

**MICROSOFT OFFICE 2007
HINTS AND TIPS: MICROSOFT EXCEL PIVOT TABLES**

Part 3:

Pivot tables - Additional Groupings and Options)

Pivot tables are an Excel feature that you should learn how to use. Instead of analysing rows upon rows of records, a pivot table can aggregate your data and show a new perspective with few clicks. You can also move columns to rows or vice versa.

What is an Excel Pivot Table?

Think of a pivot table as a user created summary table of your original spreadsheet. You create the table by defining which fields to view and how the data should be displayed. Based on your field selections, Excel aggregates and organizes the data so you see a different view of your data.

As example, here is a sample spreadsheet of 4000 fictitious voters, which includes the following data fields:

- Voter ID
- Party Affiliation
- Their precinct
- Age group
- When they last voted
- Years they've been registered
- Ballot status

VOTER	PARTY	PRECINCT	AGE	LAST VOTED	YEARS REG	BALLOT STATUS
2	1012	REPUBLICAN	2808 71 +	08/2006	51	PERM
3	1013	REPUBLICAN	2411 71 +	08/2006	50	PERM
4	1014	DEMOCRAT	2424 71 +	08/2006	50	PERM
5	1015	DEMOCRAT	2418 71 +	08/2006	50	POLL
6	1016	REPUBLICAN	2411 71 +	08/2006	50	PERM
7	1017	REPUBLICAN	2419 71 +	08/2006	50	PERM
8	1018	REPUBLICAN	2417 71 +	08/2006	48	PERM
9	1019	REPUBLICAN	2417 71 +	08/2006	48	PERM
10	1023	DEMOCRAT	2424 71 +	08/2006	46	POLL
11	1024	REPUBLICAN	2411 71 +	08/2006	46	PERM
12	1025	REPUBLICAN	2416 71 +	06/2006	46	POLL
13	1028	DEMOCRAT	2405 71 +	08/2006	46	PERM
14	1027	REPUBLICAN	2405 71 +	08/2006	3	PERM
15	1028	REPUBLICAN	2420 71 +	06/2006	46	PERM
16	1029	DEMOCRAT	2416 71 +	08/2006	45	PERM
17	1030	REPUBLICAN	2416 71 +	08/2006	44	PERM
18	1031	REPUBLICAN	2412 71 +	08/2006	44	PERM
19	1032	DEMOCRAT	2420 71 +	08/2006	44	PERM
20	1033	DEMOCRAT	2419 61-70	08/2006	44	POLL
21	1034	DEMOCRAT	2408 71 +	05/2006	44	PERM

Looking at the first 20 data records, you can see the data is boring. In this format, the key question it answers is: How many voters exist in all the precincts?

Using pivot tables, you can organise and group the same data in ways that start to answer questions such as:

- What is the party breakdown by precinct?
- Do voters use permanent absentee ballots?
- Which precincts have the most Democrats?
- How many voter pamphlets do I need for Precinct 2416?
- Do 18-21 year olds vote?

Excel pivot tables allow you to group the spreadsheet or external data source by any of your data fields. The thumbnail below shows a count of voters by party by precinct.

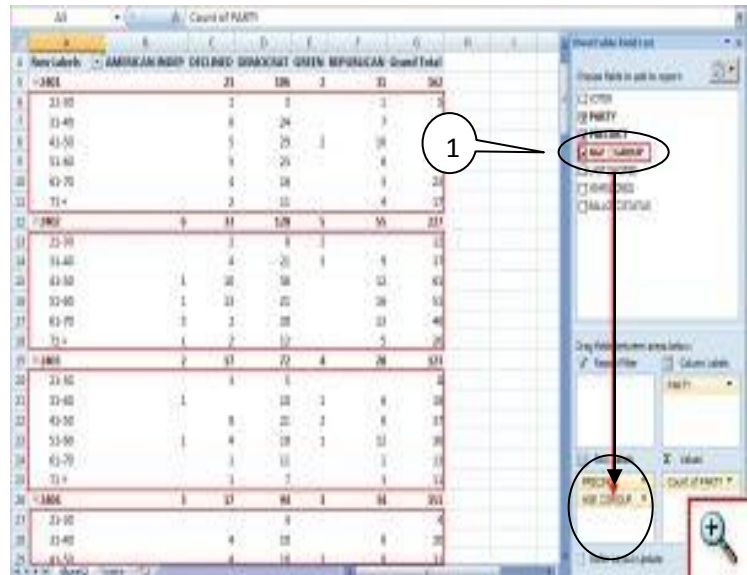
Additional Groupings and Options

As you build your pivot table, you'll probably think of additional ways to group the information. For example, you might want to know the Age Range of voters by Precinct by Party. In this case, you would drag the **AGE GROUP** column from the **PivotTable Field List** down below the **PRECINCT** value in **Row Labels**.

See 1

Each age group is broken out and indented by precinct. At this stage, you might also be thinking of usability. As with a regular spreadsheet, you may manipulate the fields. For example, you might want to rename “Grand Total” to “Total” or even collapse the age values for one or more precincts. You can also hide or show rows and columns. These features work the same way as a regular spreadsheet.

One area that is different is the pivot table has its own options. You can access these options by right-clicking a cell within and selecting **PivotTable Options...** For example, you might only want Grand Totals for columns and not rows.



There are also ways to filter the data using the controls next to Row Labels or Column labels on the pivot table. You may also drag fields to the **Report Filter** quadrant.

Troubleshooting Pivot Tables

You might encounter several “gotchas” with this example file or another spreadsheet. Sometimes when you move around your pivot table the **PivotTable Field List** disappears. To get it back, click any cell with a value.

You can also move or “pivot” your data by right clicking a data field on the table and selecting the “**Move**” menu. From here, you can move a column to a row or even change the position. An example of this might be the values for “LAST VOTED” since Excel will sort by the month first. You might prefer to move the data so the election dates are in a chronological order.

It may be preferable not adding fields to a pivot table. It may be easier to add the fields first to your source spreadsheet. The reason is you might get items out of sync if you move data unless you make them a calculated field.

Excel pivot tables may not make the election data exciting, but it can make the analysis easier. Without these tables, you’d probably spend more time filtering, sorting and subtotalling. The other benefit is that it’s easy to start over by deselecting fields or moving them to another location.

Additional Flyers regarding Pivot Tables in Excel are available: Look for Parts 1 and 2

1. Part 1: What is a Pivot Table & Pivot Table Structure
2. Part 2: How to create a Pivot table using Microsoft Excel 2007
3. Part 3: Pivot tables - Additional Grouping and Options

Source:

http://www.timeatlas.com/5_Minute_Tips/Chunkers/Learn_to_use_Pivot_Tables_in_Excel_2007_to_Organize_Data

Resources:

- Other QUICK TIPS FOR STUDENTS <http://www.usq.edu.au/learningcentre/tips.htm>
- Online resources on ALSOnline <http://www.usq.edu.au/learningcentre/alsonline/lecttuts/tuts.htm>
- Talk with a tutor at The Learning Centre (tlc@usq.edu.au)