



# WHAT'S WRONG WITH MY RATIO STUDY?

**DELIVERANCE BOUGIE**

**Sr Statistician**

**January 2017**



# What's Wrong With My Ratio Study?

---

- WHAT THE DLGF NEEDS
- COMMON FORMATTING ISSUES
- FAQs
- SALES CHASING



<http://negativespace.co/photos/rubix-cube/>



# What The DLGF Needs



# What The DLGF Needs

---

1. Narrative
2. Ratio Study
3. Workbook
4. Sales Reconciliation



# What The DLGF Needs

---

- Narrative
- Annual adjustment process
  - Sales dates
  - Time adjustment
- Cyclical reassessment activity
- Concise detail



# What The DLGF Needs

- Ratio Study
1. Summary Tab
- This data will get hand-entered into a worksheet, so it is helpful (but not vital) to structure your summary tab like the one in our sample ratio study.

	A	B	C	D	E
1	<b>Industrial Vacant</b>				
2		Sales	Median	COD	PRD
3	Adams				
4	Boone				
5	Cass				
6					
7	<b>Industrial Improved</b>				
8		Sales	Median	COD	PRD
9	Adams				
10	Boone				
11	Cass				
12					
13	<b>Commercial Vacant</b>				
14		Sales	Median	COD	PRD
15	Adams				
16	Boone				
17	Cass				
18					
19	<b>Commercial Improved</b>				
20		Sales	Median	COD	PRD
21	Adams				
22	Boone				
23	Cass				
24					
25	<b>Residential Vacant</b>				
26		Sales	Median	COD	PRD
27	Adams				
28	Boone				
29	Cass				



# What The DLGF Needs

- Ratio Study
- ## 2. Formatted Tab
- These are the columns that must be included. Access looks for them in this order.
  - Township \*name\* in this tab.

Field Name	Data Type
SDFID	Short Text
ParcelNumber	Short Text
MultiParcel	Short Text
StudySection	Short Text
Grouping	Short Text
Township	Short Text
Neighborhood	Short Text
PropertyClass	Short Text
TaxingDistrict	Short Text
SaleDate	Date/Time
StudySalePrice	Number
CurrentLandAV	Number
CurrentImpAV	Number
CurrentTotalAV	Number



# What The DLGF Needs

- Ratio Study
- ### 3. MultiParcelSales
- Each parcel should be listed separately.
  - Township \*name\* in this tab.

frmMain		tblMultiParcelSalesFormat	
		Field Name	Data Type
	SDFID		Short Text
	ParcelNumber		Short Text
	MultiParcel		Short Text
	Primary		Short Text
	StudySection		Short Text
	Grouping		Short Text
	Township		Short Text
	Neighborhood		Short Text
	PropertyClass		Short Text
	TaxingDistrict		Short Text
	SaleDate		Date/Time
	StudySalePrice		Number
	CurrentLandAV		Number
	CurrentImpAV		Number
	CurrentTotalAV		Number



# What The DLGF Needs

---

- Three tabs in Ratio Study:
  - Summary
  - Formatted
  - MultiParcelSales
- Make your changes to these tabs.



# What The DLGF Needs

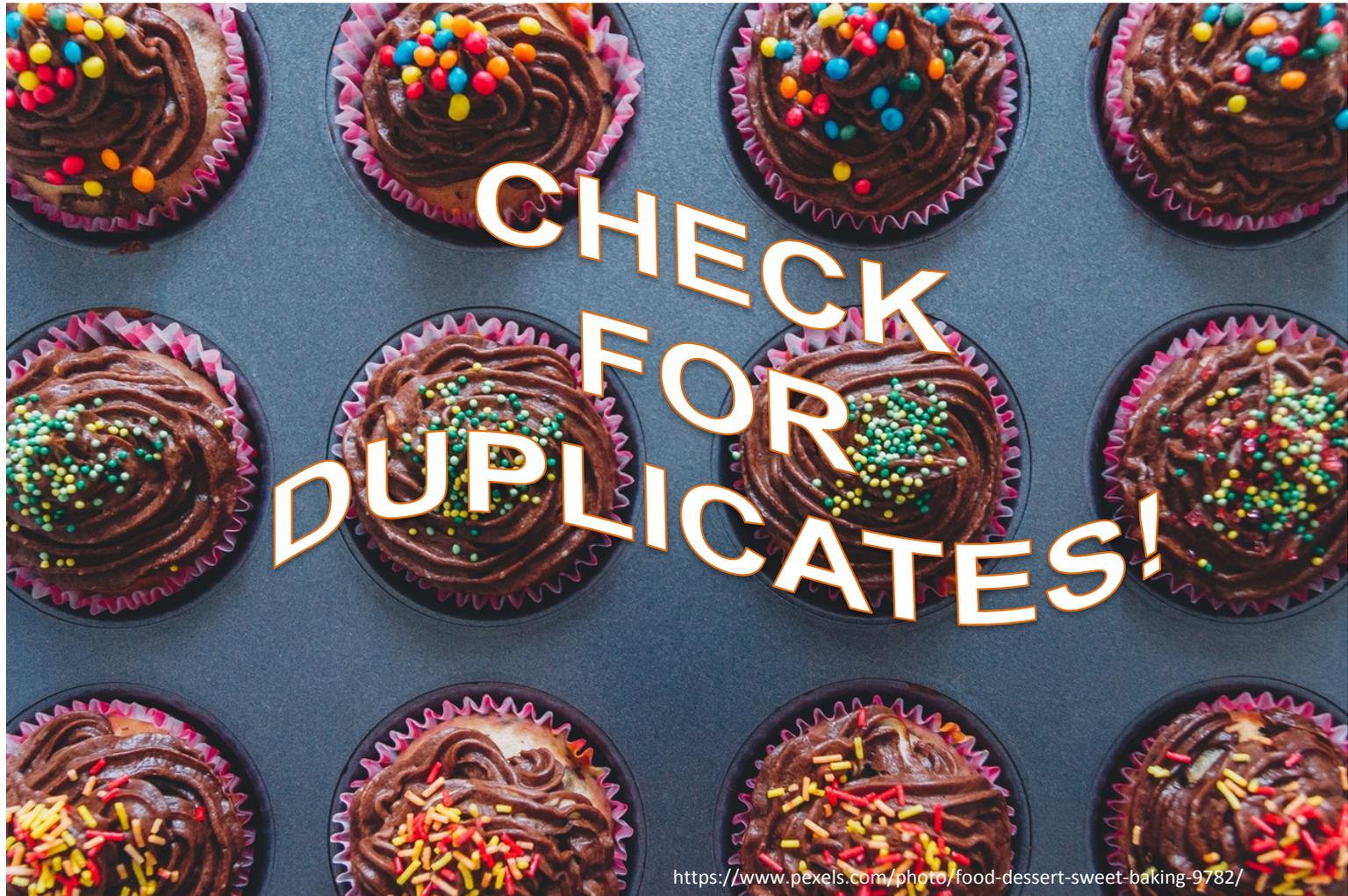
- Workbook
- These are the columns we use for analysis, but we also take a look at the other columns (see sample workbook) on an as needed basis. Please note the prior year class code in the sample.
- *\*\*There will be THREE cyclical columns this year\*\**
- Township #number# AND \*name\* in the workbook

frmMain		tblWorkbookFormat	
	Field Name		Data Type
	ParcelNumber		Short Text
	TownshipNumber		Short Text
	TownshipName		Short Text
	Neighborhood		Short Text
	PropertyClassPrior		Short Text
	PropertyClass		Short Text
	TaxingDistrict		Short Text
	PriorYearTotalAV		Number
	CurrentYearTotalAV		Number
	CyclicalONE		Short Text
	CyclicalTWO		Short Text
	Cyclical		Short Text



# What The DLGF Needs

---

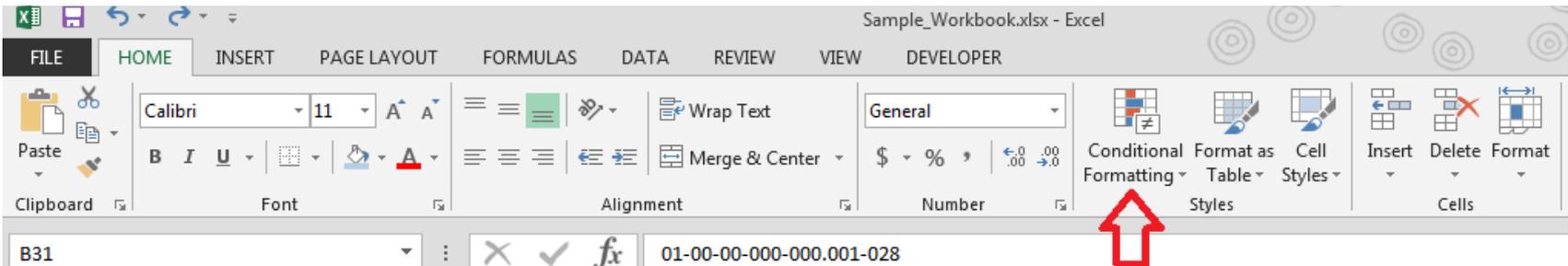




# What The DLGF Needs

---

1. Highlight the cells you wish to check.
2. In the Home tab, click “Conditional Formatting”.
3. Click on “Highlight Cells Rules”.
4. Click on “Duplicate Values”.



- The values with duplicates will be highlighted. REVIEW these values to see if there has been an error.



# What The DLGF Needs

---

- Sales Reconciliation
- You will receive a copy of the approved sales file from the DLGF. These are *some* of the sales we plan to see in the ratio study. If a sale is not in the study, please give an explanation.



# What The DLGF Needs

---

- Buyer adjacent
- Trade
- Trade Assessor
- Seller Points
- Primary Change
- Relationship
- Land Contract
- PersProp
- Physical Change
- Partial Interest
- Court Order
- Partition
- Charity
- Easement
- Valid Trending (Y)



# What The DLGF Needs

---

- Sales Reconciliation
- Access generates lists of potentially valid sales based on Parcel Number, State SDFID, and Vendor SDFID. We then run a query to see if any of these potentially valid sales did not show up in your ratio study.
- This list is matched with your sales reconciliation to find your explanations.



# What The DLGF Needs

---

## Sales Reconciliation

=IFERROR(VLOOKUP(A2,'County Reconcile'!\$A\$2:\$F\$22, 6, FALSE),  
"County did not provide a reason for exclusion")

This is a combination of 2 formulas:

IFERROR(**value**, **value\_if\_error**)

Initial value to be tested

Value or expression to be returned if initial value returns an error

VLOOKUP(**value**, **table**, **index\_number**, [**not\_exact\_match**])

Value to search for

Range to search

Column where to find value to return

False: exact match  
True: approx match

! indicates we are referencing another sheet

\$ is an absolute cell reference



# What The DLGF Needs

---

**PS: Potentially Valid**

**≠**

**ALL Valid**



# Common Formatting Issues



# Common Formatting Issues

---

- Why does formatting matter?



<https://www.flickr.com/photos/28603429@N06/8464573634/>

**If Access doesn't like it,  
Access doesn't accept it.**



# Common Formatting Issues

---

- Submitted spreadsheets must be compatible with Microsoft Excel 2013





# Common Formatting Issues

## Custom headers

The screenshot shows the Microsoft Excel interface. The ribbon is set to the 'HOME' tab, with the 'Font' group selected. The font is 'Times New Roma' and the size is '12'. The 'Alignment' group is also visible, showing options for 'Wrap Text' and 'Merge & Center'. The 'Number' group shows the 'Currency' format selected. The 'Styles' group shows 'Conditional Formatting', 'Format as Table', and 'Cell Styles'. The spreadsheet shows a table with a custom header in row 1 and data in row 2. The custom header is '2015 TRENDING-FORMAT FILE' and the data row contains columns: SDFID, ParcelNumber, MultiParcel, StudySection, Grouping, Township, Neighborhood, PropertyClass, TaxingDistrict, SaleDate.

2015 TRENDING-FORMAT FILE									
SDFID	ParcelNumber	MultiParcel	StudySection	Grouping	Township	Neighborhood	PropertyClass	TaxingDistrict	SaleDate

- Access will be looking for certain column headings in the first row. When the first row is occupied by a custom header Access gets confused.



# Common Formatting Issues

## Hidden columns stay hidden

Microsoft Excel ribbon (HOME tab) showing the Paragraph group. Two red arrows point to the 'Hidden' icons, which are currently disabled. The formula bar shows 'N41' and the value '151800'. The spreadsheet grid shows columns A through N, with column E hidden.

	A	B	F	K	L	M	N
1	ParcelNumber	SDFID	Township	StudySalePrice	CurrentLandAV	CurrentImpAV	CurrentTotalAV

C	D	E	F	G	H	I	J	K
MultiParcel	StudySection	Grouping	Township	Neighborhood	PropertyClass	TaxingDistrict	SaleDate	StudySalePrice
			BUTLER					103,790
			BUTLER					55,000
			BUTLER					188,000
			BUTLER					230,000
			BUTLER					120,000



# Common Formatting Issues

## Hidden characters

- Click around in each column to be sure there are no hidden characters.

	A	B	C	D	E
1	Parcel Num	Twp	Nbhd	Prop Clas	Dist
2	84000000	006	1071015	501	011
3	84000000	012	115537	599	021
4	84000000	012	115537	599	021
5	84000000	012	115537	599	021
5	84000000	012	115101	610	021
7	84000000	1010	1121015	599	017
8	84000000	1010	1121015	599	017
9	84000000	1010	1121015	599	017
10	84010110	001	101101	100	025
11	84010110	001	101101	100	025
12	84010110	001	101101	100	025



# Common Formatting Issues

Insert new column.  
 Click on cell to begin format.  
 In function bar start formula:  
 =value(  
 then click adjacent cell (reference).  
 Use Fill Handle.  
 Oops! Zeros are gone!

	A	B	C	D	E	F
1	Parcel Nui Twp		Nbhd	Prop Clas	Dist	
2	84000000C006		1071015	501	011	11
3	84000000C012		115537	599	021	21
4	84000000C012		115537	599	021	21
5	84000000C012		115537	599	021	21
6	84000000C012		115101	610	021	21
7	840000001010		1121015	599	017	17
8	840000001010		1121015	599	017	17
9	840000001010		1121015	599	017	17
10	84010110C001		101101	100	025	25



# Common Formatting Issues

Insert another new column.  
 Enter formula in function bar:  
 =TEXT(*reference*, "000")

		G2		fx		=TEXT(F2,"000")	
	A	B	C	D	E	F	G
1	Parcel Num	Twp	Nbhd	Prop Clas	Dist		
2	84000000	006	1071015	501	011	11	011
3	84000000	012	115537	599	021	21	021
4	84000000	012	115537	599	021	21	021
5	84000000	012	115537	599	021	21	021
6	84000000	012	115101	610	021	21	021
7	84000000	1010	1121015	599	017	17	017
8	84000000	1010	1121015	599	017	17	017
9	84000000	1010	1121015	599	017	17	017
10	84010110	001	101101	100	025	25	025
11	84010110	001	101101	100	025	25	025

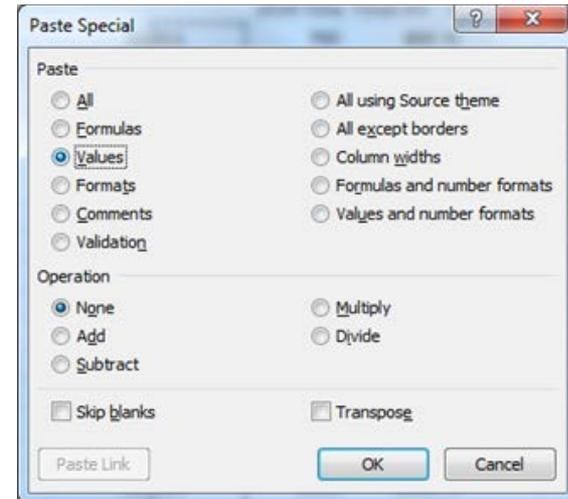


# Common Formatting Issues

Copy column and paste special into original column.

	A	B	C	D	E	F	G	H	I
1	Parcel Num	Twp	Nbhd	Prop Clas	Dist			2014 Total	Total
2	840000000	006	1071015	501	011	11	011	700	
3	840000000	012	115537	599	021	21	021	4300	4
4	840000000	012	115537	599	021				
5	840000000	012	115537	599	021				
6	840000000	012	115101	610	021	21	021	15100	15
7	840000001	010	1121015	599	017				
8	840000001	010	1121015	599	017				
9	840000001	010	1121015	599	017				
10	840101100	001	101101	100	025				
11	840101100	001	101101	100	025				
12	840101100	001	101101	100	025				
13	840101100	001	101101	100	025				
14	840101200	001	101101	101	025				
15	840101200	001	1011015	511	025				
16	840101200	001	1011014	101	025				
17	840101200	001	101101	100	025				
18	840101200	001	101101	100	025				
19	840101200	001	101101	100	025				
20	840101200	001	1011014	510	025				
21	840101200	001	1011015	510	025				
22	840101200	001	1011015	501	025				

Select 'Values'



	A	B	C	D	E
1	Parcel Num	Twp	Nbhd	Prop Clas	Dist
2	840000000	006	1071015	501	011
3	840000000	012	115537	599	021
4	840000000	012	115537	599	021
5	840000000	012	115537	599	021
6	840000000	012	115101	610	021
7	840000001	010	1121015	599	017
8	840000001	010	1121015	599	017



# Common Formatting Issues

## Hidden apostrophe

- Remove apostrophe in function bar.
- Use the Fill Handle.
- “Fill Formatting Only”

The screenshot shows the Excel interface with the 'Data' tab selected. The function bar displays the formula `'57-21-31-200-011.000-017`. The table below has the following data:

	A	B	C	D
1	SDFID	Parcel Number	MultiParcel	Study Section
2	31401	57-21-31-200-011.000-017	N	ResImp
3	31406	57-12-36-300-002.000-008	N	ResImp

The screenshot shows the Excel interface with the 'Font' and 'Alignment' tabs visible. The function bar displays the formula `57-21-31-200-011.000-017`. The table below has the following data:

	A	B	C	D	E
1		SDFID	Parcel Number	MultiParcel	Study Section
2		31401	57-21-31-200-011.000-017	N	ResImp
3		31406	57-21-31-200-011.000-018	N	ResImp
4		31416	57-21-31-200-011.000-019	N	ResImp
5		31418	57-21-31-200-011.000-020	N	ResImp
6		31426	57-16-12-200-006.000-015	N	ResImp



# Common Formatting Issues

## Inconsistent formatting within columns

- Check for consistent formatting in each column.

Currency

\$ % ‰ ‹.0 ‹.00 ‹.00 ‹.00 ›.0 ›.00 ›.00 ›.00

Number

K	L
SALEDATE	SALEPRICE
9/4/2015	181000
9/4/2015	181000
5/28/2015	\$211,600
5/28/2015	\$211,600
6/30/2015	\$810,000
6/30/2015	\$810,000
6/18/2015	\$375,000
6/18/2015	\$375,000
9/2/2015	128000
9/2/2015	128000

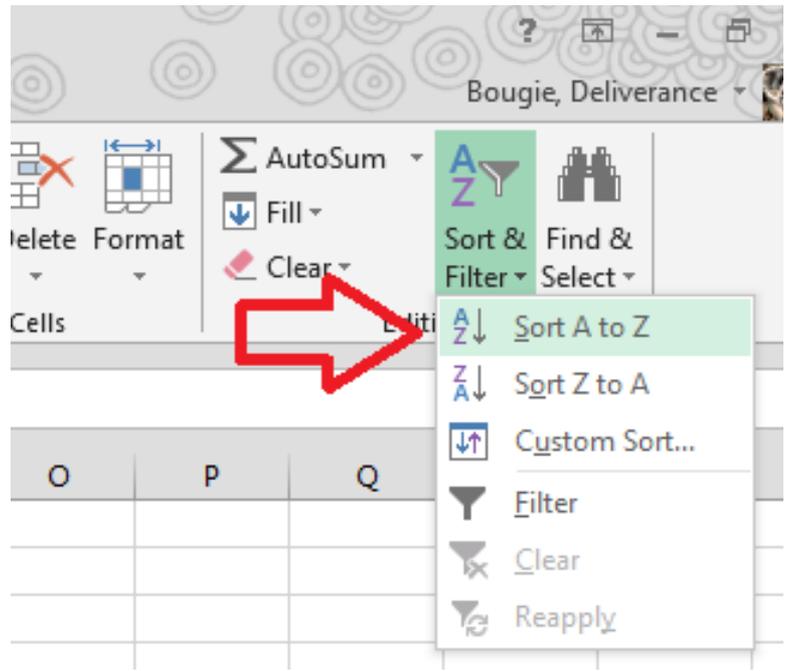


# Common Formatting Issues

## INCORRECT LENGTH FOR SDFID AND/OR PARCEL NUMBER

Quickly find these numbers by sorting each column separately.

Shorter/longer numbers will be brought to the top of the column.





# Common Formatting Issues

## 'C' MISSING FROM SDFID

Enter formula: ="C"&  
then click on adjacent cell  
where 'C' is missing

Use Fill Handle: drag  
highlighted cell by little  
box in bottom right corner  
to appropriate row.

The screenshot shows the Microsoft Excel interface. The formula bar at the top displays the formula `=\"C\"&A2`. Below the formula bar, a spreadsheet grid is visible with columns A, B, and C. Row 1 contains the headers 'SDFID', 'PRIMARY', and 'PARCE'. Row 2 contains the values '71-2014-4200636', 'C71-2014-4200636', and 'Y'. A red arrow points to the formula bar, and another red arrow points to the fill handle of cell B2.

171	71-2015-4200462
172	71-2015-4200462
173	71-2015-4200475
174	71-2015-4200475
175	C71-2013-4207209
176	C71-2013-4207209
177	C71-2014-4200093
178	C71-2014-4200093
179	C71-2014-4200112



# Common Formatting Issues

## Date Formats

- These dates may look nice, but there is something lurking.

- When the cell format is changed to
- Text...



G	H	I	J
Neighborhood	PropertyClass	TaxingDistrict	SaleDate
499063-012	439	SULLIVAN CITY	6/20/2014
499030-004	499	FARMERSBURG TOWN	7/24/2014
499030-011	499	HAMILTON TOWNSHIP	01/26/2014
499027-002	430	DUGGER TOWN	11/20/2014
499063-012	499	SULLIVAN CITY	03/07/2014
499063-012	499	SULLIVAN CITY	03/07/2014
50201-002	510	DUGGER TOWN	1/4/2013
995013-013	511	JACKSON TOWNSHIP	1/17/2013
50513-005	510	SHELBURN TOWN	01/23/2013

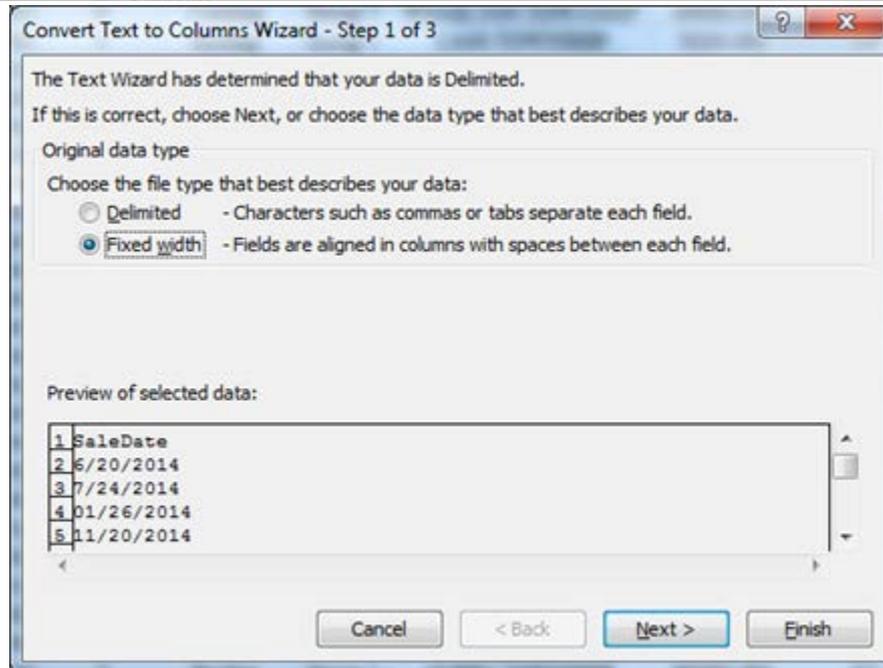


G	H	I	J
Neighborhood	PropertyClass	TaxingDistrict	SaleDate
499063-012	439	SULLIVAN CITY	41810
499030-004	499	FARMERSBURG TOWN	41844
499030-011	499	HAMILTON TOWNSHIP	01/26/2014
499027-002	430	DUGGER TOWN	11/20/2014
499063-012	499	SULLIVAN CITY	03/07/2014
499063-012	499	SULLIVAN CITY	03/07/2014
50201-002	510	DUGGER TOWN	41278
995013-013	511	JACKSON TOWNSHIP	41291
50513-005	510	SHELBURN TOWN	01/23/2013
995003-003	599	CURRY TOWNSHIP	41327
50513-005	510	SHELBURN TOWN	41309



# Common Formatting Issues

## Convert Text to Columns





# Common Formatting Issues

Select MDY and click Finish.

Convert Text to Columns Wizard - Step 3 of 3

This screen lets you select each column and set the Data Format.

Column data format

General

Text

Date: MDY

Do not import column (skip)

'General' converts numeric values to numbers, date values to dates, and all remaining values to text.

Advanced...

Destination: \$J\$1

Data preview

```
MDY
SaleDate
6/20/2014
7/24/2014
01/26/2014
11/20/2014
```

Cancel < Back Next > Finish



# Common Formatting Issues

- Now the zeros are gone (this is good!).
- To double check, change to text.



Excel ribbon showing the Number and Styles tabs. The Number tab is active, and the Styles tab is also visible. The ribbon includes options for Number, Styles, and Insert/Deletion.

G	H	I	J
Neighborhood	PropertyClass	TaxingDistrict	SaleDate
499063-012	439	SULLIVAN CITY	6/20/2014
499030-004	499	FARMERSBURG TOWN	7/24/2014
499030-011	499	HAMILTON TOWNSHIP	1/26/2014
499027-002	430	DUGGER TOWN	11/20/2014
499063-012	499	SULLIVAN CITY	3/7/2014
499063-012	499	SULLIVAN CITY	3/7/2014
50201-002	510	DUGGER TOWN	1/4/2013
995013-013	511	JACKSON TOWNSHIP	1/17/2013
50513-005	510	SHELburn TOWN	1/23/2013



Excel ribbon showing the Text and Styles tabs. The Text tab is active, and the Styles tab is also visible. The ribbon includes options for Text, Styles, and Insert/Deletion.

G	H	I	J
Neighborhood	PropertyClass	TaxingDistrict	SaleDate
499063-012	439	SULLIVAN CITY	41810
499030-004	499	FARMERSBURG TOWN	41844
499030-011	499	HAMILTON TOWNSHIP	41665
499027-002	430	DUGGER TOWN	41963
499063-012	499	SULLIVAN CITY	41705
499063-012	499	SULLIVAN CITY	41705
50201-002	510	DUGGER TOWN	41278
995013-013	511	JACKSON TOWNSHIP	41291
50513-005	510	SHELburn TOWN	41297



# Common Formatting Issues

## Date with (hidden) Time

- Highlight date column
- Change format to text

2015 Sales Ratio Study\_FINAL - Microsoft Excel

Data Review View Developer

Wrap Text Merge & Center

Alignment Number

H	I	J	K
TaxingDistrict	Sale Date	PropertyClass	StudySalePrice
002	11/17/2014	511	103790
002	9/9/2014	541	55000
002	9/12/2014	511	188000
002	7/29/2014	511	230000
002	11/20/2014	511	120000
003	7/15/2014	511	98500
003	8/29/2014	540	45500

2015 Sales Ratio Study\_FINAL - Microsoft Excel

Data Review View Developer

Wrap Text Merge & Center

Alignment Number

Text

H	I	J	K
TaxingDistrict	Sale Date	PropertyClass	StudySalePrice
002	41960.62216	511	1037
002	41891.57558	541	550
002	41894.55416	511	1880
002	41849.37931	511	2300
002	41963.35299	511	1200
003	41835.59762	511	985
003	41880.48059	540	455
003	41843.53909	541	545
003	41816.35713	511	969



# Common Formatting Issues

- Change back to date and click on a cell. Notice time in function bar.

2015 Sales Ratio Study\_FINAL - Microsoft Excel

Formulas | Data | Review | View | Developer

Font | Alignment | Number

11 | A | Wrap Text | Date | \$ | % | .00 | .00

Font | Alignment | Number

fx 11/17/2014 2:55:55 PM

Neighborhood	TaxingDistrict	Sale Date	PropertyClass	StudySalePrice
3801-003	002	11/17/2014	511	10379
3801-003	002	9/9/2014	541	5500



# Common Formatting Issues

---

- Insert a new column.
- You will find out why later.

H	I	J	K
TaxingDistrict	Sale Date		PropertyClass
002	11/17/2014		511
002	9/9/2014		541
002	9/12/2014		511
002	7/29/2014		511
002	11/20/2014		511
003	7/15/2014		511
003	8/29/2014		540
003	7/23/2014		541



# Common Formatting Issues

- Remember Text to Columns.

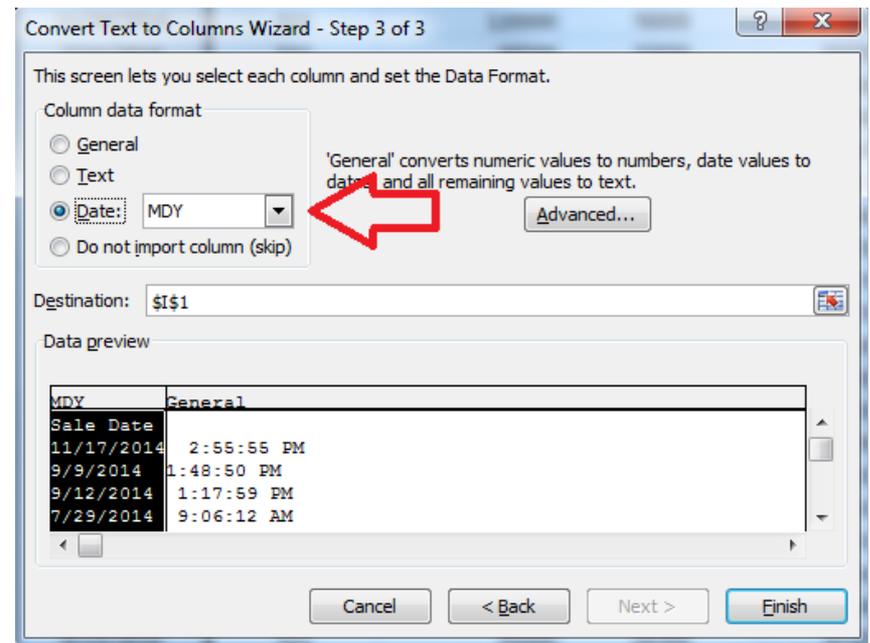
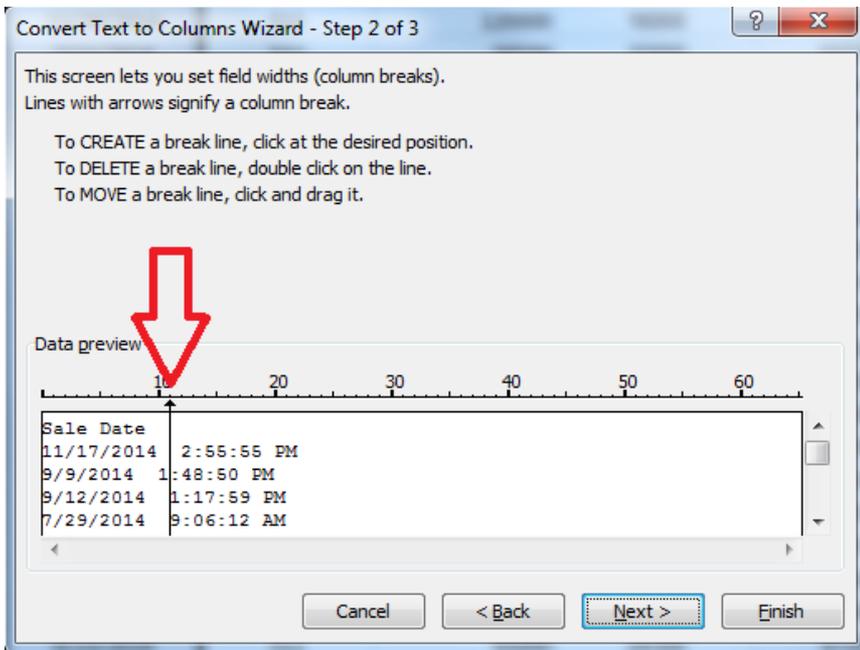
The screenshot displays the Microsoft Excel interface. The 'Data' tab is selected on the ribbon, and the 'Text to Columns' button is highlighted with a red box. Below the ribbon, the 'Data Tools' group is also highlighted with a red box. A dialog box titled 'Convert Text to Columns Wizard - Step 1 of 3' is open, showing the 'Original data type' section. The 'Fixed width' radio button is selected, and a red arrow points to it. The 'Preview of selected data' section shows a table with the following content:

	11/17/2014	2:55:55 PM
2		
3		
4		
5		
6		



# Common Formatting Issues

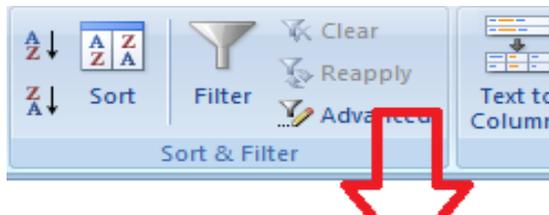
- Move line to eliminate unnecessary characters.
- Select MDY.
- Click Finish and OK.





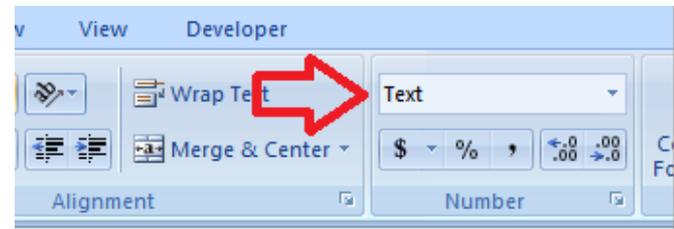
# Common Formatting Issues

- Now we see why we needed that extra column.



	I	
	<b>Sale Date</b>	
	11/17/2014	2:55:55 PM
	9/9/2014	1:48:50 PM
	9/12/2014	1:17:59 PM
	7/29/2014	9:06:12 AM
	11/20/2014	8:28:18 AM
	7/15/2014	2:20:34 PM
	8/29/2014	11:32:03 AM
	7/23/2014	12:56:17 PM
	6/26/2014	8:34:16 AM

- Change format to text to double check.
- Now it's pretty!



	I	J	K
	<b>Sale Date</b>	<b>PropertyClass</b>	<b>StudySalePrice</b>
	41960	511	103790
	41891	541	55000
	41894	511	188000
	41849	511	230000
	41963	511	120000
	41835	511	98500
	41880	540	45500
	41843	541	54550



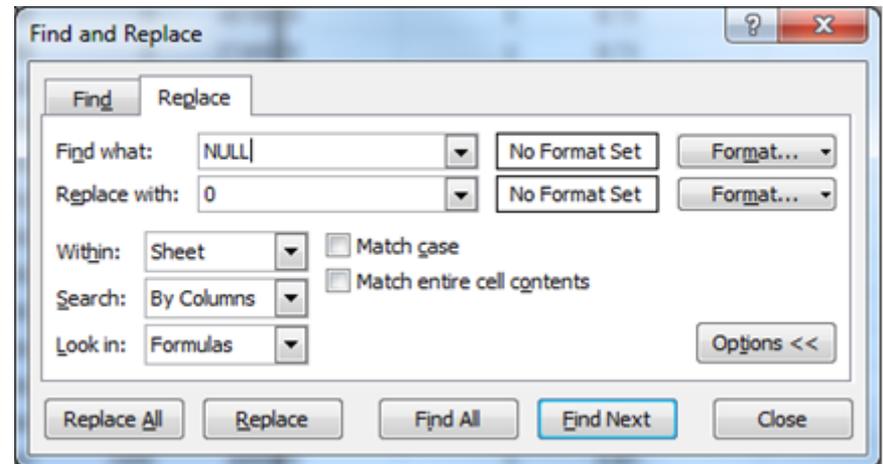
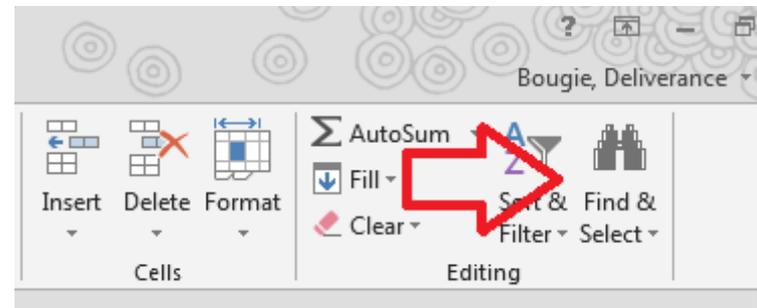
# Common Formatting Issues

## Recoding

- Access expects numbers in these columns.

NULL	NULL	NULL
600	0	600
9800	123700	133500
NULL	NULL	NULL

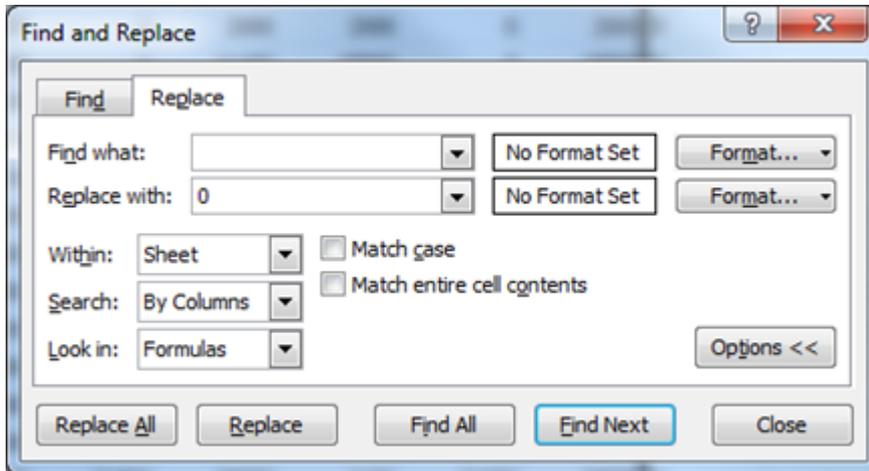
- Highlight columns





# Common Formatting Issues

- Access does not know what to do with an empty cell when it expects a number.



F	G	H	I	J	K
Prior Year L	Prior Year I	Prior Year T	Current Year	Current Year	Current Year
44500	10900	55400	52500	11900	64400
3700	0	3700	4400	0	4400
14400	21600	36000	15200	24700	39900
16400	35800	52200	16400	40900	57300
100	0	100	100	0	100
2000	0	2000	2000	0	2000
41400	0	41400	48800	0	48800
41300	0	41300	48700	0	48700
48600	0	48600	57400	0	57400
53700	54200	107900	61400	62300	123700
24500	16900	41400	27000	19400	46400
14400	65900	80300	14400	72900	87300
54800	0	54800	64700	0	64700





# Common Formatting Issues

- Remember Find & Select?

The screenshot shows the Microsoft Excel interface with the 'Find and Replace' dialog box open. The dialog box has two tabs: 'Find' and 'Replace'. The 'Find' tab is active. The 'Find what' field contains the text 'No', and the 'Replace with' field contains the text 'N'. The 'Within' dropdown is set to 'Sheet', and the 'Search' dropdown is set to 'By Columns'. The 'Look in' dropdown is set to 'Formulas'. The 'Replace All' button is highlighted in blue. The background shows a spreadsheet with columns labeled 'Prior Year Total AV', 'Current Year Land AV', 'Current Year Improvements AV', 'Current Year Total AV', 'Cyclical Review', 'Land Proposed Adjustment Factor', and 'Improvements Proposed Adjustment'. The 'Cyclical Review' column contains the values 'No', 'No', and 'No' for rows 4559, 4560, and 4561 respectively.

Be sure to type original EXACTLY as it appears in cells.  
Search By Columns, then click Replace All.



# Common Formatting Issues

---

N
N
N
N
N
N
N
Y
Y
Y
Y
Y
Y
Y
Y

- The whole column has been changed with just a few clicks of the mouse!



# Common Formatting Issues

---

Now we  
can  
begin  
analysis!





## FAQs



# FAQs

---

- Part of the process includes a checklist of items that are to be reviewed.
- The Field Representative reviewing the Ratio Study may have some questions for the county.
- **This does not mean you are in trouble!**
- We just need clarification.
- Sometimes this can be avoided (*and time can be saved!*) by supplying more information in the narrative.
- Here are some of our most common questions:



# FAQs

---

## Time Adjustment

- Q: The sales period used in the ratio study was December 31, 2014 through December 31, 2016. No reference was made in the narrative concerning a time adjustment. Were the sales time adjusted?
- \*Indicate time adjustment in narrative. If no time adjustment, explain why.



# FAQs

---

## Grouping

- Q: In ResVac, all townships were grouped together into a countywide grouping which consisted of 35 sales. A review of the sales by township determined that Washington and Jefferson had enough sales to run separately. Please explain why all townships were grouped together.
- \*Make indication of this grouping in the narrative and explain how the townships are similar.



# FAQs

---

## AV Comp Detail Report

- Q: On the AV Com Detail file, please provide explanations for the increases greater than 10% and decreases greater than 15%.
- \*Provide an explanation for township/groupings with increases greater than 10% and decreases greater than 15%.



# FAQs

---

## COD < 5

- Q: In reviewing the ratio study statistics, the COD for ResVac-Center was 3.2. Typically COD's are not less than 5. Please explain why the COD is less than 5.
- \*Supply a brief explanation for the low COD.



# FAQs

---

## Rounding

- Q: A review of the AV summary report determined that not all parcels are rounded to the nearest \$100. Please provide an explanation as to why these parcels did not round correctly.
- \*Before submitting the ratio study, review the workbook for parcels that did not round. If not rounded, include explanation.



# FAQs

---

## Spelling Errors

- Q: SPSS identified that you have two spellings for what may be the same township. As a result, SPSS ran separate statistics for each. Is this the same township and if so, what is the correct spelling?
- \*Careful review of the ratio study and workbook will prevent spelling errors.



# FAQs

---

## PIVOT Report

- Q: There was a decrease greater than 10% for 25% of the total parcels in Industrial Improved. Please provide an explanation.
- \*Indicate in the summary if there was a decrease of >10% in a property type and what caused the decrease.



# FAQs

---

## Cyclical Reassessment

- Q: Your workbook reflects 30% of your parcels were updated during this phase of cyclical reassessment. Please ensure that this is accurate and if it is, provide an explanation as to why it exceeds the 25% threshold.
- \*A review of the workbook will prevent inaccurate reporting.



# FAQs

---

## Sales Reconciliation

- Q: There were several sales which were not used in the study and not explained in the Sales Reconciliation tab. Please provide an explanation for each of these sales.
- \*Provide a Sales Reconciliation with the submission of the study.



# FAQs

---





# Sales Chasing



# Sales Chasing

---

What is sales chasing...

...and why is it wrong?



# Sales Chasing

---

1. Andy Assessor checks MLS to find new sales in his county and compares the sale price to his assessed value. When he discovers his assessed value for one property is much lower than the sale price he digs a little deeper. The listing says there is a finished basement and the roof is new. Andy changes the unfinished basement to finished and the grade from D to C-1. This brings the AV equal to the sale price. He is satisfied with his accurate assessment and moves on to the next listing.



# Sales Chasing

---

2. Alice Assessor noticed some updating and sales of homes in one neighborhood in her county. This neighborhood was not slated for reassessment until next year, but she didn't feel she had the most up-to-date information on these homes. She asked her field agents to visit the neighborhood and collect data on the entire neighborhood. The agents found some changes with many of the sold properties, but not with the unsold. Alice entered the findings into her system.



# Sales Chasing

---

3. Debbie Chief Deputy noticed a new deck on a house that had just been sold in her neighborhood. When she got in to work she asked her field agent to visit the property to measure the deck and see if there were any other changes. The agent reported that there was an additional bathroom and the house had been updated. Debbie added the deck and bathroom in their system and changed the condition from fair to good.



# Sales Chasing

---

- **Sales Chasing:** The practice of using the sale of a property to *trigger a reappraisal* of that property at or near the selling price. If the sales with such appraisal adjustments are used in a ratio study, the practice causes *invalid uniformity results* and causes *invalid appraisal level results*, unless similar unsold parcels are reappraised by a method that produces an appraisal level for unsold properties equal to the appraisal level of sold properties. –IAAO Standard on Ratio Studies, 2013 (*emphasis mine*)



# Sales Chasing

---

1. Andy Assessor checks MLS to find new sales in his county and compares the sale price to his assessed value. When he discovers his assessed value for one property is much lower than the sale price he digs a little deeper. The listing says there is a finished basement and the roof is new. Andy changes the unfinished basement to finished and the grade from D to C-1. This brings the AV equal to the sale price. He is pleased and moves on to the next listing.

YES!



# Sales Chasing

---

2. Alice Assessor noticed some updating and sales of homes in one neighborhood in her county. This neighborhood was not slated for reassessment until next year, but she didn't feel she had the most up-to-date information on these homes. She asked her field agents to visit the neighborhood and collect data on the entire neighborhood. The agents found some changes with many of the sold properties, but not with the unsold. Alice entered the findings into her system.

**NO!**



# Sales Chasing

---

3. Debbie Chief Deputy noticed a new deck on a house in her neighborhood. When she got in to work she asked her field agent to visit the property to measure the deck and see if there were any other changes. The agent reported that there was an additional bathroom and the house had been updated. Debbie added the deck and bathroom in their system and changed the condition from fair to good.



# Sales Chasing

---

- “By, extension, any practice that causes the analyzed sample to misrepresent the assessment performance for the entire population as a result of acts by the assessor’s office.”
- –IAAO Standard on Ratio Studies, 2013  
(*emphasis mine*)



# Sales Chasing

---

- Selective Reappraisal.
- Subjective changes (grade, condition, depreciation, etc.)
- Appraisals will appear more uniform.
- Perfecting only sample of the population.
- Adjustment to mass appraisal models should be done without changes to sold properties.
- Sales prices can be used to calibrate.



# What's Wrong With My Ratio Study?

---

- Now that you are ready to submit your Ratio Study:
  1. Include contact info for vendor.
  2. Be prepared to respond to questions.





**Good News!**



# Good News!

---



<http://isorepublic.com/animal-street-art/>



# Good News!





# Contact Us

---



Deliverance Bougie

Senior Statistician

317.234.5861

[Dbougie@dlgf.in.gov](mailto:Dbougie@dlgf.in.gov)

[www.in.gov/dlgf](http://www.in.gov/dlgf)