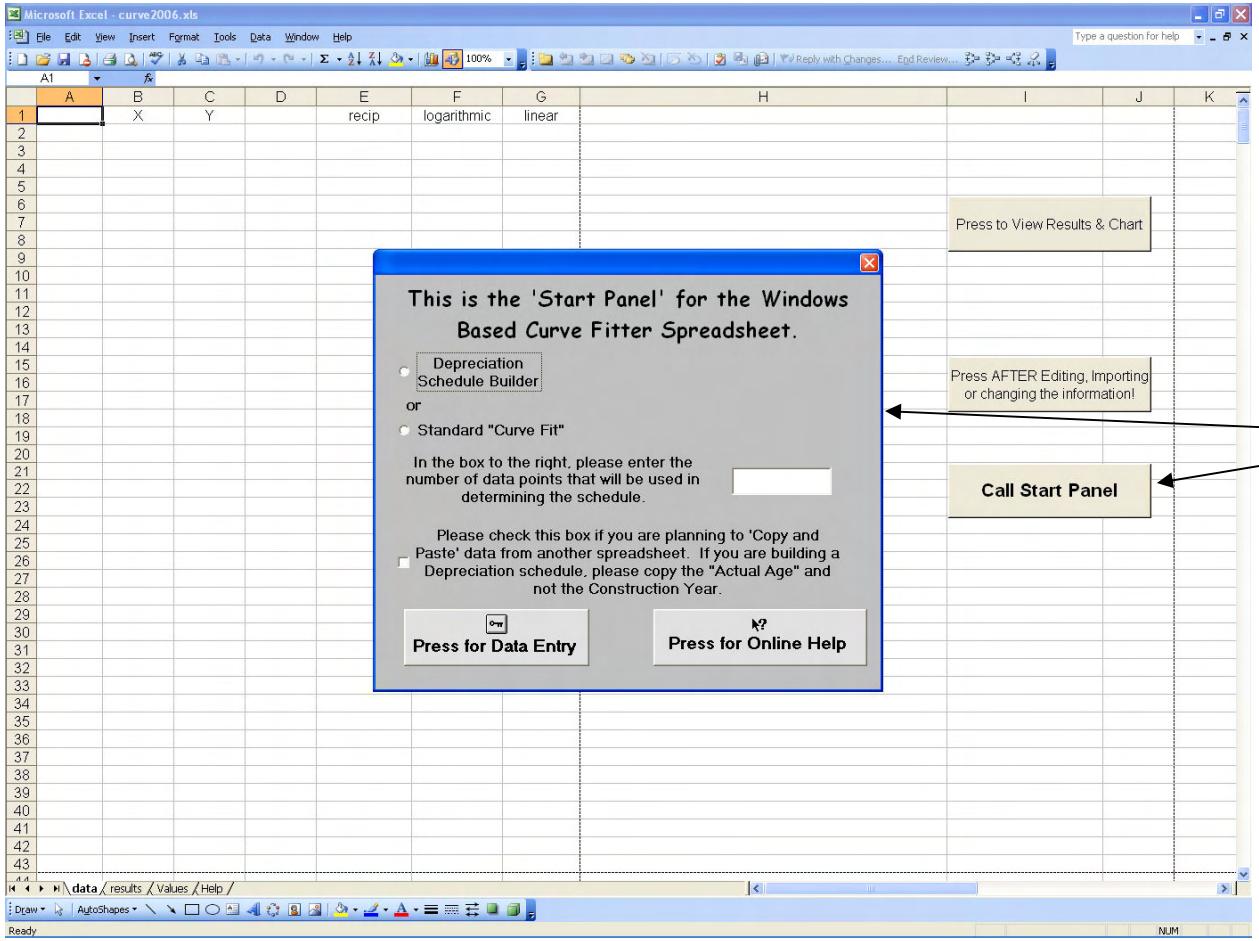
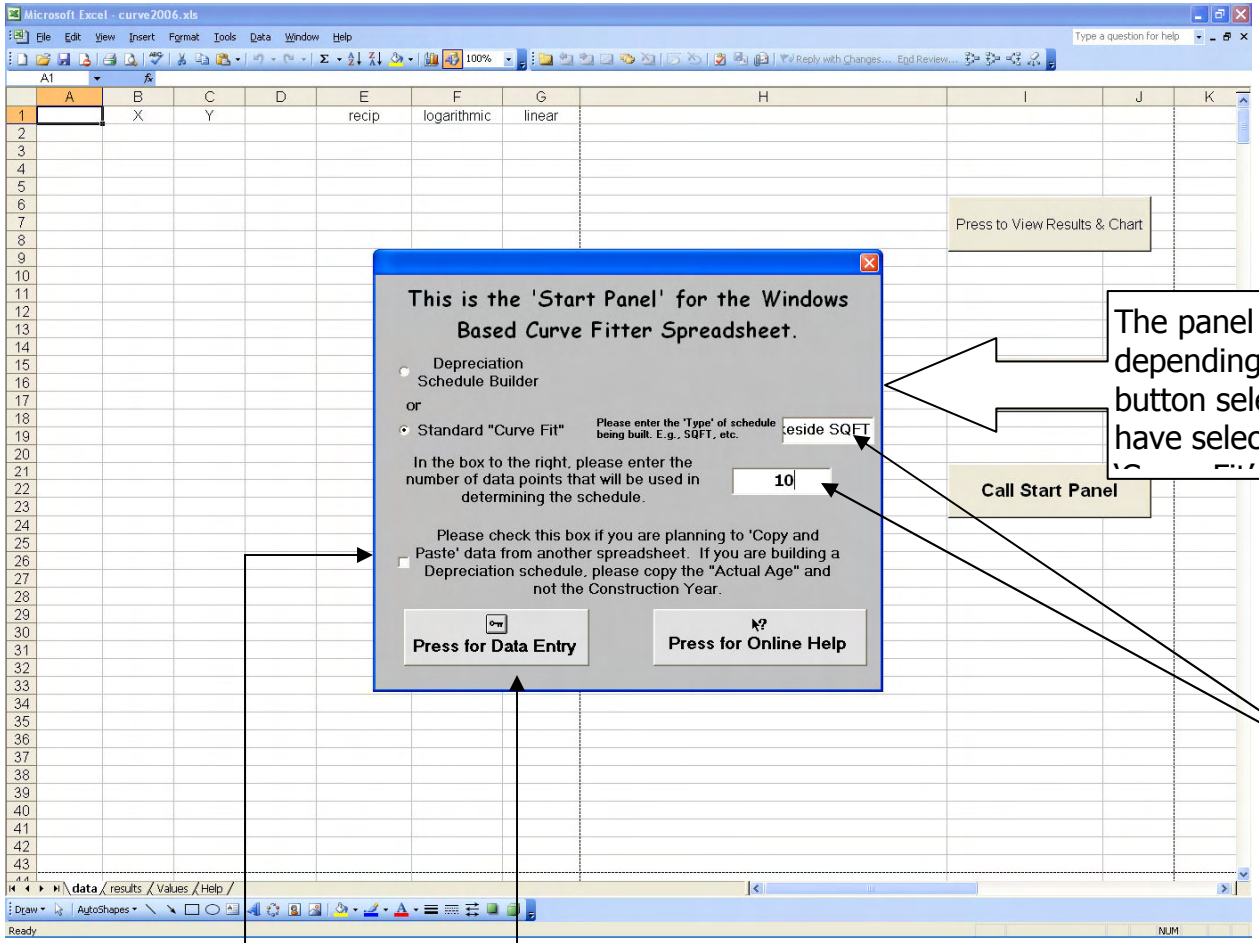
2006 Curve Fit – The "what does this mean" outline.



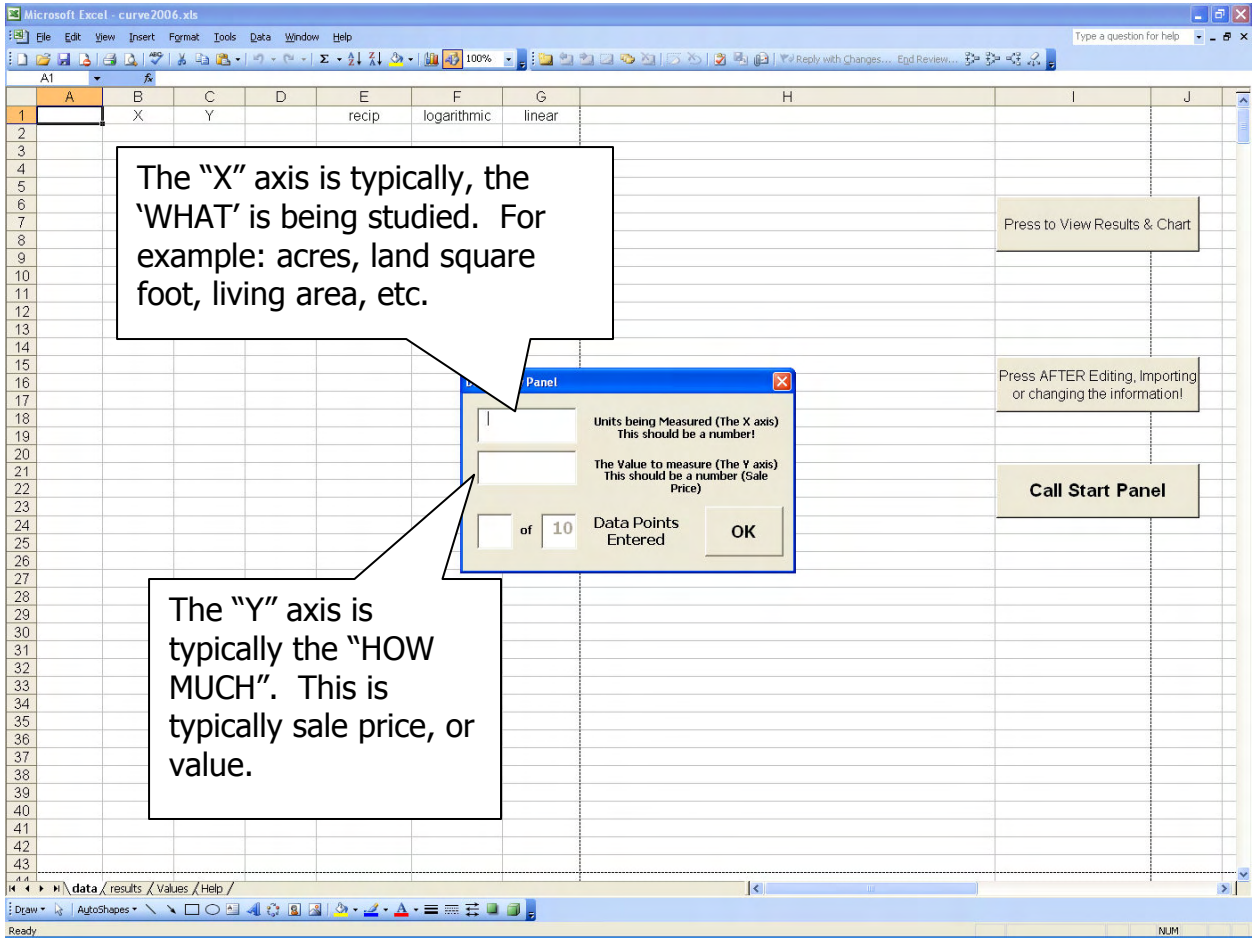
The 'START' panels, opens when you first open the spreadsheet, or 'CLICK' the button on the data tab.



The panel changes depending on the 'radio' button selected. Here we have selected the 'Standard

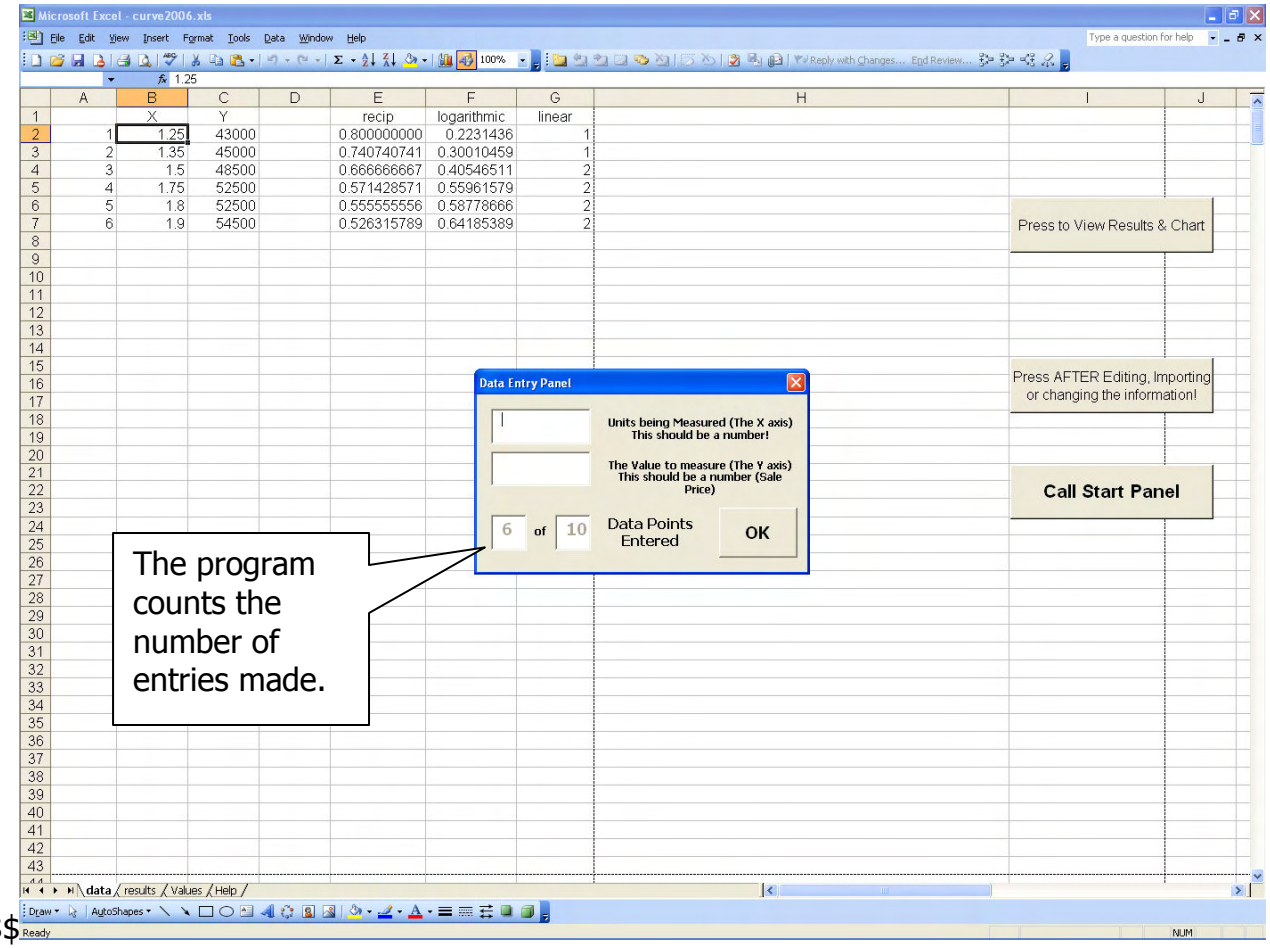
You fill in the field to the right of the radio button with some sort of description, then enter the number of data points you will be using.

Click the 'Press for Data Entry Button' if you want to use the data entry panel or if your data is in a different spreadsheet, click the box above the 'Press for Data Entry Button', and then click the 'Press for Data Entry Button'. The program reserves space for

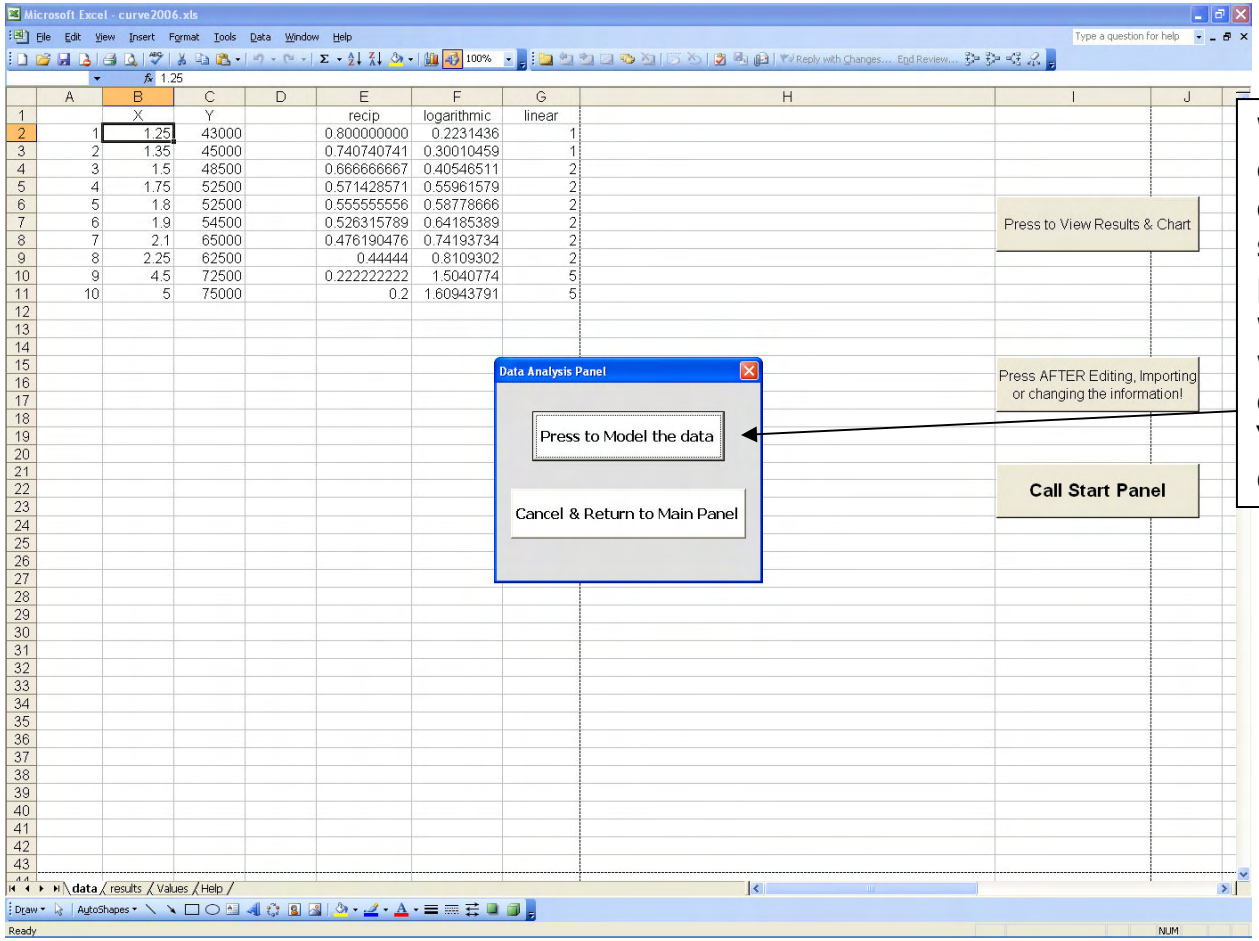


"Y" Axis = ($ or Value) – The 'VALUE AXIS'

The "X" axis = Units (SQFT, acres, years old, etc.) The 'CATEGORY AXIS'

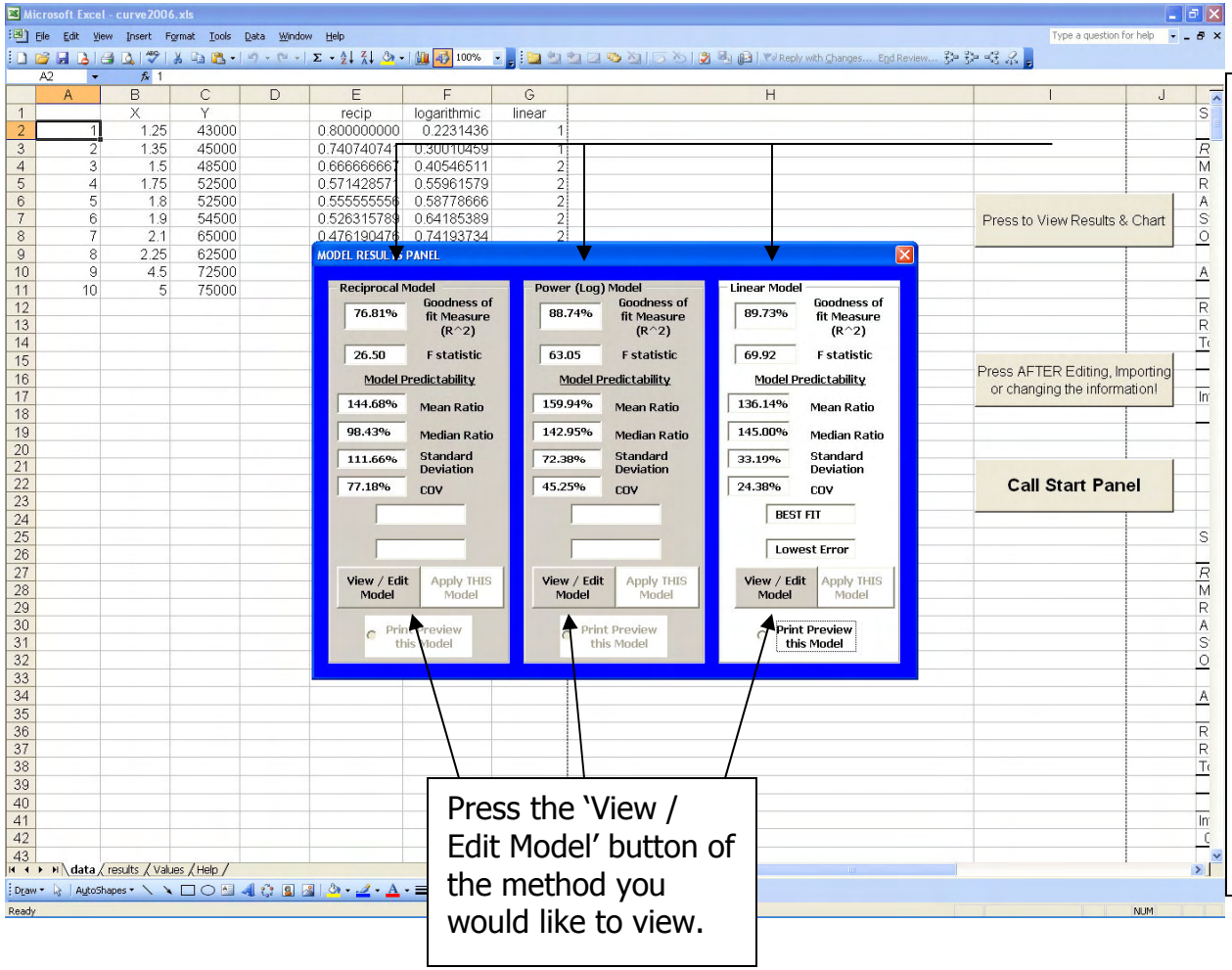

Microsoft Excel - curve2006.xls
File Edit View Insert Format Tools Data Window Help
Type a question for help
1.25
X Y recip logarithmic linear
1 1.25 43000 0.800000000 0.2231436 1
2 1.35 45000 0.740740741 0.30010459 1
3 1.5 48500 0.666666667 0.40546511 2
4 1.75 52500 0.571428571 0.55961579 2
5 1.8 52500 0.555555556 0.58778666 2
6 1.9 54500 0.526315789 0.64185389 2
Press to View Results & Chart
Press AFTER Editing, Importing or changing the information!
Call Start Panel
Data Entry Panel
Units being Measured (The X axis) This should be a number!
The Value to measure (The Y axis) This should be a number (Sale Price)
6 of 10 Data Points Entered
OK
The program counts the number of entries made.
data results Values Help
Ready
NUM

$$



	A	B	C	D	E	F	G
1		X	Y		recip	logarithmic	linear
2	1	1.25	43000		0.800000000	0.2231436	1
3	2	1.35	45000		0.740740741	0.30010459	1
4	3	1.5	48500		0.666666667	0.40546511	2
5	4	1.75	52500		0.571428571	0.55961579	2
6	5	1.8	52500		0.555555556	0.58778666	2
7	6	1.9	54500		0.526315789	0.64185389	2
8	7	2.1	65000		0.476190476	0.74193734	2
9	8	2.25	62500		0.44444	0.8109302	2
10	9	4.5	72500		0.222222222	1.5040774	5
11	10	5	75000		0.2	1.60943791	5

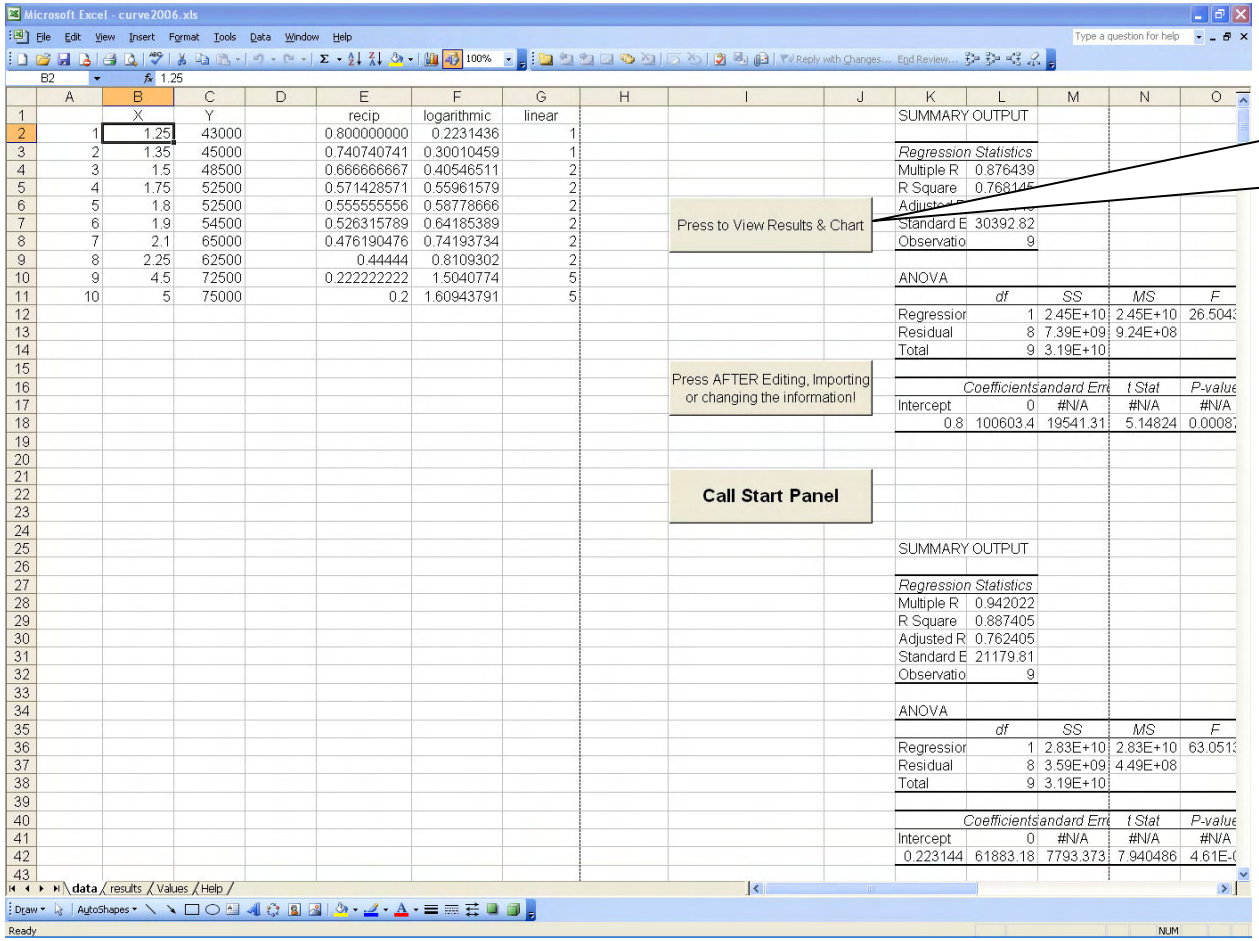
When you have entered the number of data points, you stated on the first panel, the program would present you with this panel. To continue, press the 'Press to Model the data' button



The program then does some gymnastics and finally presents you with this panel. While the 'behind the scenes' is complicated, this panel takes the 'pain' away.

This panel shows you the results of three different styles of data analysis; The Reciprocal, the Log and the Linear.
Basically 'Linear' data can be identified simply as 'for every change in "X", there is a corresponding change in "Y".

The reciprocal and log are methods used to turn non-linear data into a linear relationship.



	A	B	C	D	E	F	G
1		X	Y		recip	logarithmic	linear
2	1	1.25	43000		0.800000000	0.2231436	1
3	2	1.35	45000		0.740740741	0.30010459	1
4	3	1.5	48500		0.666666667	0.40546511	2
5	4	1.75	52500		0.571428571	0.55961579	2
6	5	1.8	52500		0.555555556	0.58778666	2
7	6	1.9	54500		0.526315789	0.64185389	2
8	7	2.1	65000		0.476190476	0.74193734	2
9	8	2.25	62500		0.44444	0.8109302	2
10	9	4.5	72500		0.222222222	1.5040774	5
11	10	5	75000		0.2	1.60943791	5

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.876439
R Square	0.768145
Adjusted R	
Standard E	30392.82
Observatio	9

ANOVA

	df	SS	MS	F
Regressior	1	2.45E+10	2.45E+10	26.5043
Residual	8	7.39E+09	9.24E+08	
Total	9	3.19E+10		

	Coefficients	standard Erre	t Stat	P-value
Intercept	0	#N/A	#N/A	#N/A
0.8	100603.4	19541.31	5.14824	0.00087

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.942022
R Square	0.887405
Adjusted R	0.762405
Standard E	21179.81
Observatio	9

ANOVA

	df	SS	MS	F
Regressior	1	2.83E+10	2.83E+10	63.0513
Residual	8	3.59E+09	4.49E+08	
Total	9	3.19E+10		

	Coefficients	standard Erre	t Stat	P-value
Intercept	0	#N/A	#N/A	#N/A
0.223144	61883.18	7793.373	7.940486	4.61E-0

Once you have chosen the 'model', you would like to see, press the "View Results and Chart' button.

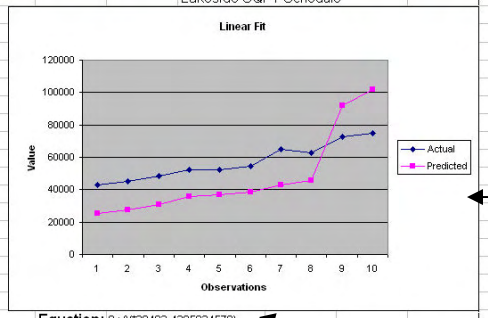
2006 Curve Fit – The "what does this mean" outline.

Microsoft Excel - curve2006.xls

Linear Fit

Lakeside SQFT Schedule

X	Actual	Predicted
1.25	43000	25503.04
1.35	45000	27543.28
1.5	48500	30603.65
1.75	52500	35704.25
1.8	52500	36724.38
1.9	54500	38764.62
2.1	65000	42845.10
2.25	62500	45905.47
4.5	72500	91810.94
5	75000	102012.15



Equation: 0+(X*20402.4305934578)

Lakeside SQFT Schedule
0+(1/X*100603.350199034)
0+(LOG(X,2.718282)*61883
0+(X*20402.4305934578)

Press to Return to Model Selection Panel!

Mean	136.14%	Goodness of Fit	89.73%
Median	145.00%		
Standard Deviation	33.19%		
Coefficient of Variation	24.38%		

To View the schedule, Press the 'Values' tab below!

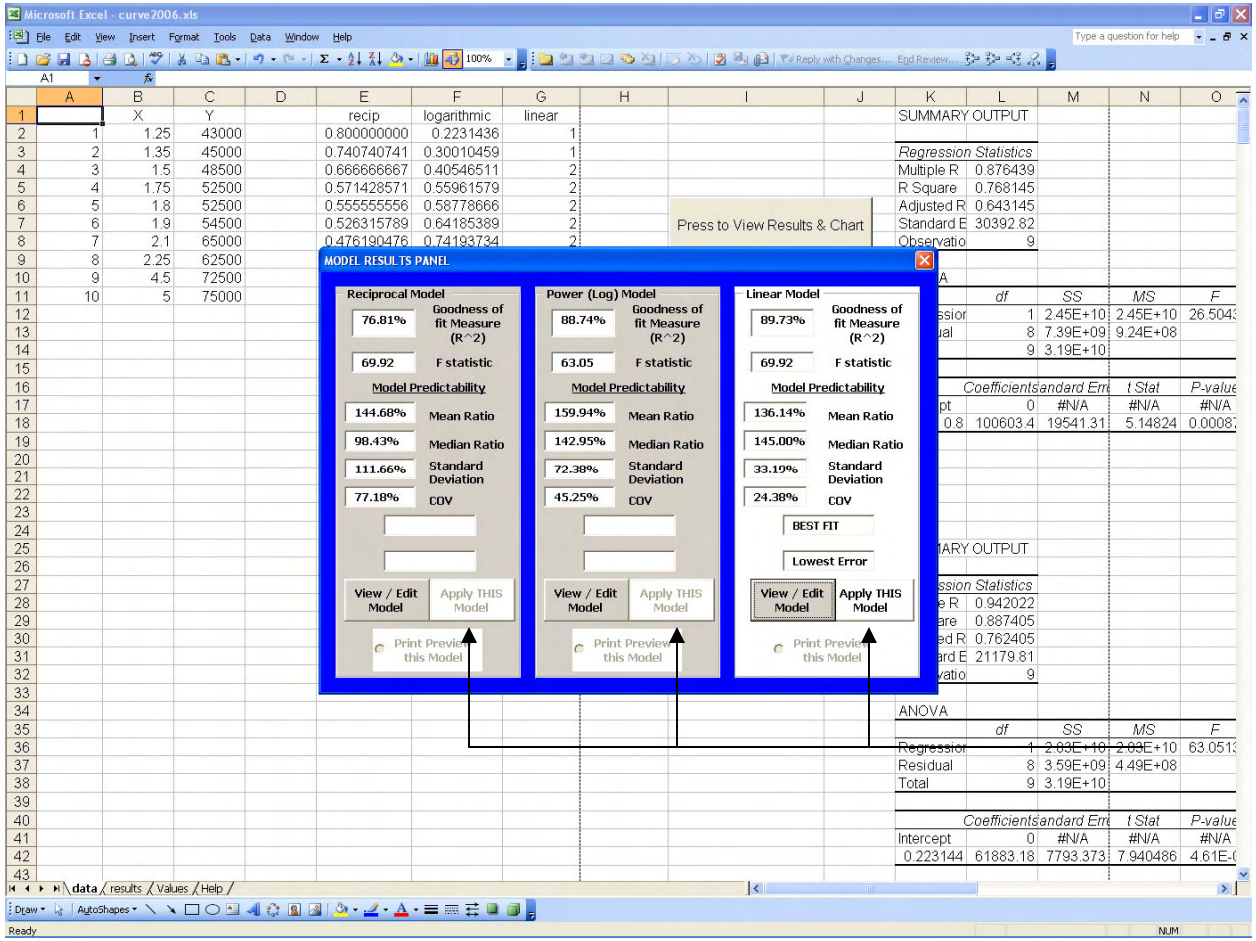
Press this to return to the model selection panel.

Some of the statistical measures

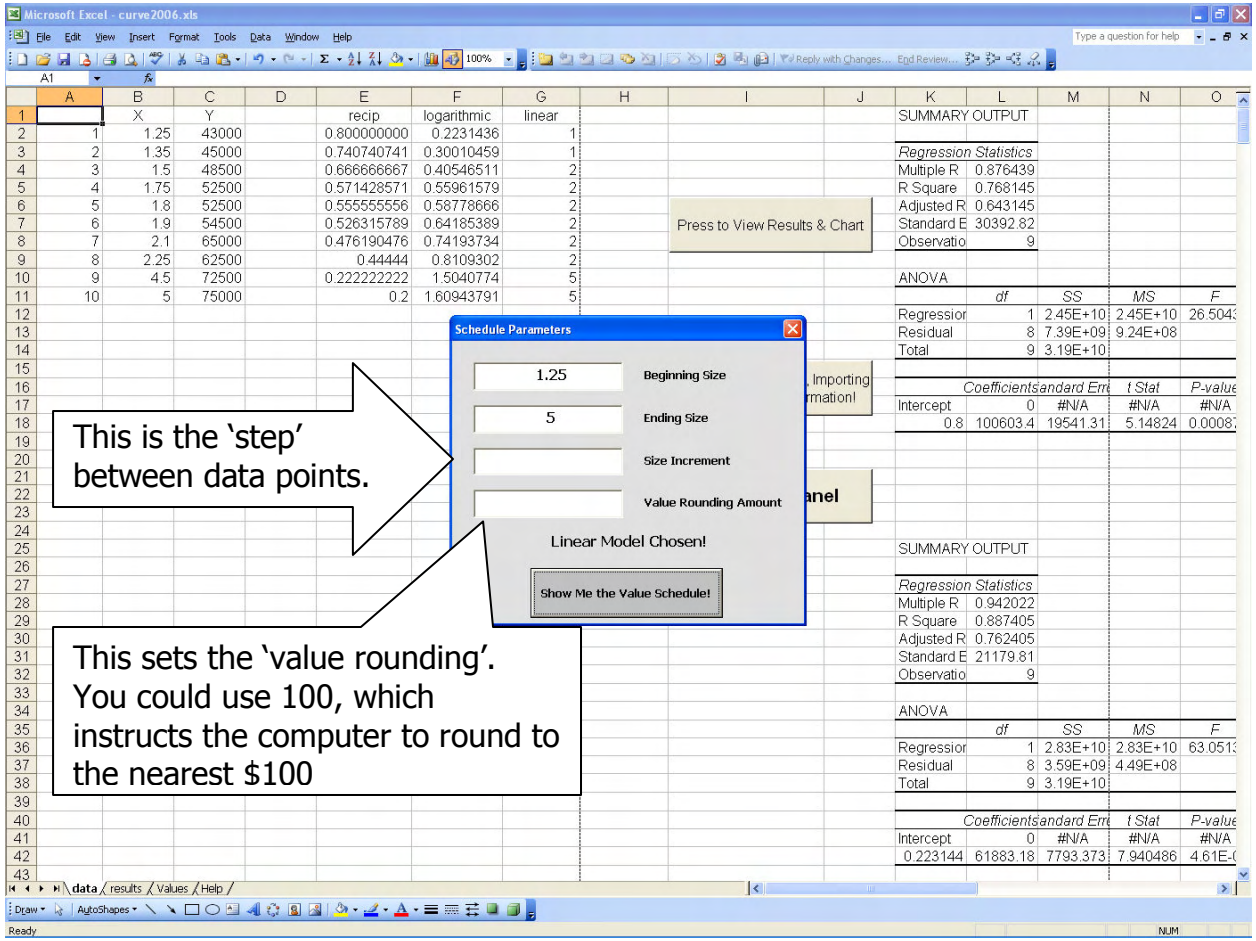
This is the part of the spreadsheet you will see after you press the 'View Results and Chart' button.

The 'ACTUAL' and the 'PREDICTED' values are shown. The 'Predicted' is the results on the model you selected; the actual equation used is shown just below the chart.

The chart may need to be resized (it defaults to a much larger size). To change

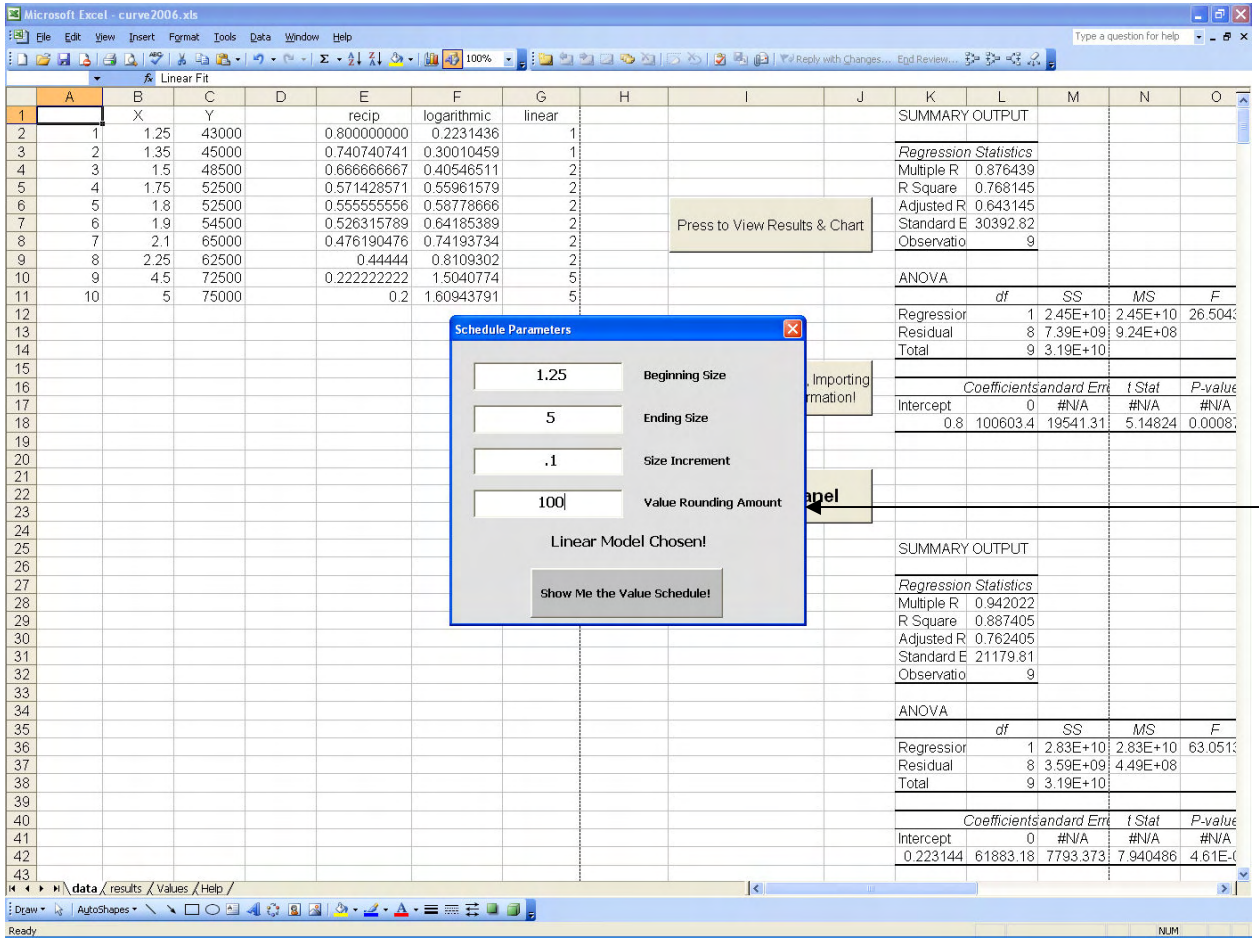


Once you 'find' a model you like, press the 'Apply this Model' button. The program code is set to 'grey-out' those features not available.

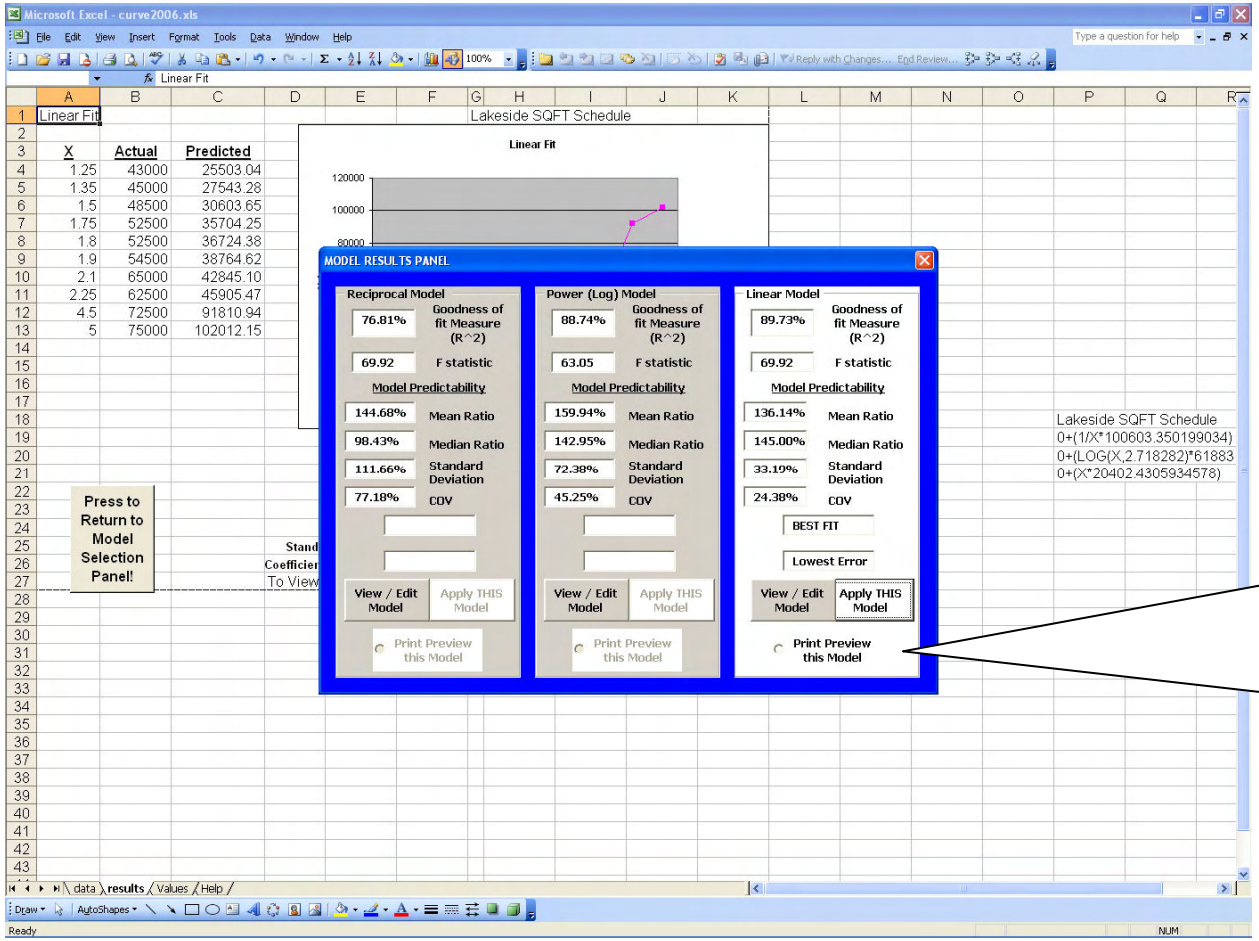


This is 'new'! The program now fills in the Beginning and Ending sizes. The information used here is taken directly from the data set you entered on the 'DATA' sheet. The model works well within the lower and upper data points, but has trouble below or above those points. For example, attempting to obtain a value estimate for 10 acres might be difficult (all of the data here is less than 6 acres).

You may want to edit the values showing for the starting point and ending point. For example, a depreciation table that has data starting at 3 years old and ending at 78 years old would most likely need to be changed to read starting at age 1 and ending at age 101. By making changes to the starting point and ending point, you will get the schedule you can use.



Here, the panel has been filled in. Based on the information in the panel, it instructs the program to build a schedule starting at 1.25 acres, ending at 5 acres, increment by 0.1 acres and value round to the nearest $100.



The program gives you another chance to change your mind… Notice the 'Print Preview the Model' button is now enabled (not grayed out).

2006 Curve Fit – The "what does this mean" outline.

Microsoft Excel - curve2006.xls

Next | Previous | Zoom | Print... | Setup... | Margins | Page Break Preview | Close | Help

Lakeside SQFT **Equation:** 0+(X^20402.4305934578)

Values rounded to 100, Sizes incremented by 0.1

Schedule

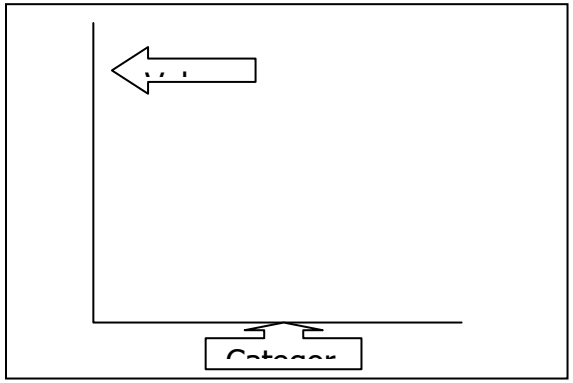
Size	Value per Unit	Estimated Value	Size	Value per Unit	Estimated Value	Size	Value per Unit	Estimated Value
1.25	20,400.00	25,500						
1.35	20,370.37	27,500						
1.45	20,413.79	29,600						
1.55	20,387.10	31,600						
1.65	20,424.24	33,700						
1.75	20,400.00	35,700						
1.85	20,378.38	37,700						
1.95	20,410.26	39,800						
2.05	20,390.24	41,800						
2.15	20,418.60	43,900						
2.25	20,400.00	45,900						
2.35	20,382.98	47,900						
2.45	20,408.16	50,000						
2.55	20,392.16	52,000						
2.65	20,415.09	54,100						
2.75	20,400.00	56,100						
2.85	20,385.96	58,100						
2.95	20,406.78	60,200						
3.05	20,393.44	62,200						
3.15	20,412.70	64,300						
3.25	20,400.00	66,300						
3.35	20,388.06	68,300						
3.45	20,405.80	70,400						
3.55	20,394.37	72,400						
3.65	20,410.96	74,500						
3.75	20,400.00	76,500						
3.85	20,389.61	78,500						
3.95	20,405.06	80,600						
4.05	20,395.06	82,600						
4.15	20,409.64	84,700						
4.25	20,400.00	86,700						
4.35	20,413.79	88,800						
4.45	20,404.49	90,800						
4.55	20,395.60	92,800						
4.65	20,408.60	94,900						
4.75	20,400.00	96,900						
4.85	20,412.37	99,000						
4.95	20,404.04	101,000						

3/27/2006

Preview: Page 1 of 1 NUM

This is a 'Print Preview' of the schedule. Closer inspection reveals that one could use $20,400 per acre – regardless of size (with this set of data). This may not be true with other data.

2006 Curve Fit – The "what does this mean" outline.

The X-AXIS is called the CATEGORY AXIS. This could contain items like square foot ranges, age ranges, ratio ranges, etc.

The Y-AXIS is called the VALUE AXIS. This typically contains specific value points; could be sale price, assessed values, ratios, etc.