

# Using Excel to Troubleshoot EMIS Data



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## Overview

- Basic Excel techniques can be used to analyze EMIS data from Student Information Systems (SISs), from the Data Collector, and on ODE EMIS reports
- This session will demonstrate Excel functions and practical applications that can be helpful in all phases of the EMIS data review process



## Outline

- Simple formulas to troubleshoot student FTEs
- VLOOKUP to add LEA names to a report
- Macro to format an FTE Detail report
- Concatenation and conditional formatting to verify calendar data and student data



# Use Simple Formulas to Troubleshoot Student FTEs



## Simple Formulas

- In this section we are going to use simple formulas to identify differences between
  - Original FTEs and Adjusted FTEs
  - Adjusted FTEs and Special Education Adjusted FTEs
- We will filter and highlight those differences to aid in troubleshooting the FTE Detail report



# FTE Detail Report

Open the most recent version of the FTE Detail Report

**Do not format/prepare the report**

**1. Add two new columns by selecting column S and column T, then right click and select "Insert"**

**2. Drag to widen, then name the two new columns**



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# Add Simple Formulas

Subtract ADJSTD FTE from ORIG FTE

**In cell S2 type an equal sign then click into cell P2. Type a minus sign. Click into cell Q2 and press enter**

**Double click, or click and drag the bottom right corner of cell S2 to populate the cells below**

**Here we can see if there is a difference between the original and adjusted FTE**



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# Add Simple Formulas, cont'd

Subtract ADJSTD SPECED from ADJSTD FTE

1. In cell T2 type an equal sign then click into cell Q2. Type a minus sign. Click into cell R2 and press enter

=Q2-R2

	K	L	M	N	O	P	Q	R	S	T				
L 2	RE	RESULT CC	RESULT CC	FTE	FUND	ENRLE	STAF	ENRLE	END	ORIG FTE	ADJSTD FT	ADJSTD SF	ORIG vs ADJ	ADJ vs Sp Ed
-001	FT0000	FTE Detail	STEM	07/01/201	12/31/250					1	1		0	=Q2-R2
-001	FT0000	FTE Detail	STEM	08/15/201	01/06/201					0.491228	0.491228		0	
-001	FT0000	FTE Detail	COMM	08/27/201	05/31/201					1	1		0	

Here we can see if there is a difference between the adjusted FTE and adjusted special education FTE

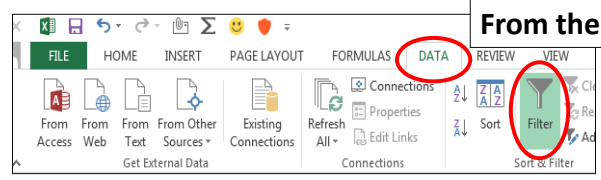
2. Double click, or click and drag the bottom right corner of cell S2 to populate the cells below

	Q	R	S	T
L 2	RE	RESULT CC	RESULT CC	FTE
-001	FT0000	FTE Detail	STEM	07/01/201 12/31/250
-001	FT0000	FTE Detail	STEM	08/15/201 01/06/201
-001	FT0000	FTE Detail	COMM	08/27/201 05/31/201



# Filter and Highlight ORIG vs ADJ Data

From the Data tab, add filters



Filter on column S, "ORIG vs ADJ", unselect "0" and click OK

	H	I	J	K	L	M	N	O	P	Q	R	S
1	Middle	LEA	IRN	LEVEL 2	RESULT	RESULT	FTE	FUT	ENRLE	STAF	ENRLE	END
2	Middle	011506	FTED-001	FT0000	FTE Detail	STEM	07/01/201	12/31/250				
3	Middle	011506	FTED-001	FT0000	FTE Detail	STEM	08/15/201	01/06/201				
4	Middle	000236	FTED-001	FT0000	FTE Detail	COMM	08/27/201	05/31/201				
5	Middle	000577	FTED-001	FT0000	FTE Detail	COMM	08/13/201	12/31/250				
6	Middle	009957	FTED-001	FT0000	FTE Detail	COMM	07/01/201	12/31/250				
7	Middle	045054	FTED-001	FT0000	FTE Detail	OPDD	05/28/201	12/31/250				
8	Middle	000241	FTED-001	FT0000	FTE Detail	COMM	07/01/201	12/31/250				
9	Middle	052878	FTED-001	FT0000	FTE Detail	JPSN	08/20/201	05/30/201				
10	Middle	009957	FTED-001	FT0000	FTE Detail	COMM	07/01/201	12/31/250				
11	Middle	054239	FTED-001	FT0000	FTE Detail	JPSN	09/19/201	05/31/201				
12	Middle	046128	FTED-001	FT0000	FTE Detail	OPDD	08/15/201	12/31/250				
13	Middle	052803	FTED-001	FT0000	FTE Detail	JPSN	07/01/201	06/30/201				
14	Middle	044180	FTED-001	FT0000	FTE Detail	RGJV	07/01/201	12/31/250				
15	Middle	044180	FTED-001	FT0000	FTE Detail	RGJV	07/01/201	12/31/250				
16	Middle	044180	FTED-001	FT0000	FTE Detail	RGJV	07/01/201	12/31/250				
17	Middle	044180	FTED-001	FT0000	FTE Detail	PSRD	07/01/201	12/31/250				
18	Middle	044180	FTED-001	FT0000	FTE Detail	PSRD	07/01/201	11/08/201				
19	Middle	044180	FTED-001	FT0000	FTE Detail	PSRD	11/07/201	12/31/250				
20	Middle	044180	FTED-001	FT0000	FTE Detail	PSRD	03/04/201	05/23/201				



## Filter and Highlight ORIG vs ADJ Data, cont'd

Select cells in column S "ORIG vs ADJ", right click and highlight in yellow

Note that the appearance of IE-06 happens when the difference is 0.000001. This can be corrected by formatting the column to be "Custom" with a value of "0.000000"

ORIG F	ADJSTG	ADJSTG	ORIG vs ADJ	ADJ vs Sp Ed
1	0.465974	0.387956	0.534026	0.078018
0.465974	0.387982	1	0.077992	0.044180
1	0.6	1	0.645121	0.044180
1	0.5	1	0.4	0.044180
1	0.354879	1	0.010001	0.044180
1	0.6	1	0.001088	0.044180
0.461538	0.247856	0.147943	0.213682	0.044180
0.827068	0.579314	0.279861	0.247754	0.044180
0.180451	0.150376	0.150376	0.030075	0.044180
0.296673	0.286672	1	0.010001	0.044180
0.374299	0.373211	1	0.001088	0.044180
0.483179	0.483178	1	1E-06	0.044180
0.192308	0.192307	0.192307	1E-06	0.044180
0.295455	0.293233	0.293233	0.002222	0.044180
1	0	1	1	0.044180
1	0	1	1	0.044180

## Filter and Highlight ADJ vs Sp Ed Data

From the Data tab, clear filters

Select filter in column "DISAB CNDTN CODE", unselect "\*\*" and "(Blanks)" then click "OK"

ADJSTG	ORIG vs ADJ	ADJ vs Sp Ed	LEGAL	STDNT	SENT RI	SENT RI	SENT RI	STATE	DISAB CNDTN CODE	PECE
0	1	0.44180	90	PS	10					
0	0.491228	0.44180	100	-						
0	1	0.44180	100	-						
0	1	0.44180	100	-						
0	1	0.44180	100	-						
0	0.048088	0.44180	100	-						
0	1	0.44180	100	-						
0	1	0.44180	100	-						
0	0.92	0.44180	100	-						
0	1	0.44180	100	-						
0	1	0.44180	100	-						
0	1	0.44180	100	-						
0	0.044180	0.44180	100	-						
0.387956	0.534026	0.078018	0.44180	50						
0.254876	0	0.091278	0.44180	50						
0.676692	0	0	0.44180	50						
0.278195	0	0.045113	0.44180	50						
0	0.027839	0.48736	50							
0	0.077992	0.387982	0.48736	50						
1	0	0	0.44180	50						



## Filter and Highlight ADJ vs Sp Ed Data, cont'd

Apply a second filter on column T, "ADJ vs Sp Ed", then unselect "0", and click "OK"

H	I	J	K	L	M	N	O	P	Q	R	S	T	
1	Middle	LEA IRN	LEVEL 2	RESULT	RESULT	FTE FU	ENRL S	ENRL EI	ORIG F	ADJSTC	ADJSTC	ORIG vs AC	ADJ vs Sp Ed
16	Middle	044180	FTED-001	FT0000	FTE Detail RGJV	07/01/2011	12/31/250	1					
17	Middle	044180	FTED-001	FT0000	FTE Detail PSRD	07/01/2011	12/31/250	1	0.4				
18	Middle	044180	FTED-001	FT0000	FTE Detail PSRD	07/01/2011	11/08/201	0.346154	0.34				
19	Middle	044180	FTED-001	FT0000	FTE Detail PSRD	11/07/2011	12/31/250	0.676692	0.6				
20	Middle	044180	FTED-001	FT0000	FTE Detail PSRD	03/04/2010	05/23/201	0.323308	0.3				
23	Middle	044180	FTED-001	FT0000	FTE Detail PSRD	07/01/2011	12/31/250	1					
27	Middle	044180	FTED-001	FT0000	FTE Detail PSRD	03/13/2011	12/31/250	0.284615	0.2				
31	Middle	044180	FTED-001	FT0000	FTE Detail PSRD	07/01/2011	12/31/250	1					
32	Middle	044180	FTED-001	FT0000	FTE Detail PSRD	12/17/2010	04/10/201	0.360902	0.3				
33	Middle	044180	FTED-001	FT0000	FTE Detail PSRD	01/08/2011	12/31/250	0.511278	0.5				
37	Middle	044180	FTED-001	FT0000	FTE Detail PSRD	04/11/2011	12/31/250	0.180451	0.1				
38	Middle	044180	FTED-001	FT0000	FTE Detail PSRD	02/25/2010	04/10/201	0.172932	0.1				
39	Middle	044180	FTED-001	FT0000	FTE Detail PSRD	07/01/2010	05/06/201	0.923077	0.9				
40	Middle	044180	FTED-001	FT0000	FTE Detail PSRD	05/07/2011	12/31/250	0.076923	0.0				
41	Middle	044180	FTED-001	FT0000	FTE Detail PSRD	07/01/2011	12/31/201	0.461538	0.2				
42	Middle	044180	FTED-001	FT0000	FTE Detail PSRD	12/14/2011	12/31/250	0.538462	0.5				
43	Middle	044180	FTED-001	FT0000	FTE Detail PSRD	07/01/2011	12/31/250	1					
44	Middle	044180	FTED-001	FT0000	FTE Detail PSRD	07/01/2011	12/31/250	1					
46	Middle	044180	FTED-001	FT0000	FTE Detail PSRD	12/10/2011	12/31/250	0.571429	0.5				
47	Middle	044180	FTED-001	FT0000	FTE Detail PSNR	10/08/2010	05/08/201	0.729323	0.7				

## Filter and Highlight ADJ vs Sp Ed Data, cont'd

Select cells in column T, right click and highlight in green

H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
17	Middle	044180	FTED-001	FT0000	FTE Detail PSRD	07/01/2011	12/31/250	1	0.465974	0.387956	0.534026	0.078018	044180	50		
18	Middle	044180	FTED-001	FT0000	FTE Detail PSRD	07/01/2011	11/08/201	0.346154	0.346154	0.254876	0	0.091278	044180	50		
20	Middle	044180	FTED-001	FT0000	FTE Detail PSRD	03/04/2010	05/23/201	0.323308	0.323308	0.278195	0	0.045113	044180	50		
32	Middle	044180	FTED-001	FT0000	FTE Detail PSRD	12/17/2010	04/10/201	0.360902	0.360902	0.249763	0	0.11	044180			
33	Middle	044180	FTED-001	FT0000	FTE Detail PSRD	01/08/2011	12/31/250	0.511278	0.511278	0.348762	0	0.16	044180			
41	Middle	044180	FTED-001	FT0000	FTE Detail PSRD	07/01/2011	12/13/201	0.461538	0.247856	0.147943	0.213682	0.09	044180			
49	Middle	044180	FTED-001	FT0000	FTE Detail PSNR	10/08/2010	05/08/201	0.729323	0.729323	0.654865	0	0.074458	048694			
62	Middle	044180	FTED-001	FT0000	FTE Detail PSRD	02/07/2011	12/31/250	0.407692	0.407692	0.245638	0	0.162054	044180			
70	Middle	044180	FTED-001	FT0000	FTE Detail PSRD	10/01/2011	12/31/250	0.827068	0.579314	0.279861	0.247754	0.299453	044180			

## Remove Filters, View Highlighted Cells, and Save

**From the Data tab click on "Filter" to remove all filters from the report**

**Notice that the highlighted cells are showing the amount of Original FTE (yellow) and Special Education weighted FTE (green) that is not being funded**

**Investigate if the FTE is fundable and if there is an appropriate corrective action. Refer to the FTE Adjustment report for Result Codes**

1	Last Name	First Name	Middle	LEA	IRN	LEVEL 2 RE	RESULT CC	RESULT	CC	FTE	FUND	ENRL	STAF	ENRL	END	ORIG	FTE	ADJ	ST	FT	ADJ	ST	ORIG vs ADJ	ADJ vs Sp Ed	LEGAL DIS	ST	DNT	PC	SENT	RE
2	Last	First	Middle	011506	FTED-001	FT0000	FTE Detail	STEM		07/01/2012	31/250	1				0							0	0.491228	0.044180				90	PS
3	Last															0							0	0.491228	0.044180				100	-
4	Last															0							0	0.491228	0.044180				100	-
5	Last															0							0	0.491228	0.044180				100	-
6	Last															0							0	0.491228	0.044180				100	-
7	Last															0							0	0.048088	0.044180				100	-
8	Last															0							0	0.048088	0.044180				100	-
9	Last															0							0	0.048088	0.044180				100	-
10	Last															0							0	0.048088	0.044180				100	-
11	Last															0							0	0.048088	0.044180				100	-
12	Last															0							0	0.048088	0.044180				100	-
13	Last															0							0	0.048088	0.044180				100	-
14	Last	First	Middle	044180	FTED-001	FT0000	FTE Detail	RGJV		07/01/2012	31/250	1				0							0	0.048088	0.044180				100	-
15	Last	First	Middle	044180	FTED-001	FT0000	FTE Detail	RGJV		07/01/2012	31/250	1				0							0	0.048088	0.044180				100	-
16	Last	First	Middle	044180	FTED-001	FT0000	FTE Detail	RGJV		07/01/2012	31/250	1				0							0	0.048088	0.044180				100	-
17	Last	First	Middle	044180	FTED-001	FT0000	FTE Detail	RGJV		07/01/2012	31/250	1				0							0	0.048088	0.044180				100	-
18	Last	First	Middle	044180	FTED-001	FT0000	FTE Detail	RGJV		07/01/2012	31/250	1				0							0	0.048088	0.044180				100	-
19	Last	First	Middle	044180	FTED-001	FT0000	FTE Detail	RGJV		07/01/2012	31/250	1				0							0	0.048088	0.044180				100	-
20	Last	First	Middle	044180	FTED-001	FT0000	FTE Detail	RGJV		07/01/2012	31/250	1				0							0	0.048088	0.044180				100	-
21	Last	First	Middle	044180	FTED-001	FT0000	FTE Detail	RGJV		07/01/2012	31/250	1				0							0	0.048088	0.044180				100	-
22	Last	First	Middle	044180	FTED-001	FT0000	FTE Detail	RGJV		07/01/2012	31/250	1				0							0	0.048088	0.044180				100	-
23	Last	First	Middle	044180	FTED-001	FT0000	FTE Detail	RGJV		07/01/2012	31/250	1				0							0	0.048088	0.044180				100	-
24	Last	First	Middle	044180	FTED-001	FT0000	FTE Detail	RGJV		07/01/2012	31/250	1				0							0	0.048088	0.044180				100	-
25	Last	First	Middle	044180	FTED-001	FT0000	FTE Detail	RGJV		07/01/2012	31/250	1				0							0	0.048088	0.044180				100	-
26	Last	First	Middle	044180	FTED-001	FT0000	FTE Detail	RGJV		07/01/2012	31/250	1				0							0	0.048088	0.044180				100	-
27	Last	First	Middle	044180	FTED-001	FT0000	FTE Detail	RGJV		07/01/2012	31/250	1				0							0	0.048088	0.044180				100	-
28	Last	First	Middle	044180	FTED-001	FT0000	FTE Detail	RGJV		07/01/2012	31/250	1				0							0	0.048088	0.044180				100	-
29	Last	First	Middle	044180	FTED-001	FT0000	FTE Detail	RGJV		07/01/2012	31/250	1				0							0	0.048088	0.044180				100	-
30	Last	First	Middle	044180	FTED-001	FT0000	FTE Detail	RGJV		07/01/2012	31/250	1				0							0	0.048088	0.044180				100	-
31	Last	First	Middle	044180	FTED-001	FT0000	FTE Detail	RGJV		07/01/2012	31/250	1				0							0	0.048088	0.044180				100	-
32	Last	First	Middle	044180	FTED-001	FT0000	FTE Detail	RGJV		07/01/2012	31/250	1				0							0	0.048088	0.044180				100	-
33	Last	First	Middle	044180	FTED-001	FT0000	FTE Detail	RGJV		07/01/2012	31/250	1				0							0	0.048088	0.044180				100	-
34	Last	First	Middle	044180	FTED-001	FT0000	FTE Detail	RGJV		07/01/2012	31/250	1				0							0	0.048088	0.044180				100	-
35	Last	First	Middle	044180	FTED-001	FT0000	FTE Detail	RGJV		07/01/2012	31/250	1				0							0	0.048088	0.044180				100	-
36	Last	First	Middle	044180	FTED-001	FT0000	FTE Detail	RGJV		07/01/2012	31/250	1				0							0	0.048088	0.044180				100	-
37	Last	First	Middle	044180	FTED-001	FT0000	FTE Detail	RGJV		07/01/2012	31/250	1				0							0	0.048088	0.044180				100	-
38	Last	First	Middle	044180	FTED-001	FT0000	FTE Detail	RGJV		07/01/2012	31/250	1				0							0	0.048088	0.044180				100	-
39	Last	First	Middle	044180	FTED-001	FT0000	FTE Detail	RGJV		07/01/2012	31/250	1				0							0	0.048088	0.044180				100	-
40	Last	First	Middle	044180	FTED-001	FT0000	FTE Detail	RGJV		07/01/2012	31/250	1				0							0	0.048088	0.044180				100	-
41	Last	First	Middle	044180	FTED-001	FT0000	FTE Detail	RGJV		07/01/2012	31/250	1				0							0	0.048088	0.044180				100	-
42	Last	First	Middle	044180	FTED-001	FT0000	FTE Detail	RGJV		07/01/2012	31/250	1				0							0	0.048088	0.044180				100	-
43	Last	First	Middle	044180	FTED-001	FT0000	FTE Detail	RGJV		07/01/2012	31/250	1				0							0	0.048088	0.044180				100	-
44	Last	First	Middle	044180	FTED-001	FT0000	FTE Detail	RGJV		07/01/2012	31/250	1				0							0	0.048088	0.044180				100	-
45	Last	First	Middle	044180	FTED-001	FT0000	FTE Detail	RGJV		07/01/2012	31/250	1				0							0	0.048088	0.044180				100	-
46	Last	First	Middle	044180	FTED-001	FT0000	FTE Detail	RGJV		07/01/2012	31/250	1				0							0	0.048088	0.044180				100	-
47	Last	First	Middle	044180	FTED-001	FT0000	FTE Detail	RGJV		07/01/2012	31/250	1				0							0	0.048088	0.044180				100	-
48	Last	First	Middle	044180	FTED-001	FT0000	FTE Detail	RGJV		07/01/2012	31/250	1				0							0	0.048088	0.044180				100	-
49	Last	First	Middle	044180	FTED-001	FT0000	FTE Detail	RGJV		07/01/2012	31/250	1				0							0	0.048088	0.044180				100	-
50	Last	First	Middle	044180	FTED-001	FT0000	FTE Detail	RGJV		07/01/2012	31/250	1				0							0	0.048088	0.044180				100	-
51	Last	First	Middle	044180	FTED-001	FT0000	FTE Detail	RGJV		07/01/2012	31/250	1				0							0	0.048088	0.044180				100	-
52	Last	First	Middle	044180	FTED-001	FT0000	FTE Detail	RGJV		07/01/2012	31/250	1				0							0	0.048088						



# Use VLOOKUP to add LEA Names from OEDS to a Report



## Adding LEA Names

- Most EMIS reports contain IRNs and no LEA names which can make troubleshooting difficult
- This section will add LEA names to the FTE Detail report for a more user friendly outcome
- We will begin by running a report of LEA IRNs and names from OEDS and will perform a VLOOKUP to add the LEA names to the FTE Detail report



# Use OEDS Data to Create a Source File

<https://oeds.ode.state.oh.us/SearchOrg>

LEA data can be pulled into Excel using the OEDS Data link

Ohio Department of Education

HOME ABOUT ODE STATE AGENCIES ONLINE SERVICES Ohio.gov

LOGIN Session Timeout:00:29:47

HOME CREATE ORGANIZATION SEARCH ORGANIZATION **OEDS DATA**

Search Organizations

SEARCH BY NAME(OR) IRN SEARCH BY ADDRESS

SEARCH Organizations

Search by Organization Type

Org Name, IRN, County, City

RESET SEARCH

Search Tip

Searches are not case sensitive. Searches return all organizations that match your search term in any part of the organization's name, city or county of its address, or its IRN. For example, searching for "colu" will show all schools and districts with "Columbus" in their name, all schools and districts in Columbiana county, etc.



# Select LEA Types

## Select District LEA Types to Include

Search Organization → Public Extract Data

OEDS Reports

PUBLIC EXTRACT DATA

Select Organization Types By Categories

**DISTRICT**

All District types

Public District

Tech Prep, Regional Centers

Career Technical Planning District

Nonpublic District

Joint Vocational School District

SCHOOL

INFORMATION TECHNOLOGY CENTER

POLITICAL DISTRICT

Instructions

Select the organization types and click Generate Report to view OEDS data.

What Will Be Included In The Report

SELECTED LIST

REPORT INCLUDES

SELECTED LIST OF ORGANIZATION TYPES

1 PUBLIC DISTRICT

2 NONPUBLIC DISTRICT

3 JOINT VOCATIONAL SCHOOL DISTRICT

Selected District LEA types will appear here



# Select School LEA Types

## Select School LEA Types to Include

**Select Organization Types By Categories**

DISTRICT +

**SCHOOL** -

All School types

Nonpublic School

Public School

Night/Adult School

Vocational School

Community School

Science, Technology, Engineering and Mathematics

INFORMATION TECHNOLOGY CENTER +

POLITICAL DISTRICT +

MEDIA +

**Instructions**

Select the organization types and click Generate Report to view OEDS data.

**What Will Be Included In The Report**

**SELECTED LIST**

REPORT INCLUDES

**SELECTED LIST OF ORGANIZATION TYPES**

- 1 PUBLIC DISTRICT
- 2 JOINT VOCATIONAL SCHOOL DISTRICT
- 3 NONPUBLIC SCHOOL
- 4 PUBLIC SCHOOL
- 5 COMMUNITY SCHOOL

**Selected School LEA types will appear here**



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# Select More LEA Types and Generate Report

**PUBLIC EXTRACT DATA**

**Select Organization Types By Categories**

DISTRICT +

SCHOOL +

INFORMATION TECHNOLOGY CENTER +

POLITICAL DISTRICT +

MEDIA +

UNIVERSITY/COLLEGE +

**SERVICE CENTER** +

CHILDCARE/PRESCHOOL +

STATE ORGANIZATION +

**STATE SUPPORTED ORGANIZATION** +

**OTHER ORGANIZATION** +

CHILD NUTRITION ORGANIZATION +

**Educational Service Center**

**State Supported Organization**

**State Supported School**

**Developmental Disabilities Organization**

**Scholarship Provider**

**Unclassified OEC Service Provider**

**Click on "Generate Report"**

**Instructions**

Select the organization types and click Generate Report to view OEDS data.

**What Will Be Included In The Report**

**SELECTED LIST**

REPORT INCLUDES

**SELECTED LIST OF ORGANIZATION TYPES**

- 1 PUBLIC DISTRICT
- 2 JOINT VOCATIONAL SCHOOL DISTRICT
- 3 PUBLIC SCHOOL
- 4 COMMUNITY SCHOOL
- 5 SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS
- 6 EDUCATIONAL SERVICE CENTER

**GENERATE REPORT**



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## Adding LEA Names to FTE Detail Report

**1. Select the column to the right of the LEA IRN column, right click and select "Insert". Label the new column "LEA Name"**

**2. Place cursor in the first open cell in the new column, then select the function icon**

Last Name	First Name	Middle Name	LEA IRN	LEA Name
Last	First	Middle	011506	
Last	First	Middle	000236	
Last	First	Middle	000577	
Last	First	Middle	009957	
Last	First	Middle	045054	
Last	First	Middle	000241	
Last	First	Middle	052878	
Last	First	Middle	009957	
Last	First	Middle	054239	
Last	First	Middle	046128	
Last	First	Middle	052803	
Last	First	Middle	044180	
Last	First	Middle	044180	
Last	First	Middle	044180	
Last	First	Middle	044180	
Last	First	Middle	044180	
Last	First	Middle	044180	
Last	First	Middle	044180	
Last	First	Middle	044180	

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## Begin the VLOOKUP

**If VLOOKUP does not appear in the list of functions, search for VLOOKUP and select "Go"**

**Select VLOOKUP from the "Select a Function" list and click "OK"**

Last Name	First Name	Middle Name	LEA IRN	LEA Name
Last	First	Middle	011506	
Last	First	Middle	011506	
Last	First	Middle	000236	
Last	First	Middle	000577	
Last	First	Middle	009957	
Last	First	Middle	045054	
Last	First	Middle	000241	
Last	First	Middle	052878	
Last	First	Middle	009957	
Last	First	Middle	054239	
Last	First	Middle	046128	
Last	First	Middle	052803	
Last	First	Middle	044180	
Last	First	Middle	044180	
Last	First	Middle	044180	
Last	First	Middle	044180	
Last	First	Middle	044180	
Last	First	Middle	044180	
Last	First	Middle	044180	
Last	First	Middle	044180	
Last	First	Middle	044180	

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# Build the VLOOKUP

**1. Be sure that your cursor is in the field next to "Lookup\_value"**

**2. Select cell I2 in the "LEA IRN" column**

**3. See that I2 appears in the Lookup\_value field**

**4. Place cursor in the Table\_array field**

Function Arguments

VLOOKUP

Lookup\_value: I2 = "011506"

Table\_array: [Range]

Col\_index\_num: 1 = number

Range\_lookup: FALSE

Help on this function

OK Cancel

# Build the VLOOKUP, cont'd

- Toggle to your OEDS Data spreadsheet and place your cursor in cell A2
- While holding down the Shift and CTRL keys at the same time, press right arrow then down arrow

**This will populate the Table\_array field**

**Place cursor into Col\_index\_num field**

Function Arguments

VLOOKUP

Lookup\_value: I2 = "011506"

Table\_array: = \$A\$2:\$Y\$6320 = ("000059"; "Ada Elementary School"; "E")

Col\_index\_num: 1 = number

Range\_lookup: FALSE

Help on this function

OK Cancel

## Build the VLOOKUP, cont'd

To determine the Col\_index\_num count the number of columns from the left that contain the values we want to bring back from the OEDS file. In this case, column B is 2 columns from the left

	A	B	C	D	E
1	IRN	ORGANIZATION NAME	SCHOOL TYPE	GRADE SPAN	ORGANIZATION TYPE
2	000059	Ada Elementary School	Elementary School	K-6	Public School
3	000067	Ada High School	High School	7-12	Public School
4	000083	Sandusky Middle School	Middle School	7-8	Public School
5	000102	Meigs Primary School	Elementary School	K-2	Public School
6	000105	Meigs Intermediate School	Elementary School	3-5	Public School
7	000117	Adamsville Elementary School	Elementary School	K-6	Public School
8	000118	Hamilton Intermediate School	Middle School	4-6	Public School



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## Build the VLOOKUP, cont'd

The complete VLOOKUP function appears here

1. Insert 2 in the Col\_index\_num and FALSE in the Range\_lookup

2. Note that the first match appears in the prompt

3. Click OK

Function Arguments

Lookup\_value: I2  
 Table\_array: xlsj[Data]!\$A\$2:\$X\$6320  
 Col\_index\_num: 2  
 Range\_lookup: FALSE

Formula result = Dayton Regional STEM School



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## View LEA Names then Save Changes

See the first LEA Name appear, then double click or drag down to populate cells below

Widen the LEA Name column as needed

Before sending this report to others, change the formulas in column J to values. Right click column J and choose "Copy", then right click and paste values

LEA IRN	LEA Name	LEVEL 2 RE RESULT CC	RESULT CC
011506	Dayton Regional STEM School	FTED-001	FT0000
011506	Dayton Regional STEM School	FTED-001	FT0000
000236	Ohio Connections Academy In	FTED-001	FT0000
000577	Emerson Academy	FTED-001	FT0000
009577	Klepinger Community School	FTED-001	FT0000



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## Quick Check

Using data from OEDs to populate LEA names into an FTE Detail report can make the report easier to troubleshoot. Consider doing the VLOOKUP on other columns in the FTE Detail report or on other EMIS reports.

- Are you able to generate an LEA report from OEDS?
- Are you able to perform a VLOOKUP to add LEA names to the FTE Detail report?
- What other EMIS reports could be made more user friendly by populating LEA names into the report?



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# Create a MACRO to Format a Spreadsheet



## Create a Macro

- A macro can be created to complete spreadsheet set ups with one click
  - Freeze Top Row
  - Wrap Text in the Header Row
  - Justify column width
  - Apply Filters
- Create it once and use it over and over
- Start by opening any FTE Report from the Data Collector





## Begin Creating a Macro

From the View tab, select the down arrow under Macros and select “Record Macro”

The screenshot shows the Excel ribbon with the View tab selected. The Macros group is expanded, showing options: View Macros, Record Macro..., and Use Recorded Macro. Red boxes and arrows highlight the 'Macros' group and the 'Record Macro...' option. A text box points to the down arrow of the Macros group with the text 'Select the down arrow'. Another text box points to the 'Record Macro...' option with the text 'This begins the recording'. Below the ribbon, a portion of an Excel spreadsheet is visible, showing columns I through R and rows 1 through 5. The spreadsheet data includes headers like 'LEVEL 2 R RESULT C RESULT C FTE FUNC ENRL STA ENRL ENI ORIG FTE ADJSTD F ADJS' and values such as '07/01/20 12/31/25', '1', '0.85714', '0.85714', '0.85714', '08/21/20 12/31/25', '1', '1', '040404', '100', and '040404', '100'.

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## Record Macro Prompt

Set up the prompt

The screenshot shows the 'Record Macro' dialog box. The 'Macro name' field contains 'Macro1'. The 'Shortcut key' field contains 'Ctrl+ t'. The 'Store macro in' dropdown menu is set to 'Personal Macro Workbook'. The 'Description' field is empty. Red arrows point from text boxes to these fields. The text boxes contain the following instructions: 'Enter a Macro name or leave as the default value' (pointing to 'Macro1'), 'Enter a unique Shortcut key value Tip- enter a value that you don't typically use as a Ctrl command (don't use values such as Ctrl A, Ctrl C, Ctrl V, etc.)' (pointing to 'Ctrl+ t'), and 'Select "Personal Macro Workbook" from the "Store macro in" dropdown menu then click OK' (pointing to the dropdown menu). The 'OK' button is highlighted with a red arrow.

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## Recording the Macro

- Macro is now recording
- Ready status and a small square icon show at bottom left

31	040404	042222	I	TW26248	Emis ID	Last Nam	First Nam	Middle N	040404	FTED-001	FT0000
32	040404	042222	I	XG70213	Emis ID	Last Nam	First Nam	Middle N	040404	FTED-001	FT0000
33	040404	011606	I	DD84801	Emis ID	Last Nam	First Nam	Middle N	011606	FTED-001	FT0000
34	040404	011606	I	LS693436	Emis ID	Last Nam	First Nam	Middle N	011606	FTED-001	FT0000
35	040404	011606	I	FL311036	Emis ID	Last Nam	First Nam	Middle N	011606	FTED-001	FT0000
36											
37											
38											

Hovering over the icon will generate the message-  
"A macro is currently recording. Click to stop recording."

(FTED-001) FTE Detail043968-201

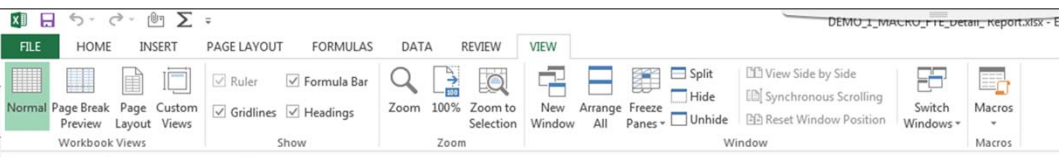
READY 



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## Recording the Macro, cont'd

Start by selecting the top row



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	RPT DEST	Bldg IRN	SEVERITY	SSID	Emis ID	Last Nam	First Nam	Middle N	LEA IRN	LEVEL 2 R	RESULT C	RESULT C	FTE FUNC	ENR L STA	ENR L EN	ORIG FTE	ADJSTD F	ADJSTD S
2	040404	012664	I	R1358902	Emis ID	Last Nam	First Nam	Middle N	012664	FTED-001	FT0000	FTE Deta	ATSM	07/01/20	12/31/25	1	1	1
3	040404	012664	I	TM58425	Emis ID	Last Nam	First Nam	Middle N	012664	FTED-001	FT0000	FTE Deta	ATSM	09/26/20	12/31/25	0.85714	0.85714	0.85714
4	040404	133333	I	Y1702135	Emis ID	Last Nam	First Nam	Middle N	133333	FTED-001	FT0000	FTE Deta	COMM	08/21/20	12/31/25	1	1	
5	040404	133333	I										COMM	03/02/20	12/31/25	0.05525	0.05525	
6	040404	000444	I										COMM	07/01/20	12/31/25	0.42778	0.42778	
7	040404	149888	I	KA43989	Emis ID	Last Nam	First Nam	Middle N	051555	FTED-001	FT0000	FTE Deta	CTVC	08/17/20	11/01/20	0.00246	0.00246	
8	040404	149888	I	GM78917	Emis ID	Last Nam	First Nam	Middle N	051555	FTED-001	FT0000	FTE Deta	CTVC	08/22/20	10/19/20	0.00191	0.00191	

Click on the "1" to select the first row



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## Recording the Macro, cont'd

From the View tab, select "Freeze Panes" and "Freeze Top Row"

The screenshot shows the Microsoft Excel interface with the 'VIEW' tab selected. The 'Freeze Panes' button is highlighted with a red box. A dropdown menu is open, showing 'Freeze Top Row' also highlighted with a red box. The spreadsheet below shows a table with columns A through R and rows 1 through 7.

1	RPT DEST	Bldg IRN	SEVERITY	SSID	Emis ID	Last Nam	First Nam	Middle N	LEA IRN	LEVEL 2	R RES								
2	040404	012664	I	RI358902	Emis ID	Last Nam	First Nam	Middle N	012664	FTED-001	FT0000								
3	040404	012664	I	TM58425	Emis ID	Last Nam	First Nam	Middle N	012664	FTED-001	FT0000	FTE Detal	ATSM	07/01/20	12/31/25	0.05714	0.85714		
4	040404	133333	I	XI702135	Emis ID	Last Nam	First Nam	Middle N	133333	FTED-001	FT0000	FTE Detal	COMM	08/21/20	12/31/25	1	1		
5	040404	133333	I	TS809912	Emis ID	Last Nam	First Nam	Middle N	133333	FTED-001	FT0000	FTE Detal	COMM	03/02/20	12/31/25	0.05525	0.05525		
6	040404	000444	I	MN68131	Emis ID	Last Nam	First Nam	Middle N	000444	FTED-001	FT0000	FTE Detal	COMM	07/01/20	12/31/25	0.42778	0.42778		
7	040404	149888	I	KA43989	Emis ID	Last Nam	First Nam	Middle N	051555	FTED-001	FT0000	FTE Detal	CTVC	08/17/20	11/01/20	0.00246	0.00246		

## Recording the Macro, cont'd

From the Home Tab, select "Wrap Text"

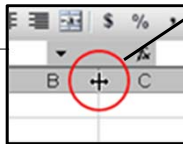
The screenshot shows the Microsoft Excel interface with the 'HOME' tab selected. The 'Wrap Text' button in the Alignment group is highlighted with a red box. The spreadsheet below shows a table with columns A through Q and rows 1 through 5.

1	RPT DEST	SEVERIT	SSID	Emis ID	Last Name	First Name	Middle Name	LEA IRN	LEVEL 2 REC	RESULT CODE	FTE FUND PTRRN	ENRL START DATE	ENRL END DATE	ORIG FTE	ADJSTD FTE		
2	040404	012664	I	RI358902	Emis ID	Last Nam	First Nam	Middle N	012664	FTED-001	FT0000	FTE Detal	ATSM	07/01/20	12/31/25	1	1
3	040404	012664	I	TM58425	Emis ID	Last Nam	First Nam	Middle N	012664	FTED-001	FT0000	FTE Detal	ATSM	09/26/20	12/31/25	0.85714	0.85714
4	040404	133333	I	XI702135	Emis ID	Last Nam	First Nam	Middle N	133333	FTED-001	FT0000	FTE Detal	COMM	08/21/20	12/31/25	1	1
5	040404	133333	I	TS809912	Emis ID	Last Nam	First Nam	Middle N	133333	FTED-001	FT0000	FTE Detal	COMM	03/02/20	12/31/25	0.05525	0.05525

## Recording the Macro, cont'd

Click on the triangle between Column A and Row 1 to select the entire spreadsheet

Place cursor between any two column headers and double click



RPT DEST	IRN	Bldg IRN	Y CODE	SSID	Emis ID	Last Name	First Name	Middle Name	LEA IRN	LEVEL 2 REC TYPE	RESULT CODE
040404	012664	I		RI358902	Emis ID	Last Nam	First Nan	Middle N	012664	FTED-001	FT0000
040404	012664	I		TM58425	Emis ID	Last Nam	First Nan	Middle N	012664	FTED-001	FT0000
040404	133333	I		XI702135	Emis ID	Last Nam	First Nan	Middle N	133333	FTED-001	FT0000
040404	133333	I		TS809912	Emis ID	Last Nam	First Nan	Middle N	133333	FTED-001	FT0000

## Recording the Macro, cont'd

From the Home tab, select "Sort & Filter" and then "Filter"

STATE EQUIV GRADE	DISAB CNDTN	SPECED CAT CODE	ECON DISADV FLAG	LEP CODE	FTE INCL CODE	CAL DIST BLDG IRN	CAL GRF LE
2	2	PCT					
-		KG	12	6	N	N	FULL 999999 999999 **
-		03	12	6	N	N	FULL 999999 999999 **

## Stop the Recording

Click on the small square icon at the bottom left to stop the recording

28	040404	014444	I		JH2231564	Emis ID	Last Name	First Name	Middle Name	051555	FTED-
29	040404	011777	I		MM3506602	Emis ID	Last Name	First Name	Middle Name	040404	FTED-
30	040404	042222	I		KS2624834	Emis ID	Last Name	First Name	Middle Name	051555	FTED-
31	040404	042222	I		TW2624834	Emis ID	Last Name	First Name	Middle Name	040404	FTED-
32	040404	042222	I								FTED-
33	040404	011606	I								FTED-
34	040404	011606	I								FTED-
35	040404	011606	I								FTED-
36											

The appearance of the icon will change and a hover message will appear. "No macros are currently recording. Click to begin recording a new macro."

## Make the Macro a Quick Link

Select the Quick Link dropdown arrow, then "More Commands"

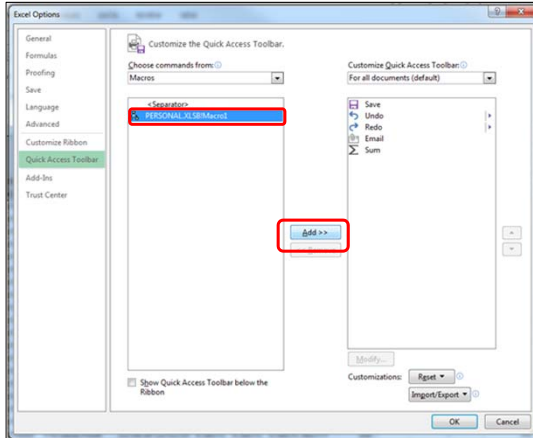
1	Name	Middle	LEA IR								
2	First Nan Middle N012664									07/01/20	
3	First Nan Middle N012664									09/26/20	
4	First Nan Middle N133333									08/21/20	
5	First Nan Middle N133333	FTED-001 FT0000	FTE Detai	COMM						03/02/20	
6	First Nan Middle N000444	FTED-001 FT0000	FTE Detai	COMM						07/01/20	

In the "Choose commands from" dropdown, select "Macros"

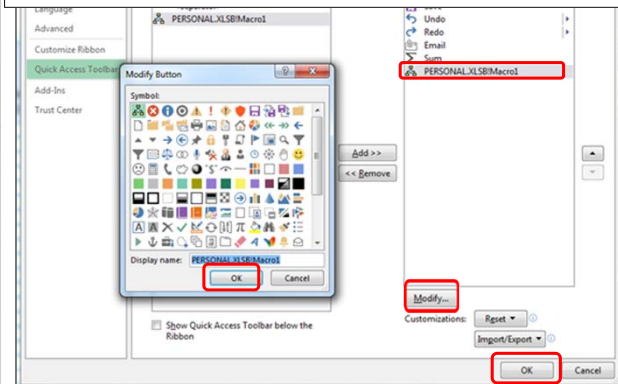


# Make the Macro a Quick Link

Highlight your macro from the list and click "Add"

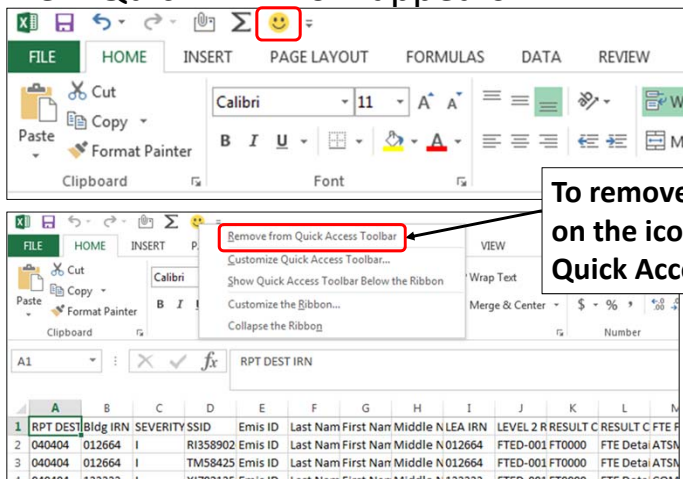


The macro will move to the list on the right. While it is highlighted, select "Modify" and choose an icon that you like. Click Ok and Ok.



# Quick Link

New Quick Link now appears



To remove the Quick Link, right click on the icon and select "Remove from Quick Access Toolbar"



## Save the Macro

- You can choose to save or not save your spreadsheet
- A second prompt will ask if you want to save the changes made to your Personal Macro Workbook

Microsoft Excel

Do you want to save the changes you made to the Personal Macro Workbook? If you click Yes, the macros will be available the next time you start Microsoft Excel.

Save Don't Save Cancel

Select Save so that the macro will be available to use on future spreadsheets

Detail	COMM	07/01/2018	12/31/2500	0.427778	0.427778
Detail	CTVC	08/17/2018	11/01/2018	0.002455	0.002455
Detail	NFRG	08/15/2018	09/06/2018	0.035714	0.035714
Detail	NFRG	09/07/2018	12/31/2500	0.964286	0.964286

## Delete a Macro

Once a Macro is created a few extra steps are needed to delete it if needed

From a new or existing spreadsheet select "Unhide" from the View tab

In the Unhide prompt with PERSONAL.XLSB selected, click OK

Unhide

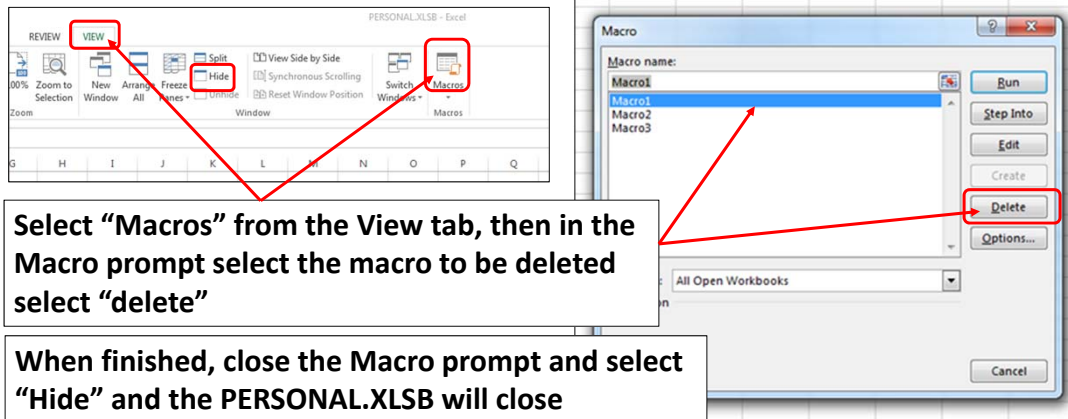
Unhide workbook:  
PERSONAL.XLSB

OK Cancel

A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	RPT DEST	Bldg IRN	SEVERITY	SSN									
2	040404	012664	I	RI3									
3	040404	012664	I	TM58425	Emis ID	Last Nam	First Nam	Middle N	012664	FTED-001	FT0000	FTE Deta	ATS
4	040404	133333	I	XI702135	Emis ID	Last Nam	First Nam	Middle N	133333	FTED-001	FT0000	FTE Deta	COMM
5	040404	133333	I	TS809912	Emis ID	Last Nam	First Nam	Middle N	133333	FTED-001	FT0000	FTE Deta	COMM
6	040404	000444	I	MN68131	Emis ID	Last Nam	First Nam	Middle N	000444	FTED-001	FT0000	FTE Deta	COMM

## Delete a Macro, cont'd

A blank spreadsheet named PERSONAL.XLSB will open



The image shows two screenshots from Microsoft Excel. The left screenshot shows the 'VIEW' tab in the ribbon, with the 'Macros' icon highlighted in a red box. A red arrow points from this icon to the 'Macro' dialog box in the right screenshot. In the 'Macro' dialog box, 'Macro1' is selected in the list, and the 'Delete' button is highlighted in a red box. A red arrow also points from the 'Delete' button to a text box below the screenshots.

Select "Macros" from the View tab, then in the Macro prompt select the macro to be deleted select "delete"

When finished, close the Macro prompt and select "Hide" and the PERSONAL.XLSB will close

## Quick Check

Macros are a quick way to turn a multi-step process in Excel into one click. Creating a quick link macro does not embed the macro into the spreadsheet. This macro is for use on the machine where it is created.

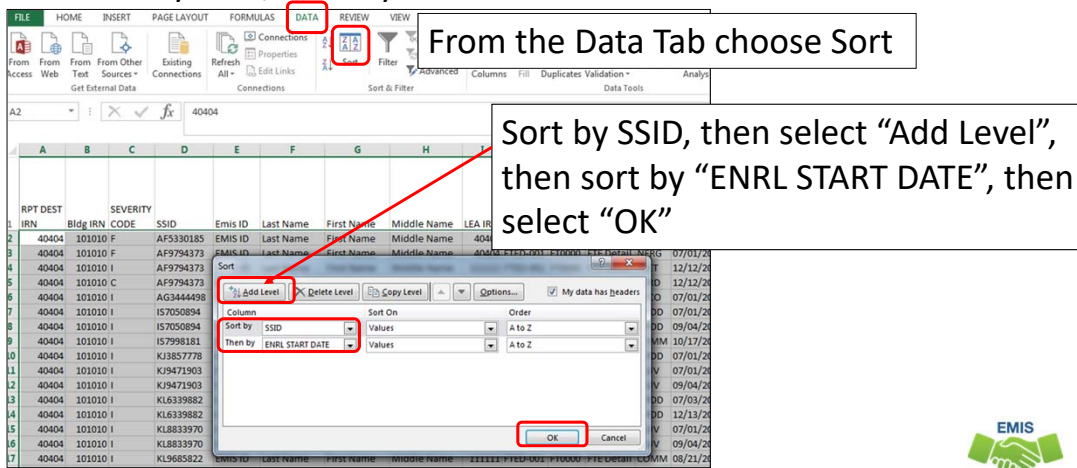
- Are you able to record and save your macro?
- Can you think of other instances where a macro can save time?
- Are you able to find and manage your macros?

# FTE Detail Report Subtotaling

## FTE Detail Report Subtotaling

### Subtotal the FTE Detail Report

- Sort by SSID, then by Enrollment Start Date



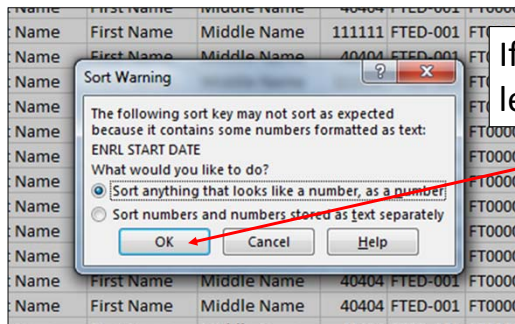
From the Data Tab choose Sort

Sort by SSID, then select "Add Level", then sort by "ENRL START DATE", then select "OK"

RPT DEST	SEVERITY	SSID	Emis ID	Last Name	First Name	Middle Name	LEA IR
40404	101010 F	AF9794373	AF9794373				404
40404	101010 I	AF9794373					
40404	101010 C	AF9794373					
40404	101010 I	AG3444498					
40404	101010 I	IS7050894					
40404	101010 I	IS7050894					
40404	101010 I	IS7998181					
40404	101010 I	KJ3857778					
40404	101010 I	KJ9471903					
40404	101010 I	KJ9471903					
40404	101010 I	KL6399882					
40404	101010 I	KL6399882					
40404	101010 I	KL8833970					
40404	101010 I	KL8833970					
40404	101010 I	KL9685822					

## Sort Warning

This Sort Warning is generated because the ENRL START DATE column contains some numbers that are formatted as text

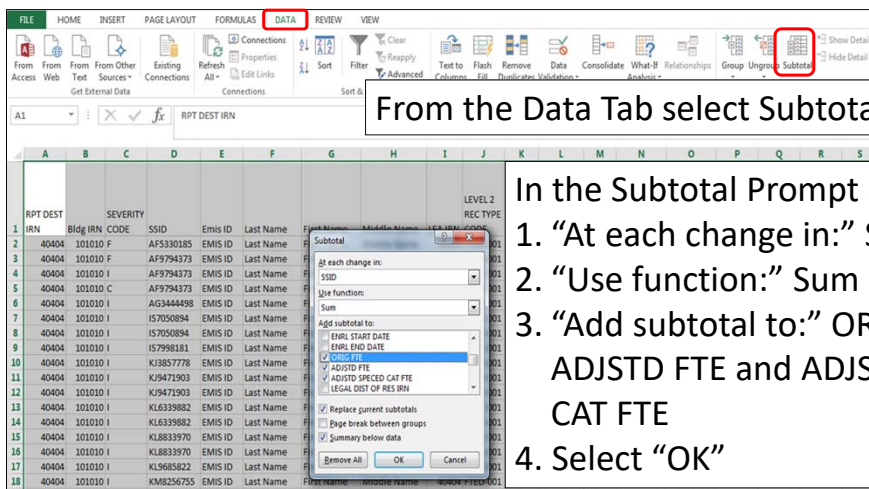


If a Sort Warning is generated, leave as defaulted and select "OK"



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## Apply Subtotals



From the Data Tab select Subtotal

In the Subtotal Prompt select

1. "At each change in:" SSID
2. "Use function:" Sum
3. "Add subtotal to:" ORIG FTE and ADJSTD FTE and ADJSTD SPECED CAT FTE
4. Select "OK"



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# FTE Detail Report Subtotaled

This student's Original FTE, Adjusted FTE, and Special Education FTE, have been subtotaled and appear in chronological order

IRN	Bldg	IRN CODE	SSID	EMIS ID	Last Name	First Name	Middle Name	LEA IRN	CODE	DESCR	CODE	DATE	DATE	ORIG FTE	FTE	CAT FTE	LEGAL D
40404	101010	F	AF5330185	EMIS ID	Last Name	First Name	Middle Name	40404	FTED-001	FT0000	FTE Detail	NFRG	08/01/2017	12/31/2500	1	0	222222
<b>AF5330185 Total</b>																	
40404	101010	F	AF9794373	EMIS ID	Last Name	First Name	Middle Name	40404	FTED-001	FT0000	FTE Detail	NFRG	07/01/2017	12/11/2017	0.376623	0	40404
40404	101010	I	AF9794373	EMIS ID	Last Name	First Name	Middle Name	111111	FTED-001	FT0000	FTE Detail	PSET	12/12/2017	12/31/2500	0.612676	0.612676	444444
40404	101010	C	AF9794373	EMIS ID	Last Name	First Name	Middle Name	40404	FTED-001	FT0000	FTE Detail	PSRD	12/12/2017	12/31/2500	0.623377	0.387324	0.387324
<b>AF9794373 Total</b>																	
40404	101010	I	AG3444498	EMIS ID	Last Name	First Name	Middle Name	111111	FTED-001	FT0000	FTE Detail	SPCO	07/01/2017	12/31/2500	1	1	1
<b>AG3444498 Total</b>																	
40404	101010	I	IS7050894	EMIS ID	Last Name	First Name	Middle Name	40404	FTED-001	FT0000	FTE Detail	OPDD	07/01/2017	09/03/2017	0.020547	0.020547	333333
40404	101010	I	IS7050894	EMIS ID	Last Name	First Name	Middle Name	40404	FTED-001	FT0000	FTE Detail	OPDD	09/04/2017	12/31/2500	0.979453	0.979453	333333
<b>IS7050894 Total</b>																	
40404	101010	I	IS7998181	EMIS ID	Last Name	First Name	Middle Name	111111	FTED-001	FT0000	FTE Detail	COMM	10/17/2017	12/31/2500	0.782609	0.782609	444444
<b>IS7998181 Total</b>																	
40404	101010	I	KJ3857778	EMIS ID	Last Name	First Name	Middle Name	40404	FTED-001	FT0000	FTE Detail	OPDD	07/01/2017	12/31/2500	1	1	333333

# Undo Subtotals

To undo subtotals select "Subtotal" and then "Remove All"

IRN	Bldg	IRN CODE	SEVERITY	SSID	EMIS ID	Last Name	First Name	Middle Name	LEA IRN	CODE	DESCR	CODE	DATE	DATE	ORIG FTE	FTE	
40404	101010	F	AF5330185	EMIS ID	Last Name	First Name	Middle Name	40404	FTED-001	FT0000	FTE Detail	NFRG	08/01/2017	12/31/2500	1	1	
<b>Subtotal</b>																	
40404	101010	F	AF9794373	EMIS ID	Last Name	First Name	Middle Name	40404	FTED-001	FT0000	FTE Detail	NFRG	07/01/2017	12/11/2017	0.376623	0	
40404	101010	I	AF9794373	EMIS ID	Last Name	First Name	Middle Name	111111	FTED-001	FT0000	FTE Detail	PSET	12/12/2017	12/31/2500	0.612676	0.61	
40404	101010	C	AF9794373	EMIS ID	Last Name	First Name	Middle Name	40404	FTED-001	FT0000	FTE Detail	PSRD	12/12/2017	12/31/2500	0.623377	0.38	
<b>Subtotal</b>																	
40404	101010	I	AG3444498	EMIS ID	Last Name	First Name	Middle Name	111111	FTED-001	FT0000	FTE Detail	SPCO	07/01/2017	12/31/2500	1	1	
<b>Subtotal</b>																	
40404	101010	I	IS7050894	EMIS ID	Last Name	First Name	Middle Name	40404	FTED-001	FT0000	FTE Detail	OPDD	07/01/2017	09/03/2017	0.020547	0.02	
40404	101010	I	IS7050894	EMIS ID	Last Name	First Name	Middle Name	40404	FTED-001	FT0000	FTE Detail	OPDD	09/04/2017	12/31/2500	0.979453	0.97	
<b>Subtotal</b>																	
40404	101010	I	IS7998181	EMIS ID	Last Name	First Name	Middle Name	111111	FTED-001	FT0000	FTE Detail	COMM	10/17/2017	12/31/2500	0.782609	0.78	
<b>Subtotal</b>																	
40404	101010	I	KJ3857778	EMIS ID	Last Name	First Name	Middle Name	40404	FTED-001	FT0000	FTE Detail	OPDD	07/01/2017	12/31/2500	1	1	
<b>Subtotal</b>																	
40404	101010	I	KJ9471903	EMIS ID	Last Name	First Name	Middle Name	40404	FTED-001	FT0000	FTE Detail	RGJV	07/01/2017	09/03/2017	0.020547	0.02	
40404	101010	I	KJ9471903	EMIS ID	Last Name	First Name	Middle Name	40404	FTED-001	FT0000	FTE Detail	RGJV	09/04/2017	12/31/2500	0.979453	0.97	



# Using Concatenation and Conditional Formatting to Verify Calendar Data and Student Data



## Data Comparison

- Compare the Calendar Display report to the Student Attributes Effective Date Record (FD)
- Look for students who have no matching calendar in the calendar collection
- Look for calendars being reported to EMIS that have no students assigned to them
- Result will be cleaner data and correct calendar assignments on the FTE Detail report



# Calendar Display Report

Find the Calendar Display report that aligns with the current student collection

- In this example we will use the Final Calendar Collection for FY19 and compare it to the End of Year Student Collection for FY19

**Calendar Collection - Final (FY19)**  
 Submissions: October  
 Version: 1  
 Status: The collection was submitted July 09, 2019 at 01:03:59 PM by [redacted]  
 Submission Status: Processing Completed (July 09, 2019 at 01:03:39 PM)  
 Submission Number: 3 (attempt 1)  
 Actions: [Start Collection](#), [Add New Scheduled Collection](#), [Set Default Collection properties](#)

**End of Year Student Collection (FY19)**  
 Submissions: May 03, 2019 - July 17, 2019 (closed)  
 Version: 6  
 Status: The collection was submitted July 09, 2019 at 01:03:59 PM by [redacted]  
 Submission Status: Processing Completed (July 09, 2019 at 01:03:39 PM)  
 Submission Number: 4 (attempt 1)  
 Actions: [Start Collection](#), [Add New Scheduled Collection](#), [Set Default Collection properties](#)

Callout text: **Select "View submission # Data" and find the Calendar Display Report and the Student Attributes Date Effective (FD) file**



# Prepare the Calendar Display Report

- Run macro to prepare the report (original macro from FY19, not new subtotaling macro) or prepare the report manually
- Filter Row Number column to include only Row 1

	A	B	C	D	E	F	G
	Calendar For: Dist-Bldg - Row						
1	Grade-AP	Numb.	Mont	Sund	Monday	Tuesday	Wednesday
2	040404-001111-01-**	01	Jul-18				
80	040404-001111-02-**	01					
158	040404-001111-03-**	01					
236	040404-001111-04-**	01					
314	040404-001111-05-**	01	Jul-18				
392	040404-001111-KG-HA	01	Jul-18				
470	040404-001111-KG-HP	01	Jul-18				
548	040404-001111-KG-WC	01	Jul-18				
625	040404-008888-01-**	01	Jul-18				
703	040404-008888-02-**	01	Jul-18				

Callout text: **The result will be an unduplicated list of calendars that are being reported to EMIS**



# Prepare the Student Attributes (FD) Report

Run macro to prepare the report (original macro from FY19, not new subtotaling macro) or prepare the report manually

Select the column to the right of the Attendance Pattern column, then right click and select "insert"

# Concatenate Calendar Data

Name the new column (i.e. Calendar) and expand width of column

1. Place cursor into cell K2 then select the Insert Function Wizard

2. If CONCATENATE does not appear in the list of functions, search for CONCATENATE and select "Go"

3. Select CONCATENATE from the "Select a Function" list and click "OK"

# Concatenate Function Arguments

Using the CONCATENATE Wizard, select the cells to include

- Place cursor in Text1 field
  - then select cell A2
- In Text 2 enter a dash
- Place cursor in Text3 field
  - then select cell B2
- In Text4 enter a dash
- Place cursor in Text5 field
  - then select cell I2

Click the down arrow to see more fields



# Concatenate Function Arguments, cont'd

Preview of results

- In Text6 enter a dash
- Place cursor in Text7 field
  - then select cell J2
- Click "OK"



# Concatenated Calendar Data

Data from all four cells is joined together with dashes in the same format at the data on the Calendar Display report

Formula: `=CONCATENATE(A2,"-",B2,"-",I2,"-",J2)`

District	Buildin	EMIS Student ID	Last	First	State	Effective Start	Effective End	State Equivalent Grade	Attendance Pattern	Calendar	
1	IRN	g IRN	Number	Nan	Nan	Student I	Date	End Da	Leve	n	
2	040404	001111	1232456789	Last	First	VB0662802	20180701	20180814	01	**	040404-001111-02-**-**
3	040404	001111	1232456790	Last	First	XD4464240	20180701	20180814	01	**	040404-001111-01-**-**
4	040404	001111	1232456791	Last	First	XD4464240	20180815	20190207	01	**	040404-001111-01-**-**
5	040404	001111	1232456792	Last	First	XD4464240	20190208	00000000	01	**	040404-001111-01-**-**
6	040404	001111	1232456793	Last	First	HZ4820082	20180701	20180814	03	**	040404-001111-03-**-**
7	040404	001111	1232456794	Last	First	HZ4820082	20180815	20190207	03	**	040404-001111-03-**-**
8	040404	001111	1232456795	Last	First	HZ4820082	20190208	00000000	03	**	040404-001111-03-**-**
9	040404	001111	1232456796	Last	First	TR8026626	20180701	00000000	04	**	040404-001111-04-**-**
10	040404	001111	1232456797	Last	First	TT6282640	20180701	00000000	02	**	040404-001111-02-**-**
11	040404	001111	1232456798	Last	First	TJ2800886	20180701	00000000	05	**	040404-001111-05-**-**
12	040404	001111	1232456799	Last	First	XB8644622	20180701	20190515	KG	HA	
13	040404	001111	1232456800	Last	First	XB8644622	20190516	20190516	KG	**	
14	040404	001111	1232456801	Last	First	XB8644622	20190517	00000000	KG	HA	
15	040404	001111	1232456802	Last	First	TR4282260	20180701	00000000	04	**	
16	040404	001111	1232456803	Last	First	TR2088620	20180701	00000000	04	**	

# Remove Duplicates

Select all data

From the Data tab, select "Remove Duplicates"

From the Remove Duplicates prompt, click "Unselect All" and check the box for the column containing the concatenated data, then click "OK"



# Duplicates Removed

**2. With duplicates removed, the report now contains an unduplicated list of calendars assigned to students**

**3. Scroll to the bottom of the report**

**1. Click OK**

District	Building	Student ID	Last	First	Start	Effective	Grade	Pattern	Calendar	
040404	001111	1232456789	Last	First	VB0662902	20180701	00000000	**	040404-001111-02-**	
040404	001111	1232456790	Last	First	XD444240	20180701	20180814	01	**	040404-001111-01-**
040404	001111	1232456791	Last	First	HZ4820082	20180701	20180814	03	**	040404-001111-03-**
040404	001111	1232456792	Last	First	TR8026626	20180701	00000000	04	**	040404-001111-04-**
040404	001111	1232456793	Last	First	TJ2800886	20180701	00000000	05	**	040404-001111-05-**
040404	001111	1232456794	Last	First	XB8644622	20180701	20190515	KG	HA	040404-001111-KG-HA
040404	001111	1232456800	Last	First	XB8644622	20190516	20190516	KG	**	040404-001111-KG-**
040404	001111	1232456804	Last	First	TR2442646	20180701	20181022	KG	HP	040404-001111-KG-HP
040404	001111	1232456808	Last	First	NV2006622	20190402	00000000	02	DN	040404-001111-02-DN
040404	001111	1232456839	Last	First	RH2444200	20180701	00000000	04	DN	040404-001111-04-DN
040404	001111	1232456839	Last	First	RH2444200	20180701	00000000	04	DN	040404-001111-04-DN
040404	001111	1232456839	Last	First	RH2444200	20180701	00000000	04	DN	040404-001111-04-DN
040404	001111	1232456839	Last	First	RH2444200	20180701	00000000	04	DN	040404-001111-04-DN
040404	001111	1232457118	Last	First	ZH8848262	20190117	20190207	KG	WC	040404-001111-KG-WC
040404	001111	1232457207	Last	First	XT0828600	20180701	20180702	01	DN	040404-001111-01-DN

# Copy Data from Calendar Display Report

Toggle to the Calendar Display report

**Select cells in Column A (not including the header row) then right click and select "copy"**

Calendar For: Dist-Bldg-Row	Grade-AP	Numbr	Mont	Sund	Monday	Tuesday	Wednesday	Thursday	Friday	Satur
5298	040404-025555-03-**	01	Jul-18							
5376	040404-025555-04-**	01	Jul-18							
5454	040404-025555-05-**	01	Jul-18							
5532	040404-025555-KG-HA	01	Jul-18							
5610	040404-025555-KG-HP	01	Jul-18							
5688	040404-039156-06-**	01	Jul-18							
5766	040404-039156-06-MW	01	Jul-18							
5844	040404-039156-06-ST	01	Jul-18							
5922	040404-03									
6000	040404-03									
6077	040404-03									
6155	040404-039156-08-WC	101	Jul-18							
6232	040404-13									
6310	040404-13									
6388	040404-13									
6465	040404-13									
6543	040404-13									
6621	040404-13									
6699	040404-13									
6776	040404-13									
6854	040404-13									

# Paste Data into Student Attributes (FD) Report

Toggle to the Student Attributes (FD) report

In the cell below the concatenated data column, paste the data from the Calendar Display report

District	Buildin	EMIS Student ID	Last	First	State	Effective Start	Effective End	Grade	Attendance	Calendar	Disadvantage	Preschool	Disability	Student being served	Homeless	Homeless Unaccompanied Youth	
134	040404	036666	1232464211	Last	First	JD0268488	20180701	20190512	KG	HA	040404-036666-KG-HA	*	N	01	N	*	N
135	040404	036666	1232464212	Last	First	JD0268488	20190513	20190513	KG	**	040404-036666-KG-**	*	N	01	N	*	N
136	040404	036666	1232464215	Last	First	VJ6624628	20180701	20180701	05	DN	040404-036666-05-DN	*	N	**	N	*	N
137	040404	036666	1232464216	Last	First	FL2622046	20180701	20180702	01	**	040404-036666-01-**	*	N	**	N	*	N
138	040404	036666	1232464217	Last	First	X26886408	20180701	20180702	01	**	040404-036666-01-**	*	N	**	N	*	N
139	040404	036666	1232464219	Last	First	XB0244222	20180701	00000000	03	**	040404-036666-03-**	*	N	**	N	*	N
140	040404	036666	1232464234	Last	First	ZL6424448	20180701	00000000	01	DN	040404-036666-01-DN	*	N	**	N	*	N
141	040404	036666	1232464249	Last	First	NN60894222	20180701	20190512	KG	HP	040404-036666-KG-HP	*	N	**	N	*	N
142	040404	036666	1232464280	Last	First	TP2260000	20190107	00000000	03	DN	040404-036666-03-DN	*	N	**	N	*	N
143	040404	036666	1232464329	Last	First	PR8262048	20181113	00000000	02	ML	040404-036666-02-ML	*	N	**	N	*	N
144	040404	036666	1232464521	Last	First	TL2660648	20181029	20190419	05	ML	040404-036666-05-ML	*	N	**	N	*	N
145											040404-001111-01-**	*	N	**	N	*	N
146											040404-001111-02-**	*	N	**	N	*	N
147											040404-001111-03-**	*	N	**	N	*	N
148											040404-001111-04-**	*	N	**	N	*	N
149											040404-001111-05-**	*	N	**	N	*	N
150											040404-001111-KG-HA	*	N	**	N	*	N

# Conditional Formatting

Select column containing calendar data, then from the Home tab, select "Conditional Formatting", "Highlight Cell Rules", then "Duplicate Values"

# Conditional Formatting, cont'd

**Duplicate values will be highlighted in pink**

**Click OK**

**Cells highlighted in pink indicate a matching calendar in the calendar collection for the student**

# Filter for Mismatches

**Click on the filter in the column containing concatenated data then select "Filter by Color", then "No Fill"**

## Troubleshoot the data

The screenshot shows an Excel spreadsheet with columns for District, Building, Student ID, Last Name, First Name, State, Effective Start Date, Effective End Date, Level, Grade, Attendance Pattern, and Calendar. Two callout boxes are present:

- Students without calendars in the calendar collection:** Points to rows 201, 202, 203, 204, and 205, where the Calendar column is empty.
- Calendars with no students in the student collection:** Points to rows 206, 207, 208, 209, 210, 211, and 212, where the Student ID column is empty.

## Troubleshoot the data

### Why do students not have a matching calendar?

- Is there something preventing a calendar from being reported, or is there no matching calendar being reported?
  - If yes, fix or create a matching calendar in the SIS and submit it to EMIS
- Is the student on a calendar that is not reportable to EMIS?
  - If yes, ignore the mismatch
- Does the student match to a calendar based on a wildcard grade level?
  - Grade level \*\* in the calendar collection is a wildcard
  - Example - District IRN-Building IRN-01-\*\* matches to District IRN-Building IRN-\*\*-\*\*
  - Match these students and calendars manually
- Check your FTE Detail Report to verify that students are being correctly assigned to calendars through the calendar determination process

## Troubleshoot the data, cont'd

### Why are there calendars with no students?

- Typically okay to report calendars with no students just be careful if the unused calendar has a start date that is before your district's earliest calendar or an end date that is after your latest calendar as this could effect some of the checks that EMIS uses such as separated staff and summer graduates
- The early start date issue can be found for any calendar in the calendar collection whether it is used for students or not
- Consider not reporting unused calendars to EMIS



### Quick Check

Calendar verification is very important since there are no checks in EMIS between the student collections and the calendar collections. This exercise will allow for a very quick comparison to identify EMIS reporting issues.

- Are you able to perform concatenation and conditional formatting?
- Do you have students with no calendar in the calendar collection?
- Do you have calendars reported to EMIS with no students assigned?





## Summary

- Basic Excel techniques can be very useful when troubleshooting
  - EMIS data in the Student Information System
  - EMIS reports
  - preview/review files
- These techniques should be part of your everyday practices



## Resources

- Microsoft Excel Help within Excel “?” Articles and Videos
- Google it
- Microsoft Excel Classes
- Your ITC



Questions?

