

Whoa! I Didn't Know You Could Do
That in Excel:
Keyboard Shortcuts, Formatting Tricks, the
Magic Spin Button, Spark Lines, and More

Douglas K. Anderson
Bridgett J. Milner

Indiana University

Introduction


- Us
- You
- Expectations
- Outline

Purpose of Session


- **Quick** and **Easy** short-cuts/tips that we love
 - Some well known, others maybe new to you
- Some more involved techniques to save time and effort
- A glance at some ways to go beyond Excel

Ctrl

Video clip




Useful Shortcuts



- Drag lower right corner into new cells
- Double click lines to resize columns or rows
- Ctrl+S = save; F12 = save as
- Ctrl+A=select all; Ctrl+C = copy; Ctrl+X=cut
- Ctrl+V = paste; Ctrl+Alt+V=paste special
- Ctrl+Z=undo; Ctrl+Y=redo
- Ctrl+B=bold; Ctrl+I=italic; Ctrl+U=underline;
- Ctrl+PageUp or PageDown=scroll worksheets
- F9 – calculate all worksheets in open workbooks
- Search “shortcuts” in Excel Help for “Excel shortcut and function keys” link.

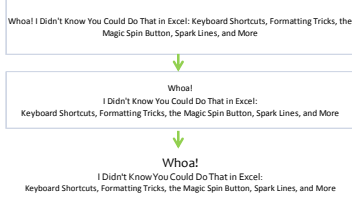
Wrapping & Formatting Text

- Wrap & Merge



Wrapping & Formatting Text

- Alt + Enter



Wrapping & Formatting Text

- Themes

Whoa!
I Didn't Know You Could Do That in Excel:
Keyboard Shortcuts, Formatting Tricks, the Magic Spin Button, Spark Lines, and More

Whoa!
I Didn't Know You Could Do That in Excel:
Keyboard Shortcuts, Formatting Tricks, the Magic Spin Button, Spark Lines, and More

Whoa!
I Didn't Know You Could Do That in Excel:
Keyboard Shortcuts, Formatting Tricks, the Magic Spin Button, Spark Lines, and More

Whoa!
I Didn't Know You Could Do That in Excel:
Keyboard Shortcuts, Formatting Tricks, the Magic Spin Button, Spark Lines, and More

Whoa!
I Didn't Know You Could Do That in Excel:
Keyboard Shortcuts, Formatting Tricks, the Magic Spin Button, Spark Lines, and More

Whoa!
I Didn't Know You Could Do That in Excel:
Keyboard Shortcuts, Formatting Tricks, the Magic Spin Button, Spark Lines, and More

Formatting Task (Tab 1)

- Go from this:

Whoa! I Didn't Know You Could Do That in Excel: Keyboard Shortcuts, Formatting Tricks, the Magic Spin Button, Spark Lines, and More


- To this:

Whoa!
I Didn't Know You Could Do That in Excel:
Keyboard Shortcuts, Formatting Tricks, the Magic Spin Button, Spark Lines, and More

From Output to Usable Tables

reside				
Value	Frequency	Percent	Percent	Percent
0	1997	56.3	56.3	56.3
1	1504	43.5	43.5	100.0
Total	3442	100.0	100.0	

Use "Format Painter" to quickly copy and paste formats



		2008 Cohort	2009 Cohort	2010 Cohort	1 yr % Δ	2009 Cohort
		11/6/07	11/6/08	11/6/09	1 yr Δ	Year End
Admits	Resident	1460.328	3350.256	3564.023	214.3662	0.063985
	Non-Resident	1900.359	2544.513	3557.174	1012.661	0.397978
	Unclassified	0	0	0	0	0
	TOTAL	3360.687	5894.77	7121.796	1227.027	0.208155
	Decision Rate	0.340308	0.458292	0.373329	-0.08496	0.950205
Summer				24		398
FULL TOTAL			7145.796			16856.53

		2008 Cohort	2009 Cohort	2010 Cohort	1 yr % Δ	2009 Cohort
		11/6/07	11/6/08	11/6/09	1 yr Δ	Year End
Admits	Resident	1,460	3,350	3,565	214	6%
	Non-Resident	1,900	2,545	3,557	1,013	40%
	Unclassified	-	-	-	-	n/a
	TOTAL	3,361	5,895	7,122	1,227	21%
	Decision Rate	34%	46%	37%	-8%	95%
Summer				24		398
FULL TOTAL			7,146			16,857

Formatting Task 2 (Tab 2)

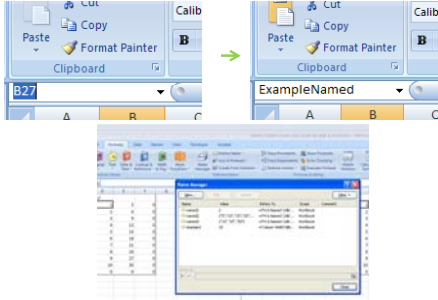
- Go from ugly output to a usable table
 - Use format painter to replicate formats
 - Link cells so you **only format once**

Cell References

- Absolute and relative
- A1; \$A\$1; A\$1; \$A1 – F4 to toggle between

Cell References

- Named Cells -



F4 & Named Cells Task (Tab 3)

- Fill in each box with the appropriate formulas. Use F4 to toggle between references.
 - For example, in D2 type “=” then type A2 or click on A2.
 - Drag this cell down to fill D3:D12.
 - Now drag the column over to full E2:F12

Named Cell Questions?

- A named SINGLE cell acts like?
 - a) A1
 - b) A\$1
 - c) \$A1
 - d) \$A\$1



Named Cell Questions?

- Named COLUMN cells acts like?
 - a) A1
 - b) A\$1
 - c) \$A1
 - d) \$A\$1

Named Cell Questions?

- Named ROW cells acts like?
 - a) A1
 - b) A\$1
 - c) \$A1
 - d) \$A\$1

Formulas



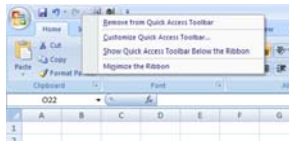
- Common
 - Sum, Average, Count, Max, Min, IF
- Case Sensitivity
 - Upper, Lower, Proper
- Match tables
 - Hlookup, Vlookup
- Formatting error cells
 - Iferror

Gift Exchange Task (Tab 4)

- Each person gives a gift to one other
- No giving within families
- Assign randomly
 - Use formulas
 - =Rand()
 - =Max
 - =If
 - Use F9 to recalculate

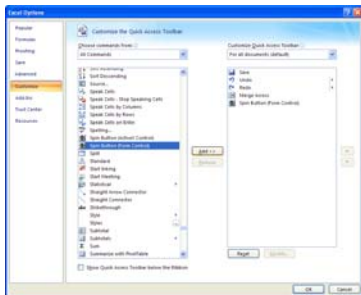
Giver
Erika
Aaron
Jared
Blair
Adriel
Zoë
Mason
Symmes

The “magic” Spin Button

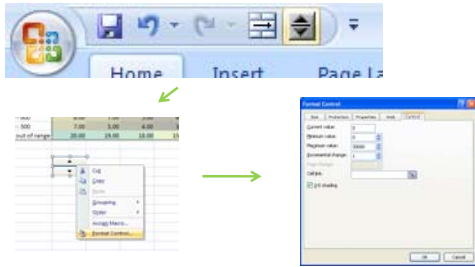


Right Click the “Quick Access Toolbar”
 Select “Customize Quick Access Toolbar”

The “magic” Spin Button



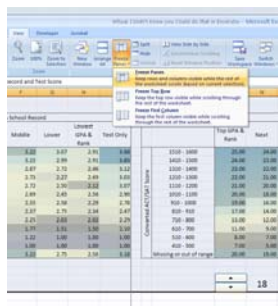
The "magic" Spin Button



Spin & Formula Task (Tab 5)

- You are given a list of prospective students with their test scores
- A colleague will invite the best to an event
- She wants to see scenarios to help her decide how many to invite
 - Create a flag next to these students (1 or 0) that indicates whether or not they should be invited.
 - The criteria for invitation should be linked to a spin button so that it can be tightened or loosened.
 - Create a total of the flags so that you can see how many invitations would be sent as the criteria are tightened and loosened.
 - At what score are the best 40 students invited?
 - 1270
 - At what score are the best 30 students invited?
 - 1310

Freeze Panes



Ugly, unformatted data!

ID	RSName*	totstat2	actco	satv	satn	SISChvGPA	HS
375720	Bloomington High School South*	1340	30	560	690	4	
1355549	Blue Valley North High School*	1460	33	700	740		
1672221	Blue Valley Northwest Hs*	1190	26	540	550	0	
1727142	Colby High School*	1510	34	.	4	94.71	
1731866	Dembroke Hill School*	1260	28	600	620	4	
1868647	Dembroke Hill School*	1280	28	630	650	0	
1887131	Shawnee Mission East Hs*	1260	28	580	530	4	
1925929	Shawnee Mission East Hs*	1140	24	570	570	4	
1927027	Shawnee Mission Northwest Hs*	1300	29	520	680	3	
1968389	Shawnee Mission South Hs*	1030	22	.	3.65		

Number of cases read: 10 Number of cases listed: 10

Txt2Col, Lead0, WriteSyntax Task (Tab 6)

- From ugly text, extract ID number
 - ID must have 10 digits, with leading 0s
- Extract Reception variable
- Write syntax to add Reception variable into an existing data set, matching on ID number

Text to Columns

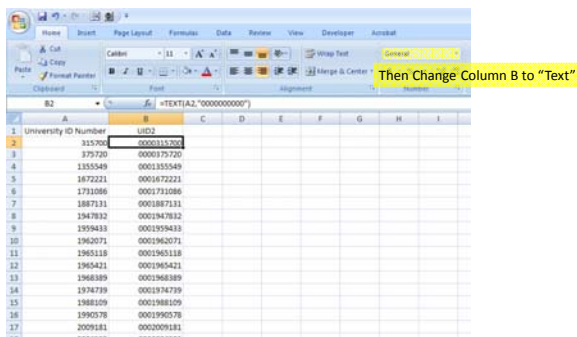
Text to Columns

- Find Text to Columns tool on data ribbon
- Choose fixed width or
- Choose delimited
 - Specify character used as delimiter
- May need multiple stages to fully parse

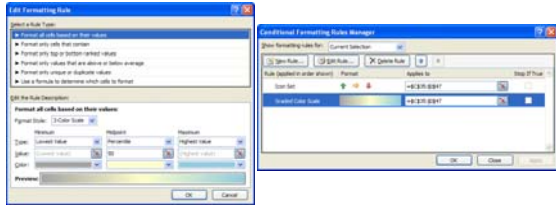
Leading Zeros

- Pad the ID number with leading 0s, up to 10 digits
 - For example, 315700 should become 0000315700
 - Make the IDs text so they don't revert to numbers when copied

Retaining Leading Zeros (1 way)



Conditional Formatting

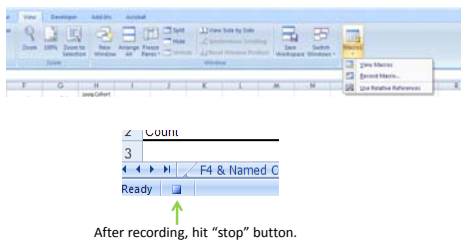


Cond Formatting Task (Tab 7)

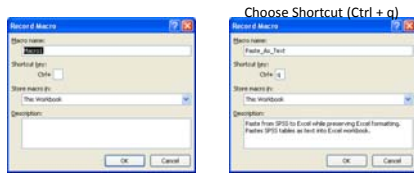
- Recreate the example from the previous slide in your spreadsheet.

		High School Record						
		Top GPA & Rank	Next	3rd Highest	Middle	Lower	Lowest GPA & Rank	Test Only
Compared to State	1510-1600	3.75	3.53	3.36	3.22	3.07	2.91	3.88
	1410-1500	3.69	3.30	3.30	3.15	2.99	2.91	3.88
	1310-1400	3.57	3.25	3.02	2.87	2.72	2.46	3.12
	1210-1300	3.47	3.18	2.98	2.73	2.27	2.69	3.03
	1110-1200	3.33	3.10	2.86	2.72	2.50	2.12	3.07
	1010-1100	3.20	3.00	2.81	2.69	2.45	2.56	2.96
	910-1000	3.07	2.85	2.73	2.55	2.58	2.29	2.78
	810-900	2.95	2.57	2.37	2.37	2.25	2.34	2.44
	710-800	2.75	2.71	2.47	2.51	2.03	2.02	2.29
	610-700	2.56	2.30	2.04	1.77	1.51	1.50	2.10
	510-600	2.39	2.00	1.61	1.22	1.00	1.00	1.66
	410-500	2.21	1.70	1.18	1.00	1.00	1.00	1.00
	Missing or out of range	3.30	3.30	3.12	3.22	2.75	2.56	3.18

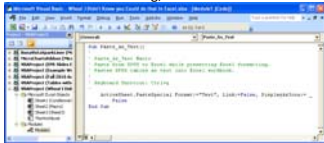
Create a Simple Macro



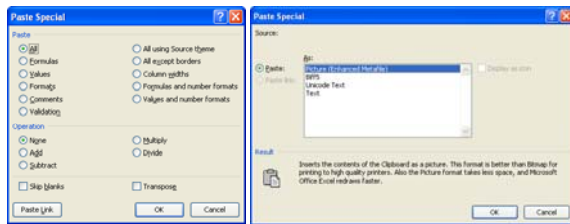
Create a Simple Macro



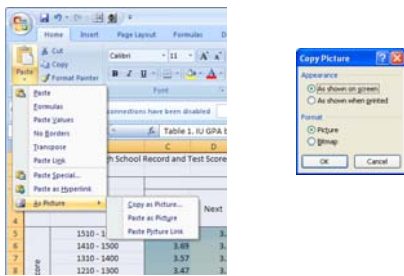
After Recording, Check Macro



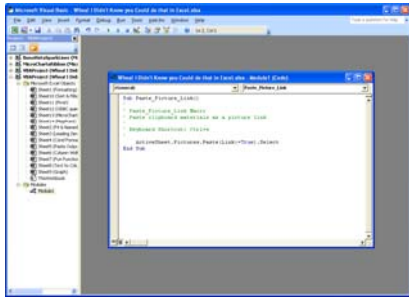
Other Copy & Pastes



Copy & Paste as Picture



View Macro



Solution

Table 3. Admits by High School Record and Test Score

Admission Category	Total	High School Record				Total
		1st	2nd	3rd	4th	
Admits	100	10	20	30	40	100
Rejects	900	90	180	270	360	900
Total	1000	100	200	300	400	1000

Table 4. Admits by High School Record and Test Score

Admission Category	Total	High School Record				Total
		1st	2nd	3rd	4th	
Admits	100	10	20	30	40	100
Rejects	900	90	180	270	360	900
Total	1000	100	200	300	400	1000

Admissions Task, part 2

- Set Admissions Standards to admit the best 20,000 applicants.
- Show color-coded standards in Table 4 with admits in green:

Table 4. Admits by High School Record and Test Score

Admission Category	Total	High School Record				Total
		1st	2nd	3rd	4th	
Admits	100	10	20	30	40	100
Rejects	900	90	180	270	360	900
Total	1000	100	200	300	400	1000

➤ Unhide columns K-S to begin

Steps for completing

Link a "spin button" to a named cell which can be used to adjust standards

Populate a grid with admits if the cell has a value above the standard

Create a sum to examine total admits; adjust standards until target is met.

LookUp Task (Tab 10)

- Fill in the Enrolled column of Table 1 with the output found in the table to the right (L3:L9) using a LOOKUP function.
- If the value does not exist in the output, fill the Enrolled column cell with "n/a"

LookUp Task (Tab 10)

Table 1				
State	Data Abbreviation	Applicants	Admits	Enrolled
Indiana	IN	12,777	8,895	5,137
Illinois	IL	6,333	5,068	1,257
Arkansas	AR	16	13	1
Iowa	IA	41	30	6
Kansas	KS	80	72	16
Missouri	MO	461	369	81
Nebraska	NE	27	22	5
Oklahoma	OK	25	15	2

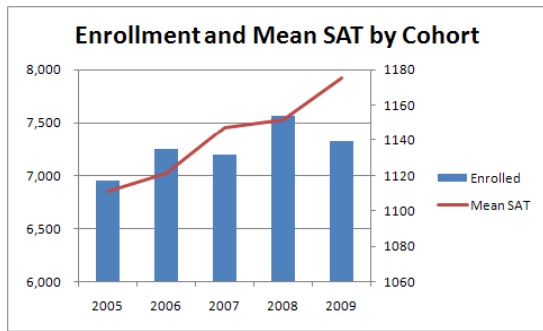
Home Address State Code					
Home Address	State Code	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	IA	1	1	1	17.0
IL	IL	970	16.9	16.8	17.0
IN	IN	4892	81.6	81.6	86.8
KS	KS	10	2	2	88.8
MO	MO	87	1.2	1.2	89.9
NE	NE	3	1	1	100.0
OK	OK	1	0	0	100.0
Total		5748	100.0	100.0	

LookUp Task Solution

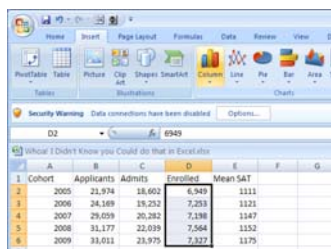
- I named K3:L9 vlooktable
- Formula:
=IFERROR((VLOOKUP(B3,vlooktable,2,FALSE)),"n/a")
- Output:

State	Data Abbreviation	Applicants	Admits	Deposits	Enrolled
Indiana	IN	12,777	8,895	5,137	4,692
Illinois	IL	6,333	5,068	1,257	970
Arkansas	AR	16	13	1	n/a
Iowa	IA	41	30	6	5
Kansas	KS	80	72	16	10
Missouri	MO	461	369	81	67
Nebraska	NE	27	22	5	3
Oklahoma	OK	25	15	2	1

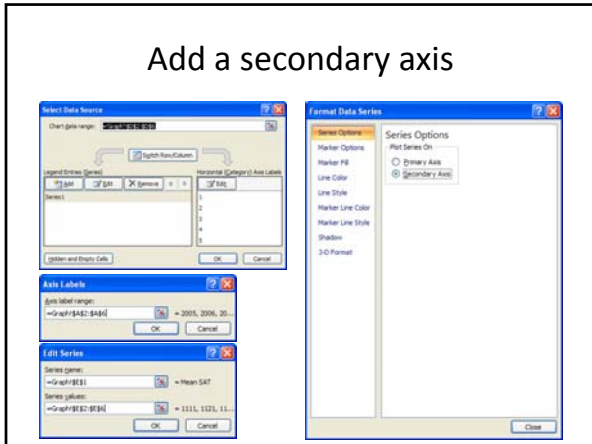
Graphing



Select data and insert graph

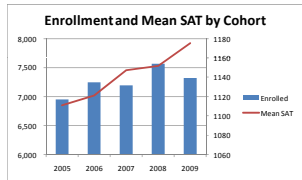


Add a secondary axis

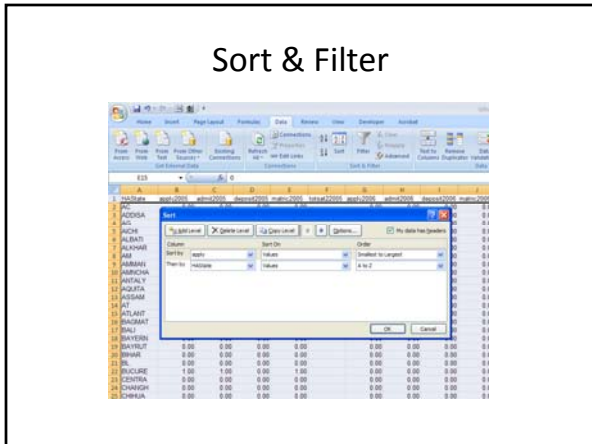


Graph Task (Tab 11)

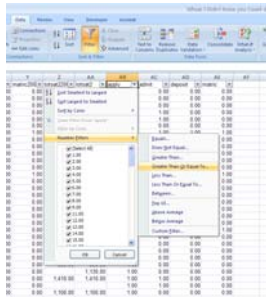
- Create this Graph from the data provided:



Sort & Filter



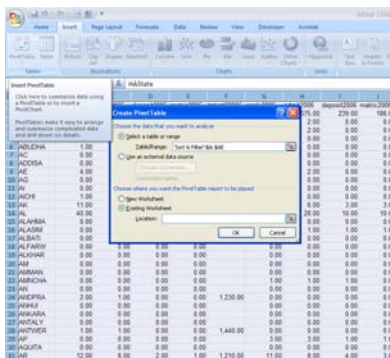
Define Filters



Sort & Filter Task (Tab 12)

- What are the 4 "HASState"s with more than 750 matrices in order largest to smallest?
 - IN, IL, OH, NY
- What 3 states have 176 matrices?
 - CT, MA, MN

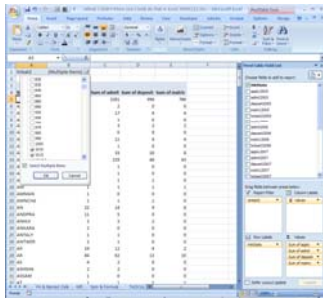
Pivot Tables



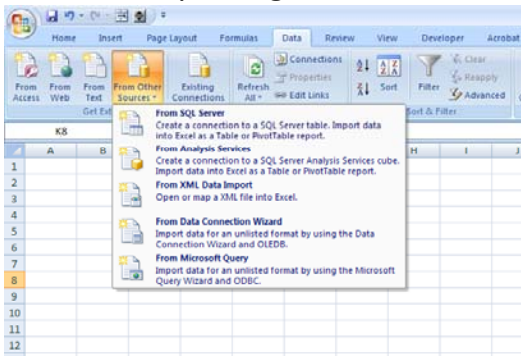
Pivot Task (Tab 13)

- Create a Pivot Table of the data from the Sort & Filter Tab
- In this table show HA state with Apply, Admit, Deposit, and Matric for All HAsStates with a totsat2>1000.
- Examine the “Grand Total” of these. How many matrices are included in your table?
– 36,282

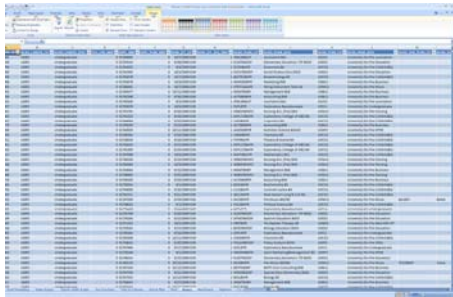
Pivot Task Solution



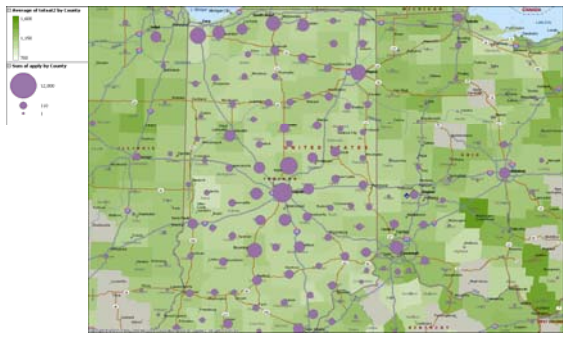
Importing Data



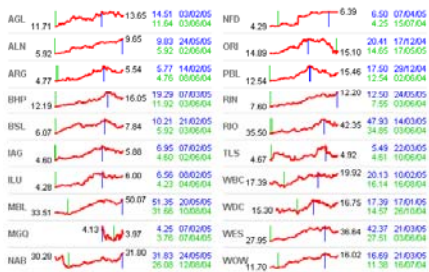
Importing Data



MapPoint - Demo



Sparklines – Microcharts Demo Intense, Simple, Word-Sized Graphics



**Whoa! I Didn't Know You Could Do
That in Excel:**
Keyboard Shortcuts, Formatting Tricks, the
Magic Spin Button, Spark Lines, and More

Douglas K. Anderson
dkanders@indiana.edu
Bridgett J. Milner
bharsh@indiana.edu
