

## DATA DRILL: ACTIVE LOOKING, EXERCISE 2 (YOUR TURN)

I've walked you through an example of using active looking as a way to make a picture that makes sense of a pile of data. Now it's your turn. Run through the exact same drill we just did but using the data dump below. I'll provide you with lots of blank graph paper on the following pages, so feel free to try as many views as you like.

	A	B	D	E	F	G	H	I	J	K	L	M	N	O
1	Total CO2 output, country-by-country	Refrigerants	On-Site Combustion	Trucks	Cars	Airplanes	Purchased Electricity	Total Tonnes CO2						
4	Brazil	Total Consumption	kg	5,255,203	mmtBu	11,949	gal	4,348,043	gal	28,534	gal	707,039	MWh	
5		CO2 Equivalent	tonnes	333,299	tonnes	110	tonnes	38,341	tonnes	270	tonnes	47,442	tonnes	570,669
6	Canada	Total Consumption	kg	794,443	mmtBu	19,040	gal	155,821	gal	353,823	gal	461,535	MWh	
7		CO2 Equivalent	tonnes	42,500	tonnes	192	tonnes	1,370	tonnes	3,351	tonnes	100,661	tonnes	173,685
8	China	Total Consumption	kg	5,255,203	mmtBu	11,949	gal	30,651	gal	28,534	gal	285,510	MWh	
9		CO2 Equivalent	tonnes	333,299	tonnes	110	tonnes	340	tonnes	270	tonnes	261,592	tonnes	595,614
10	Costa Rica	Total Consumption	kg	4,434	mmtBu	19,040	gal	30,651	gal	28,534	gal	54,770	MWh	
11		CO2 Equivalent	tonnes	300	tonnes	192	tonnes	340	tonnes	270	tonnes	27,535	tonnes	36,833
12	El Salvador	Total Consumption	kg	400	mmtBu	131,956,262	gal	4,348,043	gal	353,823	gal	38,324	MWh	
13		CO2 Equivalent	tonnes	27	tonnes	1,322,086	tonnes	38,341	tonnes	3,351	tonnes	19,210	tonnes	1,386,654
14	Germany	Total Consumption	kg	400,738	mmtBu	19,040	gal	132,431	gal	28,534	gal	248,568	MWh	
15		CO2 Equivalent	tonnes	22,617	tonnes	192	tonnes	1,234	tonnes	270	tonnes	101,739	tonnes	161,849
16	Guatemala	Total Consumption	kg	8,311	mmtBu	11,949	gal	4,348,043	gal	353,823	gal	51,064	MWh	
17		CO2 Equivalent	tonnes	601	tonnes	131,956,262	gal	38,341	tonnes	3,351	tonnes	31,951	tonnes	131,234,729
18	Honduras	Total Consumption	kg	1,316	mmtBu	1,322,086	tonnes	30,651	gal	28,534	gal	12,189	MWh	
19		CO2 Equivalent	tonnes	95	tonnes	143	tonnes	340	tonnes	270	tonnes	6,141	tonnes	10,629
20	Japan	Total Consumption	kg	807,661	mmtBu	19,040	gal	8,579	gal	28,534	gal	398,228	MWh	
21		CO2 Equivalent	tonnes	50,585	tonnes	192	tonnes	75	tonnes	270	tonnes	322,128	tonnes	417,435
22	Mexico	Total Consumption	kg	1,975,523	mmtBu	11,949	gal	30,651	gal	353,823	gal	1,866,052	MWh	
23		CO2 Equivalent	tonnes	120,770	tonnes	110	tonnes	340	tonnes	3,351	tonnes	631,064	tonnes	886,487
24	Nicaragua	Total Consumption	kg	455	mmtBu	131,956,262	gal	4,348,043	gal	28,534	gal	3,158	MWh	
25		CO2 Equivalent	tonnes	33	tonnes	1,322,086	tonnes	38,341	tonnes	270	tonnes	4,614	tonnes	1,365,789
26	Puerto Rico	Total Consumption	kg	14,289	mmtBu	11,949	gal	107,702	gal	28,534	gal	172,337	MWh	
27		CO2 Equivalent	tonnes	1,051	tonnes	110	tonnes	953	tonnes	270	tonnes	86,823	tonnes	175,551
28	United Kingdom	Total Consumption	kg	2,471,160	mmtBu	131,956,262	gal	30,651	gal	353,823	gal	1,453,256	MWh	
29		CO2 Equivalent	tonnes	132,795	tonnes	1,322,086	tonnes	340	tonnes	3,351	tonnes	624,900	tonnes	2,368,526
30	United States	Total Consumption	kg	15,537,411	mmtBu	131,956,262	gal	4,348,043	gal	3,244,545	gal	17,586,178	MWh	
31		CO2 Equivalent	tonnes	828,478	tonnes	1,322,086	tonnes	38,341	tonnes	30,726	tonnes	11,590,829	tonnes	15,364,158
32	Total Consumption	kg	33,323,045	mmtBu	526,102,679	gal	26,680,856	gal	5,278,463	gal	23,318,780	MWh		
33	Total CO2 Equivalent	tonnes	1,988,518	tonnes	136,446,157	tonnes	235,375	tonnes	49,911	tonnes	13,872,692	tonnes		154,844,732

Remember, your active looking steps are

1. Collect all the data you can (I've done this for you).
2. Lay it out where you can really look at it (I've done this too).
3. Establish the underlying coordinates.
4. Map the data.
5. Draw a conclusion.

Refer back to our previous drill as often as you need. Your goal here is to make sense of the data by making a picture.

- What do you think this data is about?
- Who do you think might have collected this data?
- Why might it be meaningful to them?
- Are there any conclusions you can make about what you looked at?

I'm not leaving you completely on your own on this one: I made my visual version of this data already; if you really get stuck, you'll find mine in the appendix in the back of the book.

This is our last exercise of the day. When you're done, we're going to take a step back and look one more time at the big picture, then head to the beach.

## The dawning of the age of the napkin sketch

So far today we've seen examples of powerfully simple sketches expressing powerful ideas; we've created our own "back of the napkin" sketches; we've looked at data, seen patterns, imagined possibilities, and showed solutions; and we've only started. As we close out our first day, let's take a step back and look at the bigger picture; namely, why this all matters.

