

You can create simple or very dramatic graphs in ClarisWorks. The following lesson provides a step by step method to graph your data, and then to “dress up” your graph by modifying it, implementing the use of the tools that are available throughout the ClarisWorks program.

	A	B	C	D
1	Presidential Candidates			
2	B. Clinton	25		
3	D. Smith	14		
4	M. Molina	37		
5	J. Brown	9		
6				
7				

1. Entering data

Open the ClarisWorks application. You will see a window that allows you to choose which part of ClarisWorks you want to work with. Click on **Spreadsheet**, then click **OK**.

Enter the sample data (on the left) into the cells.¹

	A	B	C
1	Presidential Candidates		
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3	D. Smith	14	
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5	J. Brown	9	
6			

Text that does fit into one cell will extend over the dotted line, but is considered to part of the cell where the text began.

¹ Cell- one box in a spreadsheet that contains text or numbers.

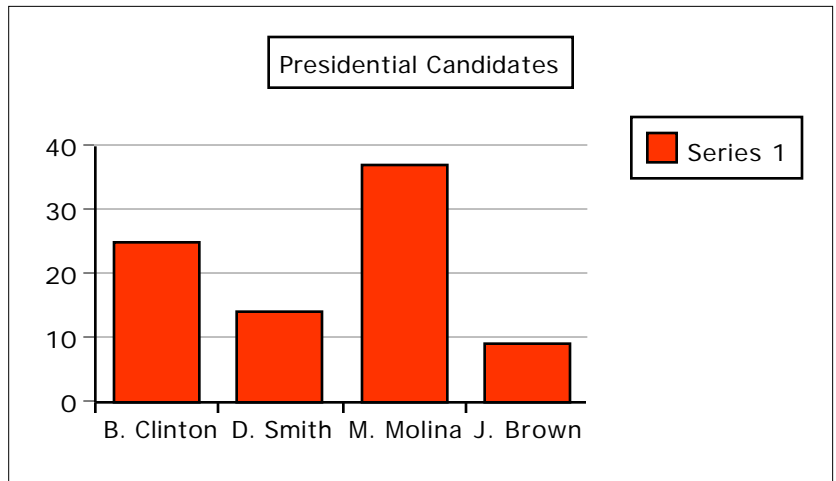
You can press the **Return key**, to move to the next lower cell, or use the **arrow keys**, or click the mouse in the next cell where you want text to go.

2. Selecting data

To graph the data in your spreadsheet, you must tell ClarisWorks what data you want to graph. You do that by selecting² the text. Click in cell A1, right on top of the words "Presidential Candidates." Then hold the mouse button down and drag³ diagonally to cell B5 (the number "9"). Now all of your data is selected.

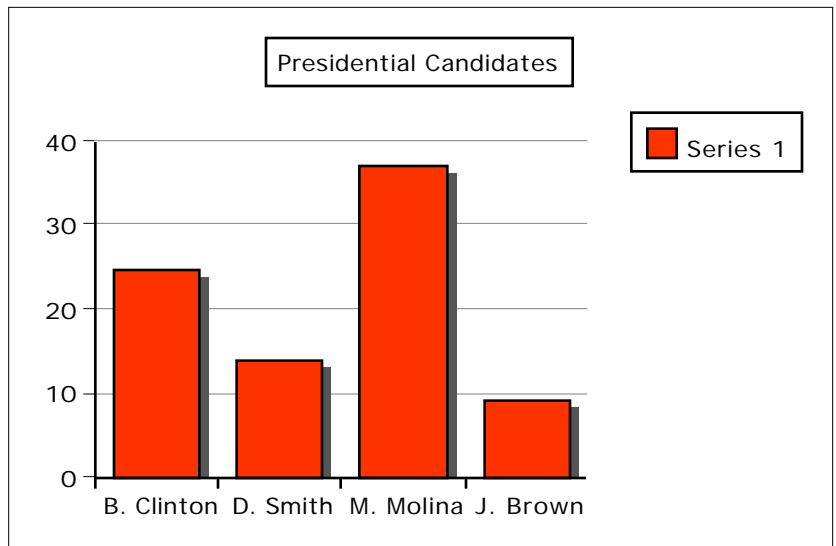
3. Making the simple bar graph

Move the mouse to the word **Options** in the menu bar above. Hold down the button and choose **Make Chart**. The bar chart choice is already selected. Click **OK**. The graph appears on the screen. You can move it anywhere you like by clicking once in the middle of it and dragging. You can also change its size by clicking on a handle⁴ and moving the mouse to the right, left, up or down.



4. Making the graph fancier

Double-click in the middle of the graph. The **Chart Options** dialog box⁵ appears. Click in the box next to **Shadow** and **3-dimensional**. Click **OK**. You see the change reflected in the chart.



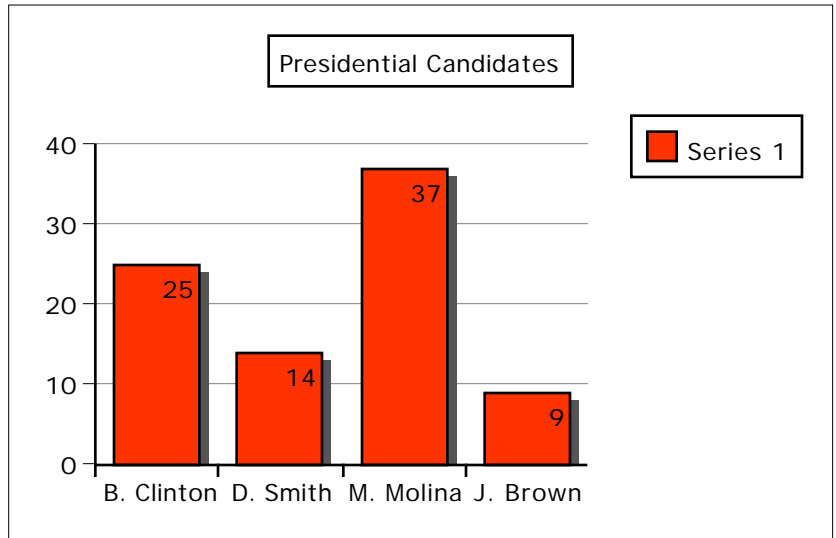
² Selecting- "highlighting" text, number data or file icons to prepare for a following action.

³ Drag- holding down the mouse button while moving the mouse.

⁴ Handle- the little black boxes on the corners of a graphic (picture) used for changing the size or proportions.

5. Adding labels to bars

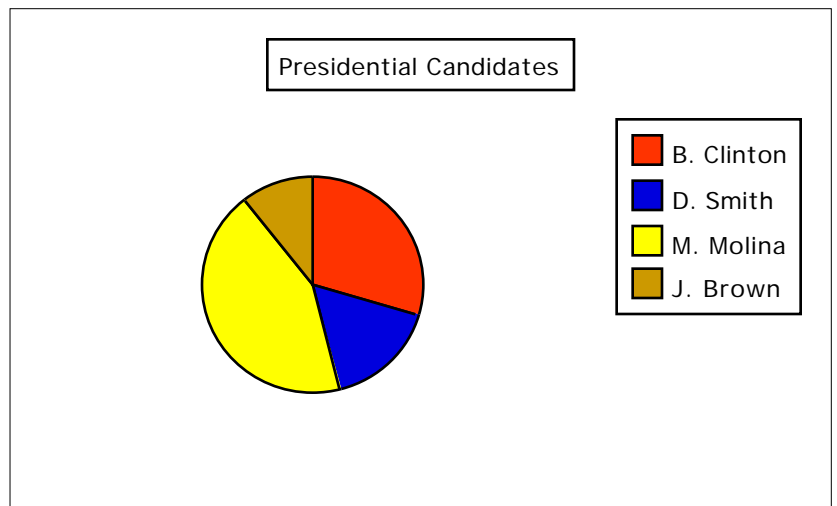
Double-click the chart again. Click on the **Series** button. Put an **X** in the **Label data** box, and click on the dot the the upper left-hand corner of the grid. You see the white number move to that spot. Click **OK**.



6. Changing the color of the bars

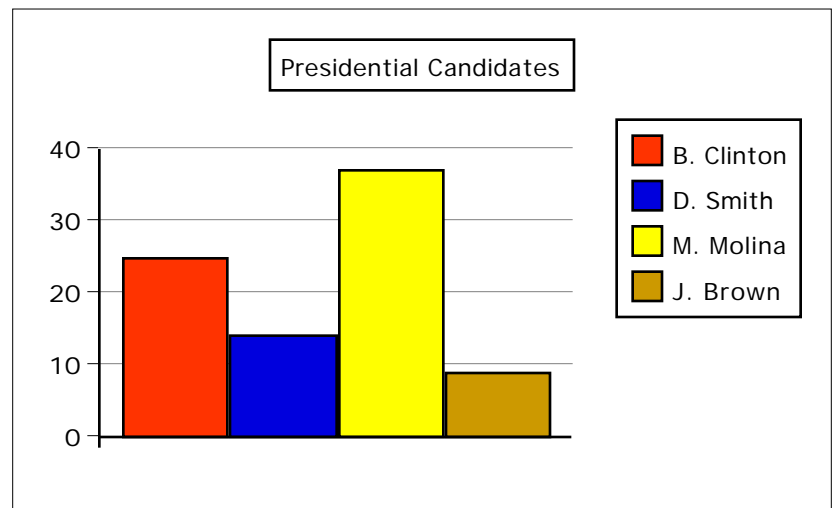
The bars in the graph always come up in the orange color as the default⁶. If you want to have the ability to change the colors of the bars as you please, one way is to change the bar chart to a pie chart first.

For now, make sure that your bar graph has the handles in the corners. Press **delete**. Select the data in the spreadsheet as you did before (Step 2). Go to the **Options** menu, then to **Make Chart**. The **Chart Options** dialog box opens. Click on the **Pie Graph** button. Click **OK**.



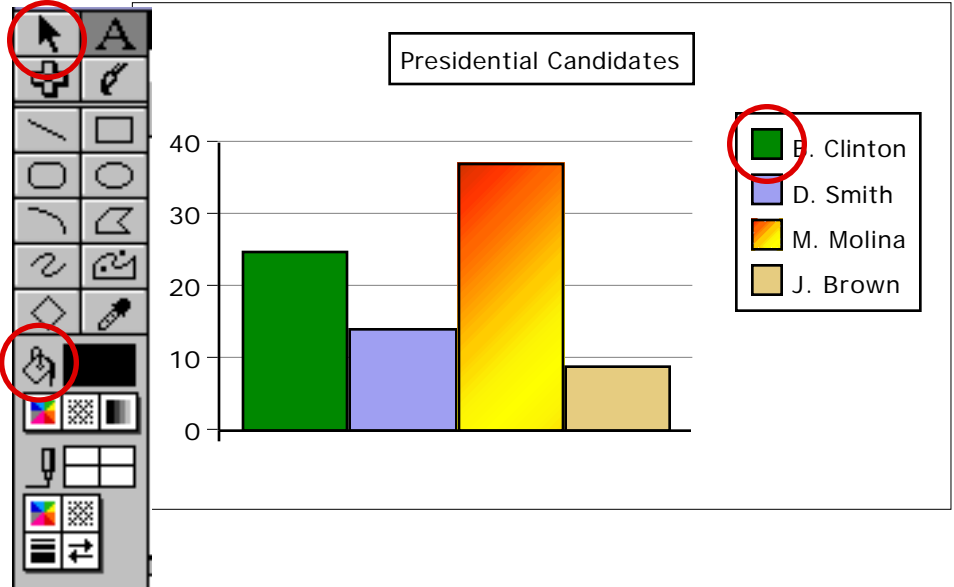
Now double-click on the pie chart and change it to a bar graph.

Now the bar graph has a color-coded legend. Now the bars have different colors, corresponding to the colors in the legend.

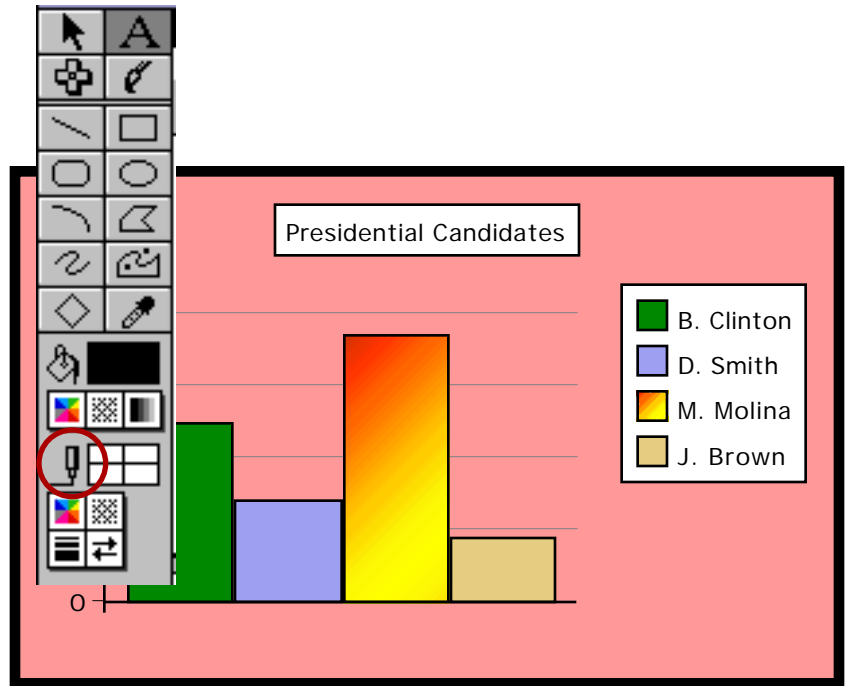


To change the color of the bars, you will use the Tools. To get the tools to appear on the screen, pull down the **View** menu to **Show Tools**. The vertical Tool Palette appears along the left side of the screen.

With the **Arrow Tool**, click on the little color square next to "B. Clinton" in the legend. A small white dot will appear in the square. Now click on the small square color picker directly beneath the fill bucket. Hold down the mouse button and drag to a medium shade of green. The bar for "B. Clinton" changes to the color you chose. You can change the color of each bar this way. Try it.

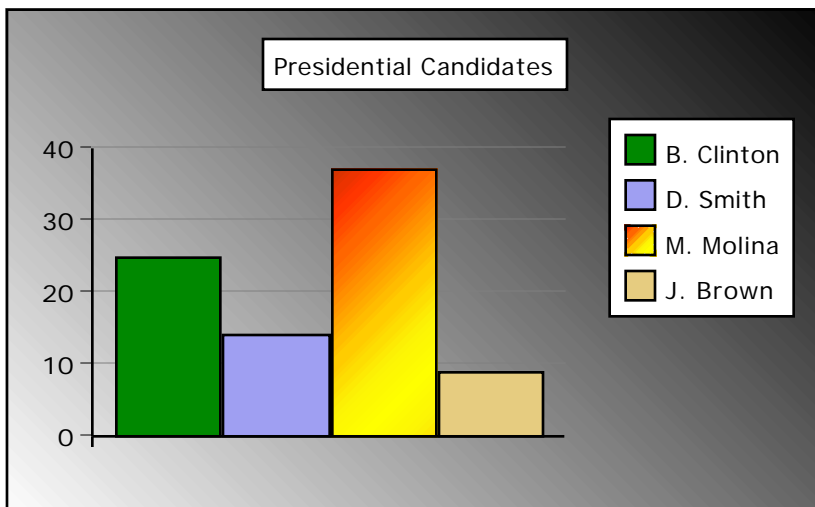


You can also change the *pattern* of the bar or add a *gradient*. Both of those changes can be easily made with the next two "pickers" beneath the bucket. Try them out for fun as well. Some examples appear in the chart to the right.



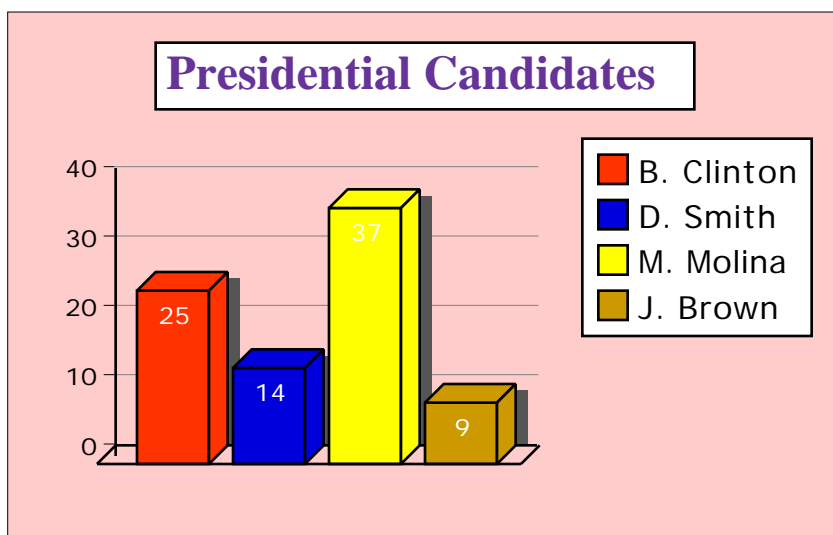
7. Giving the chart a background

You can easily change the background of the chart from its default white to a color, pattern, a combination of the two, or a gradient. Simply click with the **Arrow Tool** in a plain white area, and then use the fill bucket color, pattern or gradient picker to change it. You can change the background over and over until you're happy with it. It's easy to get carried away with all the choices, but remember the *Artist's Axiom*, "Less is more."



8. Enhancing the border

You can change the thickness, color and even pattern of the border that surrounds your chart. (You can even choose to have no border.) To make such changes, simply click on the chart with the arrow Tool, then use the pickers beneath the Line Tool near the bottom of the Tool Pallet.



Everything you can do with the bar chart, you can also do with the pie chart. To try out those same options (and a few more, like *labeling in percentages* and *exploding the slices*), double-click on your graph and click on the Pie Chart button.

You can also try some of the other graph types. Remember though, that some of the less common types require certain types of data to work.

9. Changing fonts in the title, axis and legend

It's easy to change the font in nearly any part of the chart, but it must be done from the spreadsheet cells, not within the chart.

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7				

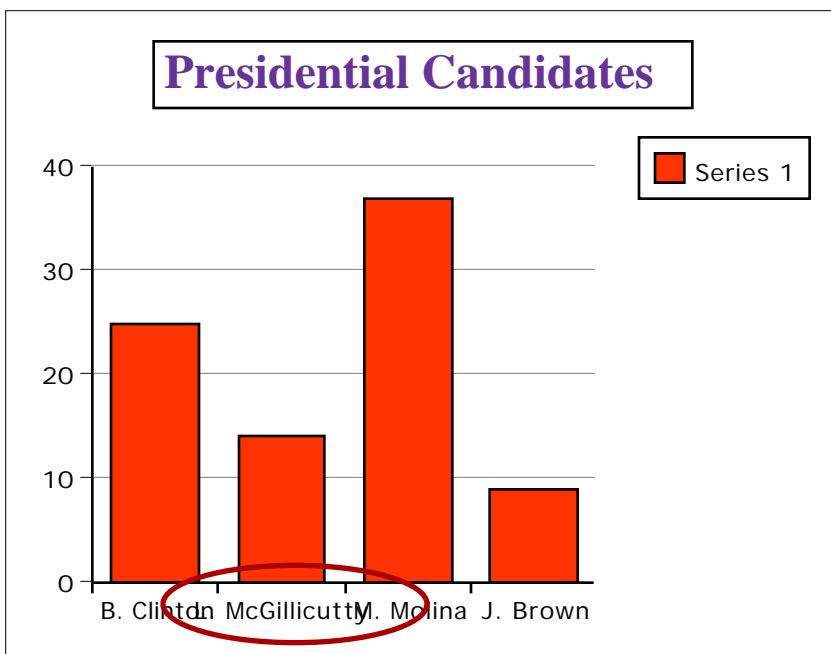
To see a font, style, size or color change take effect, you must first select the cell in the spreadsheet with the mouse (the frame will then be highlighted) , and then use the format menu to make the change. You will then see the

change in both the spreadsheet and the chart.

Click in cell **A1** in the spreadsheet, on top of the words "**Presidential Candidates.**" Pull down the format menu to each of the following choices:

- Size 18**
- Style Bold**
- Font Times**
- Text Color (Purple)**

You can change the size of the text in the legend or the axis (if there is one⁷). You can change all of the words, or just certain ones. To change just one, click on it and use the method you used with the chart title above. To change all the candidate names to size 12 as shown above, click in cell **A2**, and then drag down to cell **A5**. Then apply the change.

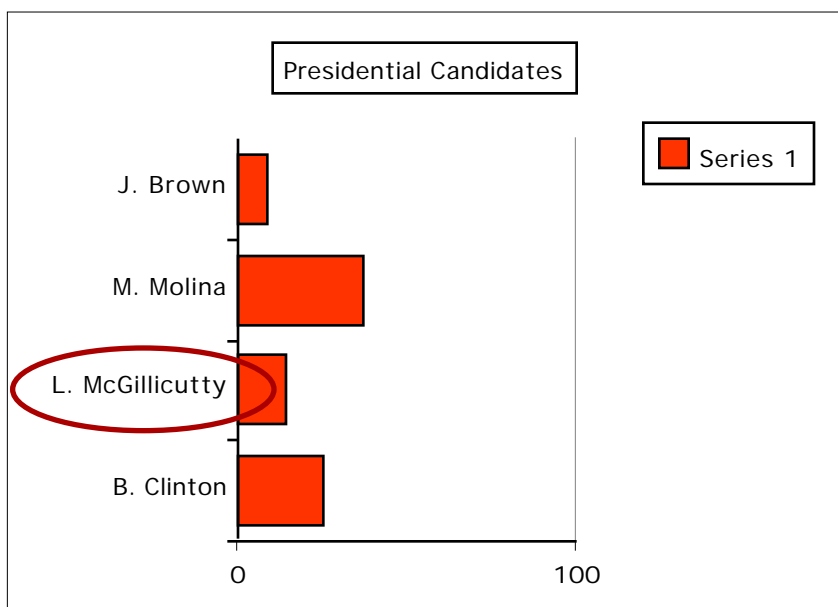


If you want to move the chart title or legend to another location (corner, bottom, etc...), just double-click on the title or legend in the chart, and you'll see a dialog box appear, allowing you to make the change desired.

10. Multiple Charts & Horizontal Bars

You can generate as many charts of different types and appearances as you want from one spreadsheet. To make another chart from the same data, simply begin the process again.

Click and drag the mouse over all the cells that contain data. Pull down the **Options** menu to **Make chart**, choose **Bar Chart**, and then click **OK**. Click on the name "D. Smith" in the spreadsheet, and type "L. McGillicutty" in its place. It is not necessary to press delete first.



Using horizontal bars is less common than the vertical format, but is sometimes very helpful. If you have long text names ("L. McGillicutty", for example), the names along the bottom axis may overlay the one next to it. Using horizontal bars will allow the whole name to fit.

To fix this, double-click on the new chart and then click to put an **X** in the box for **Horizontal**.

⁷ A bar chart with a legend will not support an axis as well.

Expert Graphing, Step by Step, in Apple/ClarisWorks

Click **OK**, and the chart should look like this.

These are only a few of the ways you can make “Expert Graphs” in ClarisWorks.