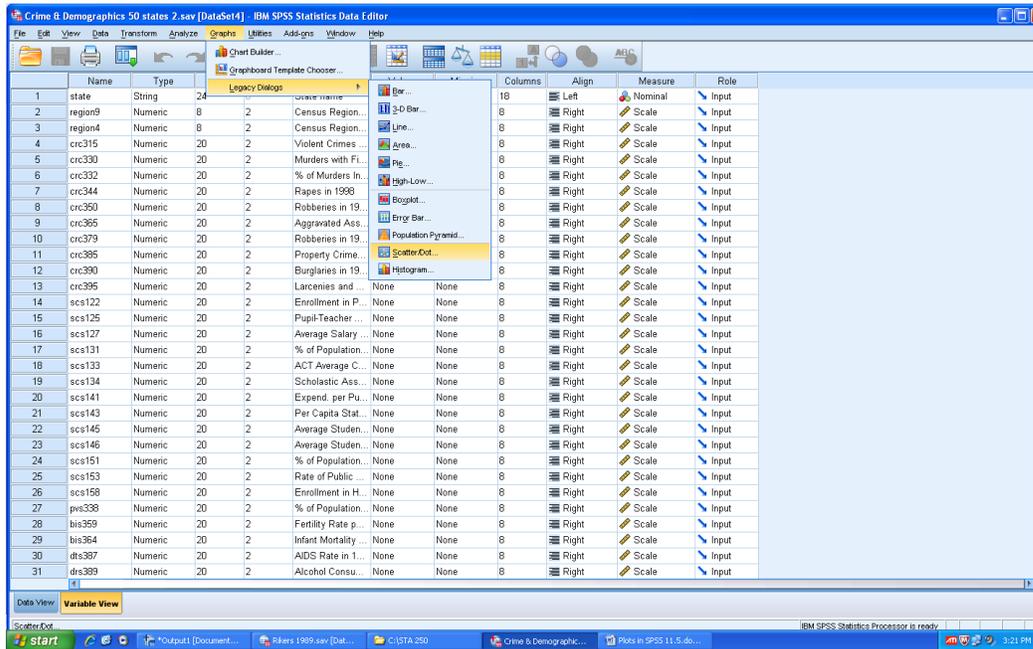
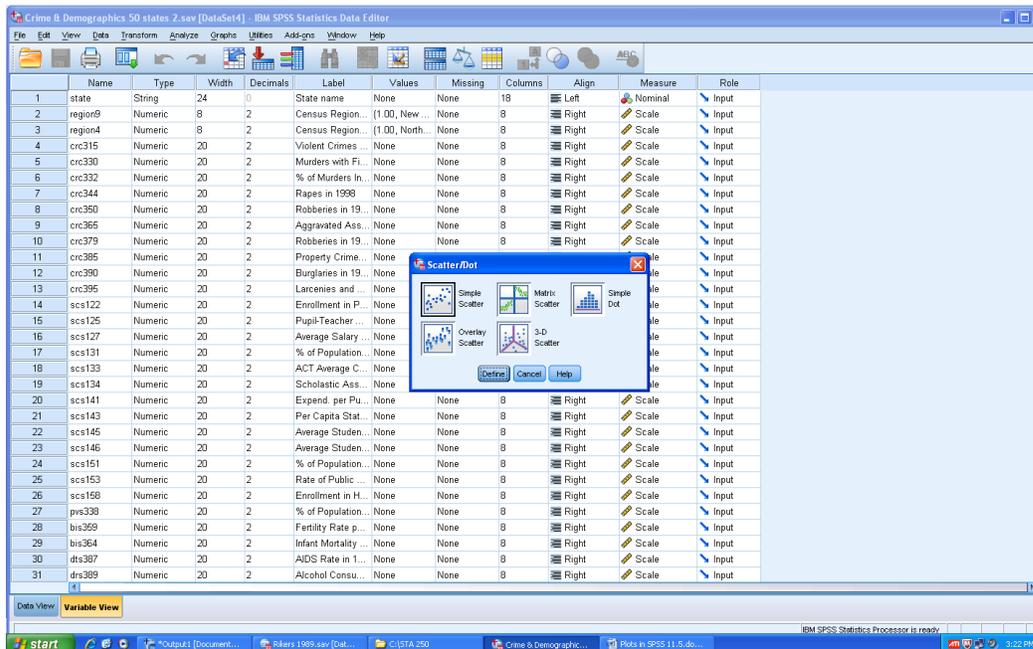


ScatterPlots in IBM SPSS versions 21-22

Step 1: Choose Scatter/Dot from the Graphs > Legacy Dialogs menu



Then choose SIMPLE



Then select DEFINE > select your X and Y variables. The dependent variable here is of Percent of Murders with Firearms (on the Y axis) and the independent variable is Pupil-Teacher Ratio in Public Schools (on the X axis).

IBM SPSS Statistics Data Editor

File Edit View Data Transform Analyze Graphs Utilities Add-ons Window Help

Visible: 50 of 50 Variables

	state	region9	region	crc315	crc330	crc332	crc344	crc350	crc365	crc379	crc395	crc390	crc3	
1	Alabama	5.00	3.00	22206.00	193.00	66.60	1443.00	5698.00	14791.00	177779.00	41965.00	120943.00	148	
2	Alaska	9.00	4.00	4015.00	19.00	52.90	421.00	532.00	3021.00	25316.00	4098.00	18611.00	26	
3	Arizona	8.00	4.00	26984.00	268.00	74.00	1451.00	7715.00	17442.00	280001.00	56473.00	183137.00	403	
4	Arkansas	6.00	3.00	12442.00	134.00	66.70	893.00	2442.00	8906.00	96271.00	23659.00	66525.00	71	
5	California	9.00	9.00						149148.00	1188791.00	269012.00	724262.00	1955	
6	Colorado	8.00							9704.00	163189.00	31231.00	115871.00	160	
7	Connecticut	1.00							6751.00	111978.00	21801.00	77472.00	127	
8	Delaware	4.00							3707.00	34230.00	6395.00	24649.00	31	
9	District of Columbia	4.00							4932.00	37222.00	6361.00	24360.00	65	
10	Florida	4.00							95447.00	887107.00	203105.00	579752.00	1042	
11	Georgia	4.00							26514.00	373717.00	75720.00	256469.00	425	
12	Hawaii	9.00							1345.00	60677.00	11169.00	43914.00	55	
13	Idaho	8.00							2782.00	42185.00	9518.00	31395.00	22	
14	Illinois	3.00							62261.00	489632.00	99509.00	337191.00	629	
15	Indiana	3.00							16458.00	226529.00	46552.00	152790.00	211	
16	Iowa	7.00							6678.00	91272.00	19202.00	66016.00	69	
17	Kansas	7.00							6882.00	117299.00	23465.00	87845.00	59	
18	Kentucky	5.00							6877.00	102546.00	25088.00	68884.00	95	
19	Louisiana	6.00							23237.00	232378.00	51210.00	157507.00	236	
20	Maine	1.00							1052.00	36261.00	8295.00	26457.00	15	
21	Maryland	4.00							23337.00	234624.00	47393.00	159019.00	282	
22	Massachusetts	1.00							30443.00	173011.00	37333.00	109275.00	264	
23	Michigan	3.00							39987.00	398773.00	82249.00	258186.00	683	
24	Minnesota	7.00							7806.00	176541.00	32486.00	128689.00	153	
25	Mississippi	5.00							6667.00	109345.00	31498.00	68525.00	93	
26	Missouri	7.00							20244.00	232284.00	47455.00	160363.00	244	
27	Montana	8.00							853.00	34601.00	4501.00	28066.00	20	
28	Nebraska	7.00							5749.00	65752.00	10544.00	49420.00	57	
29	Nevada	8.00							5710.00	81006.00	19873.00	47367.00	137	
30	New Hampshire	1.00		100	1270.00	10	28700	80000	28900	597	27406.00	3952.00	22079.00	14
31	New Jersey	2.00	1.00	35717.00	144.00	44.70	1623.00	15109.00	18663.00	26810.00	54459.00	171166.00	351	
32	New Mexico	8.00	4.00	16700.00	84.00	60.40	957.00	2639.00	12714.00	100011.00	24213.00	65031.00	107	
33	New York	2.00	1.00	115915.00	521.00	68.00	3843.00	49125.00	62023.00	536287.00	104821.00	363296.00	681	
34	North Carolina	4.00	3.00	43723.00	373.00	61.40	2311.00	12133.00	28667.00	357892.00	99951.00	233325.00	246	
35	North Dakota	7.00	2.00	570.00	3.00	60.00	212.00	65.00	286.00	16535.00	2274.00	13134.00	11	
36	Ohio	3.00	2.00	40628.00	210.00	59.30	4543.00	14960.00	20682.00	444438.00	90885.00	310612.00	430	

Simple Scatterplot

Y Axis: % of Murders Involving Firearm...
X Axis: Pupil-Teacher Ratio in Public Elem & Sec Schools 1999

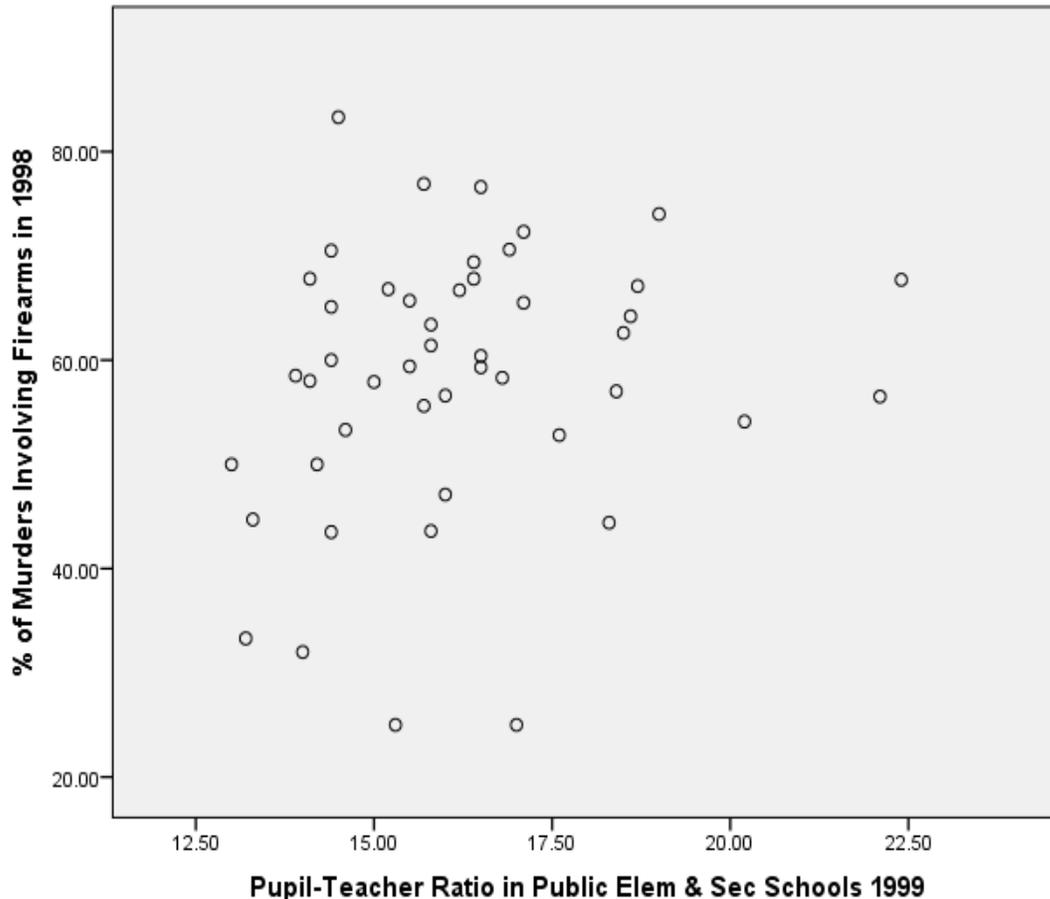
Set Markers by:
Label Cases by:

Panel by:
Rows:
Columns:

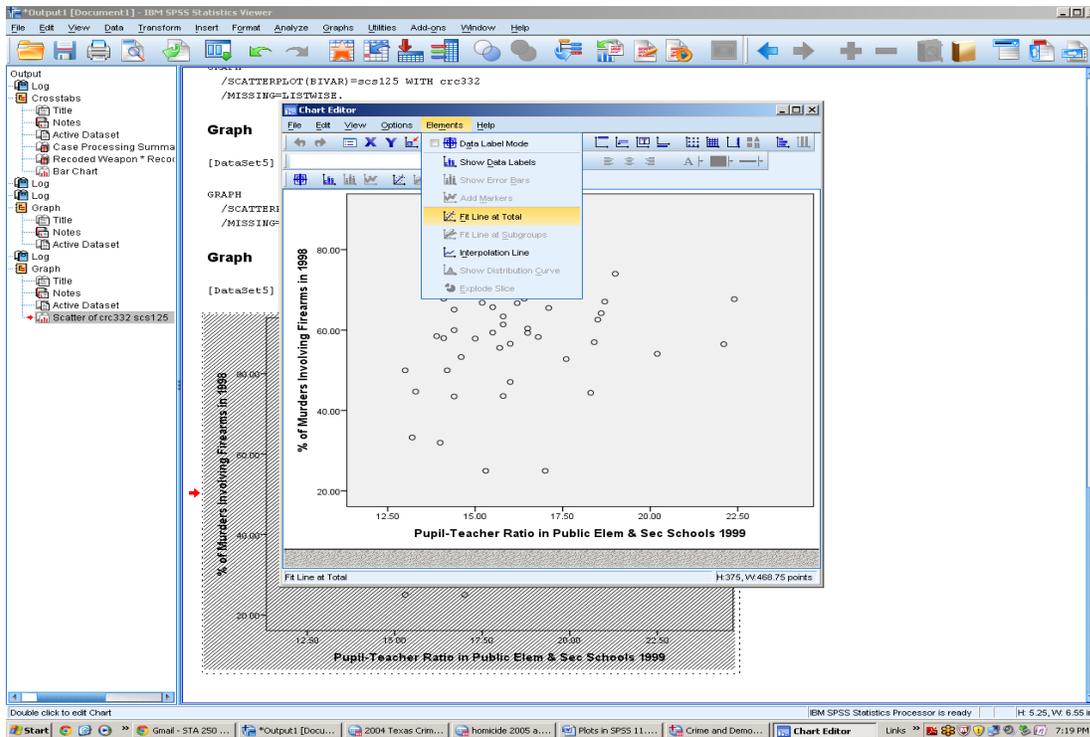
Template
Use chart specifications from:

OK Paste Reset Cancel Help

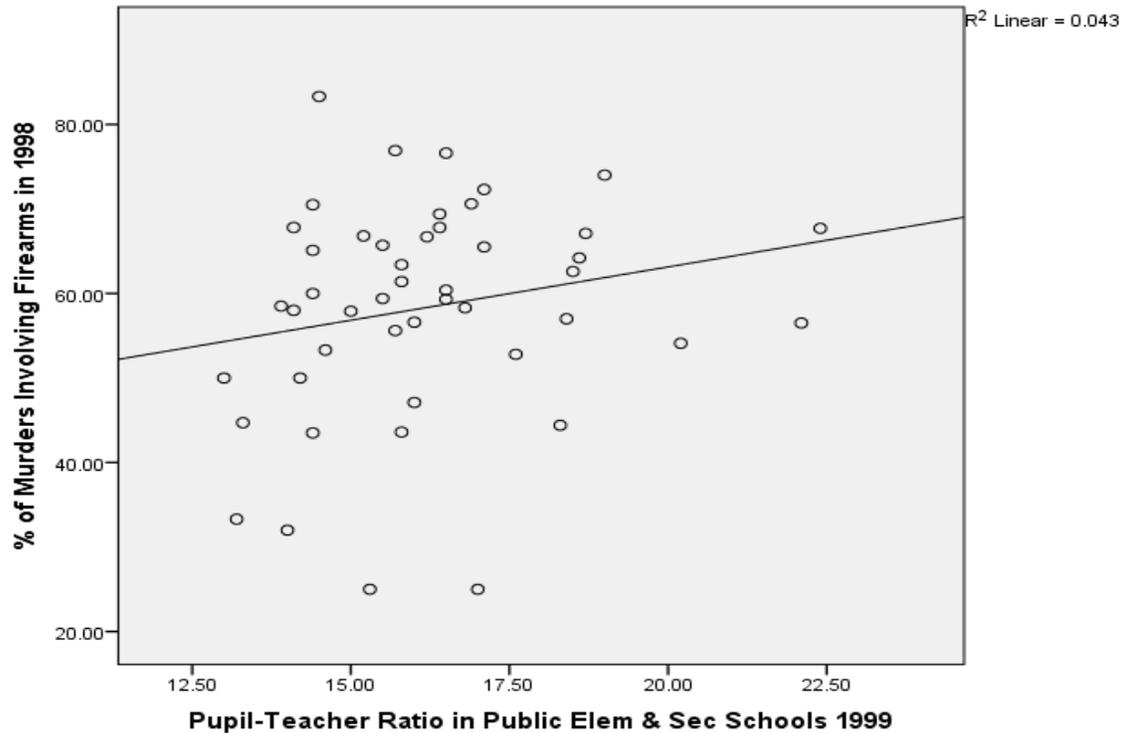
Pressing OK will generate the scatterplot.



Working from your Output window, doubleclick the chart area to bring up the Chart Editor and the choose Options from the Chart menu to get what you see below. You can check the TOTAL box under Fit Line.

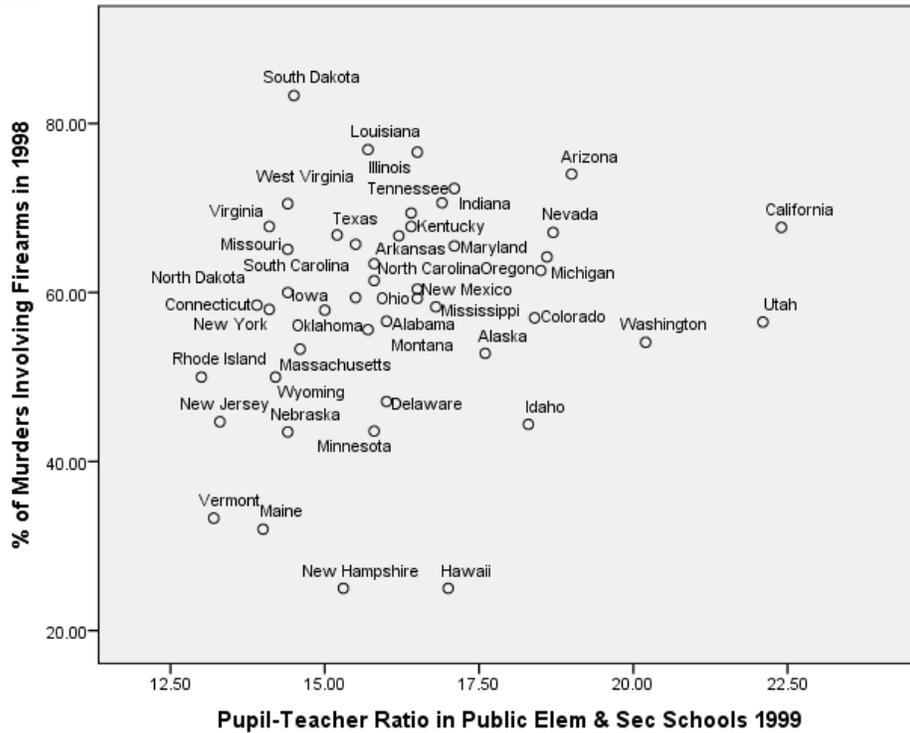
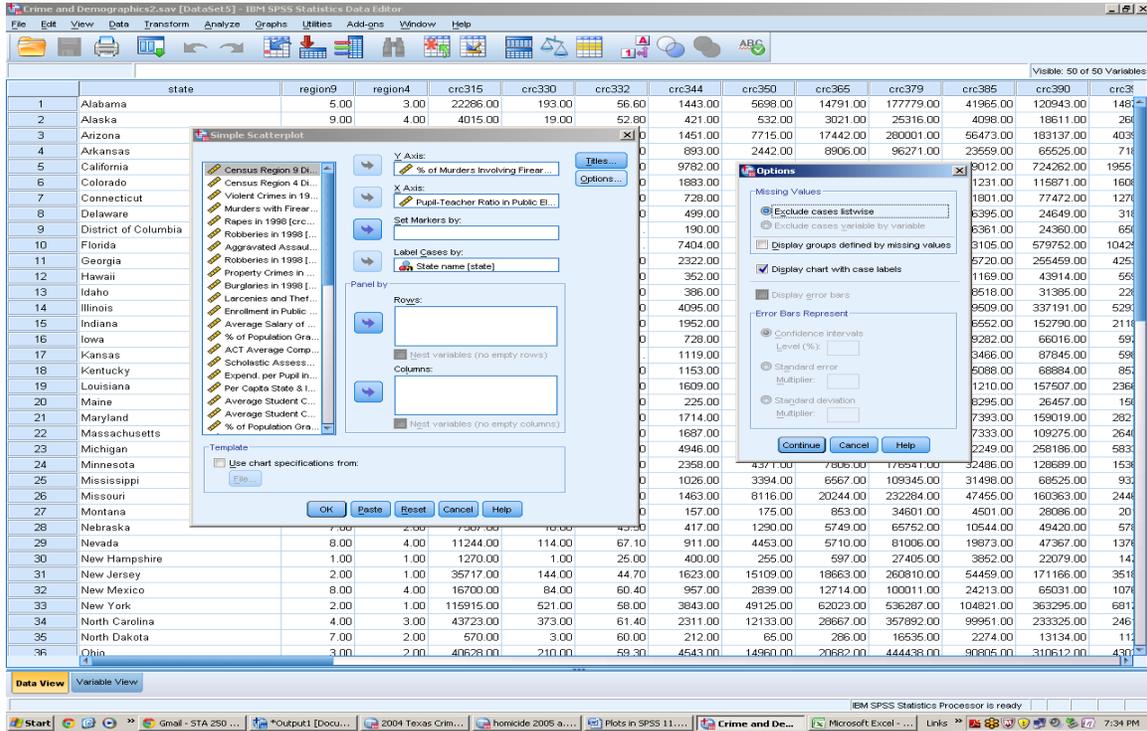


This “Line of Best Fit” is now shown on your plot.

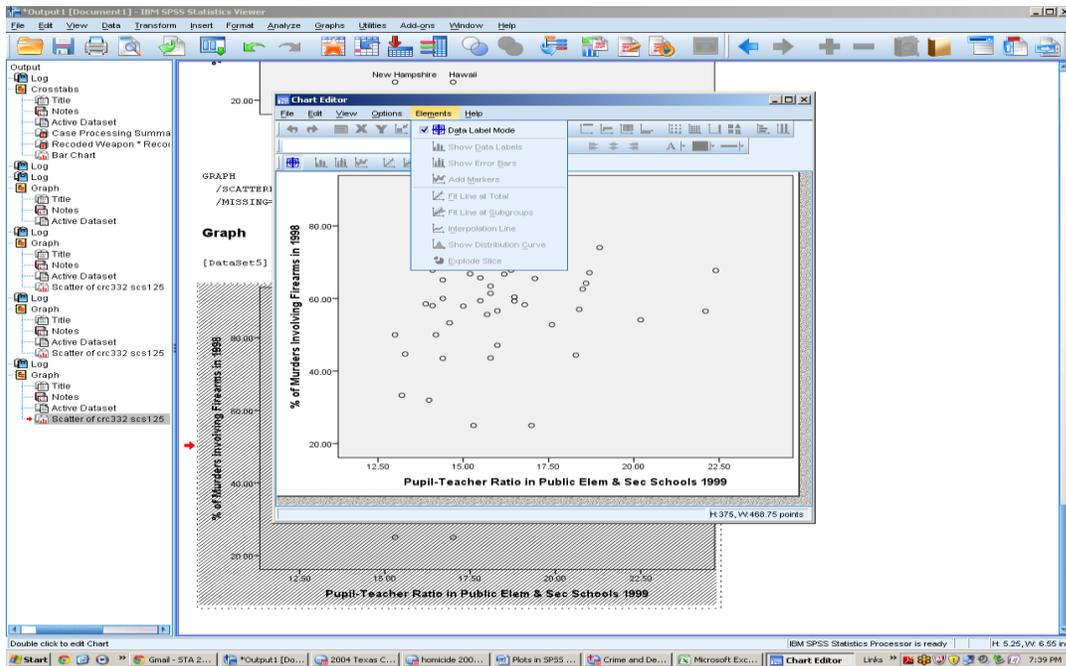


The plot now shows that as the pupil-teacher ratio increases (more students per teacher), the percent of homicides also increases. The relationship is positive.

If you want see the state names on your plot, add the variable STATE to the box that says **Label Cases By** and use the **OPTIONS** box to check the box that says “Display chart with case labels”.



If you want only a few selected State names, then DO NOT select “Display chart with case labels”. Instead, double click the cart after you have added STATE to the Label Cases By box, and use the Elements menu to select Data Label Mode.



Then you can click on individual points to get the individual state names.

