

Using charts (MS Excel)

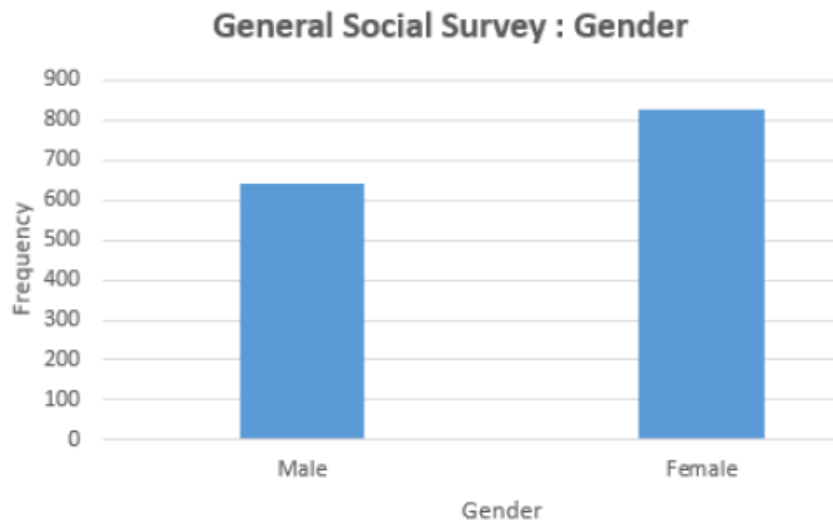
1. Enter the information in the worksheet below.
Use Calibri font type with 10 size.

| | A | B | C | D | E | F | G | H | I | J | K |
|----|---|-------|---------|---------|---------------|-------|---------|--------|-----------------------|-------|---------|
| 1 | Distributions of Selected General Social Survey Questions | | | | | | | | | | |
| 2 | | | | | | | | | | | |
| 3 | QUESTION #1 | | | | QUESTION #2 | | | | QUESTION #3 | | |
| 4 | | | | Marital | | | | Church | | | |
| 5 | Gender | Freq. | Percent | | Status | Freq. | Percent | | Attendance | Freq. | Percent |
| 6 | Male | 641 | | | Married | 802 | | | Never | 173 | |
| 7 | Female | 825 | | | Widowed | 167 | | | Less than once a year | 97 | |
| 8 | Total | | | | Divorced | 170 | | | Once or twice a year | 205 | |
| 9 | | | | | Separated | 51 | | | Several times a year | 232 | |
| 10 | | | | | Never Married | 276 | | | About once a month | 117 | |
| 11 | | | | | Total | | | | 2-3 times a month | 148 | |
| 12 | | | | | | | | | Nearly every week | 76 | |
| 13 | | | | | | | | | Every week | 298 | |
| 14 | | | | | | | | | Several times a week | 108 | |
| 15 | | | | | | | | | Don't know; no answer | 12 | |
| 16 | | | | | | | | | Total | | |

2. Use AutoFit on columns I, E (select columns then Format on HOME ribbon) Set the width of columns D, H to 1 and B, F, J to 4 , C, G, K to 7 Use Ctrl+b to set bold 4 th and 5 th rows. Set them Center aligned.
3. Enter the questions below into the appropriate cells as indicated and copy into the cell range that is listed.
 $B8 = B6 + B7$ (copy into cell C8)
 $C6 = B6 / B8$ (copy into cell C7:F11) = $sum(f6 : (copy into cell G11:G6 = f6/f11$ (copy into cells G7 : G10:J16) = $sum(j6 : (copy into cell K16:K6 = j6/j16$ (copy into cells K7:K15)
4. Format values in percent columns using the percentage format 0.00 Your worksheet should look similar to the one below. Save it using filename **chart.xlsx**

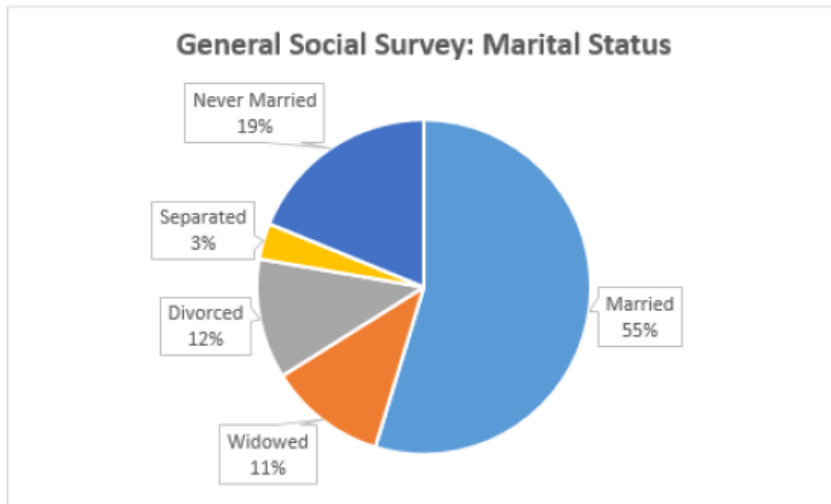
| | A | B | C | D | E | F | G | H | I | J | K |
|----|---|-------|---------|---------|---------------|-------|---------|--------|-----------------------|-------|---------|
| 1 | Distributions of Selected General Social Survey Questions | | | | | | | | | | |
| 2 | | | | | | | | | | | |
| 3 | QUESTION #1 | | | | QUESTION #2 | | | | QUESTION #3 | | |
| 4 | | | | Marital | | | | Church | | | |
| 5 | Gender | Freq. | Percent | | Status | Freq. | Percent | | Attendance | Freq. | Percent |
| 6 | Male | 641 | 43.72% | | Married | 802 | 54.71% | | Never | 173 | 11.80% |
| 7 | Female | 825 | 56.28% | | Widowed | 167 | 11.39% | | Less than once a year | 97 | 6.62% |
| 8 | Total | 1466 | 100.00% | | Divorced | 170 | 11.60% | | Once or twice a year | 205 | 13.98% |
| 9 | | | | | Separated | 51 | 3.48% | | Several times a year | 232 | 15.83% |
| 10 | | | | | Never Married | 276 | 18.83% | | About once a month | 117 | 7.98% |
| 11 | | | | | Total | 1466 | 100.00% | | 2-3 times a month | 148 | 10.10% |
| 12 | | | | | | | | | Nearly every week | 76 | 5.18% |
| 13 | | | | | | | | | Every week | 298 | 20.33% |
| 14 | | | | | | | | | Several times a week | 108 | 7.37% |
| 15 | | | | | | | | | Don't know; no answer | 12 | 0.82% |
| 16 | | | | | | | | | Total | 1466 | 100.00% |

5. Click on cell A6 to make it the active cell, and drag the mouse so that the cell range A6:B7 is highlighted.
6. Change the ribbon to INSERT, then click on Insert Column Chart (Chart panel), the first option is appropriate.
7. Then move the created chart to a preferred place. Change the Title to **General Social Survey : Gender**
8. Add Chart Elements with the plus (+) icon next to it. Tick Axis Titles. Type: **Frequency** and **Gender**
9. Your chart should look like this:



10. Create a chart for the percentage values for the marital status question. Since the two columns of information you are to use for this chart are not next to each other, the cell range to be graphed must be highlighted in the following manner. Click on cell E6 and drag the cursor to cell E10 (the range E6:E10 should now be highlighted). Release the left mouse button and move the cursor to cell G6. Before you click the left mouse button on cell G6, press and hold down the CTRL on your keyboard. Now you are ready to highlight the cell range G6:G10. (If you try to select the cell range G6:G10 without simultaneously holding down the CTRL key, the first range of cells will no longer be selected.)
11. Change the ribbon to INSERT, then click on Insert Pie or Doughnut Chart (Chart panel), select the 2D Pie.
12. Move it to a suitable place.
13. At Chart Elements (+), untick Legend and tick Data Labels (Data Callout) instead of it.

14. Add a Chart title: **General Social Survey: Marital Status**
15. Your Chart should look like this below.



16. Select the cell range I6:J15.
17. On INSERT ribbon click on Insert Bar Chart (Chart panel), select the 3D Bar.
18. Set Chart Title: **General Social Survey: Church Attendance**
19. Add Axis Titles: **Church Attendance** and **Frequency**
20. Change the color of the bars to something Red.
You can do it if you select the Chart and click on the paintbrush icon, then Color.
21. Finally select cells K6:K15 and click on the appearing Quick Analysis icon (Ctrl+Q). In the opening window click on Color Scale (Formatting).

| QUESTION #3 | | |
|-----------------------|-------------|----------------|
| Church | | |
| Attendance | Freq. | Percent |
| Never | 173 | 11.80% |
| Less than once a year | 97 | 6.62% |
| Once or twice a year | 205 | 13.98% |
| About once a month | 232 | 15.83% |
| 2-3 times a month | 117 | 7.98% |
| 2-3 times a month | 148 | 10.10% |
| Nearly every week | 76 | 5.18% |
| Every week | 298 | 20.33% |
| Several times a week | 108 | 7.37% |
| Don't know; no answer | 12 | 0.82% |
| Total | 1466 | 100.00% |

22. Show your work to the instructor.

Sources

1. <http://web.utk.edu/~dhouston/excel/exercise.html>
2. <https://www.wiseowl.co.uk/excel/exercises>

Course

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