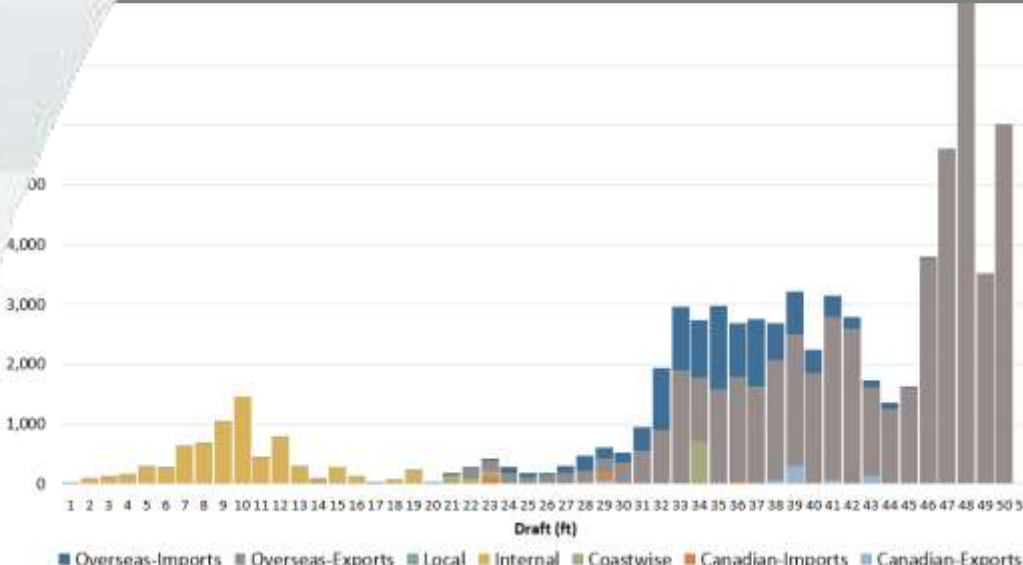
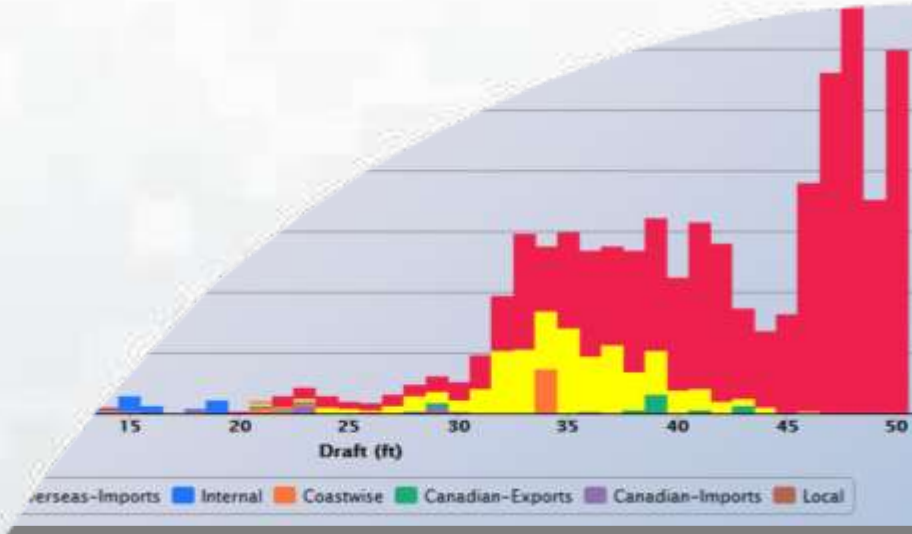


Channel Portfolio Tool Tutorial: Redrawing CPT graphs using Excel



<https://cpt.usace.army.mil>

Marin Kress, PhD
Research Physical Scientist

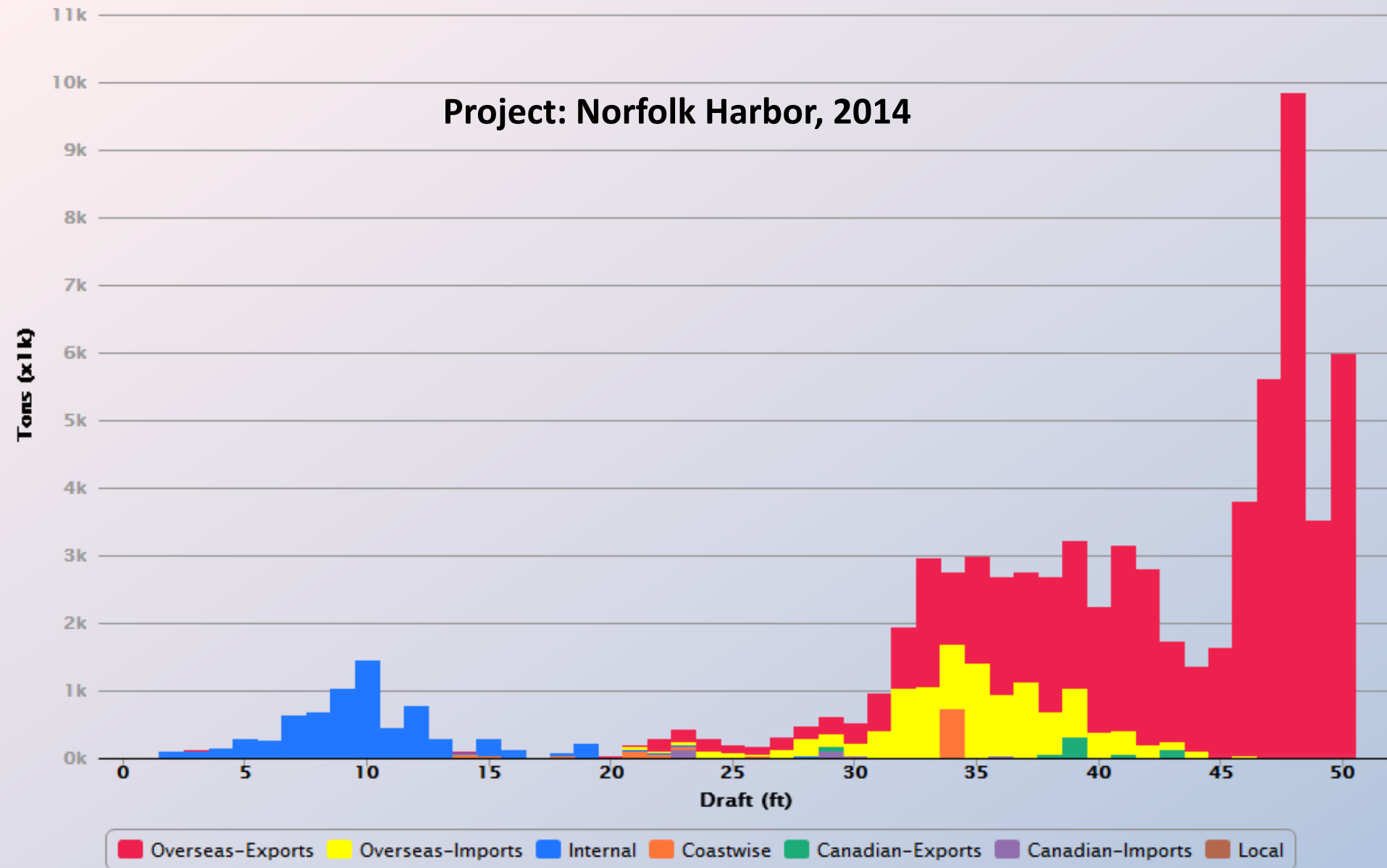


US Army Corps of Engineers®

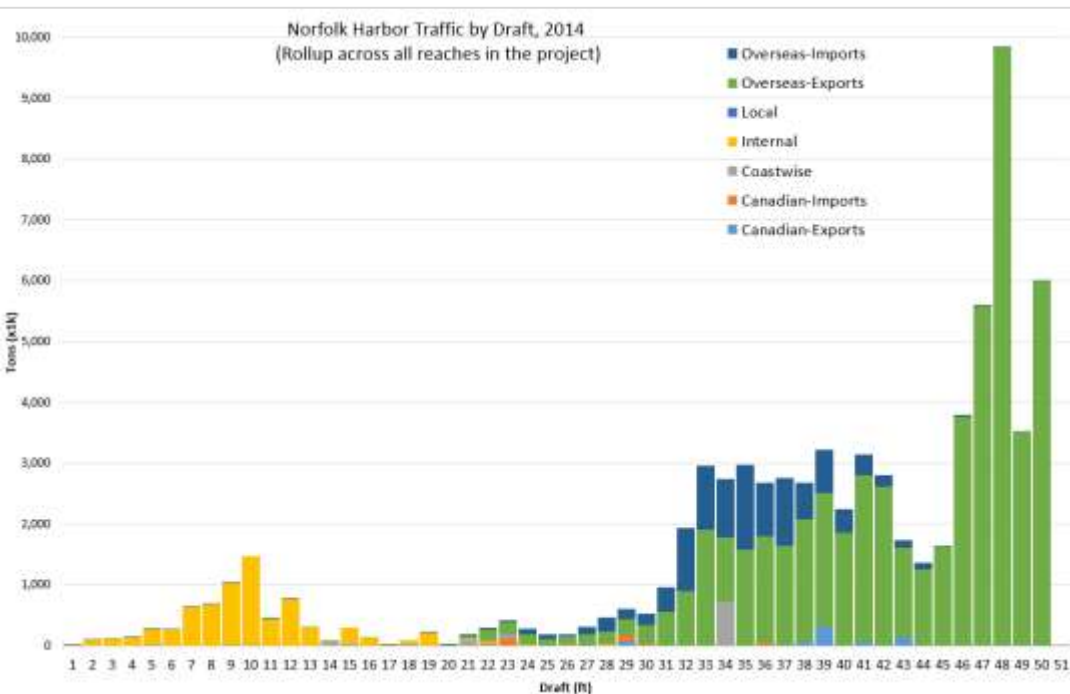
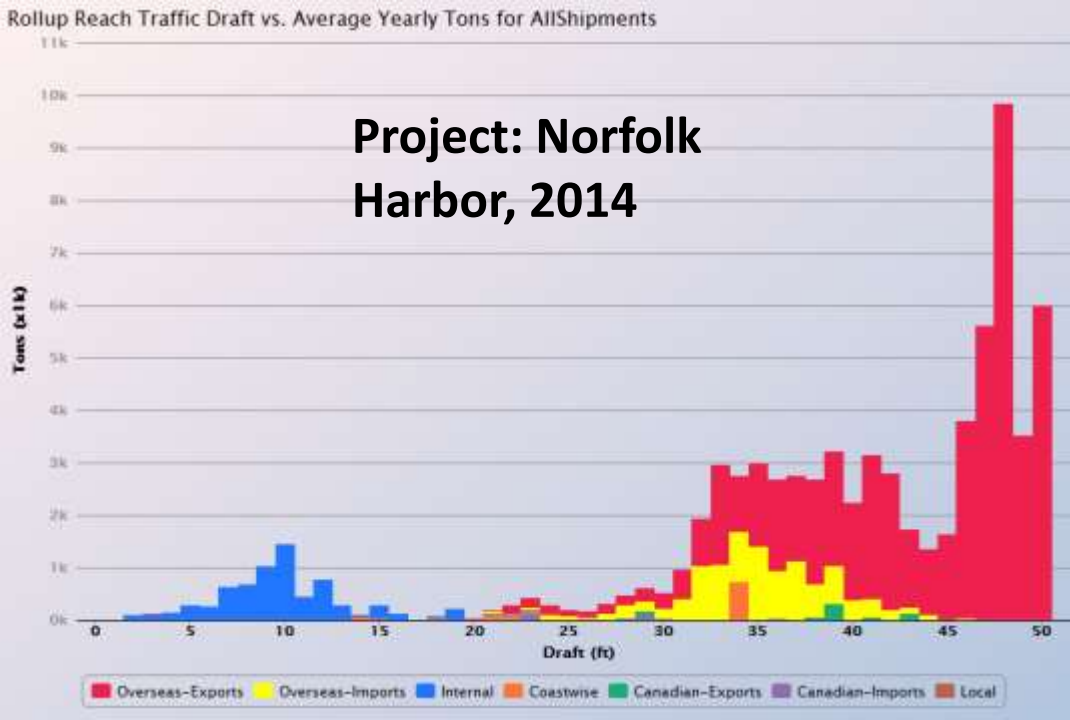


Sample CPT output graph shown below. If the default CPT output style doesn't meet your needs you can re-draw a graph in Excel.

Rollup Reach Traffic Draft vs. Average Yearly Tons for AllShipments



Project: Norfolk Harbor, 2014



This tutorial will show you how to redraw the original CPT graph (top) by exporting data to Excel and then redrawing the graph in Excel (bottom). This will allow you to customize the color scheme and other graphical elements to match your needs.

Query Settings: Preferences: all defaults (will include only 2014 data

Locations: Norfolk Harbor (project)

View the Reach level Rollup tab, then Export to Excel

Rankings Rollup Flow Work Package

Reach Rollup - Traffic

Group by: Draft System Vessel Type Traffic

Order Grid By: Trips Tons Dollars Update

Export to Excel Export to PDF

Drag and drop a column header and drop it here to group by that column

Year	Draft (ft)	Vessel Type
2014	48	Self-Propelled Dry
2014	50	Self-Propelled Dry
2014	47	Self-Propelled Dry
2014	46	Self-Propelled Dry
2014	49	Self-Propelled Dry
2014	41	Self-Propelled Dry
2014	42	Self-Propelled Dry
2014	39	Self-Propelled Dry

Export to Excel Export to PDF

After saving, open the exported file. The Title tab will greet you.

Hint: Now is a good time to add information about the REACHES included in the query.

The screenshot shows the Microsoft Excel interface. The title bar reads "Norfolk Harbor_2014_all commodities.xls [Compatibility Mode] - Excel". The ribbon is set to "REVIEW". The formula bar shows a warning: "WARNING These pages contain commercially sensitive statistics pertaining to rivers, harbors, and waterways and".

Row 1 contains a red warning message: "WARNING These pages contain commercially sensitive statistics pertaining to rivers, harbors, and waterways and must be held in strict confidence as required by 33 C.F.R. § 209.320. Unauthorized disclosure could result in loss of employment, fines, and imprisonment under 18 U.S.C. § 1905." This message is enclosed in a green border.

Row 2 contains the following text:

AVERAGE YEARLY ROLLUP REACH TRAFFIC ORDERED BY TONS

Filters: Network: CUSTOM; Value: Regional; Docked: Transit; Flow Docked: Transit; Shipment: AllShipments; Shoaling: DisableShoaling; System: AllSystems; Direction: AllDirections; Year Method: Calendar; Year: 2014; Year Rollup: YearsAveraged; VesselType: AllVesselTypes; Traffic: AllTraffic; Draft: AllDrafts; Draft: AllDrafts; Commodities: AllCommodities;

At the bottom of the window, the "Title" tab is highlighted with a yellow box. The status bar at the bottom right shows "COUNT: 14".

Click over to the Rollup Reach tab

It should look like the image below

Delete the columns that only have N/A records

The image shows the Microsoft Excel interface with the REVIEW tab selected. The ribbon includes options for Spelling, Research, Thesaurus, Translate, New Comment, Delete, Previous, Next, Show/Hide Comment, Show All Comments, Show Ink, Protect Sheet, Protect Workbook, Share Workbook, Track Changes, and Allow Users to Edit Ranges. The formula bar shows 'Year' in cell A1. The data table below has the following columns: Year, Draft, VesselType, Traffic, Tons (x1k), Dollars (x1k), Trips, TonMiles (x1k), DollarMiles (x1k), SystemTonMiles (x1k), and SystemDollarMiles (x1k). The 'Rollup Reach' tab is highlighted in the bottom status bar.

	A	B	C	D	E	F	G	H	I	J	K
1	Year	Draft	VesselType	Traffic	Tons (x1k)	Dollars (x1k)	Trips	TonMiles (x1k)	DollarMiles (x1k)	SystemTonMiles (x1k)	SystemDollarMiles (x1k)
2	2014	48	Self-Propelled Dry	Overseas-Exports	9,840.494	\$1,022,695.756	114	N/A	N/A	N/A	N/A
3	2014	50	Self-Propelled Dry	Overseas-Exports	5,995.026	\$629,105.200	48	N/A	N/A	N/A	N/A
4	2014	47	Self-Propelled Dry	Overseas-Exports	5,589.180	\$693,736.242	75	N/A	N/A	N/A	N/A
5	2014	46	Self-Propelled Dry	Overseas-Exports	3,766.939	\$530,523.607	44	N/A	N/A	N/A	N/A
6	2014	49	Self-Propelled Dry	Overseas-Exports	3,527.998	\$545,105.104	47	N/A	N/A	N/A	N/A
7	2014	41	Self-Propelled Dry	Overseas-Exports	2,736.186	\$1,199,809.637	88	N/A	N/A	N/A	N/A
8	2014	42	Self-Propelled Dry	Overseas-Exports	2,609.624	\$784,093.926	52	N/A	N/A	N/A	N/A
9	2014	39	Self-Propelled Dry	Overseas-Exports	2,194.404	\$3,107,627.070	135	N/A	N/A	N/A	N/A
10	2014	38	Self-Propelled Dry	Overseas-Exports	2,009.436	\$3,339,707.832	178	N/A	N/A	N/A	N/A
11	2014	33	Self-Propelled Dry	Overseas-Exports	1,889.938	\$3,831,864.415	214	N/A	N/A	N/A	N/A
12	2014	40	Self-Propelled Dry	Overseas-Exports	1,855.103	\$2,652,948.713	104	N/A	N/A	N/A	N/A
13	2014	36	Self-Propelled Dry	Overseas-Exports	1,729.776	\$4,970,772.105	256	N/A	N/A	N/A	N/A
14	2014	37	Self-Propelled Dry	Overseas-Exports	1,633.466	\$4,395,408.072	229	N/A	N/A	N/A	N/A

11	2014	33	Self-Propelled Dry	Overseas-Exports	1,889.938	\$3,831,864.415	214
12	2014	40	Self-Propelled Dry	Overseas-Exports	1,855.103	\$2,652,948.713	104
13	2014	36	Self-Propelled Dry	Overseas-Exports	1,729.776	\$4,970,772.105	256
14	2014	37	Self-Propelled Dry	Overseas-Exports	1,633.466	\$4,395,408.072	229
15	2014	45	Self-Propelled Dry	Overseas-Exports	1,619.562	\$429,030.320	27
16	2014	35	Self-Propelled Dry	Overseas-Exports	1,574.090	\$4,164,972.401	243
17	2014	43	Self-Propelled Dry	Overseas-Exports	1,477.719	\$962,164.159	47
18	2014	10	Dry Cargo Barge	Internal	1,361.460	\$630,659.201	631
19	2014	35	Self-Propelled Dry	Overseas-Imports	1,335.479	\$5,000,973.093	295
20	2014	44	Self-Propelled Dry	Overseas-Exports	1,260.718	\$325,503.010	26
21	2014	37	Self-Propelled Dry	Overseas-Imports	1,116.815	\$4,505,131.646	202
22	2014	34	Self-Propelled Dry	Overseas-Exports	1,066.211	\$1,920,599.980	119
23	2014	33	Self-Propelled Dry	Overseas-Imports	1,044.689	\$3,876,772.593	189
24	2014	32	Self-Propelled Dry	Overseas-Imports	992.675	\$3,986,826.865	191
25	2014	9	Dry Cargo Barge	Internal	972.889	\$1,113,397.340	404
26	2014	36	Self-Propelled Dry	Overseas-Imports	896.772	\$3,927,696.804	171
27	2014	34				\$3,039,716.446	149
28	2014	32				\$1,422,682.860	87
29	2014	34				\$64,186.572	18
30	2014	39				\$3,150,134.307	110
31	2014	12				\$516,555.546	193
32	2014	38				\$2,593,745.440	104
33	2014	31				\$1,011,843.738	89
34	2014	8				\$865,130.080	201
35	2014	40				\$1,668,799.994	67
36	2014	31				\$1,011,271.573	108
37	2014	11				\$501,918.295	171
38	2014	41				\$1,503,791.440	55
39	2014	7				\$179,953.773	189
40	2014	39				\$30,341.261	6
41	2014	30				\$570,071.017	48
42	2014	7				\$35,576.579	172
43	2014	13				\$432,490.427	52
44	2014	29	Self-Propelled Dry	Overseas-Exports	241.824	\$635,683.495	74

Move or Copy

Move selected sheets

To book:

Norfolk Harbor_2014_all commodities.xls

Before sheet:

Title

Rollup Reach

(move to end)

Create a copy

OK Cancel

Optional Step

create a copy of the entire **Rollup Reach** tab.

Right-click on the tab, check the box for **Create a copy**.

Rename the new tab to indicate it is your copy. Then do further edits and analysis in the copied version, leaving the original as a record.

Why do this?

If you mess up along the way, or accidentally delete something, you can always go back to your original to check on it, without having to re-run the CPT query.

Delete the 'TOTAL' row, this helps prevent any accidental skewing of sums later on

346	2014	39	Tanker	Overseas-Exports	0.000	\$0.000	1
347	2014	40	Self-Propelled Dry	Canadian-Exports	0.000	\$0.000	1
348	2014	44	Self-Propelled Dry	Canadian-Exports	0.000	\$0.000	1
349	2014	45	Self-Propelled Dry	Canadian-Exports	0.000	\$0.000	1
350	2014	46	Self-Propelled Dry	Canadian-Exports	0.000	\$0.000	4
351	2014	48	Self-Propelled Dry	Canadian-Exports	0.000	\$0.000	3
352	2014	49	Self-Propelled Dry	Canadian-Exports	0.000	\$0.000	1
353	2014	50	Self-Propelled Dry	Canadian-Exports	0.000	\$0.000	5
354	Total:				75,201.85	\$85,835,425.04	51,386.00
355							

Navigation: < > | Title | Rollup Reach | **Rollup Reach_copy** | (+)

FILE HOME INSERT PAGE LAYOUT FORMULAS DATA REVIEW VIEW ACROBAT

Cut Copy Paste Format Painter Clipboard

HELVETICA 10 A A B I U Font

Alignment

G353 : X ✓ fx 5

	A	B	C	D	E	F	G	H
1	Year	Draft	VesselType	Traffic	Tons (x1k)	Dollars (x1k)	Trips	
2	2014	48	Self-Propelled Dry	Overseas-Ex		56	114	
3	2014	50	Self-Propelled Dry	Overseas-Ex		00	48	
4	2014	47	Self-Propelled Dry	Overseas-Ex		42	75	
5	2014	46	Self-Propelled Dry	Overseas-Ex		07	44	
6	2014	49	Self-Propelled Dry	Overseas-Ex		04	47	
7	2014	41	Self-Propelled Dry	Overseas-Ex		37	88	
8	2014	42	Self-Propelled Dry	Overseas-Ex		26	52	
9	2014	39	Self-Propelled Dry	Overseas-Ex		70	135	
10	2014	38	Self-Propelled Dry	Overseas-Ex		32	178	
11	2014	33	Self-Propelled Dry	Overseas-Exports	1,889.938	\$3,831,864.415	214	
12	2014	40	Self-Propelled Dry	Overseas-Exports	1,855.103	\$2,652,948.713	104	
13	2014	36	Self-Propelled Dry	Overseas-Exports	1,729.776	\$4,970,772.105	256	
14	2014	37	Self-Propelled Dry	Overseas-Exports	1,633.466	\$4,395,408.072	229	
15	2014	45	Self-Propelled Dry	Overseas-Exports	1,619.562	\$429,030.320	27	
16	2014	35	Self-Propelled Dry	Overseas-Exports	1,574.090	\$4,164,972.401	243	
17	2014	43	Self-Propelled Dry	Overseas-Exports	1,477.719	\$962,164.159	47	
18	2014	10	Dry Cargo Barge	Internal	1,361.460	\$630,659.201	631	
19	2014	35	Self-Propelled Dry	Overseas-Imports	1,335.479	\$5,000,973.093	295	
20	2014	44	Self-Propelled Dry	Overseas-Exports	1,260.718	\$325,503.010	26	
21	2014	37	Self-Propelled Dry	Overseas-Imports	1,116.815	\$4,505,131.646	202	
22	2014	34	Self-Propelled Dry	Overseas-Exports	1,066.211	\$1,920,599.980	119	
23	2014	33	Self-Propelled Dry	Overseas-Imports	1,044.689	\$3,876,772.593	189	
24	2014	32	Self-Propelled Dry	Overseas-Imports	992.675	\$3,986,826.865	191	
25	2014	9	Dry Cargo Barge	Internal	972.889	\$1,113,397.340	404	
26	2014	36	Self-Propelled Dry	Overseas-Imports	896.772	\$3,927,696.804	171	
27	2014	34	Self-Propelled Dry	Overseas-Imports	890.147	\$3,039,716.446	149	

Number Stored as Text

Convert to Number

Help on this error

Ignore Error

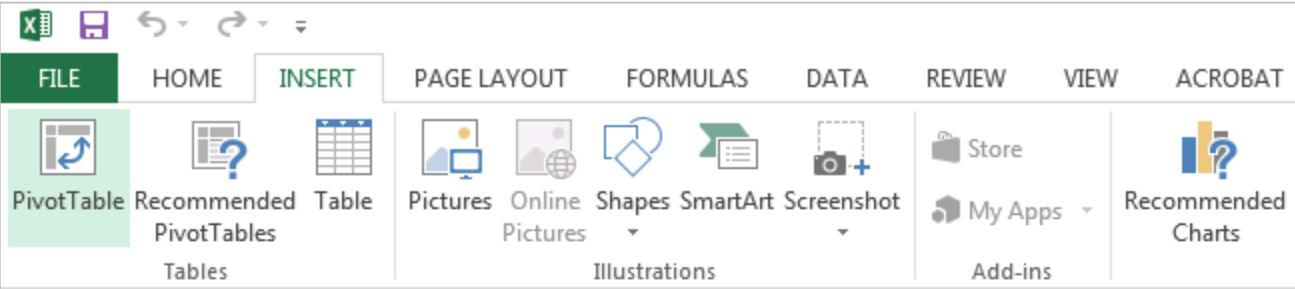
Edit in Formula Bar

Error Checking Options...

Notice the small green triangle in the corner of many cells?

That means Excel is reading the content as text, but you want it to read as numbers.

Select the affected cells, click on the yellow alert diamond, select **Convert to Number**



Select **only the cells** included in your results.

G353 : [X] [✓] [fx] 5

	A	B	C	D	E	F	G	H
1	Year	Draft	VesselType	Traffic	Tons (x1k)	Dollars (x1k)	Trips	
2	2014	48	Self-Propelled Dry	Overseas-Exports	9,840.49	\$1,022,695.76	114	
3	2014	50	Self-Propelled Dry	Overseas-Exports	5,995.03	\$629,105.20	48	
4	2014	47	Self-Propelled Dry	Overseas-Exports	5,589.18	\$693,736.24	75	
5	2014	46	Self-Propelled Dry	Overseas-Exports	3,766.94	\$530,523.61	44	
6	2014	49	Self-Propelled Dry	Overseas-Exports	3,528.00	\$545,105.10	47	
7	2014	41	Self-Propelled Dry	Overseas-Exports	2,736.19	\$1,199,809.64	88	
8	2014	42	Self-Propelled Dry	Overseas-Exports	2,609.62	\$784,093.93	52	
9	2014	39	Self-Propelled Dry	Overseas-Exports	2,194.40	\$3,107,627.07	135	
10	2014	38	Self-Propelled Dry	Overseas-Exports	2,009.44	\$3,339,707.83	178	
11	2014	33	Self-Propelled Dry	Overseas-Exports	1,889.94	\$3,831,864.42	214	
12	2014	40	Self-Propelled Dry	Overseas-Exports	1,855.10	\$2,652,948.71	104	
13	2014	36	Self-Propelled Dry	Overseas-Exports	1,729.78	\$4,970,772.11	256	
14	2014	37	Self-Propelled Dry	Overseas-Exports	1,633.47	\$4,395,408.07	229	
15	2014	45	Self-Propelled Dry	Overseas-Exports	1,619.56	\$429,030.32	27	
16	2014	35	Self-Propelled Dry	Overseas-Exports	1,574.09	\$4,164,972.40	243	
17	2014	43	Self-Propelled Dry	Overseas-Exports	1,477.72	\$962,164.16	47	
18	2014	10	Dry Cargo Barge	Internal	1,361.46	\$630,659.20	631	
19	2014	35	Self-Propelled Dry	Overseas-Imports	1,335.48	\$5,000,973.09	295	
20	2014	44	Self-Propelled Dry	Overseas-Exports	1,260.72	\$325,503.01	26	
21	2014	37	Self-Propelled Dry	Overseas-Imports	1,116.82	\$4,505,131.65	202	
22	2014	24	Self-Propelled Dry	Overseas-Exports	1,066.24	\$1,020,500.00	110	

(If you select by highlighting the entire column it will give you 'blank' categories later. Those are annoying.)

Insert menu: Pivot Table

	A	B	C	D	E	F	G
1	Year	Draft	VesselType	Traffic	Tons (x1k)	Dollars (x1k)	Trips
2	2014	48	Self-Propelled Dry	Overseas-Exports	9,840.49	\$1,022,695.76	114
3	2014	50	Self-Propelled Dry	Overseas-Exports	5,995.03	\$629,105.20	48
4	2014	47	Self-Propelled Dry	Overseas-Exports	5,589.18	\$693,736.24	75
5	2014	46	Self-Propelled Dry	Overseas-Exports	3,766.94	\$530,523.61	44
6	2014	49	Self-Propelled Dry	Overseas-Exports	3,766.94	\$530,523.61	47
7	2014	41	Self-Propelled Dry	Overseas-Exports	3,766.94	\$530,523.61	88
8	2014	42	Self-Propelled Dry	Overseas-Exports	3,766.94	\$530,523.61	52
9	2014	39	Self-Propelled Dry	Overseas-Exports	3,766.94	\$530,523.61	135
10	2014	38	Self-Propelled Dry	Overseas-Exports	3,766.94	\$530,523.61	178
11	2014	33	Self-Propelled Dry	Overseas-Exports	3,766.94	\$530,523.61	214
12	2014	40	Self-Propelled Dry	Overseas-Exports	3,766.94	\$530,523.61	104
13	2014	36	Self-Propelled Dry	Overseas-Exports	3,766.94	\$530,523.61	256
14	2014	37	Self-Propelled Dry	Overseas-Exports	3,766.94	\$530,523.61	229
15	2014	45	Self-Propelled Dry	Overseas-Exports	3,766.94	\$530,523.61	27
16	2014	35	Self-Propelled Dry	Overseas-Exports	3,766.94	\$530,523.61	243
17	2014	43	Self-Propelled Dry	Overseas-Exports	3,766.94	\$530,523.61	47
18	2014	10	Dry Cargo Barge	Internal	972.889	\$1,113,397.34	631
19	2014	35	Self-Propelled Dry	Overseas-Exports	3,766.94	\$530,523.61	295
20	2014	44	Self-Propelled Dry	Overseas-Exports	3,766.94	\$530,523.61	26
21	2014	37	Self-Propelled Dry	Overseas-Exports	3,766.94	\$530,523.61	202
22	2014	34	Self-Propelled Dry	Overseas-Exports	3,766.94	\$530,523.61	119
23	2014	33	Self-Propelled Dry	Overseas-Exports	3,766.94	\$530,523.61	189
24	2014	32	Self-Propelled Dry	Overseas-Exports	3,766.94	\$530,523.61	191
25	2014	9	Dry Cargo Barge	Internal	972.889	\$1,113,397.34	404
26	2014	36	Self-Propelled Dry	Overseas-Imports	896.772	\$3,927,696.80	171
27	2014	34	Self-Propelled Dry	Overseas-Imports	890.147	\$3,039,716.45	149
28	2014	32	Self-Propelled Dry	Overseas-Exports	859.918	\$1,422,682.86	87
29	2014	34	Self-Propelled Dry	Coastwise	720.388	\$64,186.57	18

Create PivotTable

Choose the data that you want to analyze

Select a table or range

Table/Range: 'Rollup Reach_copy'!\$A\$1:\$G\$353

Use an external data source

Choose Connection...

Connection name:

Choose where you want the PivotTable report to be placed

New Worksheet

Existing Worksheet

Location:

Choose whether you want to analyze multiple tables

Add this data to the Data Model

OK Cancel

If you've selected all the cells the Table/Range field will already be populated.

Choose to place the PivotTable in a New Worksheet.

You will see a blank PivotTable on the left, and the PivotTable Fields menu on the right. Check the boxes next to the fields you want to add. In this case we will select **Draft**, **Traffic**, and **Tons (x1k)** fields.

The screenshot displays an Excel spreadsheet with a PivotTable structure. The PivotTable is defined by a blue border and contains four labeled areas: "Drop Report Filter Fields Here" at the top, "Drop Column Fields Here" on the right side, "Drop Row Fields Here" on the left side, and "Drop Value Fields Here" in the center. The spreadsheet columns are labeled A through G, and rows are numbered 1 through 29. The PivotTable Fields task pane is open on the right side of the screen. It features a title bar "PivotTable Fields" with a close button. Below the title bar is a "Choose fields to add to report:" section with a settings icon. A list of fields is shown with checkboxes: Year, Draft, VesselType, Traffic, Tons (x1k), Dollars (x1k), and Trips. Below this list is a section titled "Drag fields between areas below:" which is divided into four quadrants: FILTERS (with a funnel icon), COLUMNS (with a vertical bar icon), ROWS (with a horizontal bar icon), and VALUES (with a summation symbol icon). At the bottom of the task pane, there is a "Defer Layout Update" checkbox and an "UPDATE" button. The Excel status bar at the bottom shows the current sheet is "Sheet2" and the workbook is "Rollup Reach_ ...".

Select fields to add, by default they might all appear as rows.

If so, simply drag it to another area.

In this example, we will move **Traffic** to COLUMNS and **Tons(x1k)** to VALUES.

The screenshot shows an Excel PivotTable with the following data:

Draft	Traffic	Tons (x1k)
1	Coastwise	0
	Coastwise Total	
	Internal	0
	Internal Total	
	Local	0.08
	Local Total	
1 Total		
2	Coastwise	0
	Coastwise Total	
	Internal	0
	Internal Total	
	Local	0.4
	Local Total	
2 Total		
3	Coastwise	0
	Coastwise Total	
	Internal	0
Internal Total		
Local		47.143
Local Total		

The PivotTable Fields task pane on the right is configured as follows:

- Choose fields to add to report:** Year, Draft, VesselType, Traffic, Tons (x1k), Dollars (x1k).
- Drag fields between areas below:**
 - FILTERS:** (Empty)
 - COLUMNS:** (Empty)
 - ROWS:** Draft, Traffic, Tons (x1k)
 - VALUES:** (Empty)
- Defer Layout Update:**
- UPDATE:** [Button]

Drag fields between areas below:

Y FILTERS

III COLUMNS

Traffic

ROWS

Draft

Σ VALUES

Count of Ton...

1. After moving **Traffic** to COLUMNS, and **Tons (x1k)** to VALUES the field areas will appear like the left image.

Note that the Tons(x1k) changed to be Count of Tons(x1k). We don't want the count of tonnage records, we want the Sum.

2. Select the drop-down menu in the Count of Tons and select **Value Field Settings**.

Drag fields

Y FILTERS

Move Up

Move Down

Move to Beginning

Move to End

Y Move to Report Filter

≡ Move to Row Labels

III Move to Column Labels

Σ Move to Values

X Remove Field

ROWS

Draft

Count of Ton...

Value Field Settings...

3. Change the **Summarize value field** by to Sum

Value Field Settings

Source Name: Tons (x1k)

Custom Name: Sum of Tons (x1k)

Summarize Values By Show Values As

Summarize value field by

Choose the type of calculation that you want to use to summarize data from the selected field

Sum

Count

Average

Max

Min

Product

Number Format

OK

Cancel

Your table should now have all the **Traffic** categories as columns, and each **Draft** increment as a row. The sum of tonnage for each traffic category and draft increment is shown within the table.

	A	B	C	D	E	F
1	Drop Report Filter Fields Here					
2						
3	Sum of Tons (x1k)	Traffic				
4	Draft	Canadian-Exports	Canadian-Imports	Coastwise	Internal	Local
5	1			0	16.443	1.123
6	2			0.358	88.819	3.229
7	3			0	107.841	4.412
8	4			0	145.675	2.91
9	5			11.152	274.286	1.559
10	6			3.184	259.361	2.329
11	7			2.855	631.447	1
12	8			6.614	677.849	1.133
13	9			11.589	1025.629	2.401
14	10			8.941	1454.978	
15	11			0	432.78	8.42
16	12	0		7.036	768.306	1.6
17	13			3.759	285.656	
18	14	0		62.26	21.274	0.1
19	15	0	0	25.756	261.351	0
20	16	0	0	0	121.143	
21	17			3.263	14.197	
22	18	0		28.893	60.411	
23	19	0	0		210	
24	20	0	0	2.737	3.414	
25	21			95.6	32.734	
26	22		14.441	33.003	32.818	
27	23	0.974	120.484	59.762	11.915	
28	24	0	0		18.217	
29	25		0	0		

PivotTable Fields

Choose fields to add to report:

- Year
- Draft**
- VesselType
- Traffic**
- Tons (x1k)**
- Dollars (x1k)

Drag fields between areas below:

▼ FILTERS	 COLUMNS
	Traffic
≡ ROWS	Σ VALUES
Draft	Sum of Tons (...)

Defer Layout Update UPDATE

To make a graph of this data: Select rows and columns within the pivot table, EXCLUDING the Grand Total Column. Go to the **Insert** menu, bar chart, select the Stacked bar chart option (you should see a preview of the graph appear in the middle of your screen)

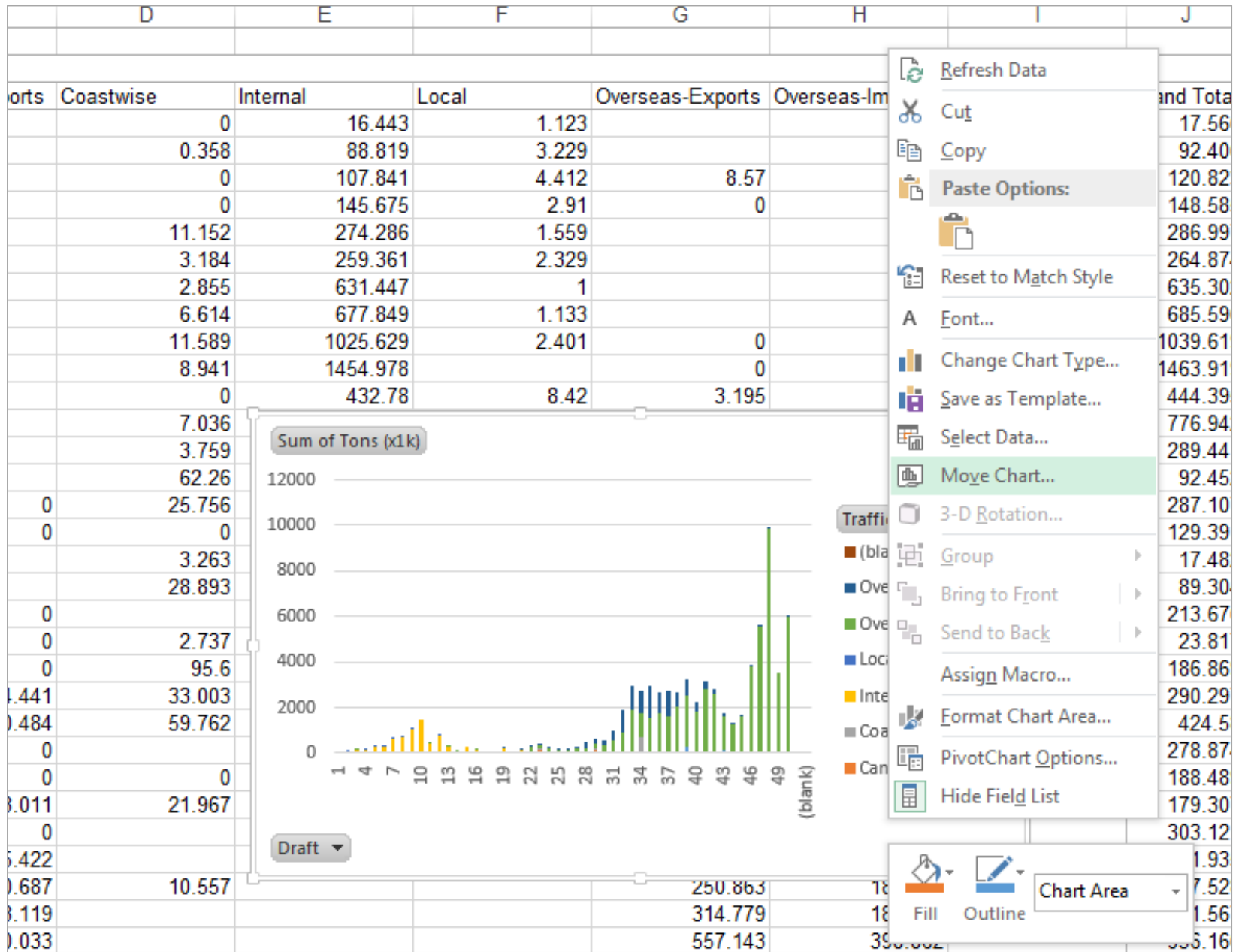
Norfolk Harbor_2014_all commodities.xls [Compatibility Mode] - Excel

PIVOTTABLE TOOLS: ANALYZE DESIGN

2-D Column, 3-D Column, More Column Charts...

	A	B	C	D	E	F	G
2							
3	Sum of Tons (x1k)	Traffic					
4	Draft	Canadian-Exports	Canadian-Imports	Coastwise	Internal	Local	Overseas-Exports
5	1			0	16.443	1.123	
6	2			0.358	88.819	3.229	
7	3			0	107.841	4.412	8.57
8	4			0	145.675	2.91	0
9	5			11.152	274.286	1.559	
10	6			3.184	259.361	2.329	
11	7			2.855	631.447	1	
12	8			6.614	677.849	1.133	
13	9			11.589	1025.629	2.401	0
14	10			8.941	1454.978		0
15	11			0	432.78	8.42	3.195
16	12	0		7.036	768.30		
17	13			3.759	285.65		
18	14	0		62.26	21.27		
19	15	0	0	25.756	261.35		
20	16	0	0	0	121.14		
21	17			3.263	14.19		
22	18	0		28.893	60.41		
23	19	0	0		21		
24	20	0	0	2.737	3.41		
25	21			95.6	32.73		
26	22		14.441	33.003	32.81		
27	23	0.974	120.484	59.762	11.91		
28	24	0	0		18.21		
29	25			0	0		
30	26	0	13.011	21.967			
31	27	0.003	0				
32	28	0.049	15.422		18.21		
33	29	65.022	100.687	10.557			
34	30		33.119				
35	31	0.128	0.033				

It is easier to work with the graph if we can view it as large as possible.
 Right click on the chart, select 'Move Chart', then select 'New Sheet'

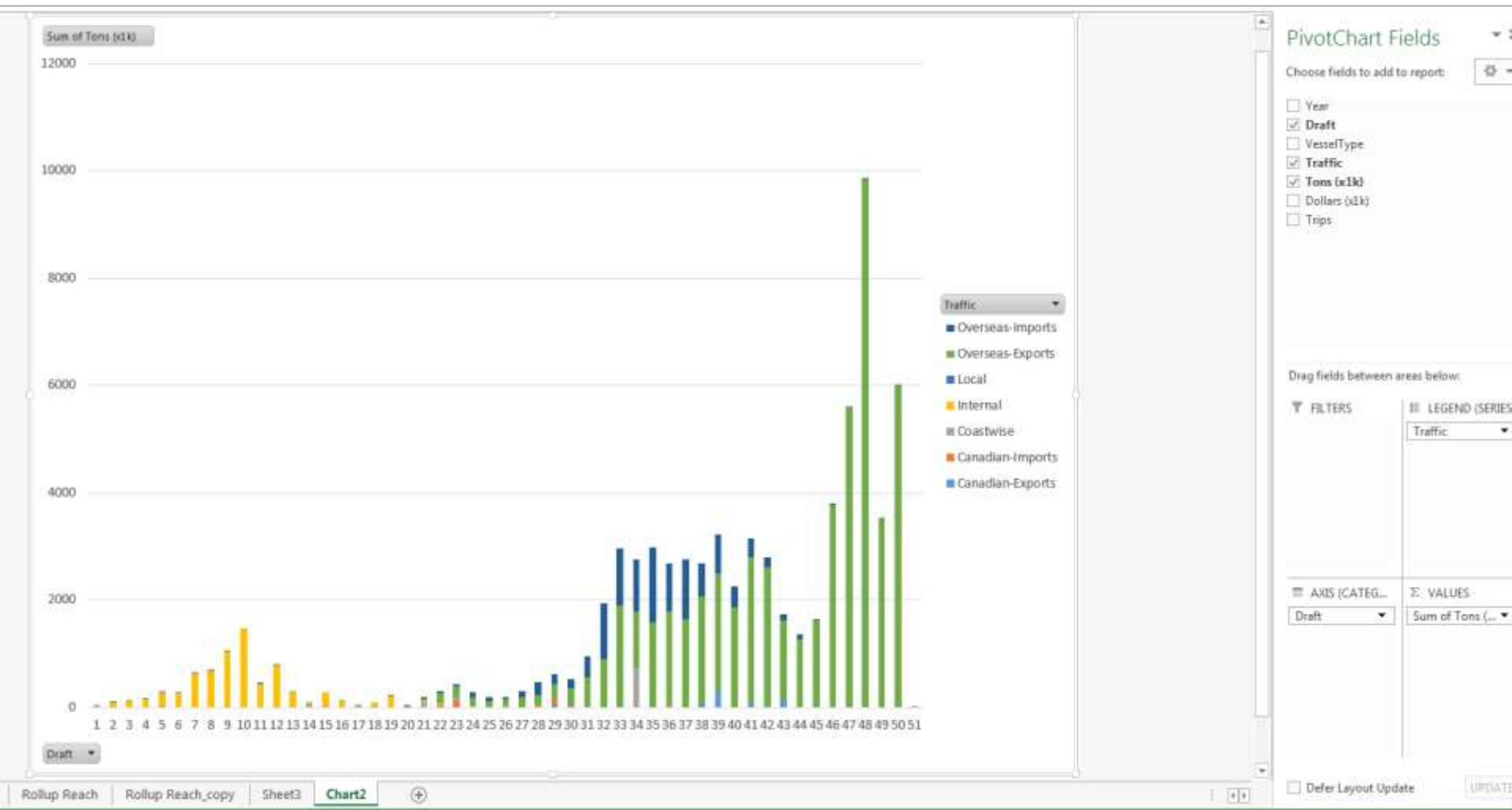


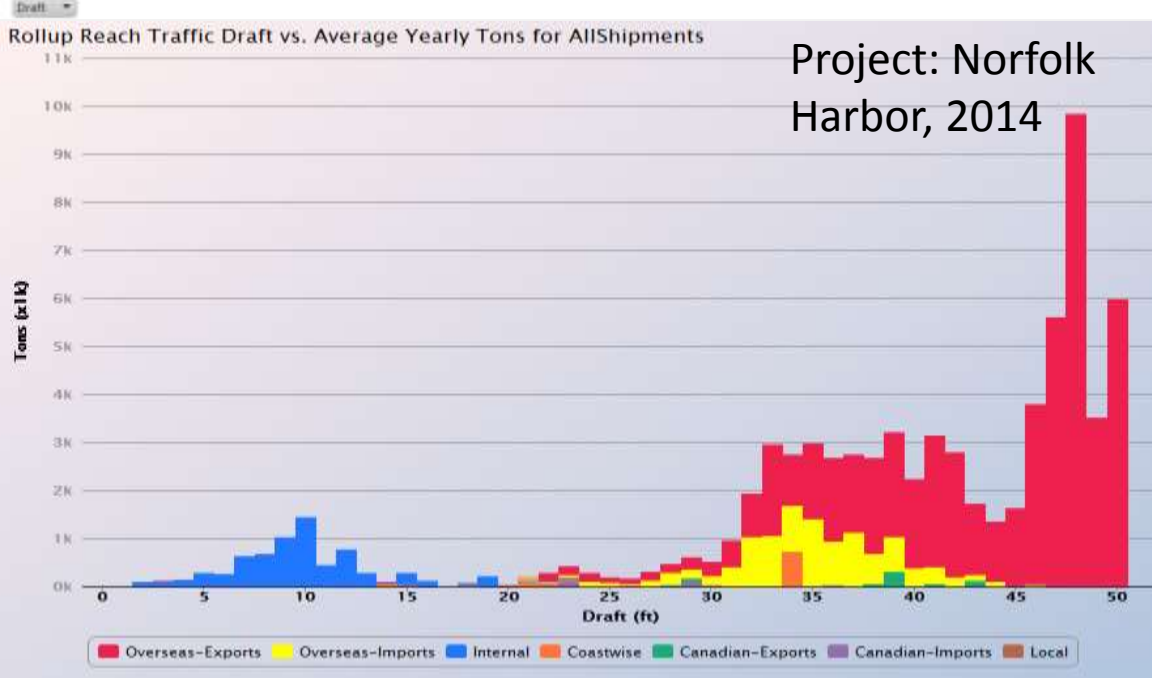
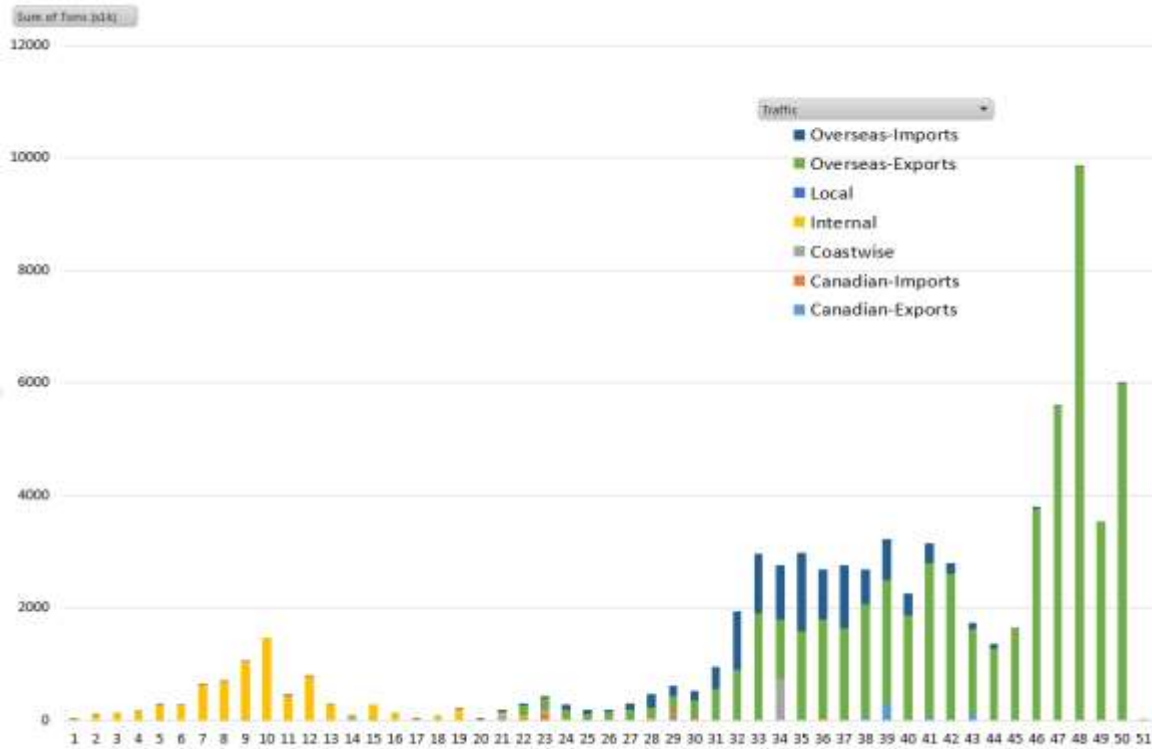
You now have the graph in a new worksheet.

At this point you can change the font, bar colors, numerical display, etc to customize the display of your graph.

I recommend *at least* adding a title and axis labels.

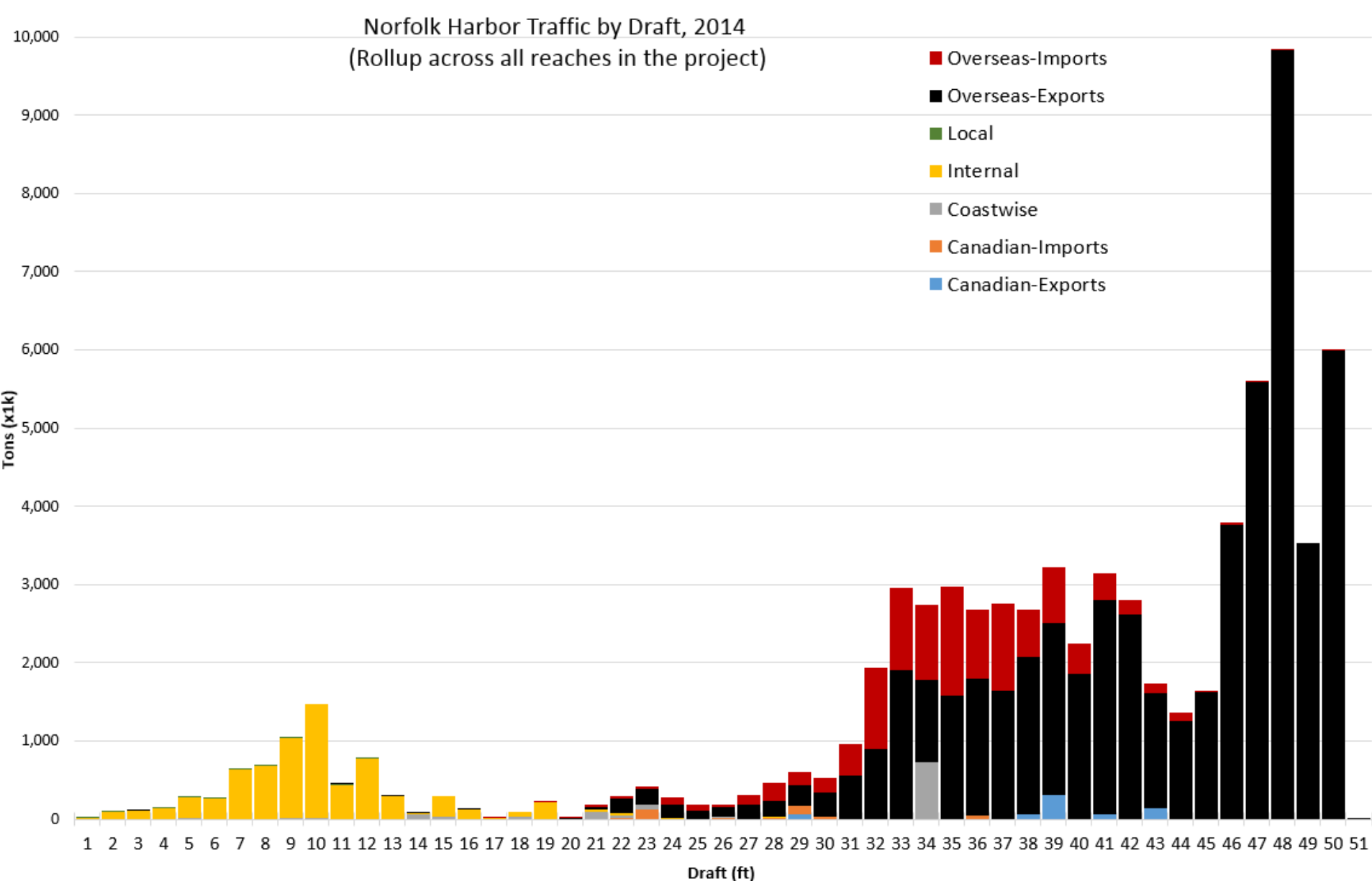
Go to the **Design** menu, select **Add Chart Element** to see the options.





Compare the redrawn graph to the original CPT output. This acts as a check to make sure the Pivot Table includes the correct data elements.

Users can change colors to emphasize different categories of traffic.



End of tutorial.

For questions or design discussions please email
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