

## Excel #6: Importing External Data.

You often need to retrieve data from other sources and put it into Excel. For in-house data, the best approach is to connect to the database, but that is a different lesson.

Government statistics are a common source of useful data.

Common data is compiled in the Statistical Abstract of the United States. You can find it at:

<http://www.census.gov/compendia/statab/>

Or, go to the main U.S. government site (<http://www.fedstats.gov>) and find links to the Abstract or other data sources.

Personal Income is one example (but the years might change).

<http://www.census.gov/prod/2006pubs/07statab/income.pdf>

Select a few rows and columns of data—preferably from a text or PDF file.

Open a new worksheet and paste the data into the worksheet.

In many cases, the data will be pasted into column A.

State				
Current dollars				
1990	2000	2004	2005	
United States . . . . .	19,477	29,845	33,050	34,586
Alabama . . . . .	15,723	23,764	27,695	29,136
Alaska . . . . .	22,804	29,867	34,000	35,612
Arizona . . . . .	17,005	25,660	28,658	30,267
Arkansas . . . . .	14,460	21,925	25,814	26,874
California . . . . .	21,638	32,463	35,219	37,036

Some print versions of data use dots to help visually align the rows.

Because these tend to mess up the column alignment, they should be removed first.

Select the data column.

Press Ctrl+H to start search and replace.

Enter a dot and space (.) in the Find what box.

Enter a single space in the Replace With box to delete the dots.

Click the Replace All button.

Next you need to split the data into columns.

Be sure the data is selected in the first column.

Choose Data/Text to Columns in the main menu.

Most data is delimited, so choose the Delimited option instead of Fixed width, but look at the preview data to be sure.

Click Next.

Choose the characters that delimit (separate) the columns. It is often a tab or space.

Commas are sometimes used but be cautious with those because they might be included in large numbers or names.

Click the Next and Finish buttons.

	1990	2000	2004	2005	
United States			19,477	29,845	33,050 34,586
Alabama		15,723	23,764	27,695	29,136
Alaska		22,804	29,867	34,000	35,612
Arizona		17,005	25,660	28,658	30,267
Arkansas		14,460	21,925	25,814	26,874
California		21,638	32,463	35,219	37,036

Using spaces causes some problems, as shown by the United States entry spreading to two columns. Often, it is easiest to prevent these problems early by using an underscore (United\_States) before running the Text to Columns wizard. With only one issue in this case, you can fix it by hand.

Edit the entry for United and add States so the name is in one cell.  
 Select the second cell (States).  
 Right-click and choose Delete from the menu.  
 Choose the option to Shift cells left.  
 Click OK.

The years are also off by one column because no heading was included.  
 Select the cell in the first column (1990).  
 Right-click and choose Insert.  
 Choose the option to Shift cells right.  
 Click OK.

State	1990	2000	2004	2005
Current dollars				
United States	19,477	29,845	33,050	34,586
Alabama	15,723	23,764	27,695	29,136
Alaska	22,804	29,867	34,000	35,612
Arizona	17,005	25,660	28,658	30,267
Arkansas	14,460	21,925	25,814	26,874
California	21,638	32,463	35,219	37,036

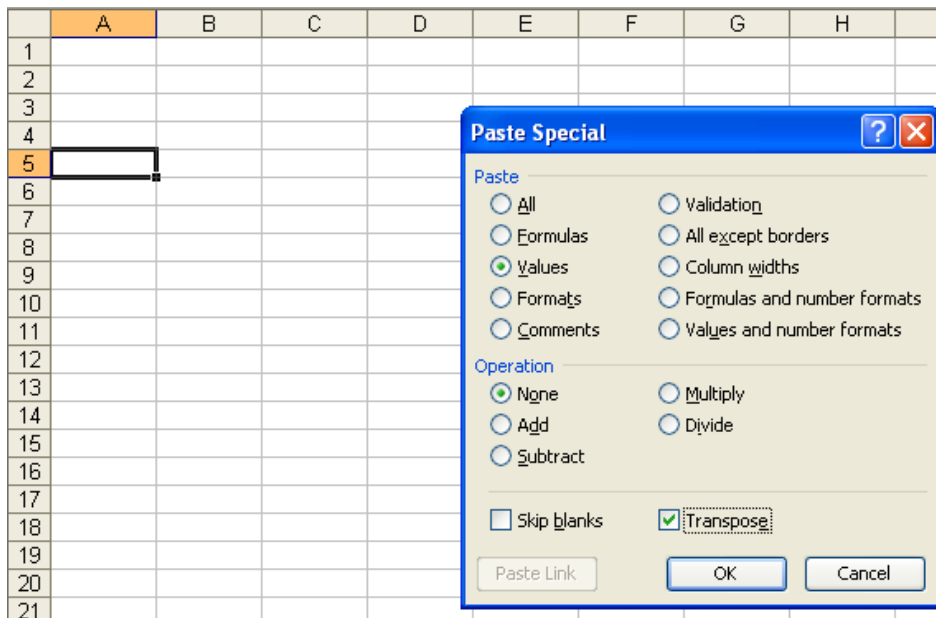
For practice, add a forecast for the next year.  
 Enter a new column heading (2006).  
 Add a cell above it with the value 5 and label it Percent increase  
 Enter a formula to compute the increase for each of the states.  
 Copy the formula to the other rows.

State	Percent inc 5				
Current dollars	1990	2000	2004	2005	2006
United Stat	19,477	29,845	33,050	34,586	36,315
Alabama	15,723	23,764	27,695	29,136	30,593
Alaska	22,804	29,867	34,000	35,612	37,393
Arizona	17,005	25,660	28,658	30,267	31,780
Arkansas	14,460	21,925	25,814	26,874	28,218
California	21,638	32,463	35,219	37,036	38,888

Many times, you would prefer to display time data (year) as rows instead of columns. You can use Copy/Paste Special to transpose a table of data.

Select the data table, including the row and column labels, but not the 5 percent cell. Press Ctrl+C to copy the data. Use the mouse to select a new worksheet and a new cell (such as A5).

Choose Edit/Paste Special from the main menu (Alt+E/S). Select the Values option and the Transpose check box.



Click the OK button.

The years are now stored in rows and the states in columns. Also, the formulas for the forecast are gone—leaving only the data values.

	United Stat	Alabama	Alaska	Arizona	Arkansas	California
1990	19477	15723	22804	17005	14460	21638
2000	29845	23764	29867	25660	21925	32463
2004	33050	27695	34000	28658	25814	35219
2005	34586	29136	35612	30267	26874	37036
2006	36315.3	30592.8	37392.6	31780.35	28217.7	38887.8