

After opening up the Excel playlist file, highlight the year, length an frequency cells of ONLY genre 1. Year, length, and frequency will become the x-axis, y-axis, and bubble size respectively.

The screenshot shows the Microsoft Excel interface with the 'Insert' tab selected. The 'Charts' group is active, and the 'Other' chart type is highlighted with a red box and labeled '1st'. A dropdown menu is open, showing various chart styles. The 'Bubble' chart style is highlighted with a red box and labeled '2nd'. The background shows a spreadsheet with data in columns A and B.

	A	B	freq
1	year	length	
2		(m):ss	
3	1978	3:28	
4	1993	3:08	
5	1982	3:57	
6	1973	3:00	
7	1978	6:05	
8	1973	5:11	
9	2011	3:19	
10	1997	4:00	
11	2005	3:39	
12	1995	4:13	
13	1985	3:00	
14	2010	4:38	
15	1987	3:45	
16	1988	3:53	
17	1999	4:26	
18	2011	4:47	
19	2007	3:07	
20	2005	3:26	
21	1982	2:50	
22	1979	3:56	
23	2009	4:55	
24			
25			
26			
27			
28			
29			
30			
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			
41			
42			

Click on the "Charts" thumbnail and then click on the "Bubble" plot style.

The image shows a Microsoft Excel spreadsheet with a data table and a bubble chart. The data table has columns for year, length, frequency, and genre. The bubble chart plots length (y-axis) against year (x-axis). A red box highlights the 'Fill Effects...' option in the 'Fill' dropdown menu. Another red box highlights a specific bubble in the chart.

Year	Length [m:ss]	Frequency	Genre
1978	3:28	4	Rock
1993	3:08	5	Country
1982	3:57	4	Alternative
1973	3:00	4	Indie
1978	6:05	4	Acoustic
1973	5:11	4	Hip Hop
2011	3:19	4	Rap
1997	4:00	4	World
2005	3:39	4	Pop
1995	4:13	4	
1985	3:00	9	
2010	4:38	7	
1987	3:45	9	
1988	3:53	9	
1999	4:26	5	
2011	4:47	11	
2007	3:07	11	
2005	3:26	4	
1982	2:50	4	
1979	3:56	5	
2009	4:55	4	

1st

2nd

Notice the appearance of bubbles. They are obviously all the same size because all of the songs had the same play frequency. Click on one of the blue bubbles, go to the “Chart Layout” thumbnail, click on the “Fill” drop down menu and finally click on “Fill Effects...”

The screenshot shows the Microsoft Excel interface with the 'Format Data Series' dialog box open. The dialog box has tabs for 'Solid', 'Gradient', 'Picture or Texture', and 'Pattern'. The 'Solid' tab is active, and the 'Fill' section is highlighted in the left sidebar. The 'Color' dropdown is set to 'Automatic', and a color palette is displayed. The palette includes 'Automatic', 'No Fill', 'Theme Colors', 'Standard Colors', and 'Recent Colors'. A red circle highlights the 'Automatic' option and the 'Standard Colors' section. The background shows a spreadsheet with columns for year, length, and frequency, and a bubble chart.

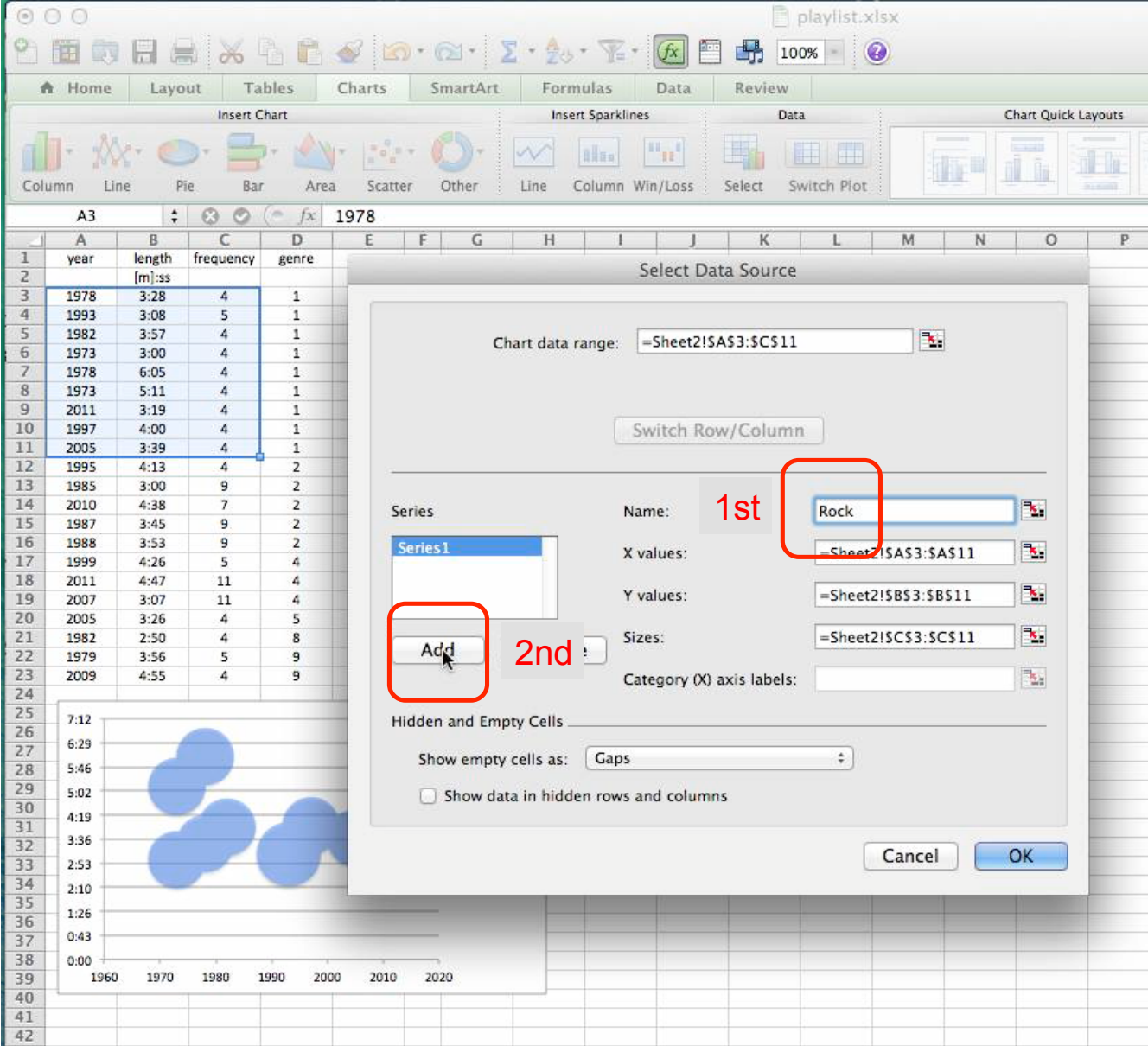
year	length [m:ss]	frequency
1978	3:28	4
1993	3:08	5
1982	3:57	4
1973	3:00	4
1978	6:05	4
1973	5:11	4
2011	3:19	4
1997	4:00	4
2005	3:39	4
1995	4:13	4
1985	3:00	9
2010	4:38	7
1987	3:45	9
1988	3:53	9
1999	4:26	5
2011	4:47	11
2007	3:07	11
2005	3:26	4
1982	2:50	4
1979	3:56	5
2009	4:55	4

The "Format Data Series" window opens. Highlight "Fill" and then click on "Color: Automatic". A brighter shade of blue is selected.

The screenshot shows the Microsoft Excel interface with a bubble chart. The chart is titled "Chart 4" and has the formula bar set to `=SERIES(Sheet2!A3:A11,Sheet2!B3:B11,1,Sheet2!C3:C11)`. The chart displays data points as bubbles of varying sizes and colors (blue and green) plotted against year (x-axis) and frequency (y-axis). The "Format Data Series" dialog box is open, showing the "Fill" tab selected. The "Transparency" slider is set to 50%, and the "Color" is set to a blue color. The "Transparency" slider is highlighted with a red box.

year	length [m:ss]	frequency
1978	3:28	4
1993	3:08	5
1982	3:57	4
1973	3:00	4
1978	6:05	4
1973	5:11	4
2011	3:19	4
1997	4:00	4
2005	3:39	4
1995	4:13	4
1985	3:00	9
2010	4:38	7
1987	3:45	9
1988	3:53	9
1999	4:26	5
2011	4:47	11
2007	3:07	11
2005	3:26	4
1982	2:50	4
1979	3:56	5
2009	4:55	4

Drag the “Transparency” slider until it reads “50%”. Notice that the bubble has some transparent quality now. This will make it easier to see other bubbles underneath when we do subsequent overlays.



Rename "Series1" as "Rock" and then click on "Add" to add an overlay.

playlist.xlsx

100%

Home Layout Tables Charts SmartArt Formulas Data Review

Insert Chart Insert Sparklines Data Chart Quick Layouts

Column Line Pie Bar Area Scatter Other Line Column Win/Loss Select Switch Plot

A3 1978

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	year	length	frequency	genre												
2		[m]:ss														
3	1978	3:28	4	1												
4	1993	3:08	5	1												
5	1982	3:57	4	1												
6	1973	3:00	4	1												
7	1978	6:05	4	1												
8	1973	5:11	4	1												
9	2011	3:19	4	1												
10	1997	4:00	4	1												
11	2005	3:39	4	1												
12	1995	4:13	4	2												
13	1985	3:00	9	2												
14	2010	4:38	7	2												
15	1987	3:45	9	2												
16	1988	3:53	9	2												
17	1999	4:26	5	4												
18	2011	4:47	11	4												
19	2007	3:07	11	4												
20	2005	3:26	4	5												
21	1982	2:50	4	8												
22	1979	3:56	5	9												
23	2009	4:55	4	9												
24																
25																
26																
27																
28																
29																
30																
31																
32																
33																
34																
35																
36																
37																
38																
39																
40																
41																
42																

Select Data Source

Chart data range: []

The Chart Data Range is too complex to be displayed. If a new Data Range is selected, it will replace all of the series on the Series Panel.

Switch Row/Column

Series Name: **1st** Country []

X values: [] **2nd** []

Y values: = {1} []

Sizes: = {1} []

Category (X) axis labels: []

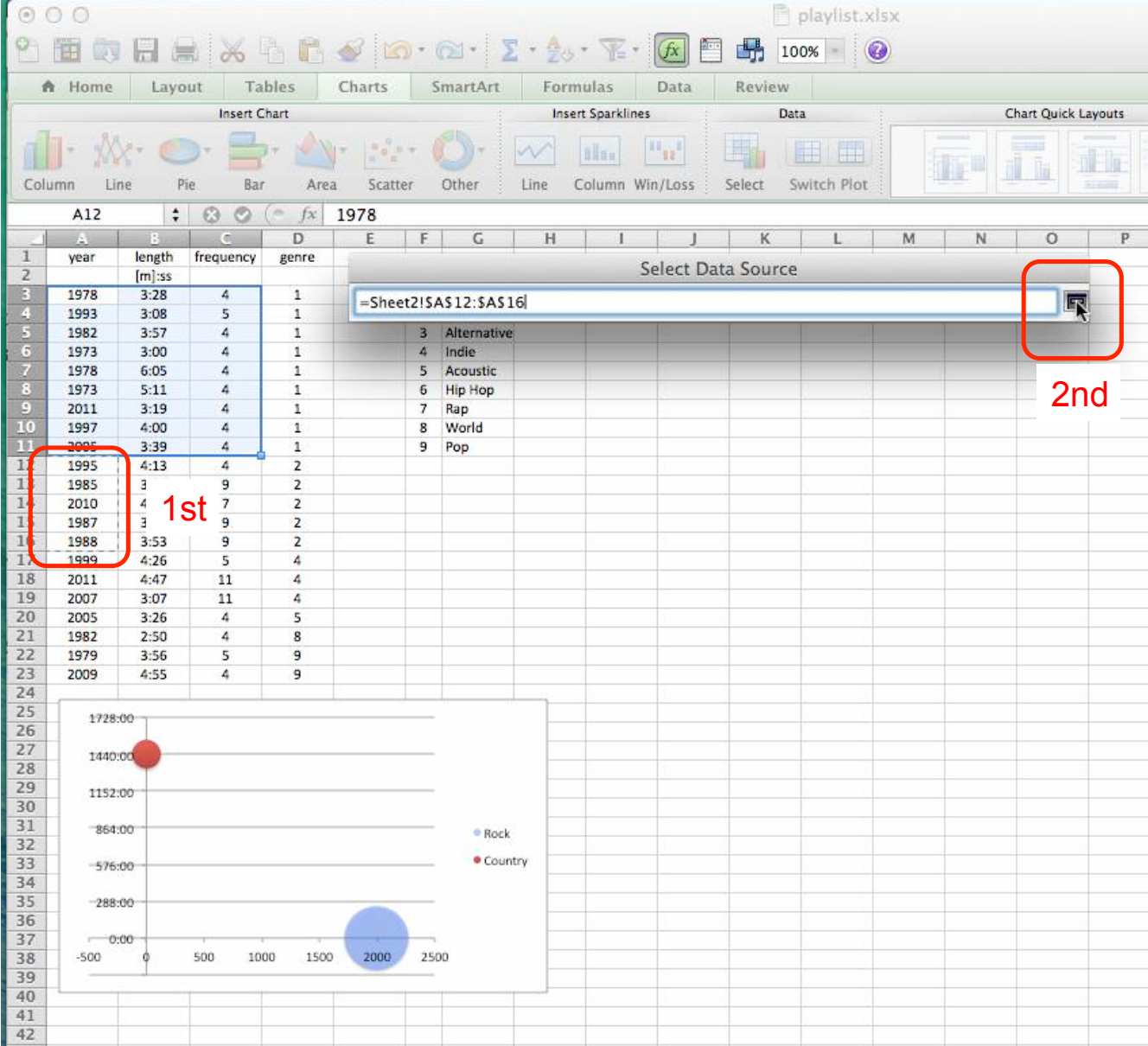
Hidden and Empty Cells

Show empty cells as: Gaps

Show data in hidden rows and columns

Cancel OK

Rename "Series2" as "Country" and then click on the "X values" icon.



As you've done in previous Galleries, highlight the cells that you want to use as the X values of the Country series. Notice you only highlight the years that pertain to genre 2, which has been defined as Country. Then click on the "Select Data Source" icon on the far right.

Chart data range:

The Chart Data Range is too complex to be displayed. If a new Data Range is selected, it will replace all of the series on the Series Panel.

Switch Row/Column

Series Name: Country

X values: =Sheet2!\$A\$12:\$A\$16

Y values: = {1}

Sizes: = {1}

Category (X) axis labels:

Hidden and Empty Cells

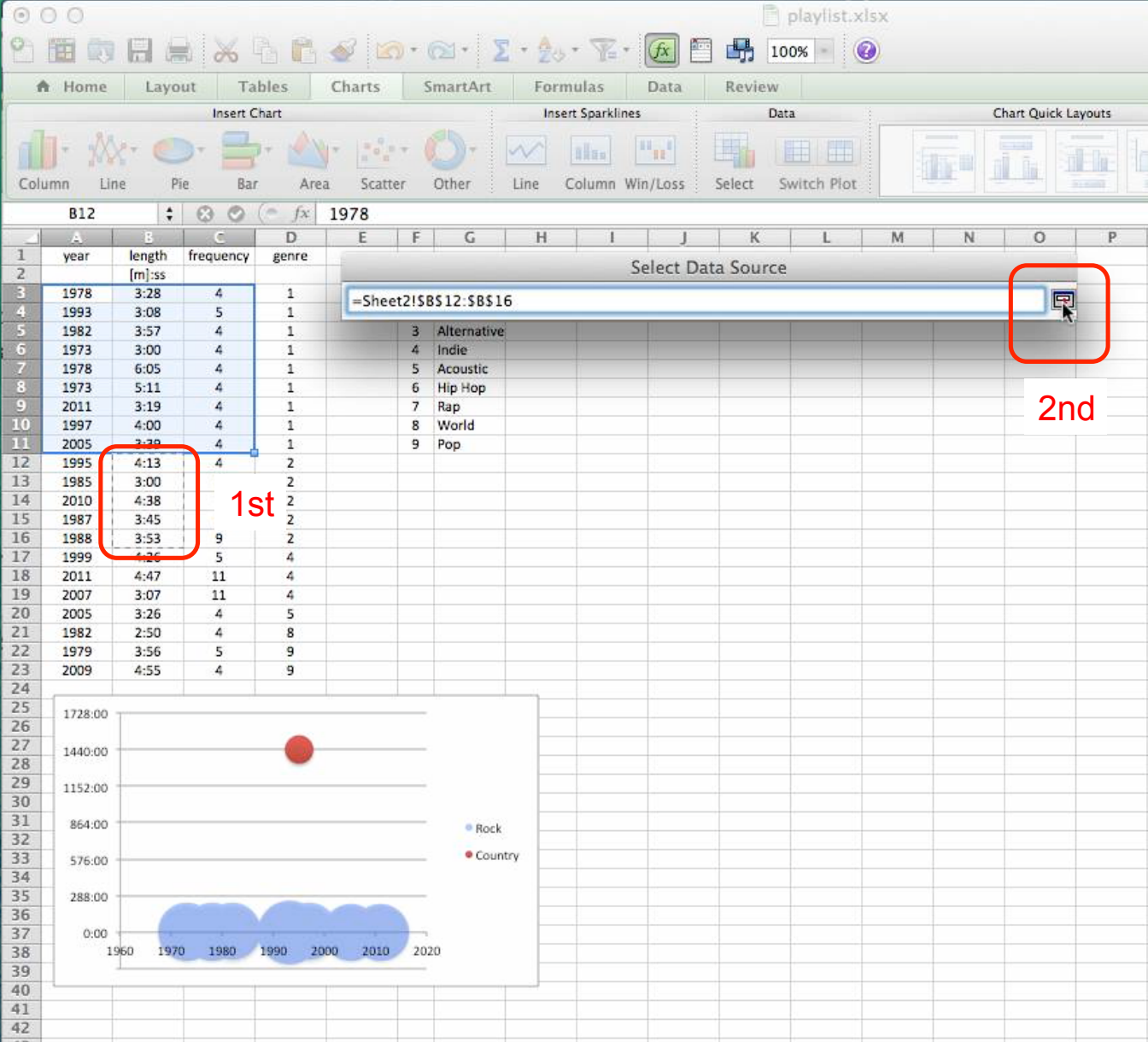
Show empty cells as: Gaps

Show data in hidden rows and columns

Cancel OK

year	length [m:ss]	frequency	genre
1978	3:28	4	1
1993	3:08	5	1
1982	3:57	4	1
1973	3:00	4	1
1978	6:05	4	1
1973	5:11	4	1
2011	3:19	4	1
1997	4:00	4	1
2005	3:39	4	1
1995	4:13	4	2
1985	3:00	9	2
2010	4:38	7	2
1987	3:45	9	2
1988	3:53	9	2
1999	4:26	5	4
2011	4:47	11	4
2007	3:07	11	4
2005	3:26	4	5
1982	2:50	4	8
1979	3:56	5	9
2009	4:55	4	9

Click on the "Y values" icon on the far right.



2nd

1st

Select the song lengths that only pertain to genre 2. Then click on the “Select Data Source” icon on the far right.

playlist.xlsx

100%

Home Layout Tables Charts SmartArt Formulas Data Review

Insert Chart Insert Sparklines Data Chart Quick Layouts

Column Line Pie Bar Area Scatter Other Line Column Win/Loss Select Switch Plot

B12 1978

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	year	length	frequency	genre												
2		[m]:ss														
3	1978	3:28	4	1												
4	1993	3:08	5	1												
5	1982	3:57	4	1												
6	1973	3:00	4	1												
7	1978	6:05	4	1												
8	1973	5:11	4	1												
9	2011	3:19	4	1												
10	1997	4:00	4	1												
11	2005	3:39	4	1												
12	1995	4:13	4	2												
13	1985	3:00	9	2												
14	2010	4:38	7	2												
15	1987	3:45	9	2												
16	1988	3:53	9	2												
17	1999	4:26	5	4												
18	2011	4:47	11	4												
19	2007	3:07	11	4												
20	2005	3:26	4	5												
21	1982	2:50	4	8												
22	1979	3:56	5	9												
23	2009	4:55	4	9												
24																
25	7:12															
26	6:29															
27	5:46															
28	5:02															
29	4:19															
30	3:36															
31	2:53															
32	2:10															
33	1:26															
34	0:43															
35	0:00															
36																
37																
38																
39																
40																
41																
42																

Select Data Source

Chart data range: []

The Chart Data Range is too complex to be displayed. If a new Data Range is selected, it will replace all of the series on the Series Panel.

Switch Row/Column

Series Name: Country

X values: =Sheet2!\$A\$12:\$A\$16

Y values: =Sheet2!\$B\$12:\$B\$16

Sizes: ={1}

Category (X) axis labels: []

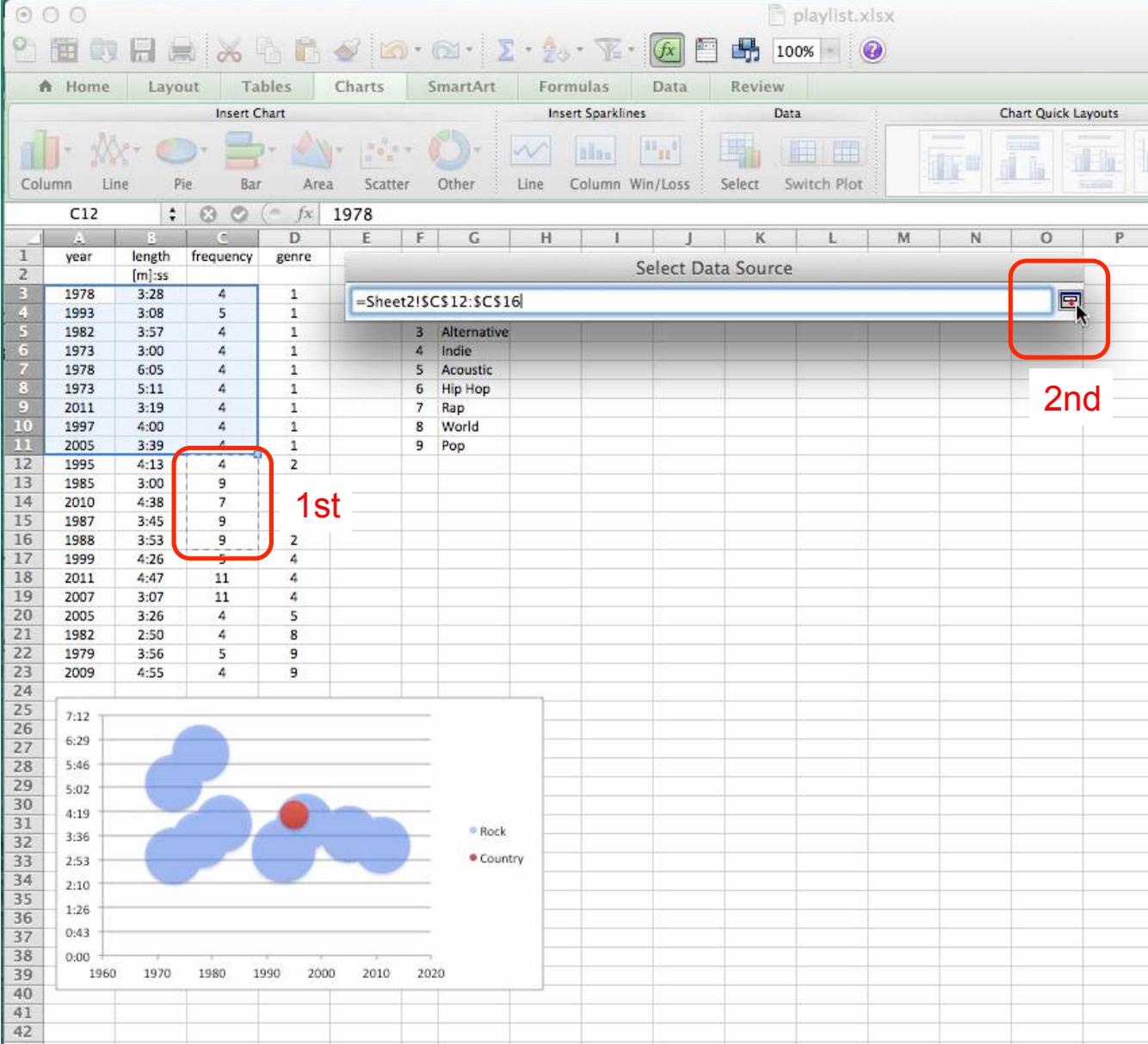
Hidden and Empty Cells

Show empty cells as: Gaps

Show data in hidden rows and columns

Cancel OK

Now you add the bubble size dimensions by clicking on the “Sizes:” icon on the far right.



Highlight the frequency cells for only genre 2. This will assign a size to each bubble. Click on the "Select Data Source" icon on the far right. The rest of the Gallery slides will be a repeat adding subsequent overlays of each genre.

playlist.xlsx

Home Layout Tables Charts Chart Layout Format SmartArt Formulas Data Review

Current Selection: Series "Country"

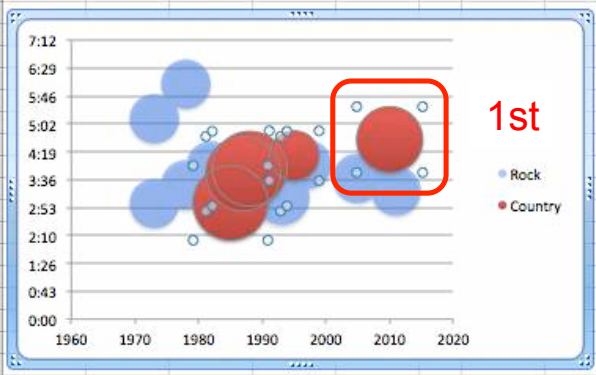
Chart Element Styles: Fill

Format Selection: Abc Abc Abc

Chart 4: =SERIES("Country",Sheet2!

	A	B	C	D	E	F	G
1	year	length	frequency	genre			
2		[m]:ss					
3	1978	3:28	4	1	1	Rock	
4	1993	3:08	5	1	2	Country	
5	1982	3:57	4	1	3	Alternative	
6	1973	3:00	4	1	4	Indie	
7	1978	6:05	4	1	5	Acoustic	
8	1973	5:11	4	1	6	Hip Hop	
9	2011	3:19	4	1	7	Rap	
10	1997	4:00	4	1	8	World	
11	2005	3:39	4	1	9	Pop	
12	1995	4:13	4	2			
13	1985	3:00	9	2			
14	2010	4:38	7	2			
15	1987	3:45	9	2			
16	1988	3:53	9	2			
17	1999	4:26	5	4			
18	2011	4:47	11	4			
19	2007	3:07	11	4			
20	2005	3:26	4	5			
21	1982	2:50	4	8			
22	1979	3:56	5	9			
23	2009	4:55	4	9			

2nd



Click on one of the red bubbles. Now we'll change it to a brighter red and 50% transparent. Go back to your "Format" thumbnail, click on the "Fill" drop down menu and select "Fill Effects..."

playlist.xlsx

Home Layout Tables Charts Chart Layout Format SmartArt Formulas Data Review

Current Selection: Series "Country"

Chart Element Styles: Fill, Line, Effects, Transparency

Text Styles: A A A

Chart 4: =SERIES("Country",Sheet2!\$A\$12:\$A\$16,Sheet2!\$B\$12:\$B\$16,2,Sheet2!\$C\$12:\$C\$16)

year	length [m]:ss	frequency
1978	3:28	4
1993	3:08	5
1982	3:57	4
1973	3:00	4
1978	6:05	4
1973	5:11	4
2011	3:19	4
1997	4:00	4
2005	3:39	4
1995	4:13	4
1985	3:00	9
2010	4:38	7
1987	3:45	9
1988	3:53	9
1999	4:26	5
2011	4:47	11
2007	3:07	11
2005	3:26	4
1982	2:50	4
1979	3:56	5
2009	4:55	4

Format Data Series

Options, Axis, Order, Error Bars, Fill, Line, Shadow, Glow & Soft Edges, 3-D Format

Color: 1st [Red]

Transparency: 2nd [50%]

Cancel OK

Change your color to a brighter red and then change the transparency to 50%.

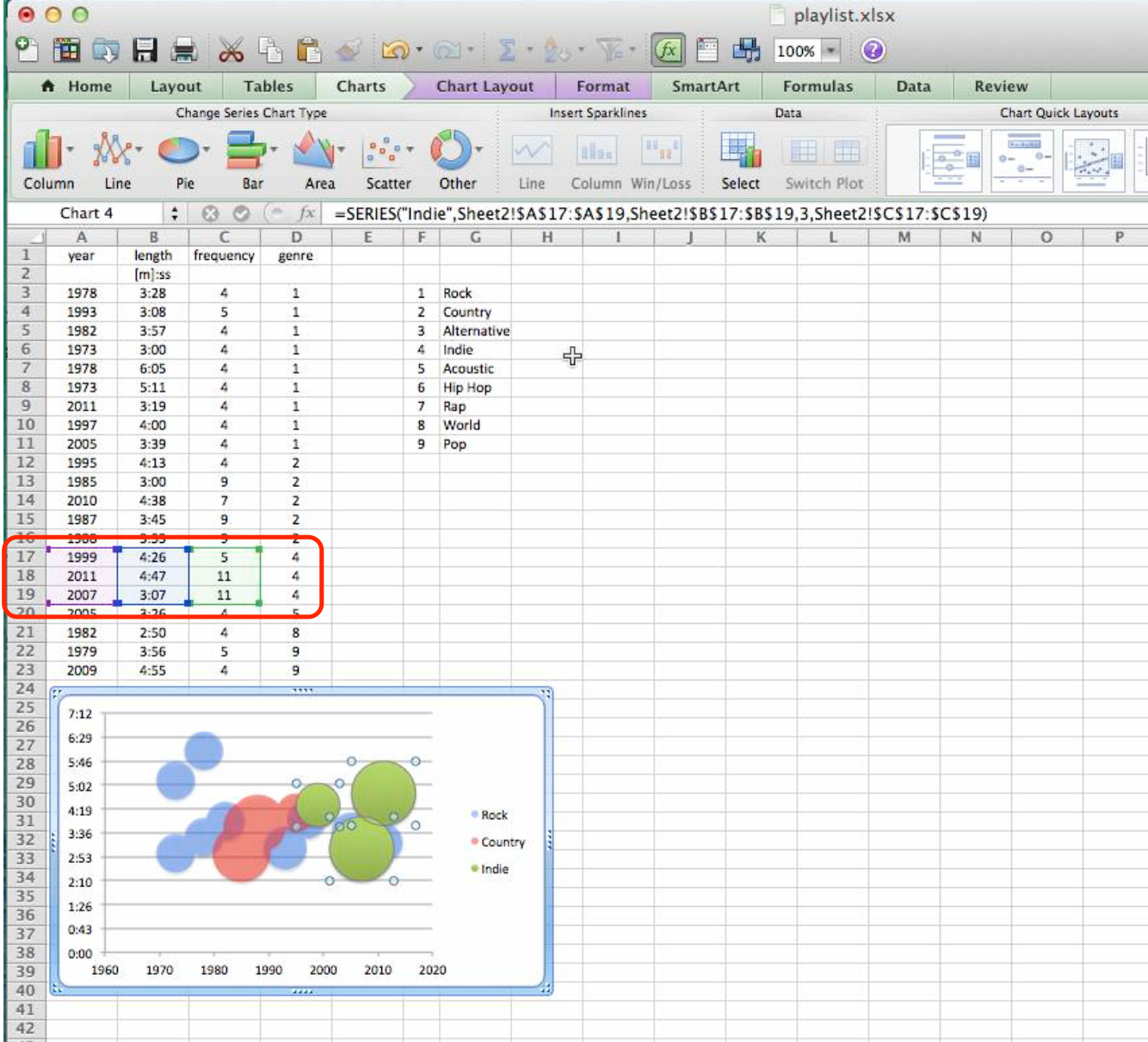
The screenshot shows the 'Select Data Source' dialog box in Excel. The spreadsheet data is as follows:

Year	Length [m:ss]	Frequency	Genre
1978	3:28	4	1
1993	3:08	5	1
1982	3:57	4	1
1973	3:00	4	1
1978	6:05	4	1
1973	5:11	4	1
2011	3:19	4	1
1997	4:00	4	1
2005	3:39	4	1
1995	4:13	4	2
1985	3:00	9	2
2010	4:38	7	2
1987	3:45	9	2
1988	3:53	9	2
1999	4:26	5	4
2011	4:47	11	4
2007	3:07	11	4
2005	3:26	4	5
1982	2:50	4	8
1979	3:56	5	9
2009	4:55	4	9

The 'Select Data Source' dialog box shows the following configuration:

- Chart data range: (empty)
- Series list: Rock, Country, **Series3** (selected)
- Add** button (highlighted with a red box)
- 1st (label next to Add button)
- Name: 2nd (highlighted with a red box)
- X values: 3rd (highlighted with a red box)
- Y values: = {1} (highlighted with a red box)
- Size: = {1} (highlighted with a red box)
- Category (X) axis labels: (empty)
- Show empty cells as: Gaps
- Show data in hidden rows and columns:

A third genre is now overlaid. As has been done many times before, click "Add", rename your "Series3" to "Indie", one by one go through the select data cell highlighting and addition processes for your "X values", "Y values", and "Size" ONLY for the next genre on your Excel list.



Clicking on a green circle will show you the cells that were used to display the “Indie” genre. You should alter the green color and make them more transparent.

playlist.xlsx

100%

Home Layout Tables Charts SmartArt Formulas Data Review

Insert Chart Insert Sparklines Data Chart Quick Layouts

Column Line Pie Bar Area Scatter Other Line Column Win/Loss Select Switch Plot

C20 1978

	A	B	C	D	E
1	year	length	frequency	genre	
2		[m]:ss			
3	1978	3:28	4	1	
4	1993	3:08	5	1	
5	1982	3:57	4	1	
6	1973	3:00	4	1	
7	1978	6:05	4	1	
8	1973	5:11	4	1	
9	2011	3:19	4	1	
10	1997	4:00	4	1	
11	2005	3:39	4	1	
12	1995	4:13	4	2	
13	1985	3:00	9	2	
14	2010	4:38	7	2	
15	1987	3:45	9	2	
16	1988	3:53	9	2	
17	1999	4:26	5	4	
18	2011	4:47	11	4	
19	2007	3:07	11	4	
20	2005	3:26	4	5	
21	1982	2:50	4	8	
22	1979	3:56	5	9	
23	2009	4:55	4	9	

Select Data Source

Chart data range:

The Chart Data Range is too complex to be displayed. If a new Data Range is selected, it will replace all of the series on the Series Panel.

Switch Row/Column

Series

Name: **2nd** Acoustic

X values: **3rd** =Sheet2!\$A\$20

Y values: **4th** =Sheet2!\$B\$20

Sizes: **5th** =Sheet2!\$C\$20

Category (X) axis labels:

Hidden and Empty Cells

Show empty cells as: Gaps

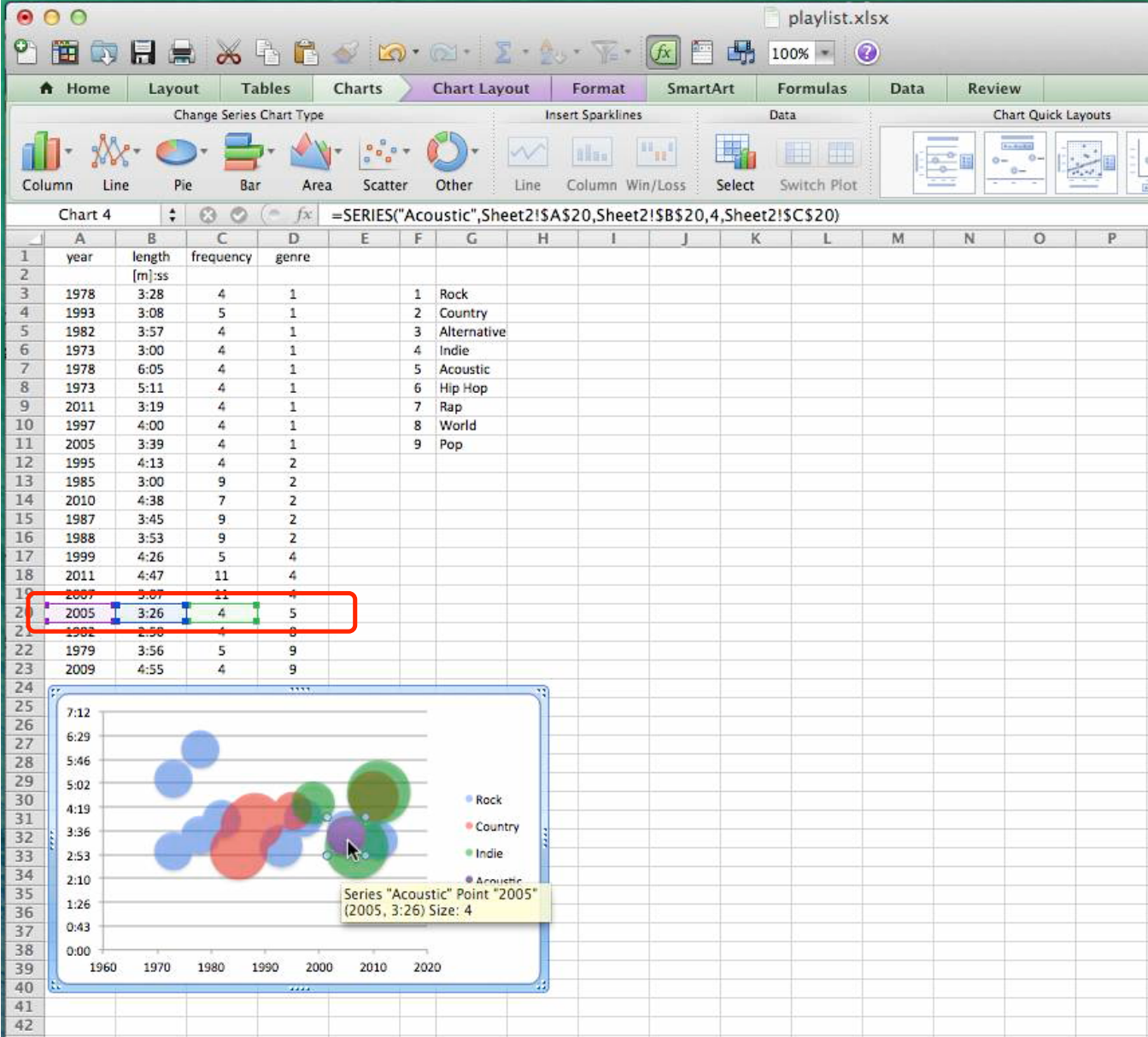
Show data in hidden rows and columns

Cancel OK

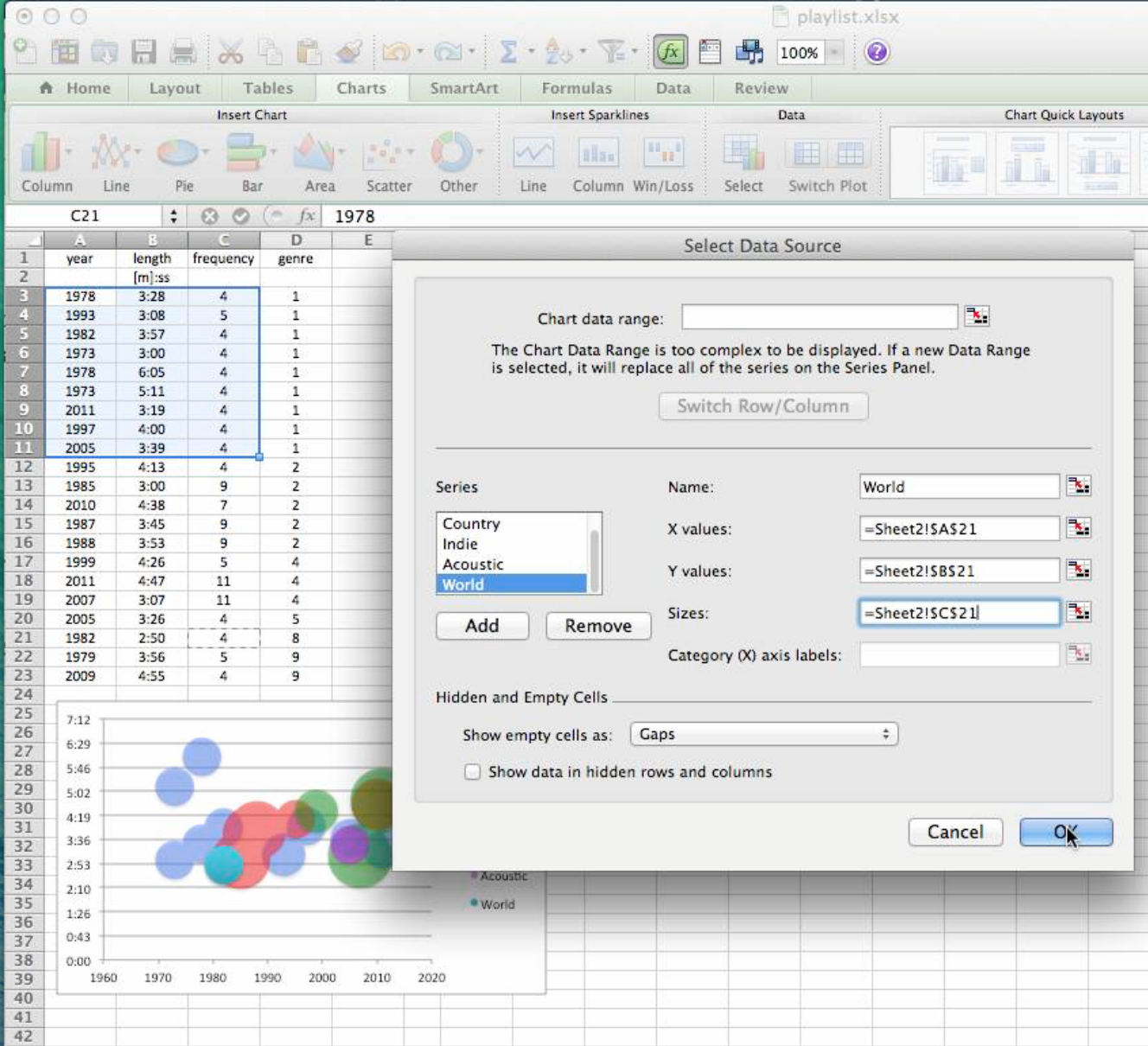
Rock
Country
Indie
Acoustic

Add **1st**ive

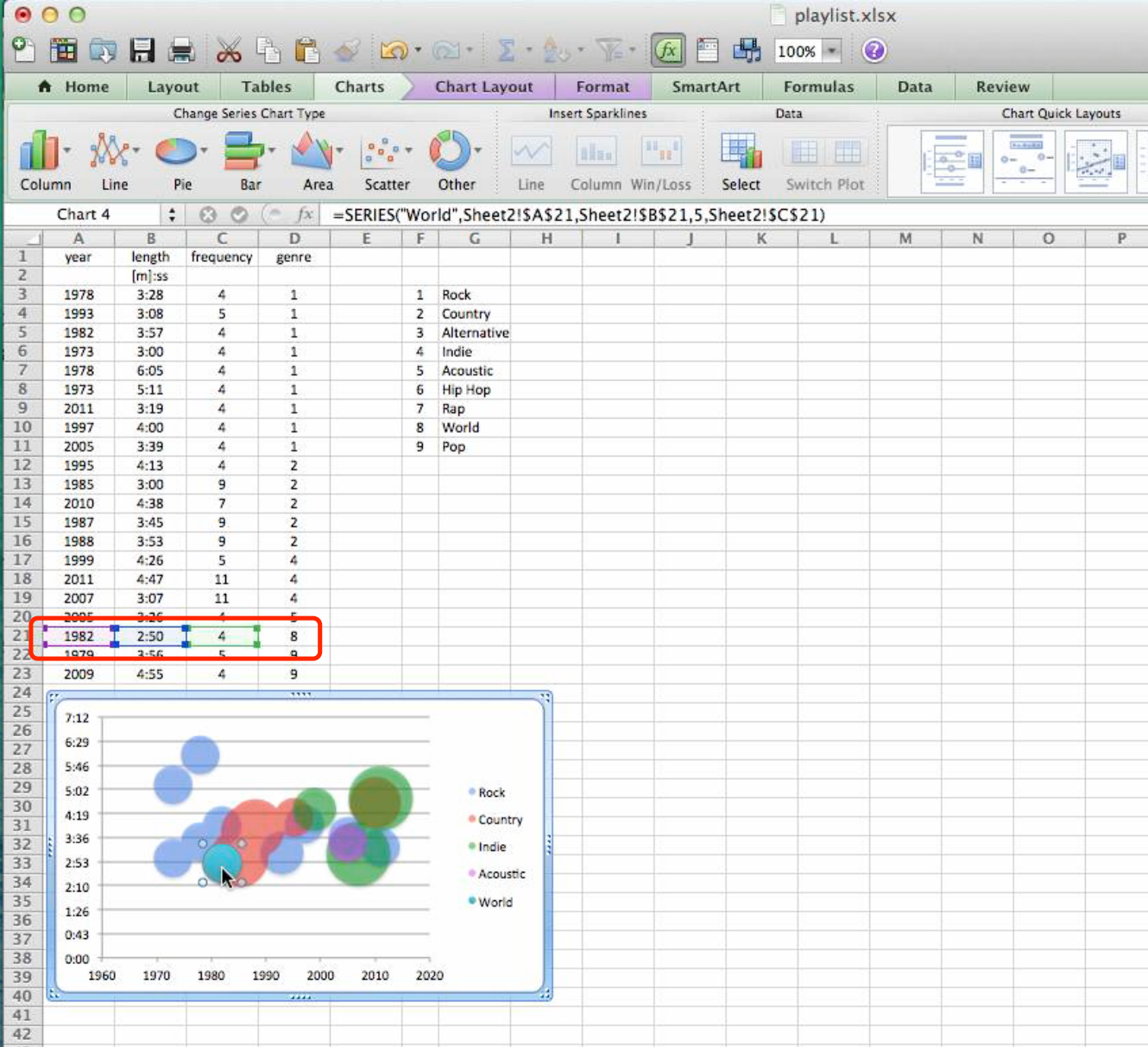
Overlay the next genre. "Add" and rename as "Acoustic". Using ONLY genre 5, one by one highlight and add your "X values", "Y values", and "Size". A purple bubble now appears.



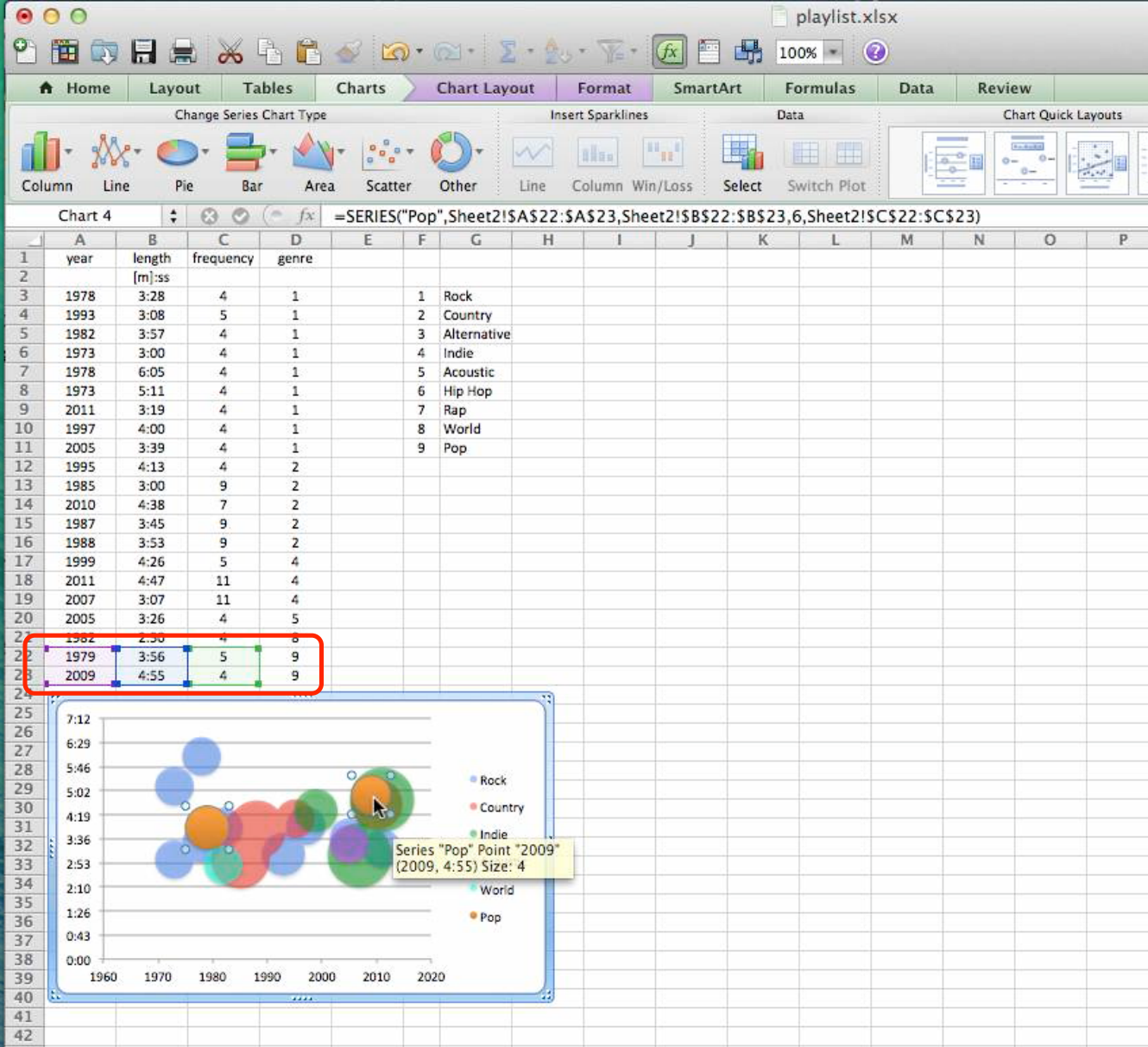
Click on a purple bubble and it will display which data cells were used. Also you can alter the purple color and make it more transparent.



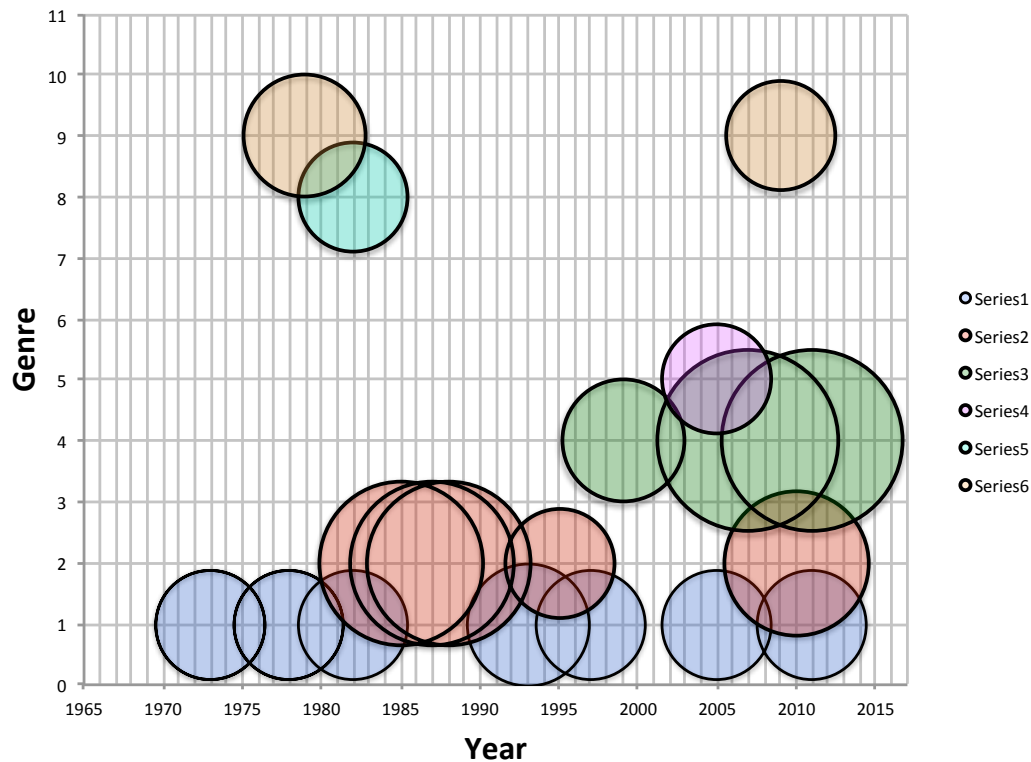
The next genre, number 8, is overlaid. It was renamed "World".



Clicking on a teal colored circle shows that the proper X, Y and Size data were selected. You should further change its color some and make more transparent.



The last genre, number 9, is overlaid, and altered to be consistent with the previous overlays.



In this result, song length was deleted. Genre becomes the value for the Y axis. Frequency still remains the Size dimension. Each type of genre was done as a separate overlay so you get a different color for each genre. Is this representation better than Slide 21?