SCHOOL OF DATA
by Springboard

Pivot Tables Practice Instructions

Previously you worked with the US Voter data to answer some basic questions about the 2012 election. In this exercise we will explore some more complex questions to show the flexibility of Pivot Tables for data analysis.

You can download the data file **here**. Click “File” on the top left of the screen, choose “Download” -> “Microsoft Excel (.xlsx)”.

The starter data file for this exercise is the same as the Tables exercise but the “Age Group” column has already been added to the table. The first thing that you need to do is create a new pivot table from the “Voter Table” table. Upon adding a new pivot, place this in a new worksheet. Excel will suggest this by default.

Add State to the rows area and Confirmed Voters to the values area of the fields list in the new pivot table.

Once your pivot table is set up, start your analysis.

Question 1

What State has the largest number of Confirmed Voters?

A. Wyoming
B. California
C. Texas
D. Florida

Add Age Range to the Columns area of the pivot and answer the below questions.

Question 2

How many Confirmed Voters in California were 65+ in 2012?

A. 4,926,000
B. 2,222,000
C. 2,902,000
D. 1,971,000

Question 3

Now, show the **Confirmed Voters** as a percentage of Row Total - which you learned in Chapter Five of the Mastering Pivot Tables course.You are interested in exploring within each state in the Row Labels what % of the total confirmed voters for that state are in each age range.You are interested in exploring the age ranges of total confirmed voters within each state in the row labels, and expressing that amount as a percentage of the total voters. Use % of Row Total here.

Hint: Click on the Confirmed Voters field in the Values area and select Value Field Settings.

What percentage of the California votes were cast by 65+ year old voters?

A. 23.75%
B. 21.56%
C. 17.31%
D. 22.80%

Question 4

Next, you'll examine voter turnout in a pivot table. You'll do that by inserting a calculated field, which you learned about in Chapter Five of the Mastering Pivot Tables course. Use the below formula"

='Confirmed Voters' /'Registered Voters'

Instead of copy/pasting this formula, build the formula by using the Fields box and Insert Field button.

By default, Excel will include the new calculated field in the Values area of the pivot table. Remove the Sum of Confirmed Voters field. You'll want to explore the custom Age Group created earlier to analyze voter turnout. To do this, please remove Age Range from the columns area of the pivot table and add in Age Group.

Which state had the highest voter turnout percentage for Adults (35-64)?

A. California
B. Wisconsin
C. Oklahoma
D. Colorado

Question 5

Notice that the Column Labels did not sort in a logical order based on the age. Reorder the column labels by clicking on the “Young Adults (25-34)” label first and then place your mouse on the bottom edge of the cell and dragging it all the way to the right. Repeat this for “Youth (<25)”.

Adding conditional formatting to a pivot table was covered in Chapter 3 of the Mastering Pivot Tables course but was not required for completion. If you are interested in learning about this functionality you can watch the video by clicking here. Instead of sorting each column label in ascending order you could add a color scale (Green – Yellow – Red Color Scale) to the Voter Turnout % values to create a heatmap. This will use color to highlight the lowest values across all age groups. Once you’ve done this, please use the heatmap to answer the question below.

What State and Age Group has the lowest Voter Turnout percentage?

A. Hawaii and Youth (<25)
B. West Virginia and Youth (<25)
C. Oklahoma and Young Adults (25-34)
D. West Virginia and Young Adults (25-34)