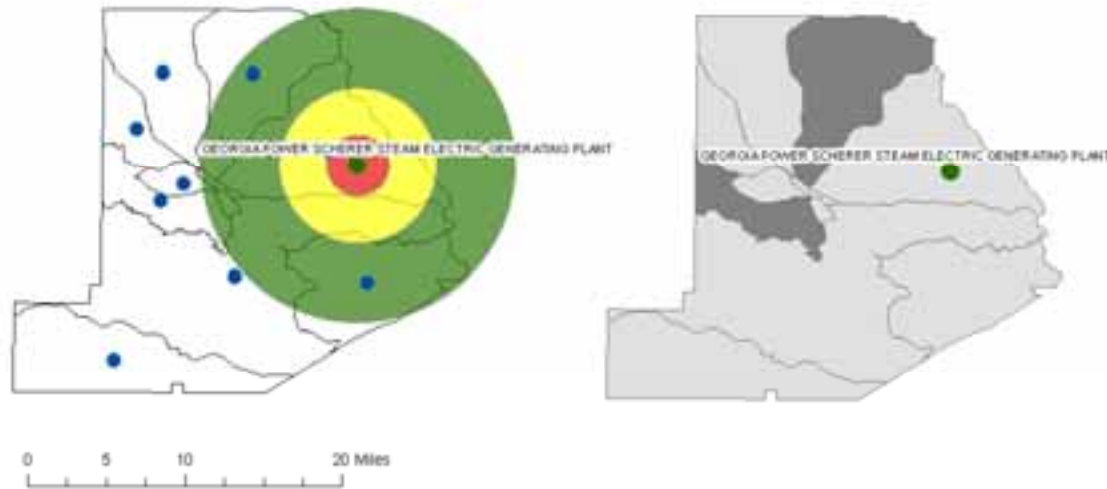
Population Living in Proximity to Plant			
	2 Miles of Plant	5 Miles	10 Miles
Total Population	5185	643	2169
Below 1999 Poverty Line	516	78	256



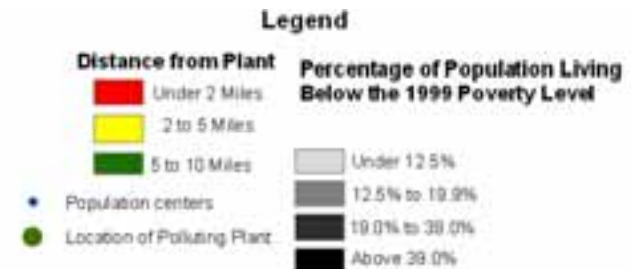
Top Polluter 6: Monroe, GA



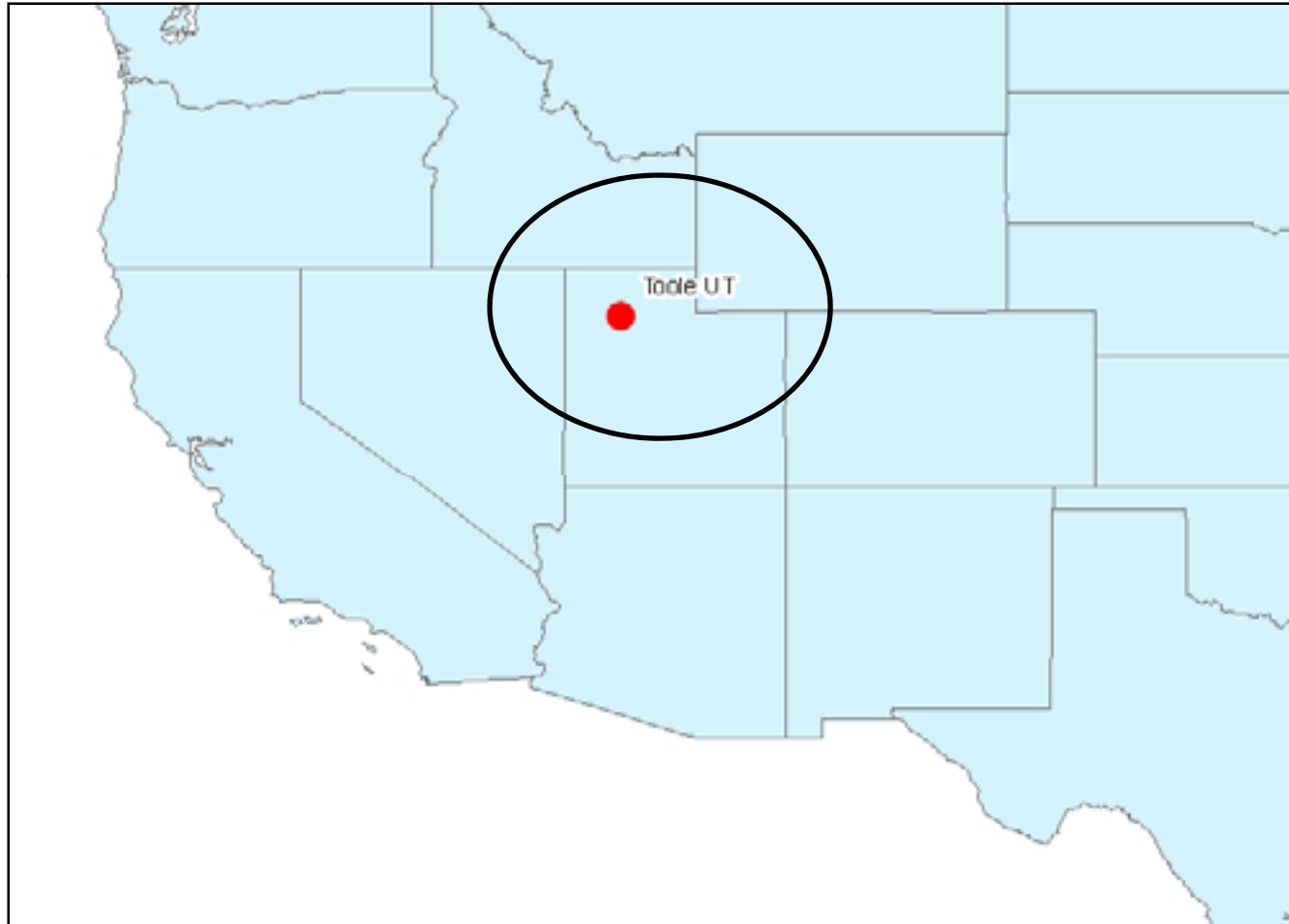
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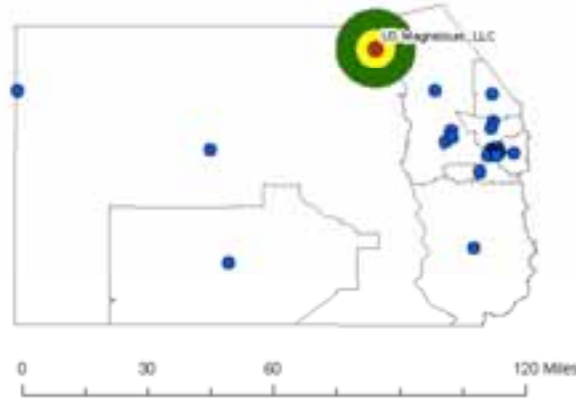
Population Living in Proximity to Plant			
	2 Miles of Plant	5 Miles	10 Miles
Total Population	0	0	6853
Below 1999 Poverty Line	0	0	413



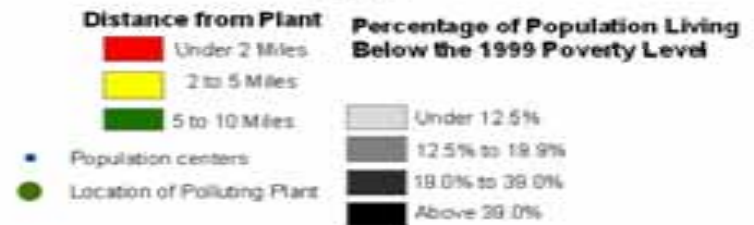
Top Polluter 7: Toole, UT



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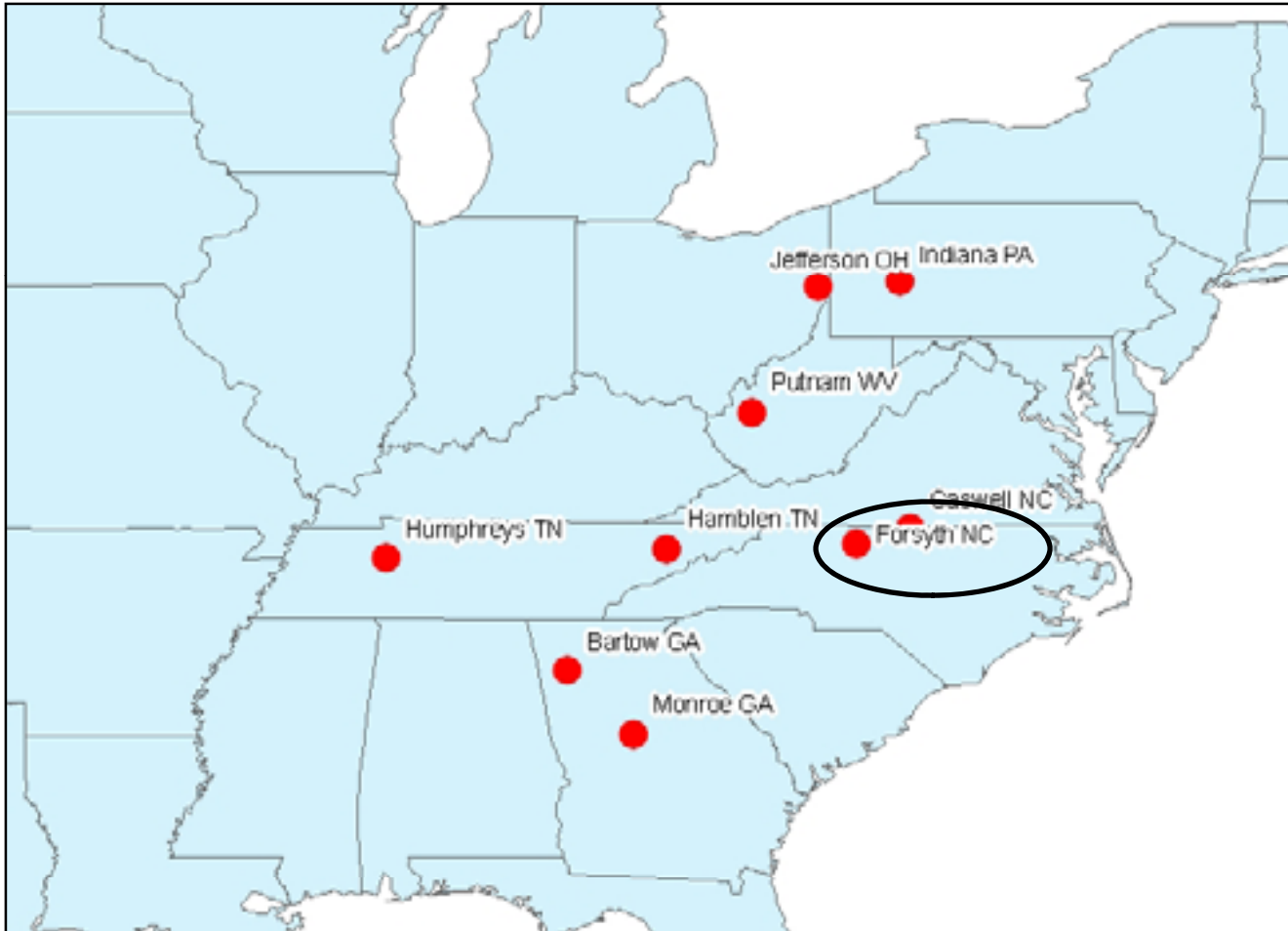


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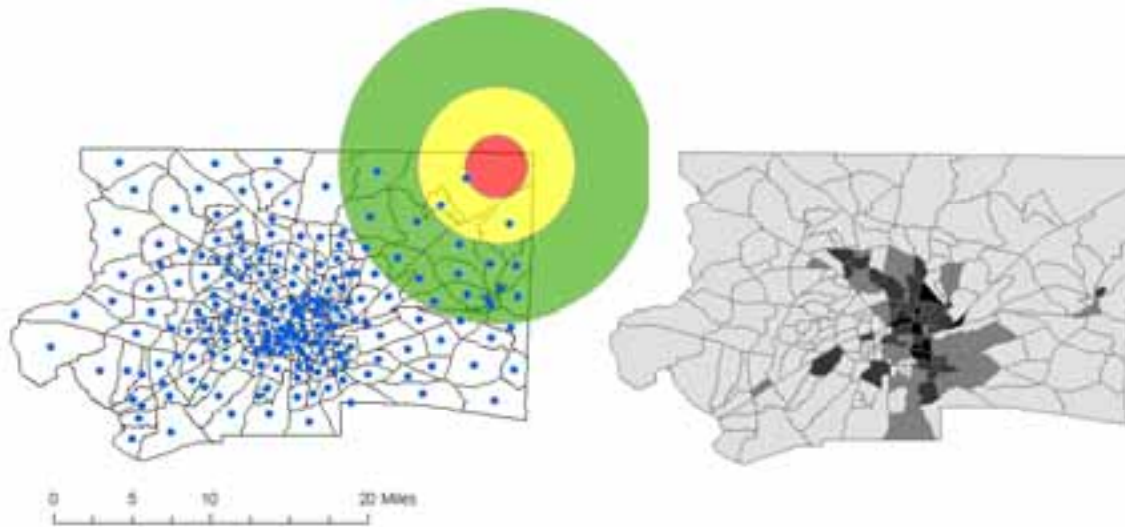


<i>Population Living in Proximity to Plant</i>			
	<i>2 Miles of Plant</i>	<i>5 Miles</i>	<i>10 Miles</i>
<i>Total Population</i>	0	0	0
<i>Below 1999 Poverty Line</i>	0	0	0

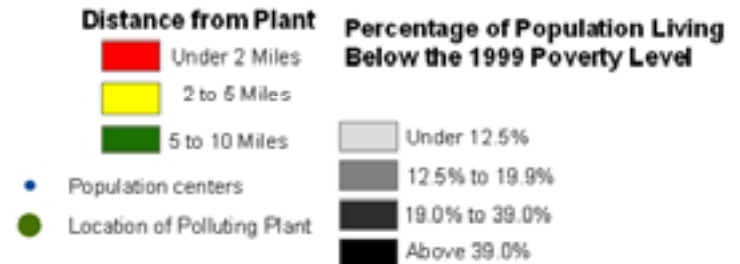
Top Polluter 8: Forsyth, NC



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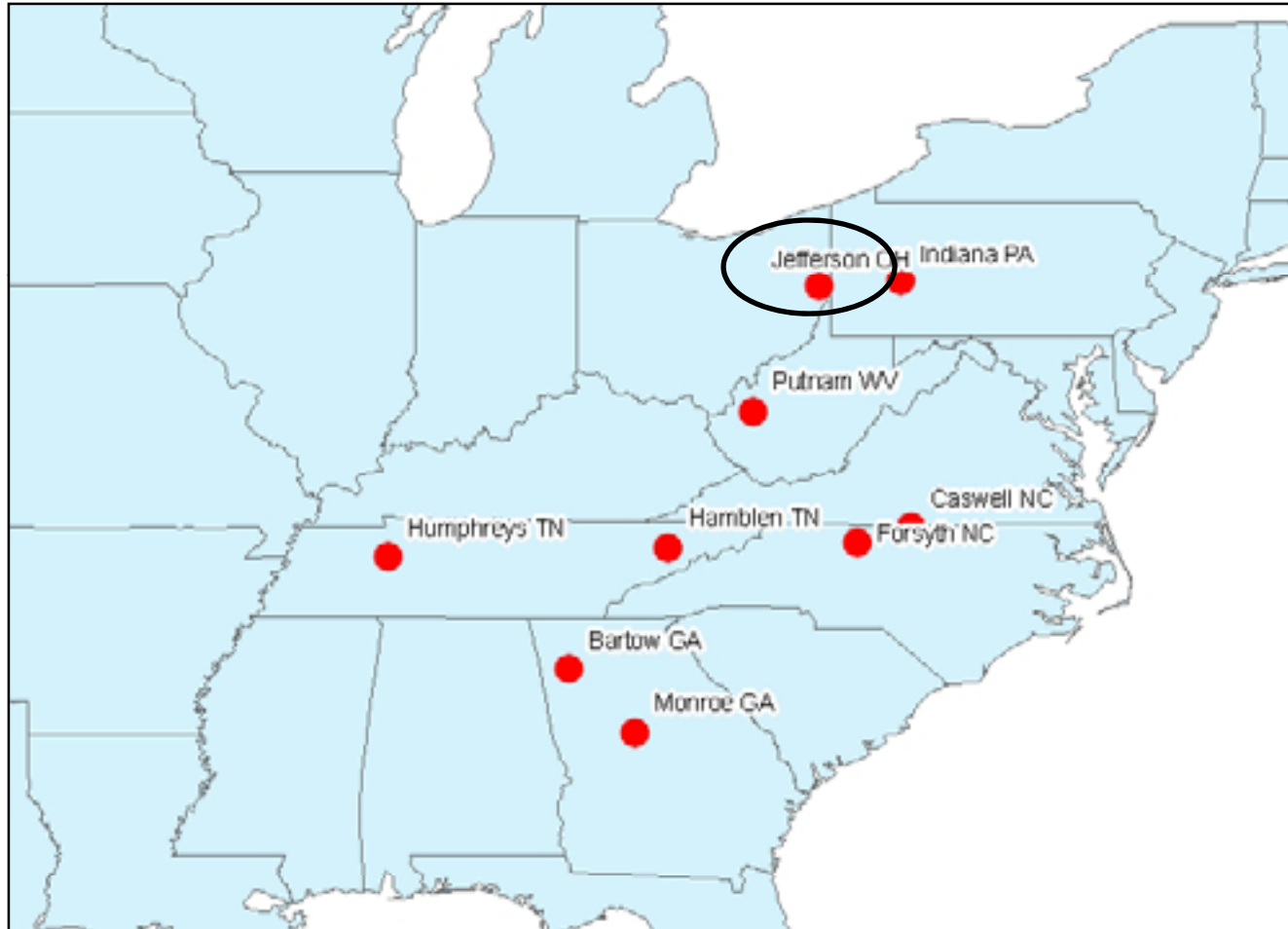


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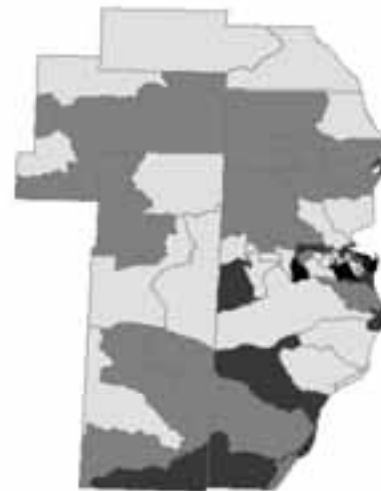
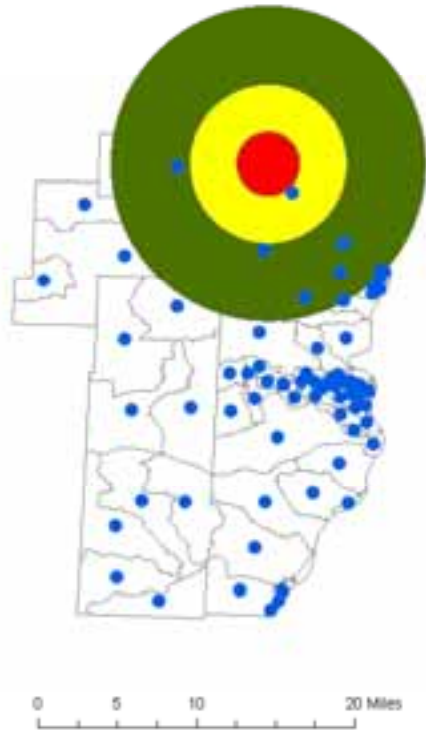


Population Living in Proximity to Plant			
	2 Miles of Plant	5 Miles	10 Miles
Total Population	0	2140	30,937
Below 1999 Poverty Line	0	231	1,713

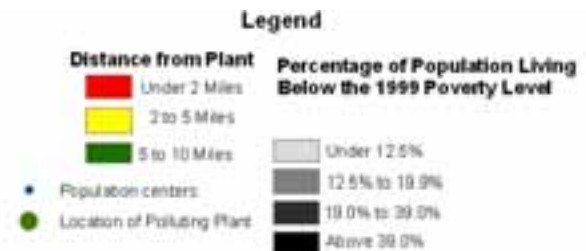
Top Polluter 9: Jefferson, OH



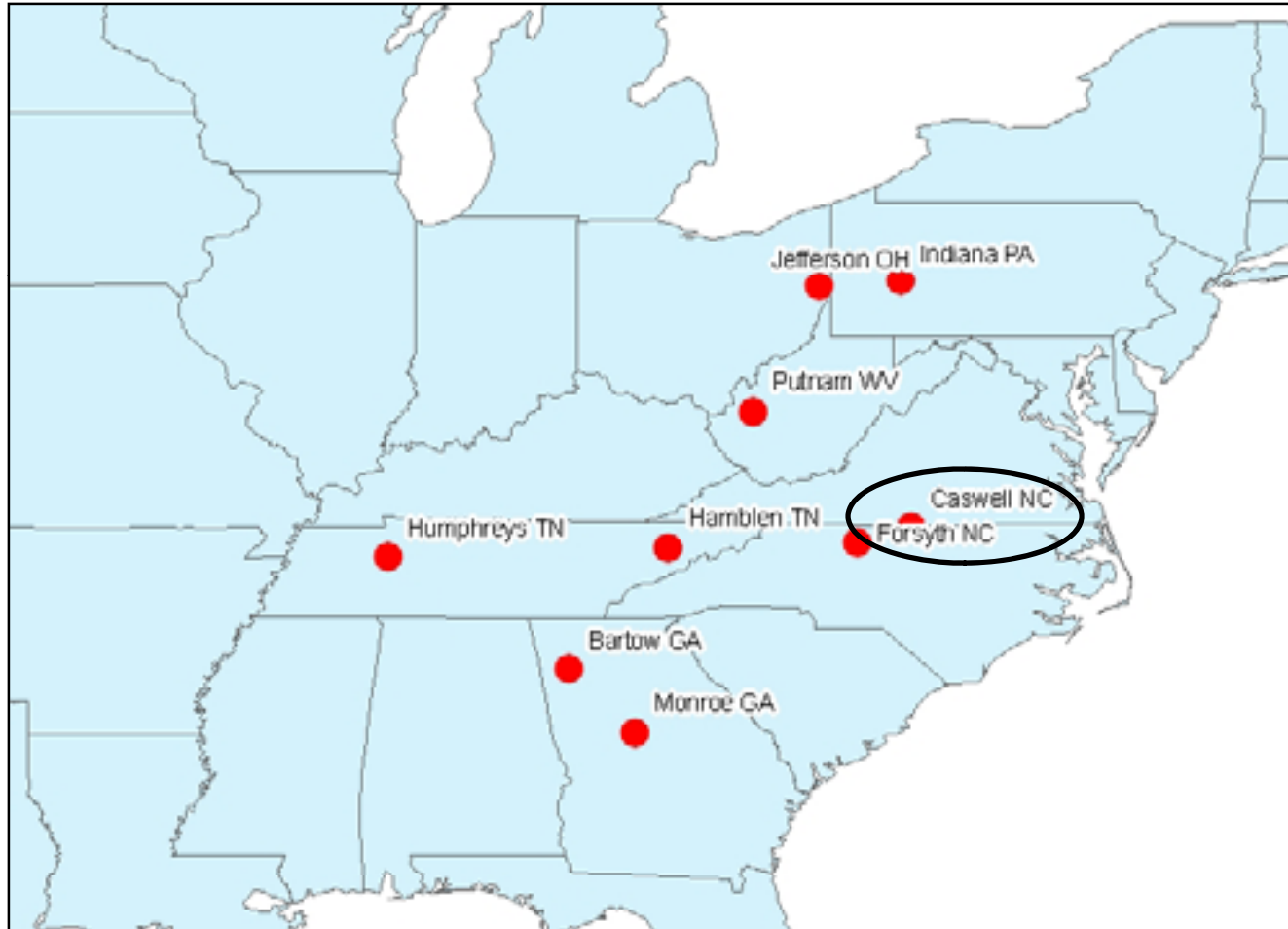
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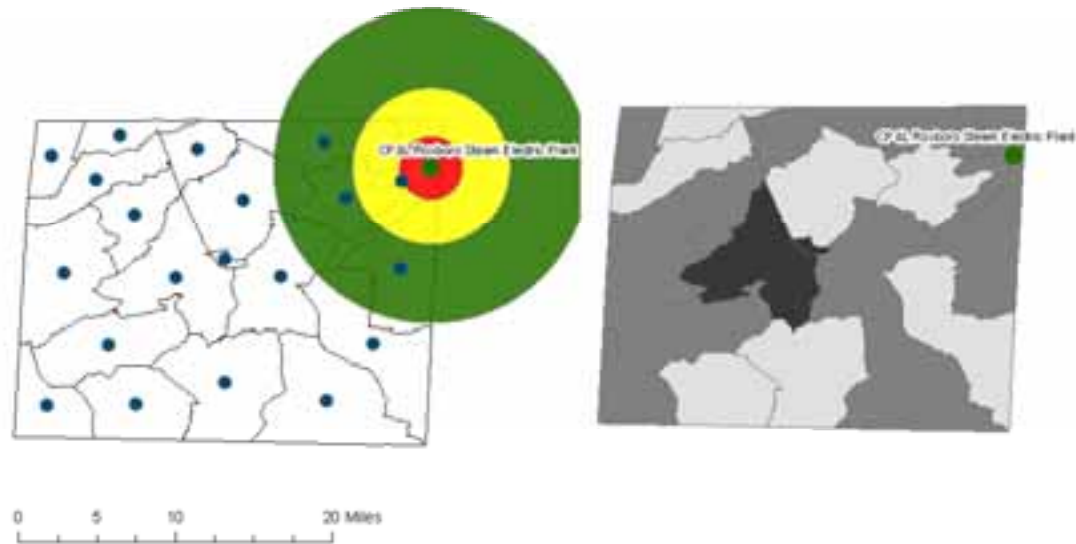
Population Living in Proximity to Plant			
	2 Miles of Plant	5 Miles	10 Miles
Total Population	0	1050	28,542
Below 1999 Poverty Line	0	8	978



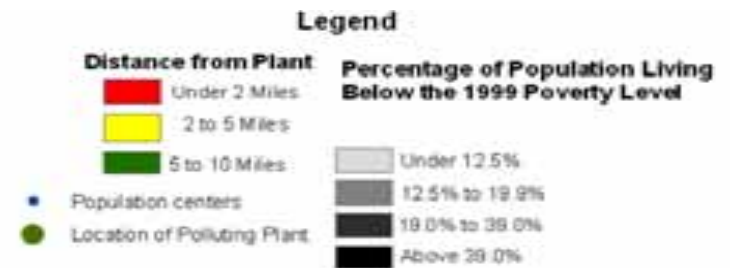
Top Polluter 10: Caswell, NC



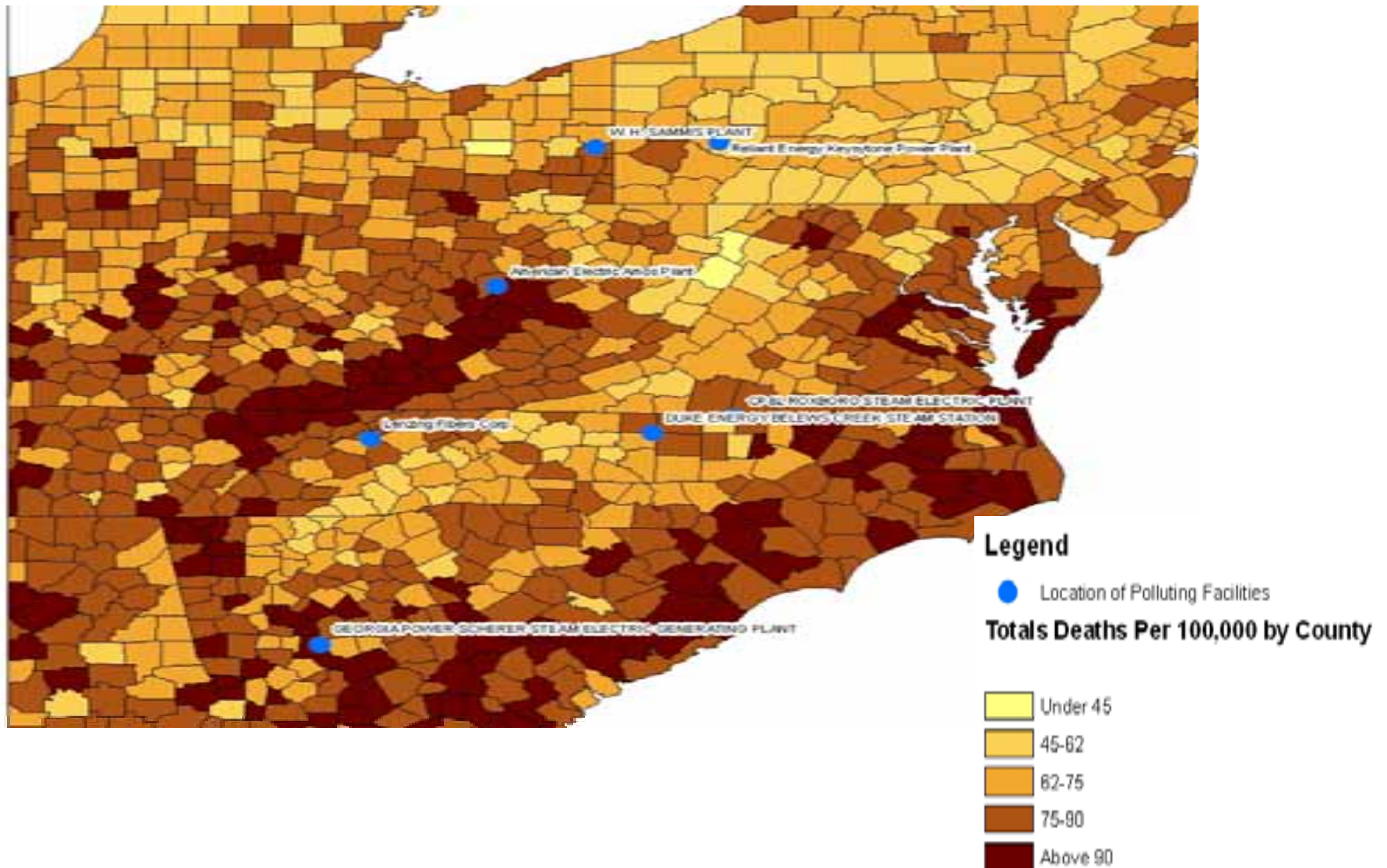
Top Polluter 10: Caswell, NC



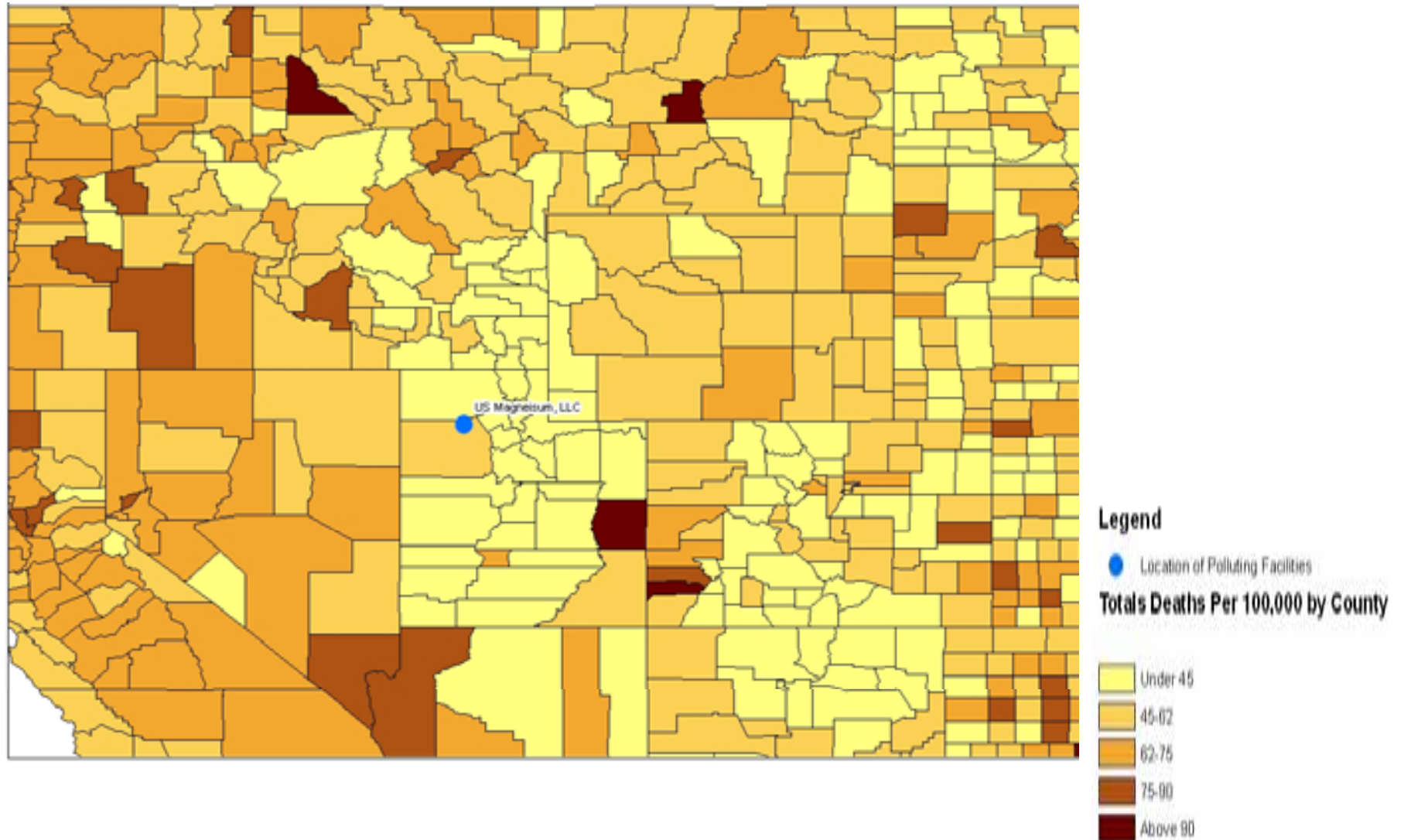
Population Living in Proximity to Plant			
	2 Miles of Plant	5 Miles	10 Miles
Total Population	919	0	2,379
Below 1999 Poverty Line	174	0	342



Top Ten Polluting Facilities and Lung Cancer Deaths by State



Top Ten Polluting Facilities and Lung Cancer Deaths by State



Key Findings and Conclusions

- The facilities are located in rural facilities that have very low minority populations.
- They are primarily power plants.
- The majority are located in the eastern part of the country as opposed to the west.
- Populations do not tend to live within two miles of the plants.