

The background features the official seal of the United States Environmental Protection Agency. It consists of a circular border with the text "UNITED STATES ENVIRONMENTAL PROTECTION AGENCY" in blue. In the center is a stylized flower with a light blue top half and a purple bottom half, set against a green field and a white sun. A green horizontal line is positioned above the main title.

# Long Term Trends in TRI Reporting

Steve Greenwald  
EPA Region 7  
Chemical Risk Information Branch

2014 National Training Conference  
on the Toxics Release Inventory  
and Environmental Conditions in Communities  
May 7-9  
Arlington, VA

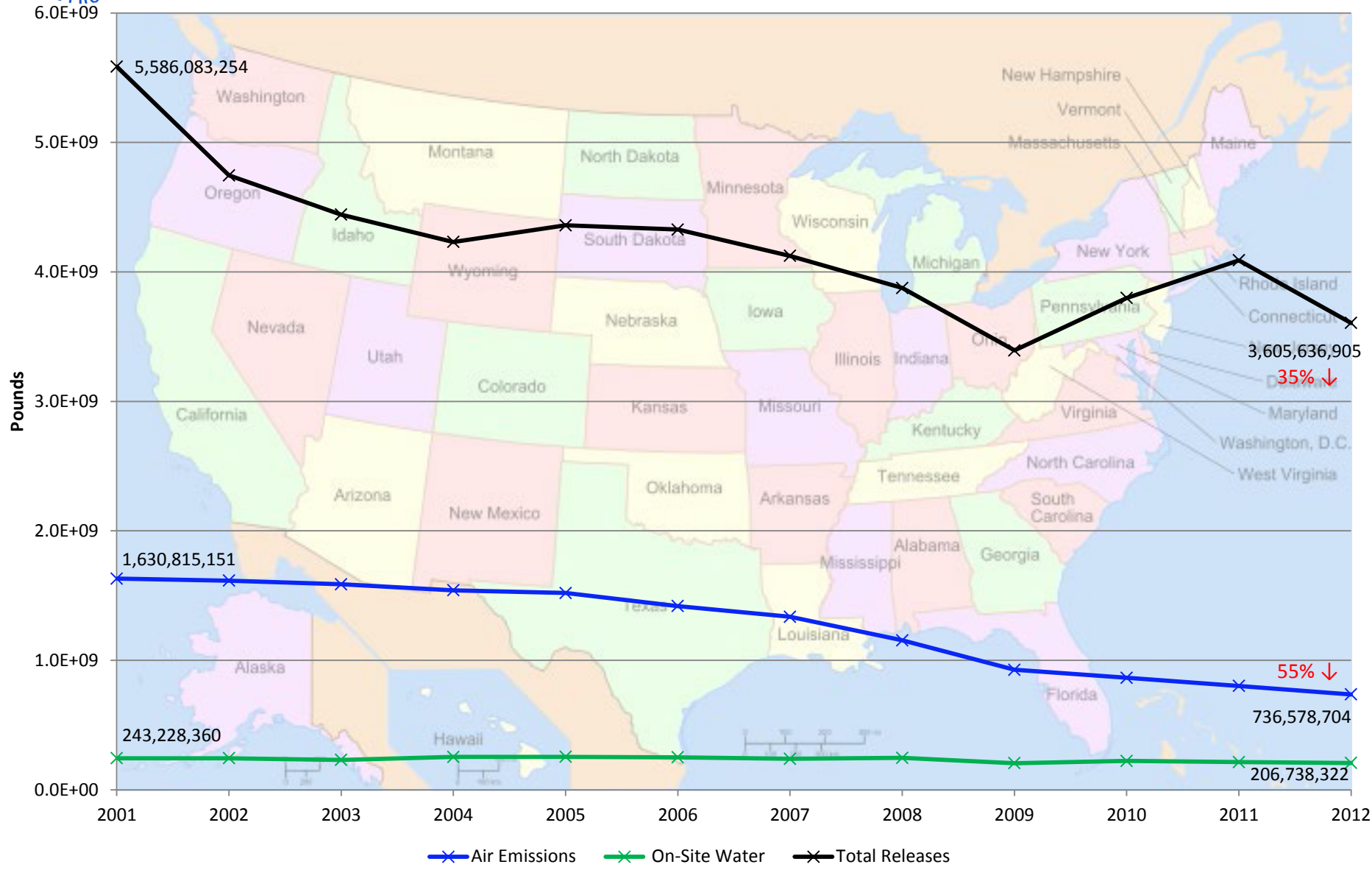


# Toxic Release Inventory

- Where is it?
- Where does it come from?
- What is it?

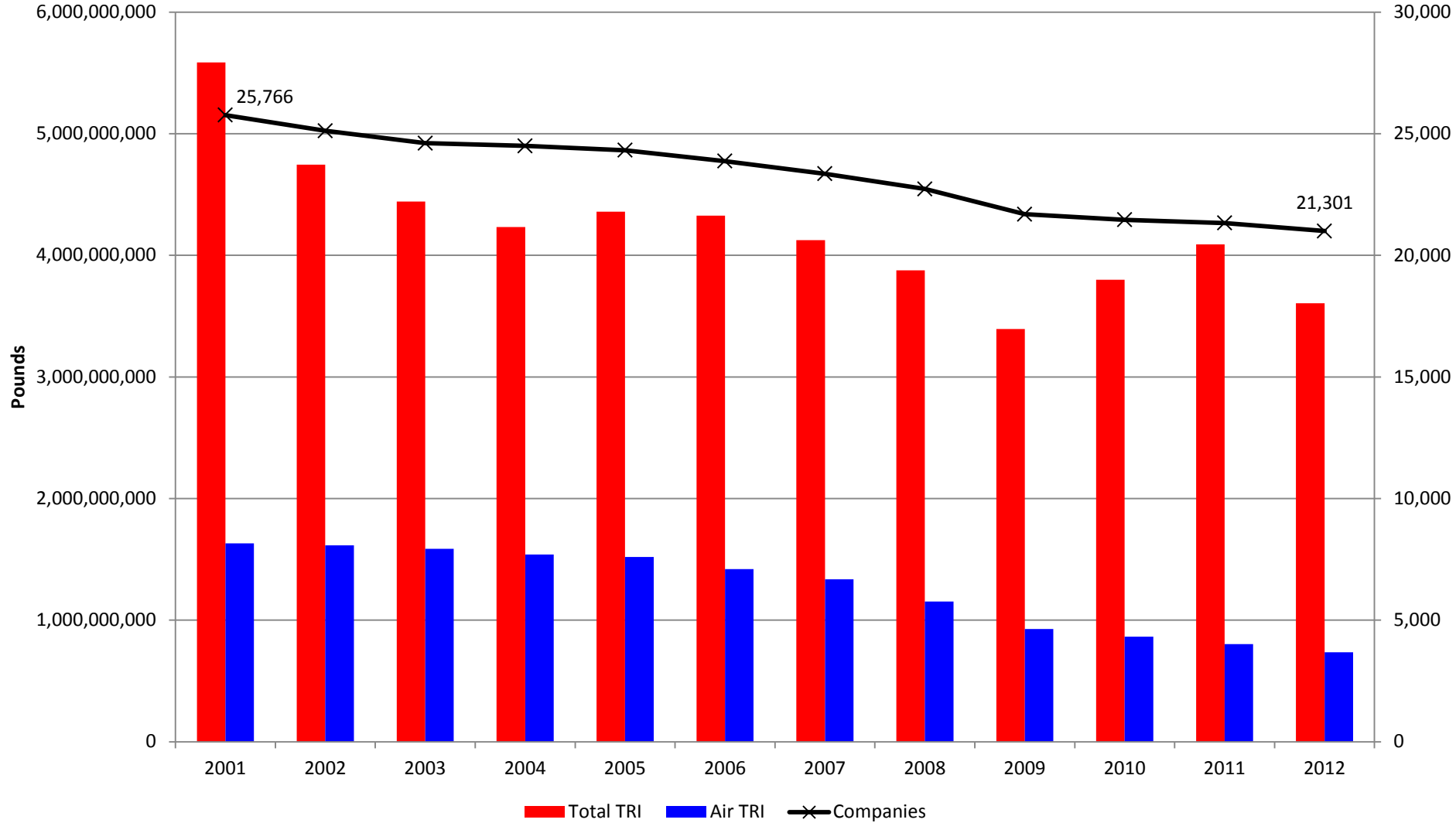


# National TRI Trends (2001 Core Chemicals)





# National TRI Trends (2001 Core Chemicals)





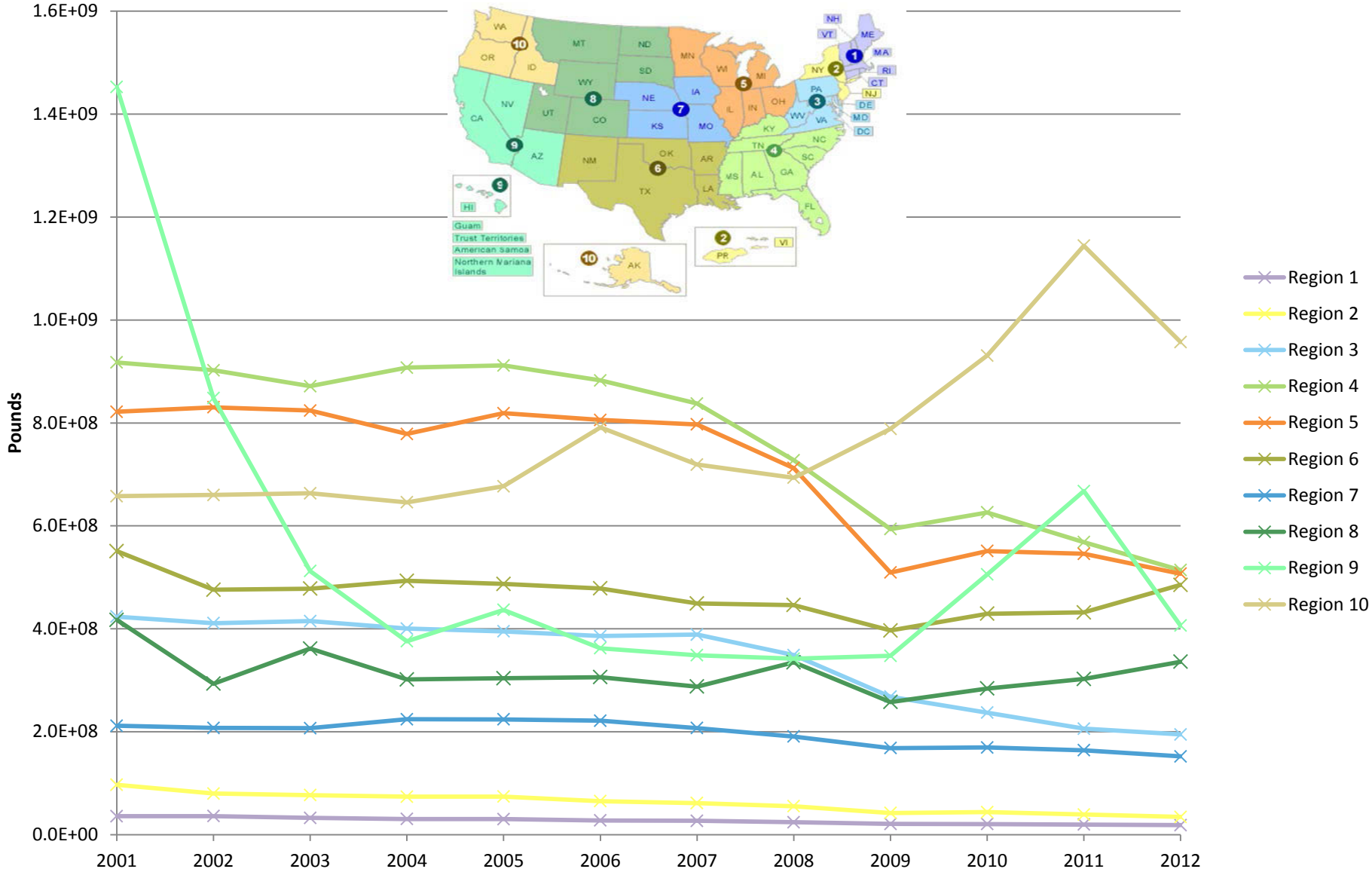
# Toxic Release Inventory

- Where is it?





# Total TRI Releases by Region



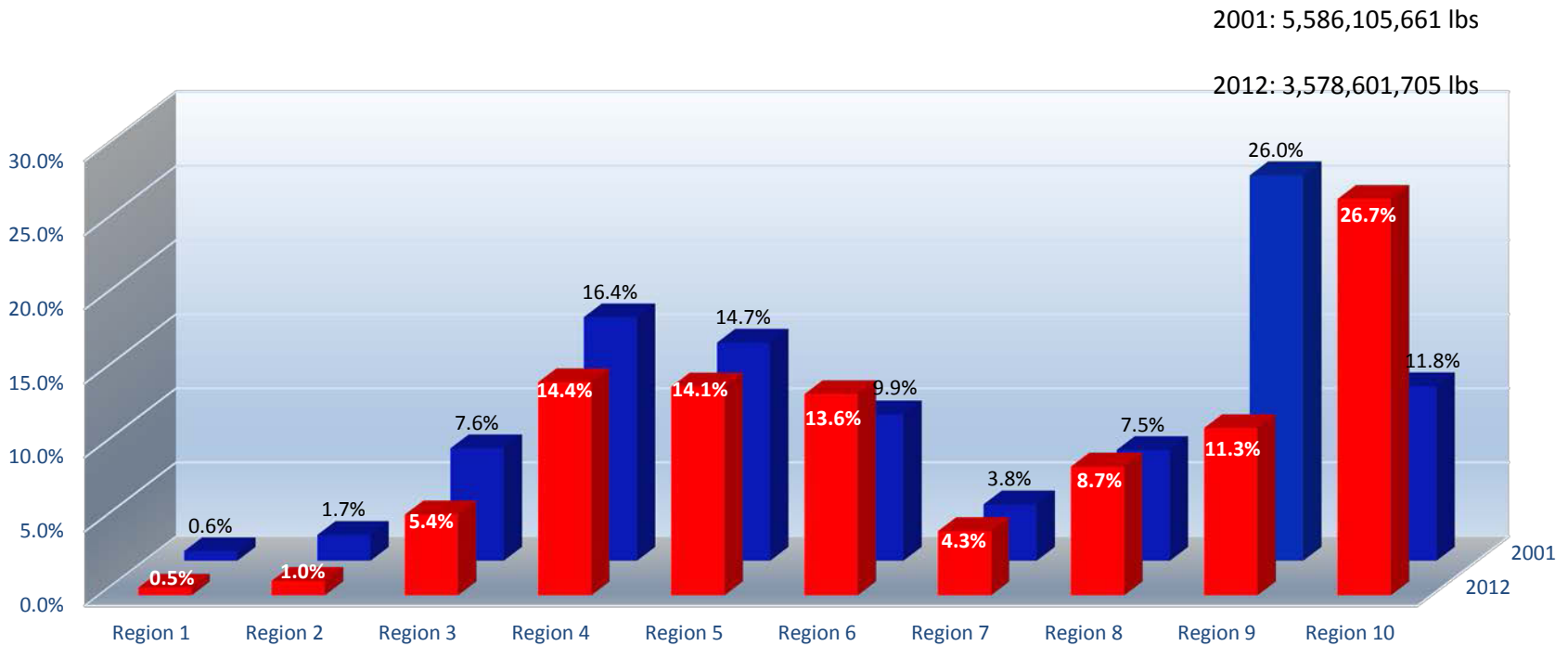


# Total TRI Releases by Region

2001			2012		
Region	Total TRI	Companies	Region	Total TRI	Companies
EPA Region 1	35,816,101	1,590	EPA Region 1	18,556,271	1,087
EPA Region 2	97,068,782	1,614	EPA Region 2	34,786,703	1,152
EPA Region 3	423,678,258	2,527	EPA Region 3	194,824,532	2,000
EPA Region 4	917,569,938	5,205	EPA Region 4	514,379,170	4,321
EPA Region 5	821,743,935	6,757	EPA Region 5	503,675,093	5,410
EPA Region 6	550,948,706	2,853	EPA Region 6	485,898,446	2,799
EPA Region 7	211,735,423	1,597	EPA Region 7	154,663,812	1,426
EPA Region 8	417,286,536	660	EPA Region 8	310,887,335	675
EPA Region 9	1,452,615,787	2,140	EPA Region 9	404,033,809	1,695
EPA Region 10	657,642,194	822	EPA Region 10	956,896,532	736



# Total TRI Releases Percent Contribution by Region

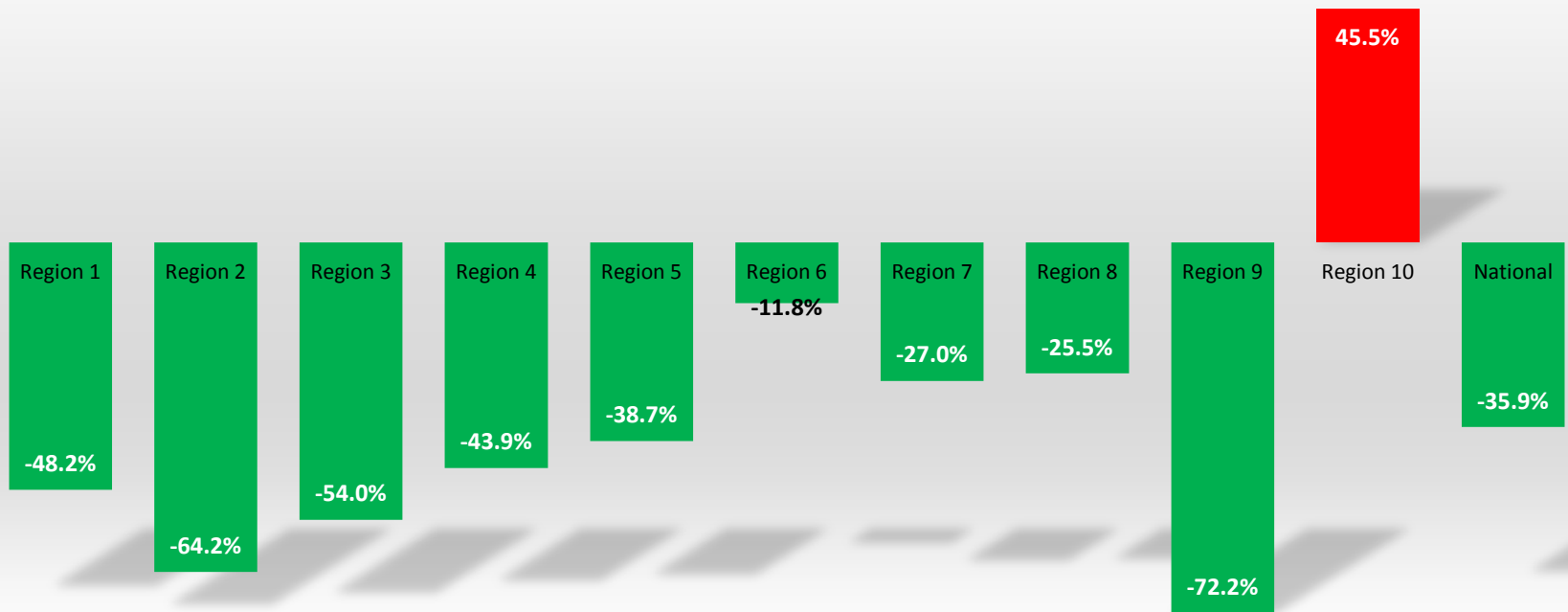






# Total TRI Releases by Region

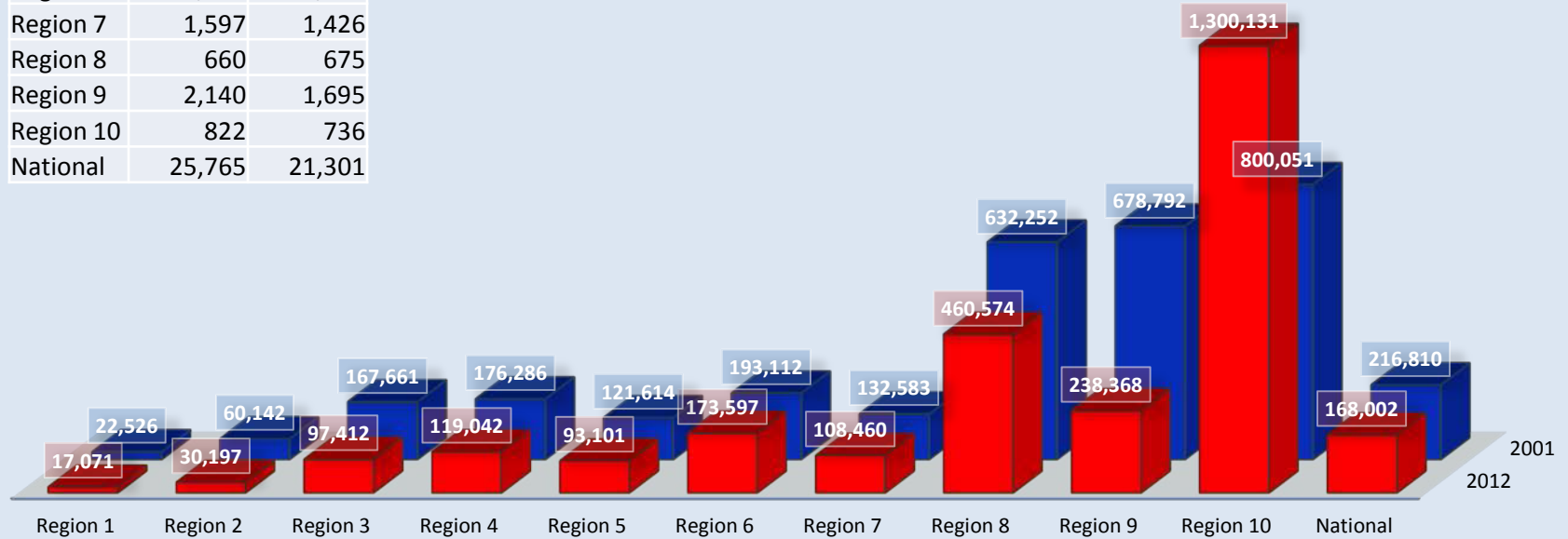
% Change  
2001 to 2012





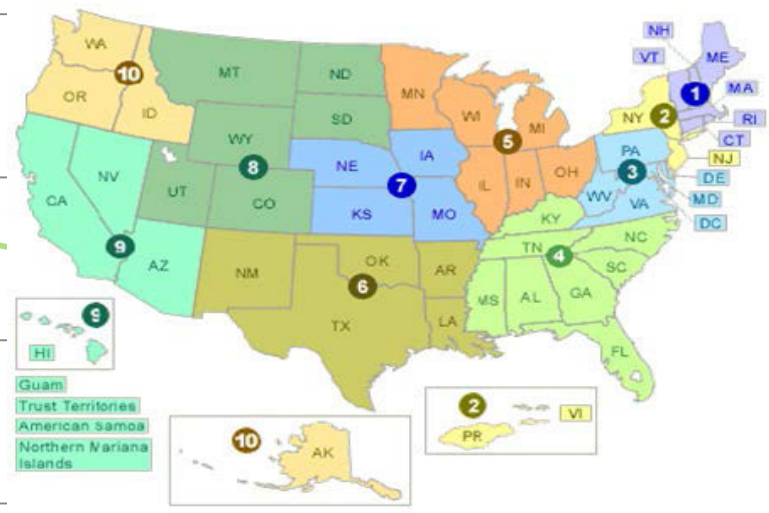
# Total TRI Releases Per Company

	2001	2012
Region 1	1,590	1,087
Region 2	1,614	1,152
Region 3	2,527	2,000
Region 4	5,205	4,321
Region 5	6,757	5,410
Region 6	2,853	2,799
Region 7	1,597	1,426
Region 8	660	675
Region 9	2,140	1,695
Region 10	822	736
National	25,765	21,301

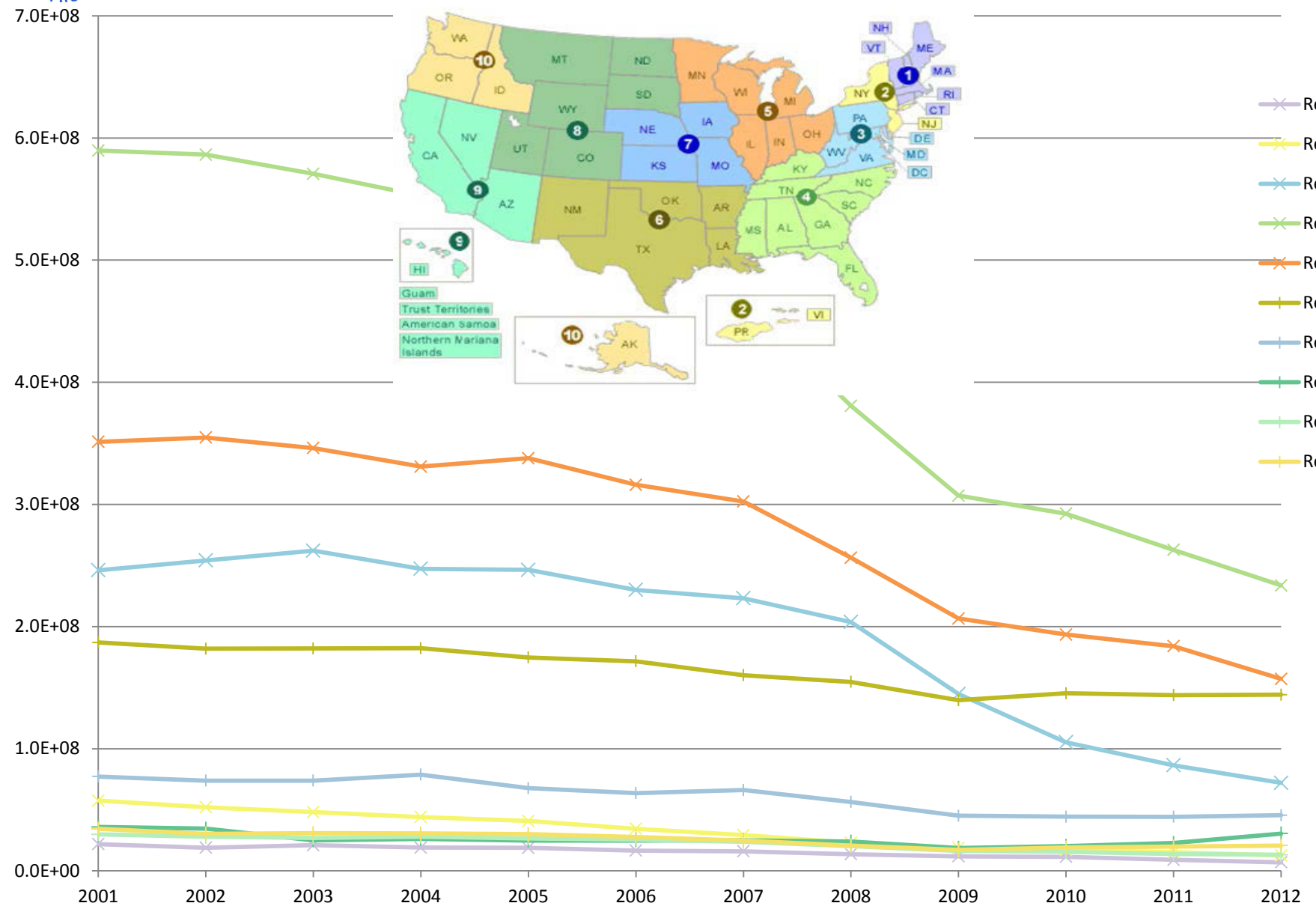




# TRI Air Emissions by Region



- Region 1
- Region 2
- Region 3
- Region 4
- Region 5
- Region 6
- Region 7
- Region 8
- Region 9
- Region 10





# TRI Air Releases by Region

2001			2012		
Region	TRI Air Releases	Companies	Region	TRI Air Releases	Companies
EPA Region 1	21,931,865	1,590	EPA Region 1	6,997,367	1,087
EPA Region 2	57,516,890	1,614	EPA Region 2	12,646,645	1,152
EPA Region 3	246,104,542	2,527	EPA Region 3	72,037,829	2,000
EPA Region 4	589,620,801	5,205	EPA Region 4	233,760,354	4,321
EPA Region 5	351,285,855	6,757	EPA Region 5	158,074,537	5,410
EPA Region 6	186,934,979	2,853	EPA Region 6	144,383,044	2,799
EPA Region 7	77,245,326	1,597	EPA Region 7	45,877,636	1,426
EPA Region 8	35,945,373	660	EPA Region 8	30,573,257	675
EPA Region 9	29,898,626	2,140	EPA Region 9	13,249,374	1,695
EPA Region 10	34,330,893	822	EPA Region 10	20,770,106	736

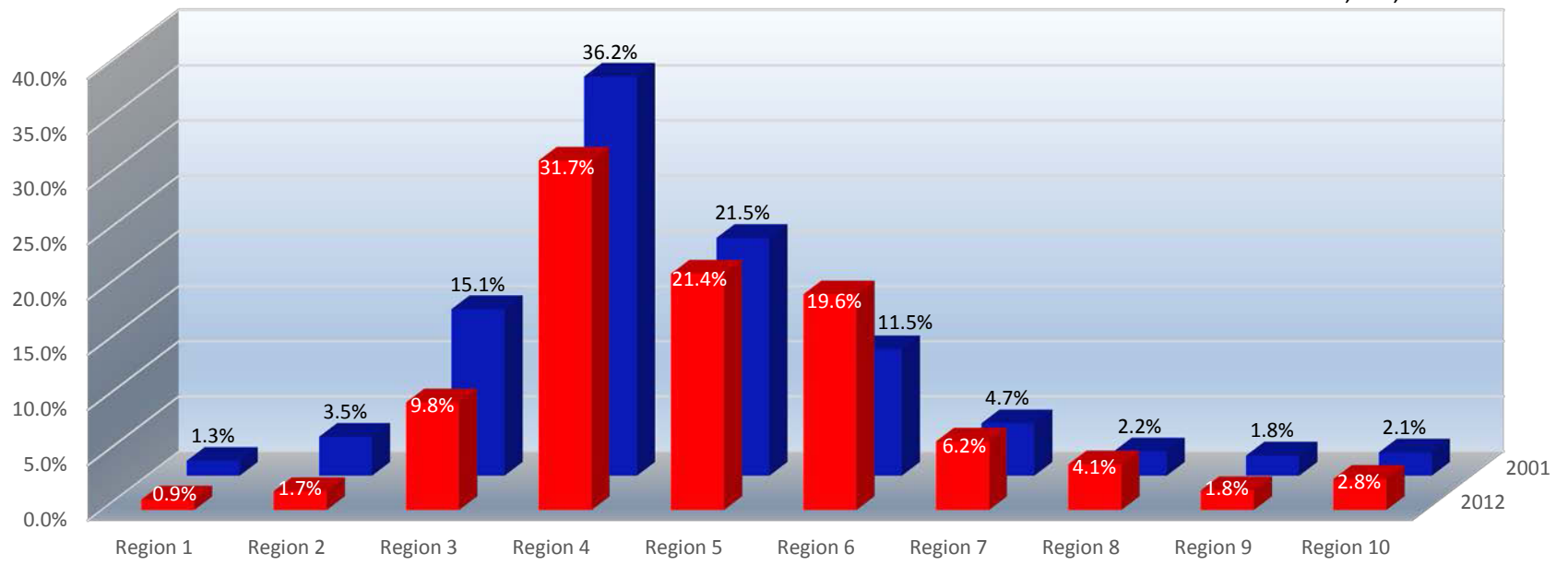


# TRI Air Releases

## Percent Contribution by Region

2001: 1,630,815,150 lbs

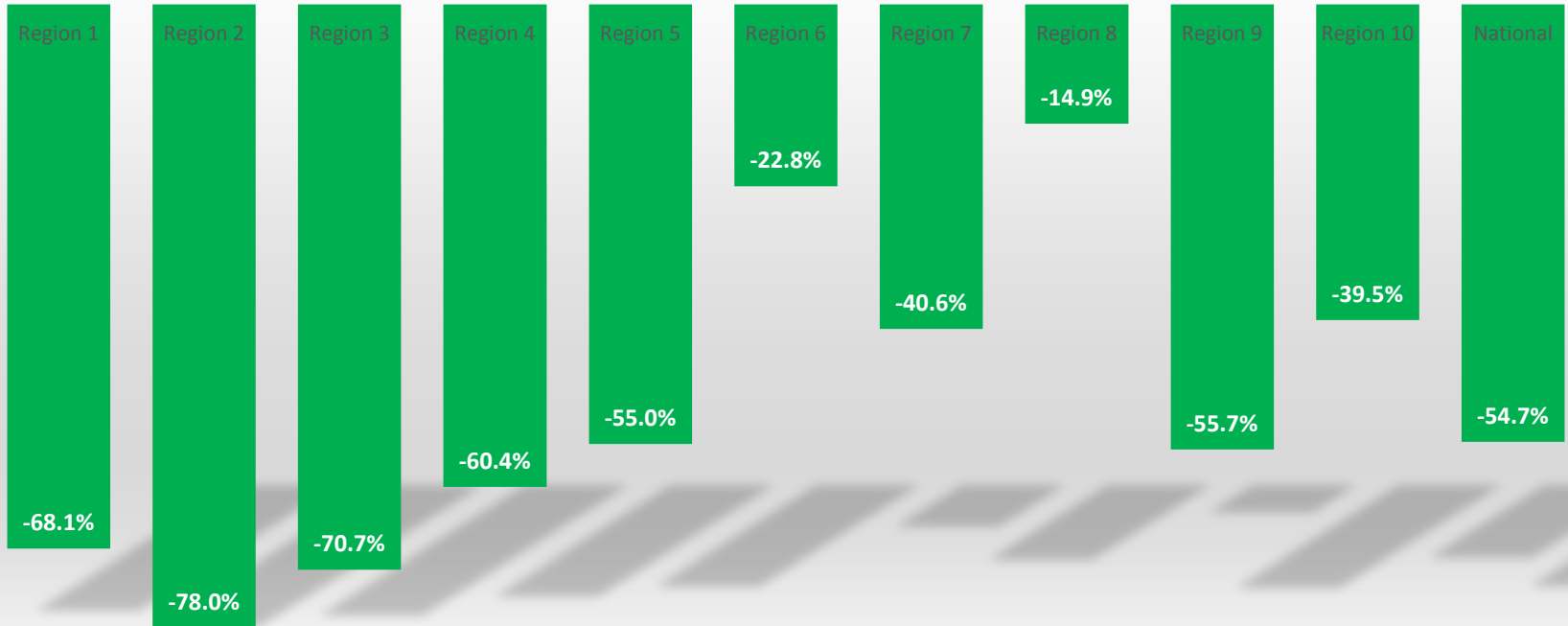
2012: 738,370,150 lbs





# TRI Air Releases by Region

% Change  
2001 to 2012





# TRI Air Releases Per Company

	2001	2012
Region 1	1,590	1,087
Region 2	1,614	1,152
Region 3	2,527	2,000
Region 4	5,205	4,321
Region 5	6,757	5,410
Region 6	2,853	2,799
Region 7	1,597	1,426
Region 8	660	675
Region 9	2,140	1,695
Region 10	822	736
National	25,765	21,301





# Toxic Release Inventory

- Where is it?
- Where does it come from?



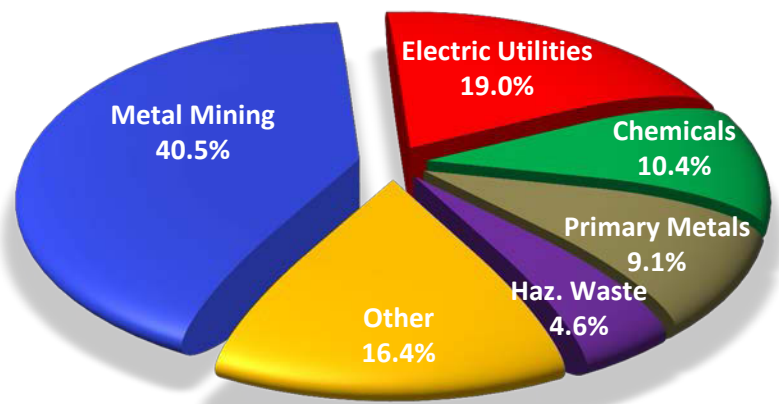




# Total TRI Releases by Industry Sector

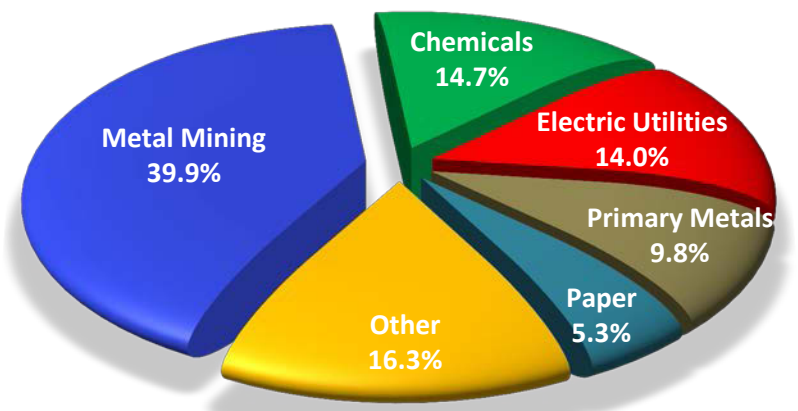
**2001**

5,586,083,254 lbs



**2012**

3,605,636,905 lbs





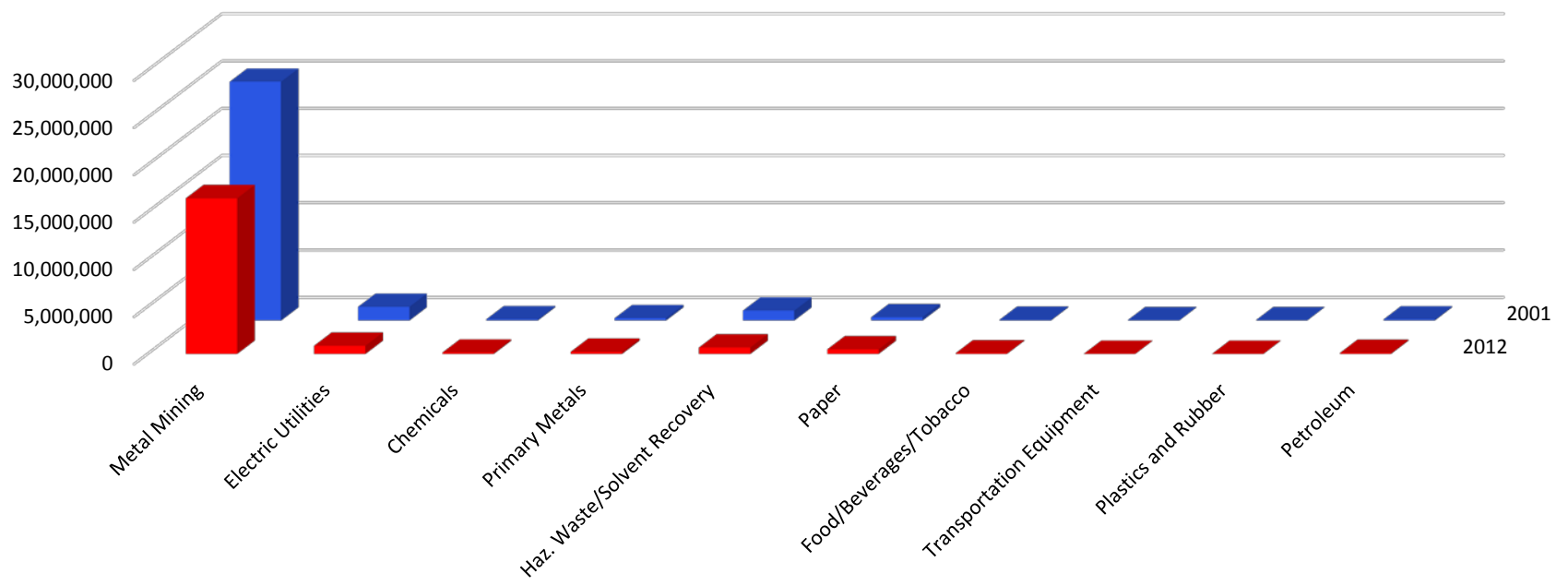
# Total TRI Releases by Industry Sector

2001				2012			
Rank	Industry	Total TRI	Co.	Rank	Industry	Total TRI	Co.
1	Metal Mining	2,274,293,524	90	1	Metal Mining	1,448,762,938	88
2	Electric Utilities	1,067,036,973	733	3	Electric Utilities	510,171,026	582
3	Chemicals	583,705,470	4125	2	Chemicals	535,162,812	3451
4	Primary Metals	513,863,307	2019	4	Primary Metals	355,133,050	1528
5	Haz. Waste	258,172,977	245	6	Haz. Waste	159,924,094	231
6	Paper	214,526,561	599	5	Paper	190,776,907	385
7	Food/Beverage	152,159,705	1820	7	Food/Beverage	134,723,004	1614
8	Transport. Equip.	90,778,902	1660	11	Transport. Equip.	33,268,625	1242
9	Plastics/Rubber	90,523,632	1780	10	Plastics/Rubber	37,650,301	1296
10	Petroleum	80,056,703	620	8	Petroleum	75,578,450	688



# Total TRI Releases by Industry Sector

Total TRI  
per Company

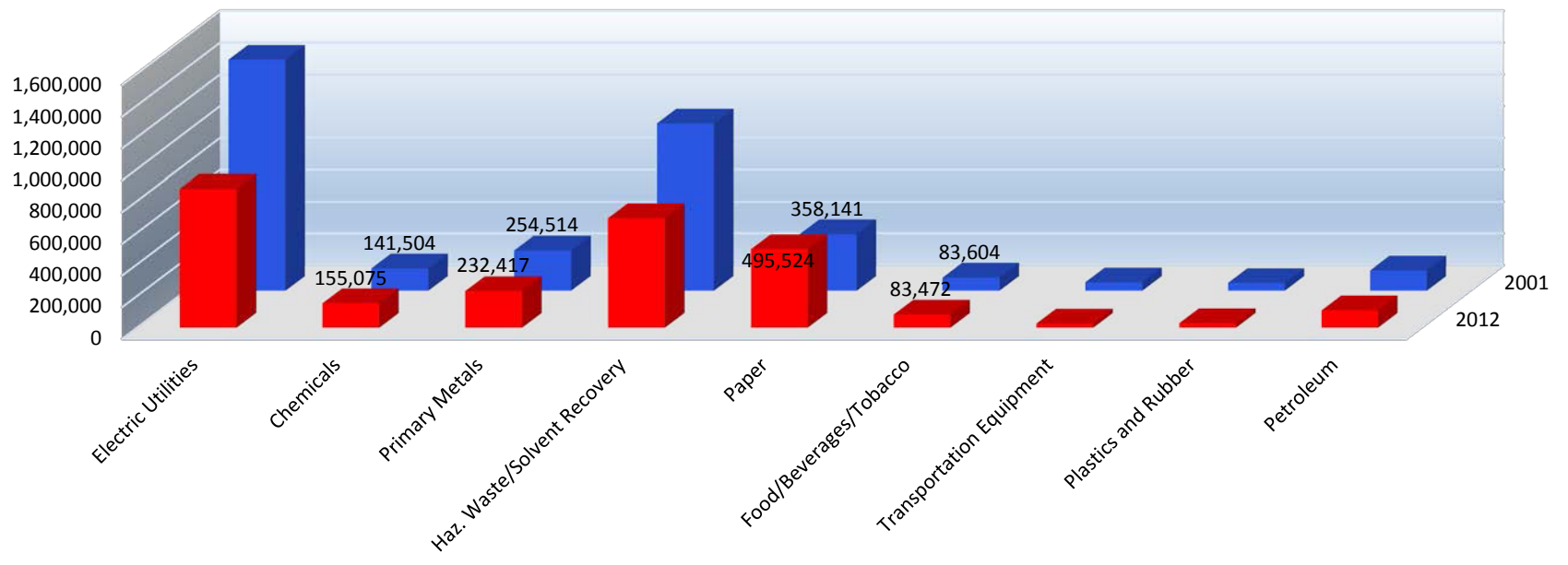




# Total TRI Releases by Industry Sector

**Total TRI  
per Company**

	2001	2012
Chemicals	4125	3451
Primary Metals	2019	1528
Paper	599	385
Food/Bev./Tobacco	1820	1614

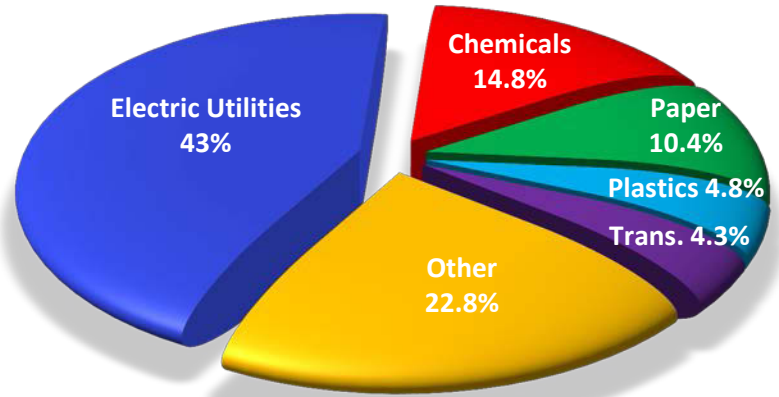




# TRI Air Emissions by Industry Sector

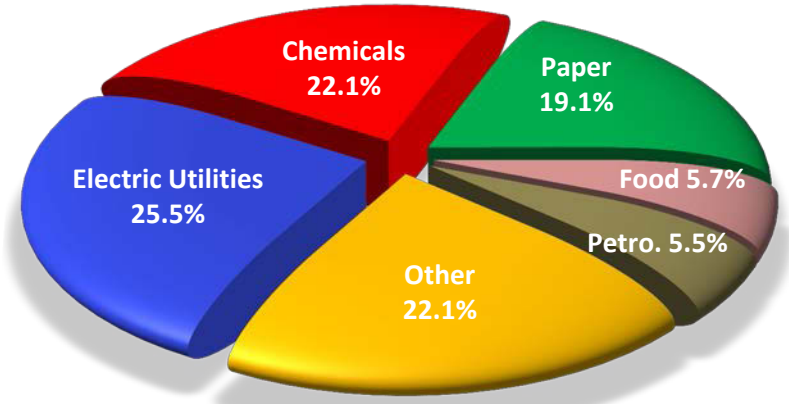
**2001**

1,630,815,151 lbs



**2012**

736,578,704 lbs





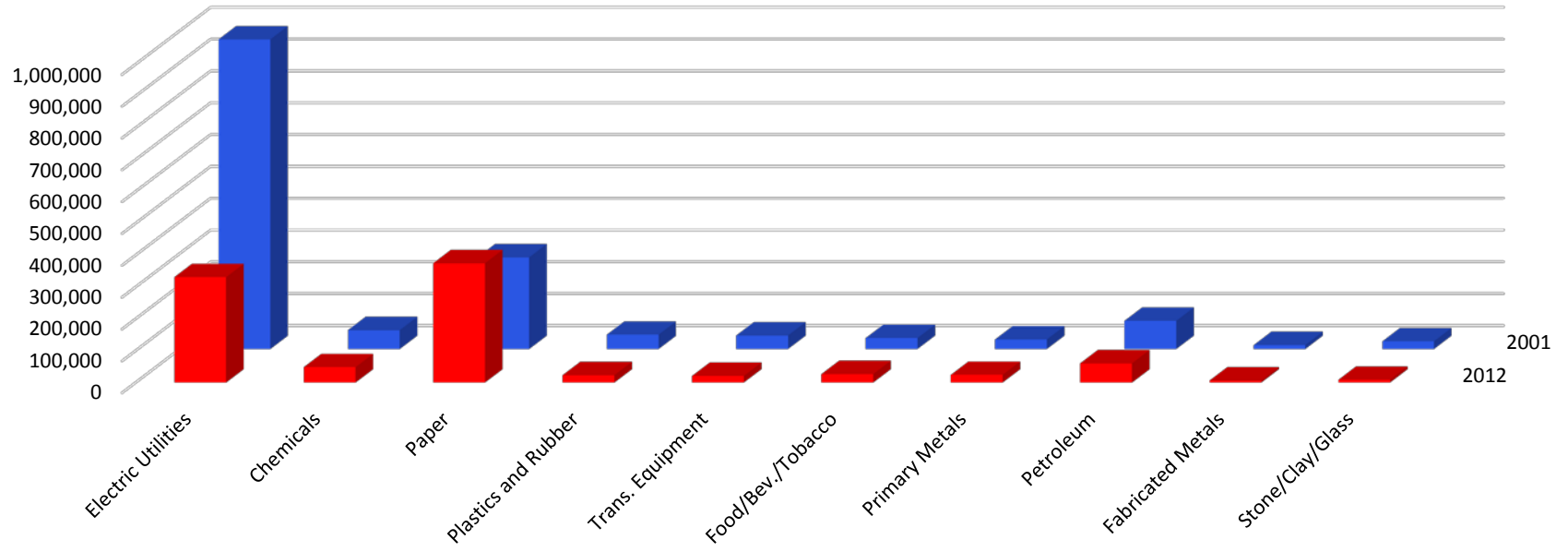
# TRI Air Emissions by Industry Sector

2001				2012			
Rank	Industry	Air Emissions	Co.	Rank	Industry	Air Emissions	Co.
1	Electric Utilities	713,270,646	733	1	Electric Utilities	192,779,273	582
2	Chemicals	245,041,139	4,125	2	Chemicals	167,589,547	3,451
3	Paper	172,395,545	599	3	Paper	144,318,557	385
4	Plastics and Rubber	80,247,871	1,780	7	Plastics and Rubber	30,398,550	1,296
5	Trans. Equipment	70,797,725	1,660	8	Trans. Equipment	26,067,317	1,242
6	Food/Bev./Tobacco	62,693,268	1,820	4	Food/Bev./Tobacco	43,259,876	1,614
7	Primary Metals	60,745,473	2,019	6	Primary Metals	37,347,230	1,528
8	Petroleum	54,898,441	620	5	Petroleum	41,825,264	688
9	Fabricated Metals	44,295,484	3,553	9	Fabricated Metals	19,293,897	2,827
10	Stone/Clay/Glass	26,769,251	1,097	10	Stone/Clay/Glass	14,359,225	1,578



# TRI Air Emissions by Industry Sector

Air Emissions  
per Company





# Toxic Release Inventory

- Where is it?
- Where does it come from?
- What is it?





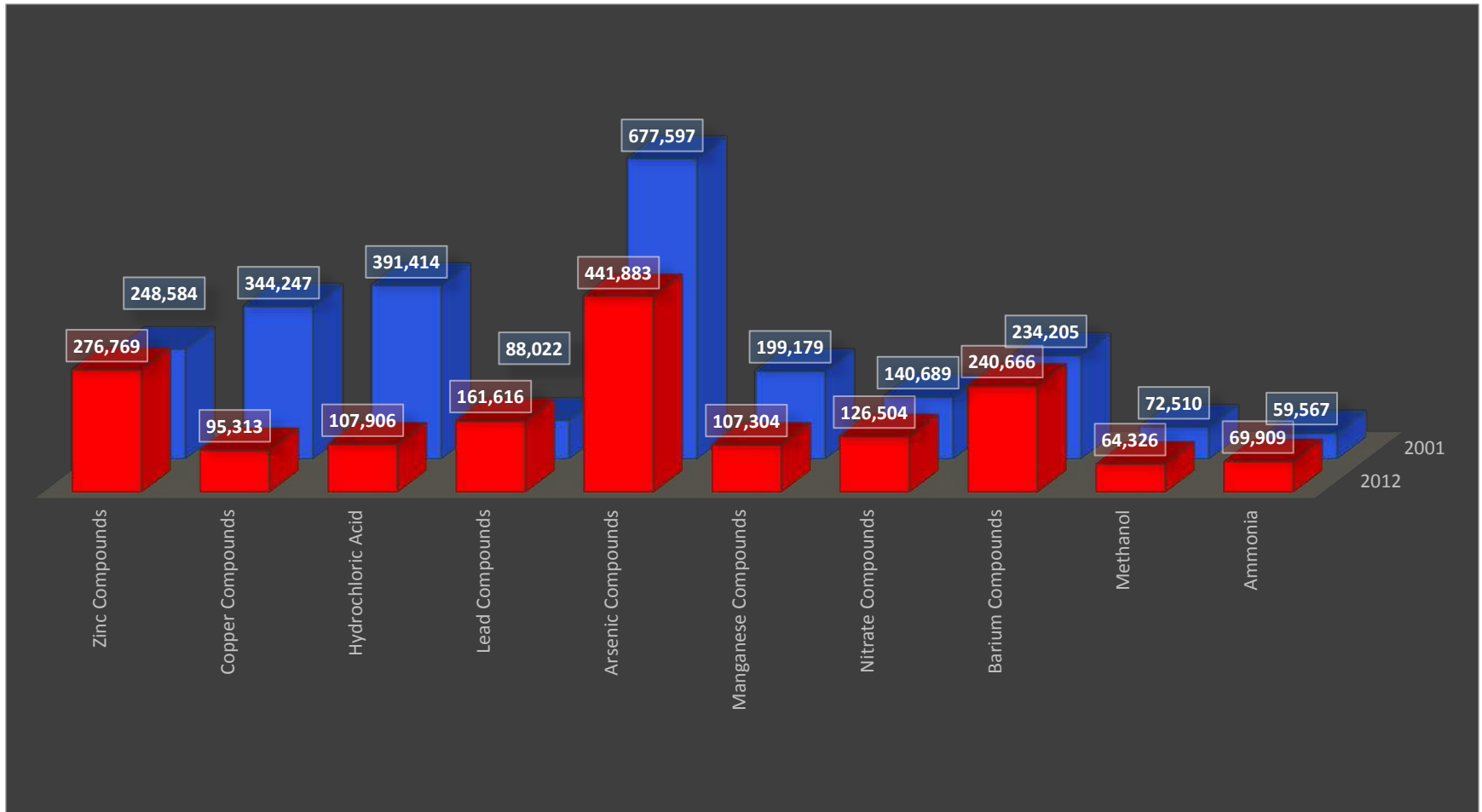


# Total TRI Releases by Compound

2001				2012			
Rank	Compound	Total TRI	Co.	Rank	Compound	Total TRI	Co.
1	Zinc Compounds	858,856,698	3,455	1	Zinc Compounds	816,190,984	2,949
2	Copper Compounds	701,574,520	2,038	6	Copper Compounds	160,221,139	1,681
3	Hydrochloric Acid	583,206,826	1,490	10	Hydrochloric Acid	120,962,950	1,121
4	Lead Compounds	399,356,602	4,537	2	Lead Compounds	599,755,666	3,711
5	Arsenic Compounds	361,159,450	533	9	Arsenic Compounds	125,052,868	283
6	Mn Compounds	357,128,217	1,793	5	Mn Compounds	176,836,560	1,648
7	Nitrate Compounds	283,910,342	2,018	3	Nitrate Compounds	253,386,672	2,003
8	Barium Compounds	256,454,474	1,095	4	Barium Compounds	209,860,353	872
9	Methanol	175,982,969	2,427	8	Methanol	131,545,890	2,045
10	Ammonia	160,353,240	2,692	7	Ammonia	158,552,489	2,268



# Total TRI Releases per Company



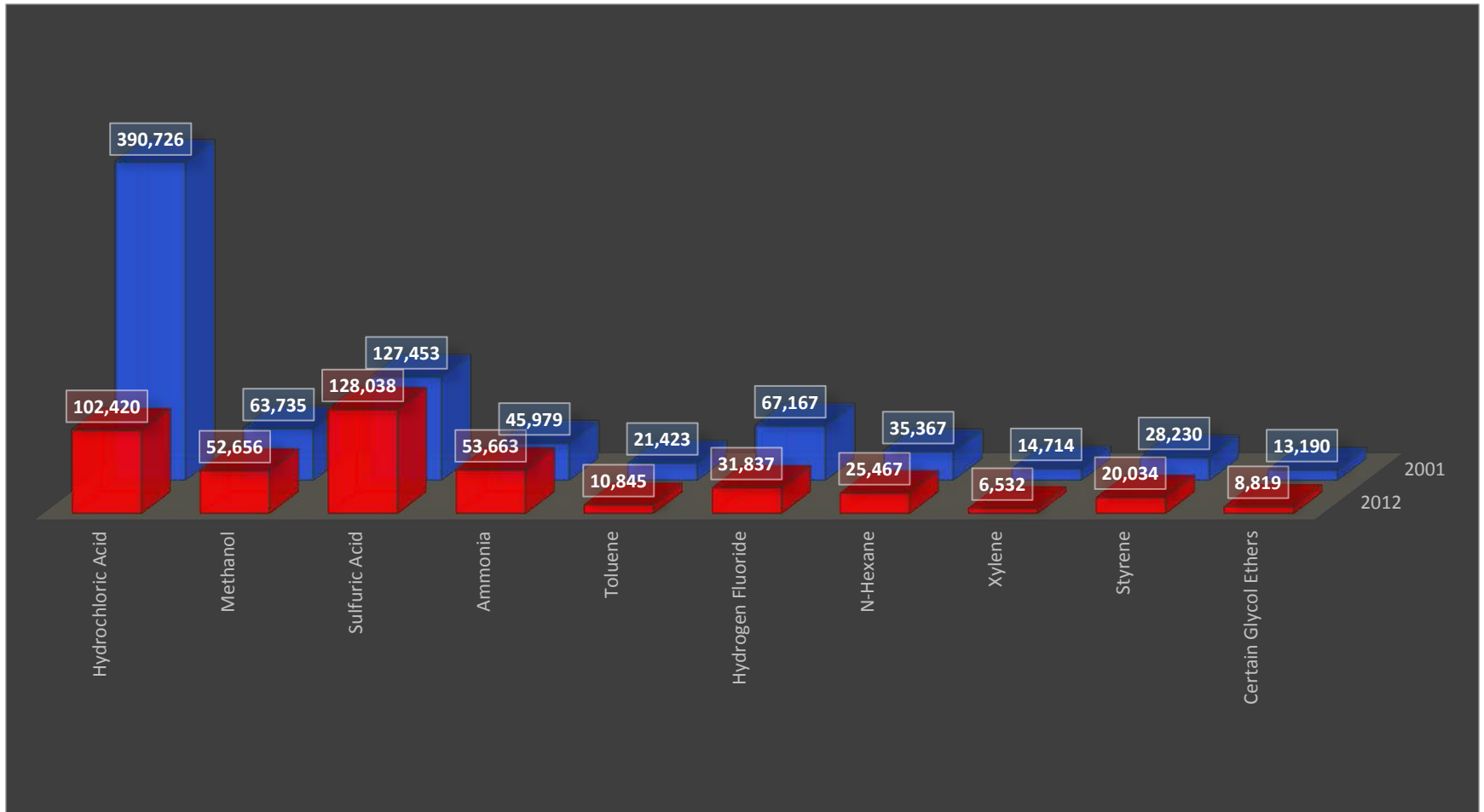


# TRI Air Releases by Compound

2001				2012			
Rank	Compound	Total TRI	Co.	Rank	Compound	Total TRI	Co.
1	Hydrochloric Acid	582,182,096	1,490	2	Hydrochloric Acid	114,813,331	1,121
2	Methanol	154,684,008	2,427	3	Methanol	107,681,987	2,045
3	Sulfuric Acid	149,119,911	1,170	4	Sulfuric Acid	101,278,142	791
4	Ammonia	123,774,217	2,692	1	Ammonia	121,707,749	2,268
5	Toluene	71,830,212	3,353	8	Toluene	23,957,322	2,209
6	Hydrogen Fluoride	67,301,076	1,002	6	Hydrogen Fluoride	25,310,423	795
7	N-Hexane	48,806,219	1,380	5	N-Hexane	31,782,830	1,248
8	Xylenes	47,569,351	3,233	10	Xylenes	13,567,296	2,077
9	Styrene	47,511,554	1,683	7	Styrene	24,361,604	1,216
10	Cer. Glycol Ethers	27,330,586	2,072	12	Cer. Glycol Ethers	13,211,394	1,498

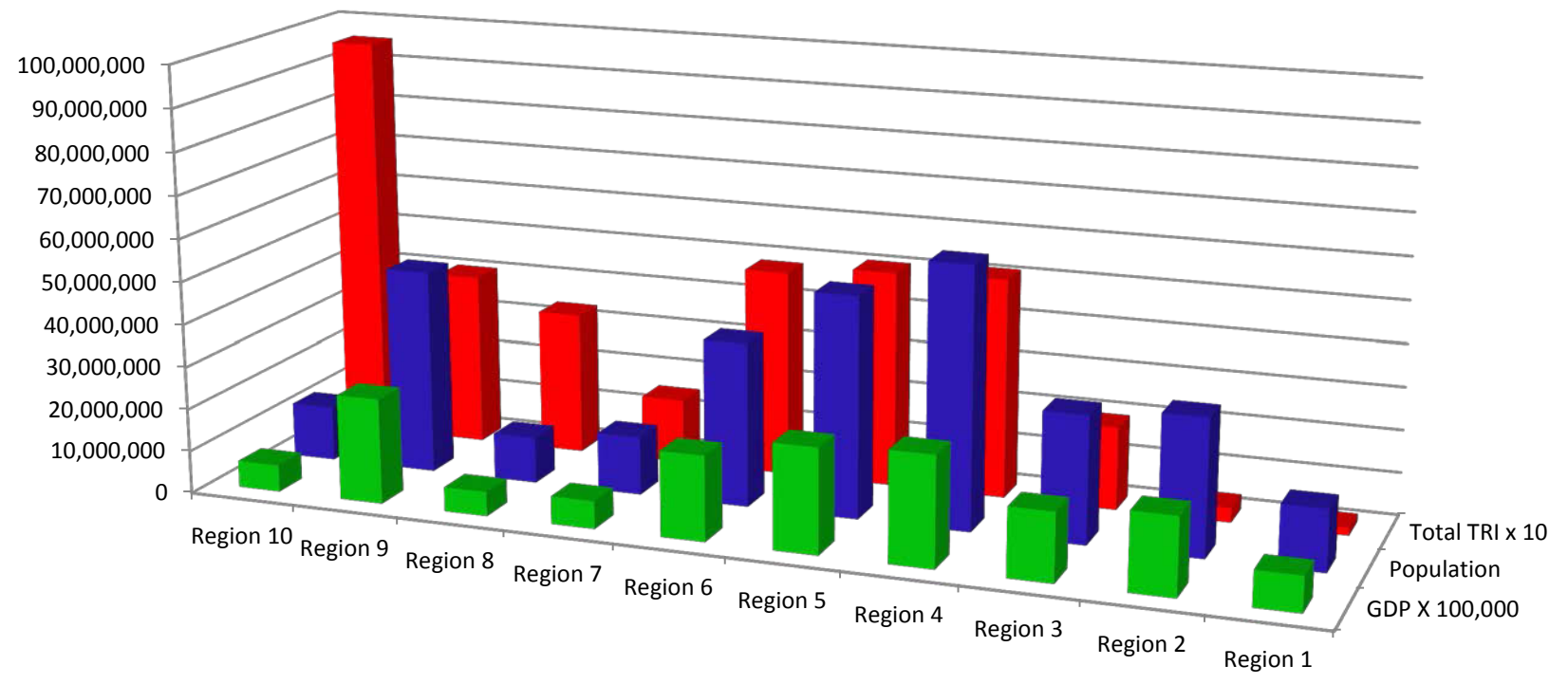


# TRI Air Releases per Company





# Total TRI





- Thank you
- Questions