

Using Excel to Troubleshoot EMIS Data

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Questions regarding appropriate use of EMIS Alliance materials, or requests for exception to the restrictions noted above, should be directed to Melissa Hennon [Melissa.Hennon@education.ohio.gov].

Overview

- Basic, Intermediate, and Advanced 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

- Enrollment Headcount Summary Report
 - Best Practices
- Enrollment Headcount Detail Report
 - PivotTable Ideas
- FTE Detail Report
 - PivotTable Example

Enrollment Headcount Summary Report

Preview/Submission/Review Files

- Depending on the collection status and location within the data collector, the files are called-
 - Preview files
 - Submission files
 - Review files
- Files contain data from your LEA only
- For open collections, the data in the report will be as current as the source data used, and the date it was collected and prepared
- For closed collections, the data will represent the last time the data was prepared

Files Containing Data from your SIS

				Submission 11	
File	Valid	Invalid	Total		
Counts of DN Records Excluded.csv			3		
Enrollment Headcount Detail Report (Current Students).csv			891		
Enrollment Headcount Detail Report (Future Students).csv			0		
Enrollment Headcount Detail Report (Prior Students).csv			37		
Enrollment Headcount Summary Report (Current Students).csv			120		
Excluded Records.csv			64		
Missing Report - Organization Attribute (DN).csv			0		
Missing Report - Student.csv			1		
Organization General Information Record (DN).csv		2	5		
Student Attributes Effective Date Record (FD).csv	1032	0	1032		
Student Attributes No Date Record (FN).csv	928	0	928		
Student Demographic Record (GI).csv	928	0	928		
Student Program Record (GQ).csv	644	0	644		
Student Race Detail Record (GJ).csv	33	0	33		
Student Special Education Graduation Requirement Record (FE).csv	1	0	1		
Student Special Education Record (GE).csv	152	0	152	150	
Student Standing Record (FS).csv	949	0	949	949	
Student Summer Withdrawal Record (FL).csv	0	0	0	0	
Student Withdrawal Override Record (FC).csv	0	0	0	0	
Total counts:	4670	2	5788		

Each type of collection has a unique set of preview files, this is from a student collection not SCR

Reviewing these files can aid in verifying your SIS data for accuracy and completeness

Remember, there's not an error for everything that is incorrect or incomplete!

Enrollment Headcount Summary (Current Students)

Start by opening the Enrollment Headcount Summary Report

					Submission 11	
File	Valid	Invalid	Total			
Counts of DN Records Excluded.csv			3			
Enrollment Headcount Detail Report (Current Students).csv			891			
Enrollment Headcount Detail Report (Future Students).csv			0			
Enrollment Headcount Detail Report (Prior Students).csv			37			
Enrollment Headcount Summary Report (Current Students).csv			120			
Excluded Records.csv			64			
Missing Report - Organization Attribute (DN).csv			0			
Missing Report - Student.csv			1			
Organization General Information Record (DN).csv	3	2	5		3	
Student Attributes Effective Date Record (FD).csv	1032	0	1032		1032	
Student Attributes No Date Record (FN).csv	928	0	928		928	
Student Demographic Record (GI).csv	928	0	928		928	
Student Program Record (GQ).csv	644	0	644		644	
Student Race Detail Record (GJ).csv	33	0	33		33	
Student Special Education Graduation Requirement Record (FE).csv	1	0	1		1	
Student Special Education Record (GE).csv	152	0	152		150	
Student Standing Record (FS).csv	949	0	949		949	
Student Summer Withdrawal Record (FL).csv	0	0	0		0	
Student Withdrawal Override Record (FC).csv	0	0	0		0	
Total counts:	4670	2	5788			

Prepare the Report

- Open Enrollment_Headcount_Summary_Report_(Current_Students)
 - Wrap text header row
 - Freeze top row
 - Expand all columns
 - Apply filters
 - Better yet, run your macro!
- To learn how to record a macro, prior year EMIS Alliance Excel sessions can be found here
 - <https://community.mcoecn.org/display/EM/EMIS+Alliance+Public+Space>

Enrollment Headcount Summary Report (Current Students)

- Prepare – don't have to submit, just collect up-to-date data and prepare to get the updated numbers as of “today”
- Captures current students by both headcount and by percent of time
- Filtering can be done to narrow the summary data down into building and grade level data

Summary Data

	A	B	C	D	E	F	G	H
	IRN	Org Name	Student Grouping	District Relationship	Student Grouping Value	Headcount	Total % of Time / 100	Students Enrolled As of Date
2	40404	LEA Name	District Enrollment Headcount	1 --		831	804.26	12/18/2019
3	40404	LEA Name	District Enrollment Headcount	2 --		1	0	12/18/2019
4	40404	LEA Name	District Enrollment Headcount	3 --		119	2.76	12/18/2019
5	30303	LEA Name	Building Enrollment Headcount	1 --		369	356.76	12/18/2019
6	30303	LEA Name	Building Enrollment Headcount	3 --		72	1.76	12/18/2019
7	20202	LEA Name	Building Enrollment Headcount	1 --		462	447.5	12/18/2019
8	20202	LEA Name	Building Enrollment Headcount	2 --		1	0	12/18/2019
9	20202	LEA Name	Building Enrollment Headcount	3 --		47	1	12/18/2019
17	40404	LEA Name	District: By Grade Level	1	8	53	52.64	12/18/2019
18	40404	LEA Name	District: By Grade Level	1	9	81	78.96	12/18/2019
19	40404	LEA Name	District: By Grade Level	1	10	78	74.87	12/18/2019
20	40404	LEA Name	District: By Grade Level	1	11	45	43.79	12/18/2019
21	40404	LEA Name	District: By Grade Level	1	12	42	38.54	12/18/2019
22	40404	LEA Name	District: By Grade Level	1	KG	41	41	12/18/2019
23	40404	LEA Name	District: By Grade Level	1	PS	66	51.5	12/18/2019
24	40404	LEA Name	District: By Grade Level	2	PS	1	0	12/18/2019

Headcount and Total of Percent of Time

District Relationship –
1- Educating
2- Services, no Instruction
3- No Services or Instruction

Students Enrolled As of Date –
This file is from the close of FY20
Beginning of the Year Student
Collection



Filter on District Relationship 1

	A	B	C	D	E	F	G	H
	IRN	Org Name	Student Grouping	District Relationship	Student Grouping Value	Headcount	Total % of Time /	Students Enrolled As of Date
1	40404	LEA Name	District Enrollment	Headcount	1 --	831	804.26	12/18/2019
2	30303	LEA Name	Building Enrollment	Headcount	1 --	369	356.76	12/18/2019
5	20202	LEA Name	Building Enrollment	Headcount	1 --	462	447.5	12/18/2019
7	40404	LEA Name	District: By Grade Level		1	1	43	43 12/18/2019
10	40404	LEA Name	District: By Grade Level		1	2	63	63 12/18/2019
11	40404	LEA Name	District: By Grade Level		1	3	64	64 12/18/2019
12	40404	LEA Name	District: By Grade Level		1	4	55	55 12/18/2019
13	40404	LEA Name	District: By Grade Level		1	5	68	68 12/18/2019
14	40404	LEA Name	District: By Grade Level		1	6	61	61 12/18/2019
15	40404	LEA Name	District: By Grade Level		1	7	71	68.96 12/18/2019
16	40404	LEA Name	District: By Grade Level		1	8	53	52.64 12/18/2019
	LEA Name	District: By Grade Level		1	9	81	78.96 12/18/2019	
	LEA Name	District: By Grade Level		1	10	78	74.87 12/18/2019	
	LEA Name	District: By Grade Level		1	11	45	43.79 12/18/2019	
21	40404	LEA Name	District: By Grade Level		1	12	42	38.54 12/18/2019
22	40404	LEA Name	District: By Grade Level		1	KG	41	41 12/18/2019
23	40404	LEA Name	District: By Grade Level		1	PS	66	51.5 12/18/2019
40	30303	LEA Name	Building: By Grade Level		1	7	70	67.96 12/18/2019
41	30303	LEA Name	Building: By Grade Level		1	8	53	52.64 12/18/2019
42	30303	LEA Name	Building: By Grade Level		1	9	81	78.96 12/18/2019
43	30303	LEA Name	Building: By Grade Level		1	10	78	74.87 12/18/2019
44	30303	LEA Name	Building: By Grade Level		1	11	45	43.79 12/18/2019
45	30303	LEA Name	Building: By Grade Level		1	12	42	38.54 12/18/2019

Student Grouping

Sort Smallest to Largest

Sort Largest to Smallest

Sort by Color

Sheet View

Clear Filter From "District Relation..."

Filter by Color

Number Filters

Search

(Select All)

1

2

3

OK Cancel

Filter on District Relationship 1

See headcounts and counts by percent of time, by district, building, and grade level for students your LEA is educating



Additional Summary Data

	A	B	C	D	E	F	G	H
1	IRN	Org Name	Student Grouping	ship	Value	Headcount	Total % of Time / 100	Students Enrolled As of Date
86	30303	LEA Name	Building: By Received Reason	3	9	6	1.76	12/18/2019
87	20202	LEA Name	Building: By Received Reason	1 *		351	341.5	12/18/2019
88	20202	LEA Name	Building: By Received Reason	1	9	90	89.5	12/18/2019
89	20202	LEA Name	Building: By Received Reason	1 B		2	2	12/18/2019
90	20202	LEA Name	Building: By Received Reason	1 C		2	2	12/18/2019
91	20202	LEA Name	Building: By Received Reason	1 D		2	2	12/18/2019
92	20202	LEA Name	Building: By Received Reason	1 E		15	10.5	12/18/2019
93	20202	LEA Name	Building: By Received Reason	2 I		1		
94	20202	LEA Name	Building: By Received Reason	3 *		47		
95	40404	LEA Name	District: By Sent Reason 1	1 ES		4		
96	40404	LEA Name	District: By Sent Reason 1	1 FC		1		
97	40404	LEA Name	District: By Sent Reason 1	1 JV		78		
98	40404	LEA Name	District: By Sent Reason 1	1 NA		718	70	
99	40404	LEA Name	District: By Sent Reason 1	1 PS		30	2	
100	40404	LEA Name	District: By Sent Reason 1	2 NA		1		
				AU		1		
				CI		1	0	12/18/2019
				ES		10	0	12/18/2019
				FC		7	0	12/18/2019
				IP		1	0	12/18/2019

After clearing filters, scroll down the report and see summary data by building and district by Received Reason and Sent Reason 1

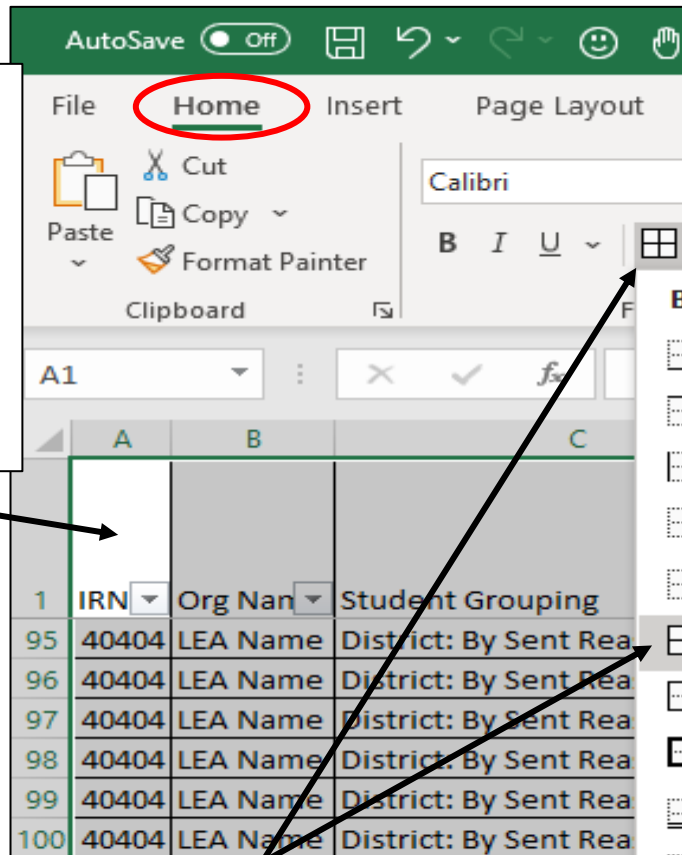
This summary information can be helpful, however if this data is in question, it would be necessary to refer the detail version of this report

It is important to note that a student will be counted in the Received Reason Section and the Sent to 1 Section



Adding Borders

Select all data by placing cursor in cell A1, hold down Shift and Ctrl keys and then hit right arrow then down arrow



This can be excellent, up-to-date data to send to others in your district

- Data as of Source Data/Prepare date
- May need to translate EMIS coding using the Student Standing (FS) section of the EMIS Manual

From the Home tab, add borders to make the report more user friendly

A screenshot of the Borders dropdown menu in Excel. The 'All Borders' option is selected and highlighted. The menu also shows other options like 'Left Border', 'Right Border', 'No Border', 'Outside Borders', 'Thick Outside Borders', 'Bottom Double Border', 'Thick Bottom Border', 'Top and Bottom Border', 'Top and Thick Bottom Border', and 'Top and Double Bottom Border'.

	F	G	H
	dcou	Total % of Time /	Students Enrolled As of Date
		100	
	4	2	12/18/2019
	1	1	12/18/2019
	78	68.12	12/18/2019
	718	703.86	12/18/2019
	30	29.28	12/18/2019
	1	0	12/18/2019
	1	1	12/18/2019
	1	0	12/18/2019
	10	0	12/18/2019
	7	0	12/18/2019
	1	0	12/18/2019

Quick Check

The Enrollment Headcount Summary Report can provide up-to-date enrollment numbers quickly. Enrollment numbers are available as headcounts and percent of time. Data is also broken out by Received Reason and Sent to 1 Reason.

- Are you processing updated SIS data in the Data Collector on a regular basis?
- Are you able to format and filter the Enrollment Headcount Summary Report?
- Who in your district might benefit from seeing this data on a regular basis?

Enrollment Headcount Detail Report

Enrollment Headcount Detail (Current Students)

- Provides a quick and comprehensive set of data
 - Contains elements from multiple record types
 - Contains only data from your LEA's SIS
 - Contains data as of a specific date (date of the data/prepare)
- Based on enrollment as of “today” so running a prepare after the school year ends could give skewed results
- Available in closed collections such as Beginning of Year and Midyear for “snapshots” of data based on the last prepare (Mid-December/End of April)
- Consider saving this report regularly as it will be overwritten with each prepare

Create your own Summary Data

File	Submission 11			Sub 10
	Valid	Invalid	Total	Valid
Counts of DN Records Excluded.csv			3	
Enrollment Headcount Detail Report (Current Students).csv			891	
Enrollment Headcount Detail Report (Future Students).csv				
Enrollment Headcount Detail Report (Prior Students).csv				
Enrollment Headcount Summary Report (Current Students).csv				
Excluded Records.csv				
Missing Report - Organization Attribute (DN).csv				
Missing Report - Student.csv				
Organization General Information Record (DN).csv	3	2	5	3
Student Attributes Effective Date Record (FD).csv	1032	0	1032	1032
Student Attributes No Date Record (FN).csv	928	0	928	928
Student Demographic Record (GI).csv	928	0	928	928
Student Program Record (GQ).csv	644	0	644	644
Student Race Detail Record (GJ).csv	33	0	33	33
Student Special Education Graduation Requirement Record (FE).csv	1	0	1	1
Student Special Education Record (GE).csv	152	0	152	150
Student Standing Record (FS).csv	949	0	949	949
Student Summer Withdrawal Record (FL).csv	0	0	0	0
Student Withdrawal Override Record (FC).csv	0	0	0	0
Total counts:	4670	2	5788	

Open the Enrollment Headcount Detail Report (Current Students)

Prepare the Report

- Open Enrollment_Headcount_Detail_Report_(Current_Students)
 - Wrap text header row
 - Freeze top row
 - Expand all columns
 - Apply filters
 - Better yet, run your macro!
- To learn how to record a macro, prior year EMIS Alliance Excel sessions can be found here
 - <https://community.mcoecn.org/display/EM/EMIS+Alliance+Public+Space>

Report Contents

This report contains a unique set of EMIS elements that is created each time data is prepared. If source data is timely, this report could reflect data as of today

District IRN
Building IRN
Student's Enrolled
as of Date

Student Demographic (GI)

Last Name
First Name
Gender
Summative Race
EMIS ID
SSID

Student Standing (FS)

Legal District of Residence
How Received Reason
How Received IRN
District Relationship
Percent of Time
Sent To Reason (1&2)
Sent To IRN (1&2)
Sent to Percent of Time (1&2)
Admission Date
Effective Start Date
Effective End Data (Blank)
Withdrawal Reason (Blank)

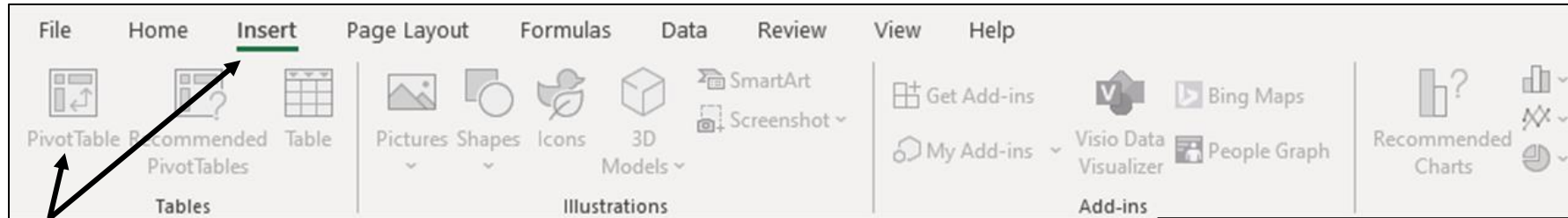
Student Attributes – Date (FD)

State Equivalent Grade Level
Disability Condition
Disadvantage
Limited English Proficiency

Why Pivot Tables?

- Pivot Tables
 - Create a quick summary view of a detailed report
 - No formulas needed
 - Make changes on the fly
 - Drill down to the details
 - Great way to present data to others in the district
 - Will get easier to setup the more you use them

Create a PivotTable



From the "Insert" tab select "PivotTable"

Leave the "Create PivotTable" prompt as defaulted and select OK

	E	F	G	H	I	J
2	40404	77777	1.23E+08	Last	First	TT2282648
3	40404	77777	1.23E+08	Last	First	UR86404
4	40404	77777	1.23E+08	Last	First	WW0662
5	40404	77777	1.23E+08	Last	First	LP24282
6	40404	77777	1.23E+08	Last	First	VE60024
7	40404	77777	1.23E+08	Last	First	QE88008
8	40404	77777	1.23E+08	Last	First	KW4624
9	40404	77777	1.23E+08	Last	First	PO82048
10	40404	77777	1.23E+08	Last	First	TU22604
11	40404	77777	1.23E+08	Last	First	VW6240
12	40404	77777	1.23E+08	Last	First	GN20820
13	40404	77777	1.23E+08	Last	First	TP84446
14	40404	77777	1.23E+08	Last	First	VH80244
15	40404	77777	1.23E+08	Last	First	TR08488
16	40404	77777	1.23E+08	Last	First	XY24806
17	40404	77777	1.23E+08	Last	First	ZY88244
18	40404	77777	1.23E+08	Last	First	NZ68844
19	40404	77777	1.23E+08	Last	First	UL84468

Create PivotTable

Choose the data that you want to analyze

Select a table or range

Table/Range: Enrollment_Headcount_Detail_Rep!\$A\$1:\$A\$19

Use an external data source

Choose Connection...

Connection name:

Use this workbook's Data Model

Choose where you want the PivotTable report to be placed

New Worksheet

Existing Worksheet

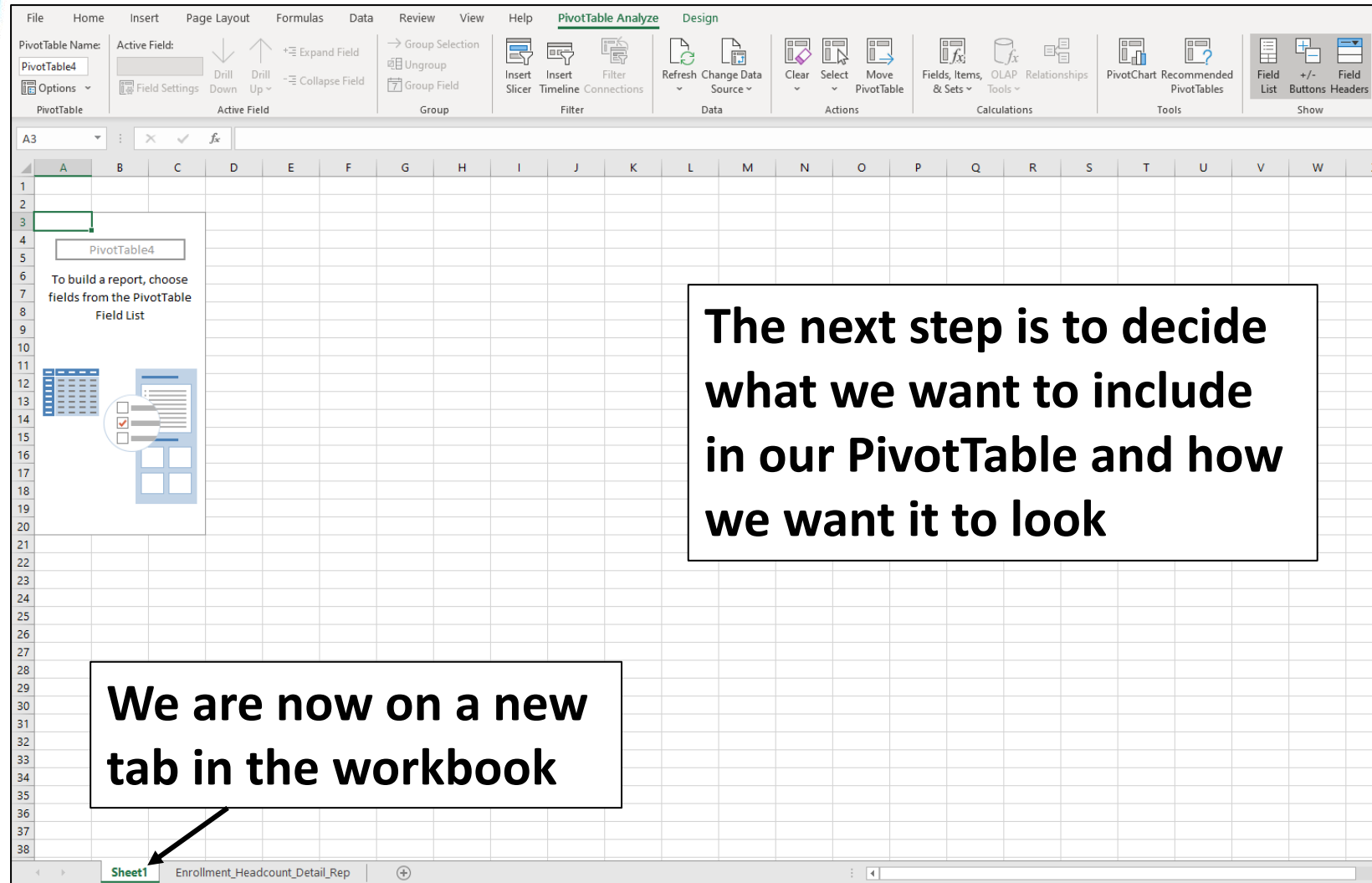
Location:

Choose whether you want to analyze multiple tables

Add this data to the Data Model

OK Cancel

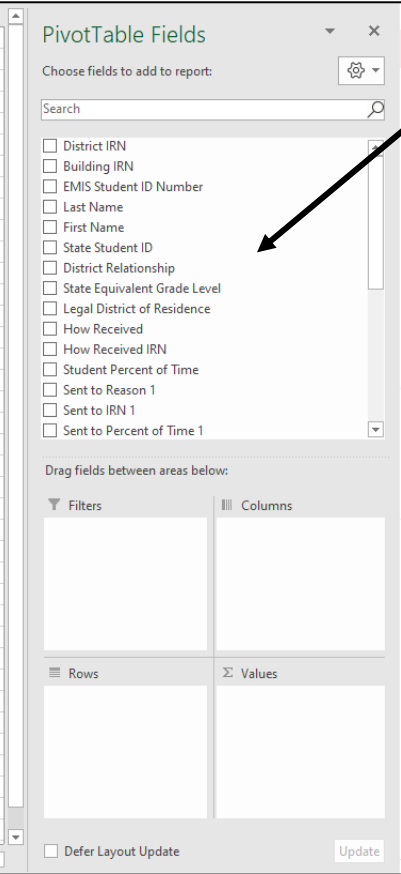
New Tab and Next Step



This section contains the column headers from your spreadsheet

The next step is to decide what we want to include in our PivotTable and how we want it to look

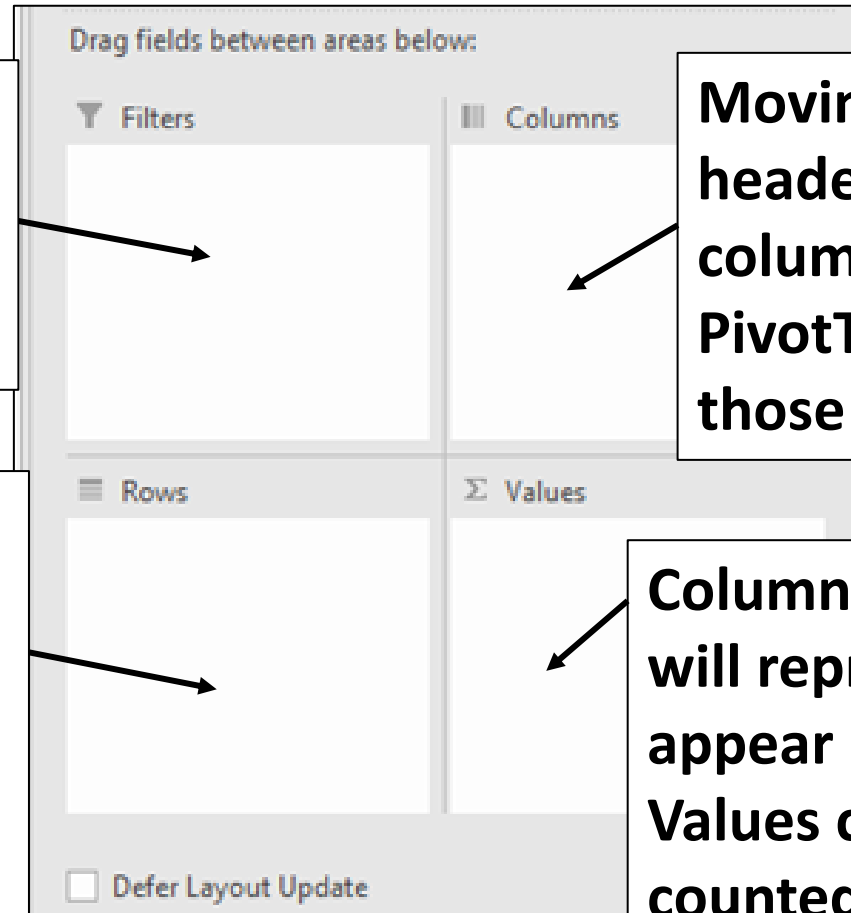
We are now on a new tab in the workbook



PivotTable Boxes

Moving one or more column headers into this box will create a filter(s) above your PivotTable

Moving one or more column headers into this box will create a row or rows on the left side of your PivotTable using the values from the columns on your spreadsheet



Moving one or more column headers into this box will create columns across the top of your PivotTable using the values from those columns on your spreadsheet

Column headers placed in this box will represent the values that appear in the body of the PivotTable. Values can be summed, averaged, counted, etc.

Grade Level by Building

Click and drag fields into the PivotTable boxes

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
1	District Relationship	(All)															
2																	
3	Count of State Student ID	Column Labels															
4	Row Labels		1	2	3	4	5	6	7	8	9	10	11	12	KG	PS	Grand Total
5	44444								54	68							122
6	77777		55	59	45	68	62	64							73	107	533
7	88888										66	56	64	50			236
8	Grand Total		55	59	45	68	62	64	54	68	66	56	64	50	73	107	891

Watch the PivotTable take shape as fields are added to the PivotTable blocks

PivotTable Fields

Choose fields to add to report:

Search

- Building IRN
- EMIS Student ID Number
- Last Name
- First Name
- State Student ID
- District Relationship
- State Equivalent Grade Level
- Legal District of Residence
- How Received
- How Received IRN
- Student Percent of Time
- Sent to Reason 1
- Sent to IRN 1
- Sent to Percent of Time 1
- Sent to Reason 2

Drag fields between areas below:

Filters: District Relationship

Columns: State Equivalent Grade...

Rows: Building IRN

Values: Count of State Studen...

Defer Layout Update Update

Grade Level by Building, cont'd

Update headers names to make the PivotTable more user friendly

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	District Relationship	(All)														
2																
3	Headcount	Grade														
4	Building	1	2	3	4	5	6	7	8	9	10	11	12 KG	PS	Grand Total	
5	Middle School							54	68							122
6	Elementary School	55	59	45	68	62	64							73	107	533
7	High School									66	56	64	50			236
8	Grand Total	55	59	45	68	62	64	54	68	66	56	64	50	73	107	891

Select columns C thorough O and drag to widen them equally, all at the same time

Add Gridlines

2. Select the Borders icon, and "All Borders"

1. Place cursor in cell A3, then hover over cell A3, until you see a black arrow, then click in cell A3. This will select the PivotTable cells. Add borders to the PivotTable.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
1	District Relationship	(All)															
2																	
3	Headcount	Grade															
4	Building		1	2	3	4	5	6	7	8	9	10	11	12	KG	PS	
5	Middle School							54	68								
6	Elementary School		55	59	45	68	62	64							73	107	
7	High School										66	56	64	50			
8	Grand Total		55	59	45	68	62	64	54	68	66	56	64	50	73	107	891

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
1	District Relationship	(All)															
2																	
3	Headcount	Grade															
4	Building		1	2	3	4	5	6	7	8	9	10	11	12	KG	PS	
5	Middle School							54	68								
6	Elementary School		55	59	45	68	62	64							73	107	
7	High School										66	56	64	50			
8	Grand Total		55	59	45	68	62	64	54	68	66	56	64	50	73	107	891

Filter on District Relationship

The screenshot shows the Microsoft Excel interface with the 'Home' tab selected. A dropdown menu for 'District Relationship' is open, showing options: (All), 1, 2, and 3. A callout box points to the dropdown menu with the text: "Filtering on District Relationship 1 will give a clearer picture of students attending your LEA". Another callout box points to the '1' option in the dropdown menu with the text: "Check the box to be able to select filters". The 'Select Multiple Items' checkbox is checked. The spreadsheet data is as follows:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	District Relationship	(All)														
2																
3	Head															
4	Build		2	3	4	5	6	7	8	9	10	11	12	KG	PS	Grand Total
5	Midd							54	68							122
6	Elem		59	45	68	62	64							73	107	533
7	High									66	56	64	50			236
8	Granc		59	45	68	62	64	54	68	66	56	64	50	73	107	891

District Relationship 1 - Educating

This PivotTable now shows attending students by building and grade level as of the date of the Data Source data and Prepare

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	District Relationship	1														
2																
3	Headcount	Grade														
4	Building	1	2	3	4	5	6	7	8	9	10	11	12	KG	PS	Grand Total
5	Middle School							50	64							114
6	Elementary School	53	56	42	60	58	57								69	488
7	High School									60	54	42	38			194
8	Grand Total	53	56	42	60	58	57	50	64	60	54	42	38	69	93	796

Double click into a cell on the PivotTable to view the students who are included in the count

View Students in a New Tab

	A	B	C	D	E	F	G	H	I
1	District IRN	Building IRN	EMIS Student ID Number	Last Name	First Name	State Student ID	District Relationship	State Equivalent Grade Level	Legal District of Residence
2	40404	88888	123457551	Last	First	XN6446882	1	12	50505
3	40404	88888	123457536	Last	First	PW8222422			
4	40404	88888	123457533	Last	First	QP6426200			
5	40404	88888	123457532	Last	First	UX4400404			
6	40404	88888	123457524	Last	First	QX4400208			
7	40404	88888	123457520	Last	First	QV8022884			
8	40404	88888	123457517	Last	First	QX4484828			
9	40404	88888	123457503	Last	First	SG2240660			
10	40404	88888	123457487	Last	First	PC6020268			
11	40404	88888	123457486	Last	First	KM0862286			
12	40404	88888	123457483	Last	First	PV0608264			
13	40404	88888	123457454	Last	First	QP6826686			
14	40404	88888	123457450	Last	First	QX4446208			
15	40404	88888	123457412	Last	First	QL2088226			
16	40404	88888	123457411	Last	First	QL2060002			
17	40404	88888	123457388	Last	First	QI6660606			
18	40404	88888	123457387	Last	First	QI6844428			
19	40404	88888	123457386	Last	First	QI6880660			
20	40404	88888	123457384	Last	First	QI6620448			
21	40404	88888	123457383	Last	First	QI6862642			
22	40404	88888	123457350	Last	First	OY4460408			
23	40404	88888	123457349	Last	First	KZ8028228			
24	40404	88888	123457348	Last	First	OM2824264			
25	40404	88888	123457346	Last	First	OM2860440			
26	40404	88888	123457345	Last	First	OM2884446			
27	40404	88888	123457344	Last	First	OL6084404			
28	40404	88888	123457343	Last	First	OL6080068			
29	40404	88888	123457342	Last	First	OL6044244			
30	40404	88888	123457341	Last	First	OL6028080			
31	40404	88888	123457338	Last	First	OL6224048			

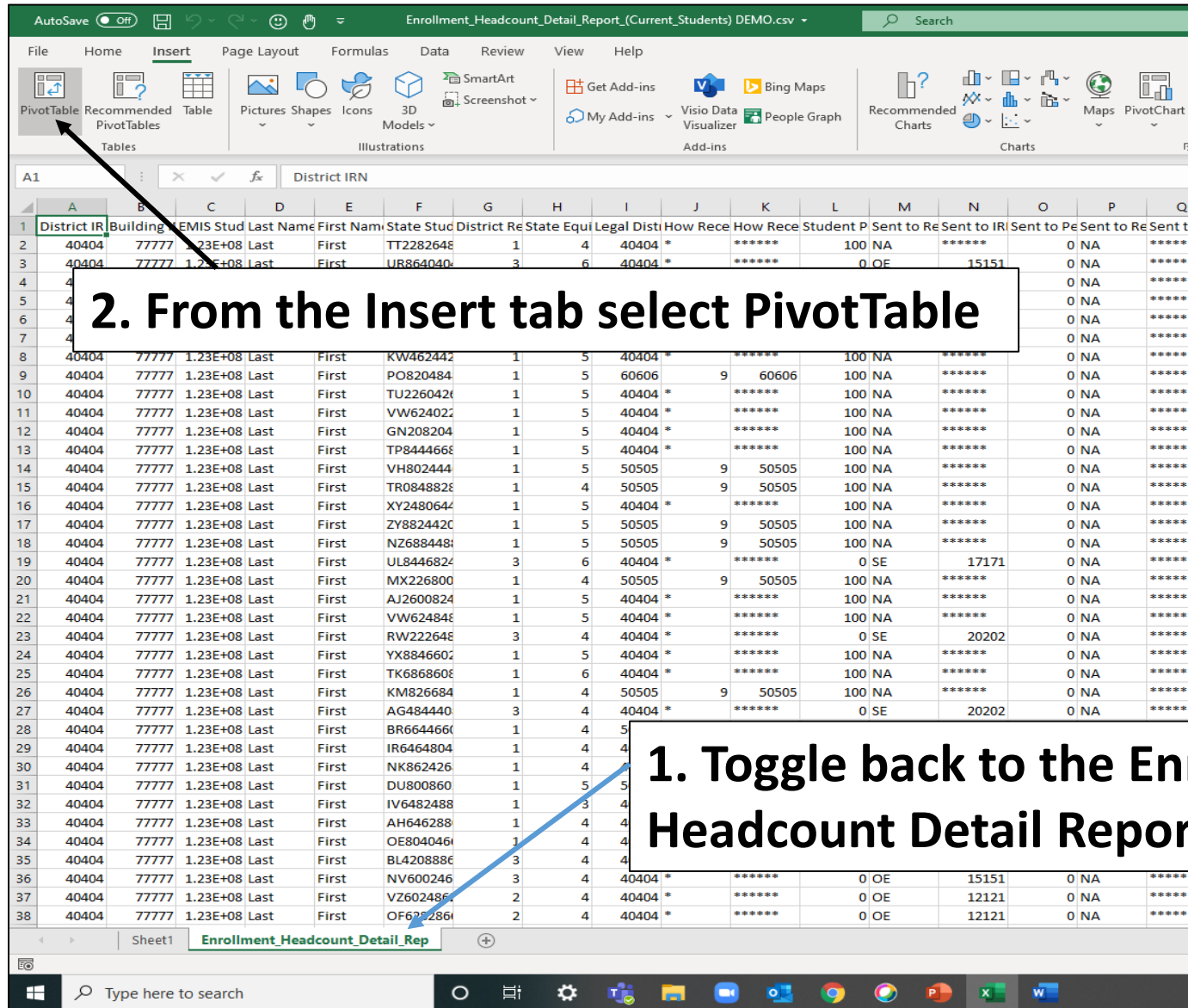
Leave the tab and go back to your PivotTable on Sheet1, or right click on Sheet2 and Delete

A new tab will open containing the data from the cell

Insert...
Delete
Rename
Move or Copy...
View Code
Protect Sheet...
Tab Color >
Hide
Unhide...
Select All Sheets



Create Another PivotTable

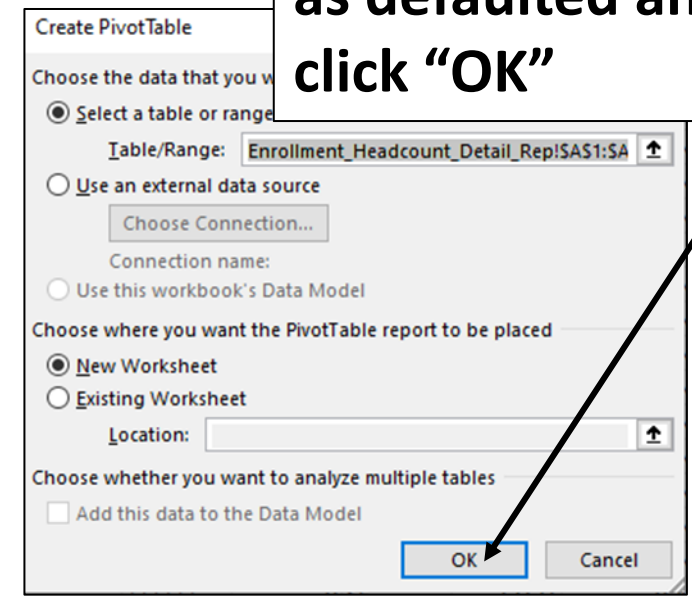


The screenshot shows the Microsoft Excel interface with the 'Insert' tab selected. The 'PivotTable' button in the 'Tables' group is highlighted with a black arrow. The spreadsheet below shows a table with columns for District IRN, Building, EMIS Stud, Last Name, First Name, State, Stud District, Re State, Equi, Legal Dist, How Rece, Student P, Sent to Re, Sent to IR, and Sent to Pe. The table contains data for various districts and students.

2. From the Insert tab select PivotTable

1. Toggle back to the Enrollment Headcount Detail Report

3. Leave the "Create PivotTable" prompt as defaulted and click "OK"



The 'Create PivotTable' dialog box is shown. The 'Table/Range' is set to 'Enrollment_Headcount_Detail_Rep!\$A\$1:\$A\$38'. The 'New Worksheet' option is selected for where to place the report. The 'OK' button is highlighted with a blue box and a black arrow.

Disadvantage by Building

	A	B	C	D	E	F
1	District Relationship	(All)				
2						
3	Count of State Student ID	Column Labels				
4	Row Labels		1	2	3 *	Grand Total
5	44444		27		95	122
6	77777		160		373	533
7	88888		71	7	9	149
8	Grand Total		258	7	9	617

Set up and format PivotTable

	A	B	C	D	E	F
1	District Relationship	(All)				
2						
3	Headcount	Disadvantage Code				
4	Building	Economic	Academic	Both	None	Grand Total
5	Middle School		27		95	122
6	Elementary School		160		373	533
7	High School		71	7	9	149
8	Grand Total		258	7	9	617

PivotTable Fields

Choose fields to add to report:

Search

- Building IRN
- EMIS Student ID Number
- Last Name
- First Name
- State Student ID
- District Relationship
- State Equivalent Grade Level
- Legal District of Residence
- How Received
- How Received IRN
- Student Percent of Time
- Sent to Reason 1
- Sent to IRN 1
- Sent to Percent of Time 1
- Sent to Reason 2

Drag fields between areas below:

Filters

District Relationship

Columns

Disadvantage

Rows

Building IRN

Values

Count of State Studen...

Defer Layout Update Update

Grade Level by Building and Gender

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
1	District Relationship	(All)															
2																	
3	Count of State Student ID	Column Labels															
4	Row Labels		1	2	3	4	5	6	7	8	9	10	11	12	KG	PS	Grand Total
5	44444							54	68								122
6	F							27	35								62
7	M							27	33								60
8	77777		55	59	45	68	62	64							73	107	533
9	F		26	24	19	29	31	27							35	55	246
10	M		29	35	26	39	31	37							38	52	287
11	88888										66	56	64	50			236
12	F										30	27	30	23			110
13	M										36	29	34	27			126
14	Grand Total		55	59	45	68	62	64	54	68	66	56	64	50	73	107	891

Set up and format PivotTable

PivotTable Fields

Choose fields to add to report:

Search

- First Name
- State Student ID
- District Relationship
- State Equivalent Grade Level
- Legal District of Residence
- How Received
- How Received IRN
- Student Percent of Time
- Sent to Reason 1
- Sent to IRN 1
- Sent to Percent of Time 1
- Sent to Reason 2
- Sent to IRN 2
- Sent to Percent of Time 2
- Gender

Drag fields between areas below:

Filters	Columns
District Relationship	State Equivalent Grade...
Rows	Values
Building IRN	Count of State Studen...
Gender	

Defer Layout Update Update

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	District Relationship	(All)														
2																
3	Headcount	Grade														
4	Building	1	2	3	4	5	6	7	8	9	10	11	12	KG	PS	Grand Total
5	Middle School							54	68							122
6	Female							27	35							62
7	Male							27	33							60
8	Elementary School	55	59	45	68	62	64							73	107	533
9	Female	26	24	19	29	31	27							35	55	246
10	Male	29	35	26	39	31	37							38	52	287
11	High School									66	56	64	50			236
12	Female									30	27	30	23			110
13	Male									36	29	34	27			126
14	Grand Total	55	59	45	68	62	64	54	68	66	56	64	50	73	107	891

Insert Slicer Instead of Filter

2. From the PivotTable Analyze Tab, select Insert Slicer

3. Select "District Relationship"

1. Create the PivotTable with nothing in the Filter box

The screenshot shows the Microsoft Excel interface with the PivotTable Analyze tab selected. The 'Insert Slicer' button is highlighted with a red box. Below the ribbon, the 'Insert Slicers' dialog box is open, showing a list of fields. The 'District Relationship' field is selected and highlighted in green. The background shows a PivotTable with 'Count of State Student ID' as the value field and 'District Relationship' as the filter. The PivotTable data is as follows:

Row Labels	1	2	3	4	5	6	7	8	9	10	11	12	KG	PS	Grand Total		
44444							54	68							122		
F							27	35							62		
M							27	33							60		
77777			55	59	45	68	62	64					73	107	533		
F			26	24	19	29	31	27					35	55	246		
M			29	35	26	39	31	37					38	52	287		
88888									66	56	64	50			236		
F									30	27	30	23			110		
M									36	29	34	27			126		
Grand Total			55	59	45	68	62	64	54	68	66	56	64	50	73	107	891

The screenshot shows the PivotTable Fields task pane. The 'Filters' area is empty. The 'Columns' area contains 'State Equivalent Grade...'. The 'Rows' area contains 'Building IRN' and 'Gender'. The 'Values' area contains 'Count of State Studen...'. The 'District Relationship' field is highlighted in the list of fields.

Slicer on District Relationship

Much like a filter, a slicer allows the data to be shown based on a selected value

	A	B	C	D	E	F	G	H	I	J	K	L	M	N			
1																	
2																	
3	Count of State Student ID	Column Labels															
4	Row Labels		1	2	3	4	5	6	7	8	9	10	11	12	KG	PS	Grand Total
5	44444								54	68							122
6	F								27	35							62
7	M								27	33							60
8	77777		55	59	45	68	62	64							73	107	533
9	F		26	24	19	29	31	27							35	55	246
10	M		29	35	26	39	31	37							38	52	287
11	88888										66	56	64	50			
12	F										30	27	30	23			
13	M										36	29	34	27			
14	Grand Total		55	59	45	68	62	64	54	68	66	56	64	50	73	107	
15																	

District Relations...

- 1
- 2
- 3

Right click on the Slicer to see additional settings such as a multi-select option

Quick Check

PivotTables create a quick and easy summary of data that can be very useful in troubleshooting data.

Summary data is also very helpful to others in your district who monitor enrollment and attributes of students.

- Are you processing updated SIS data in the Data Collector on a regular basis?
- Are you able to format and filter the Enrollment Headcount Detail Report?
- Are you able to create PivotTables from the Enrollment Headcount Detail Report?

FTE Detail Report PivotTable

FTE Detail Report

FTE Detail Report Contains

- Funding data for students
- Your LEA's data and data from other LEAs
- Could have more than one line per student
- Each row is calculated with a base FTE
 - Each row contains a unique set of funding elements
- Gets larger as the school year progresses
- Is generated nightly by ODE with data received as of 5pm

FTE Detail Report

Begin by opening an FTE Detail Report

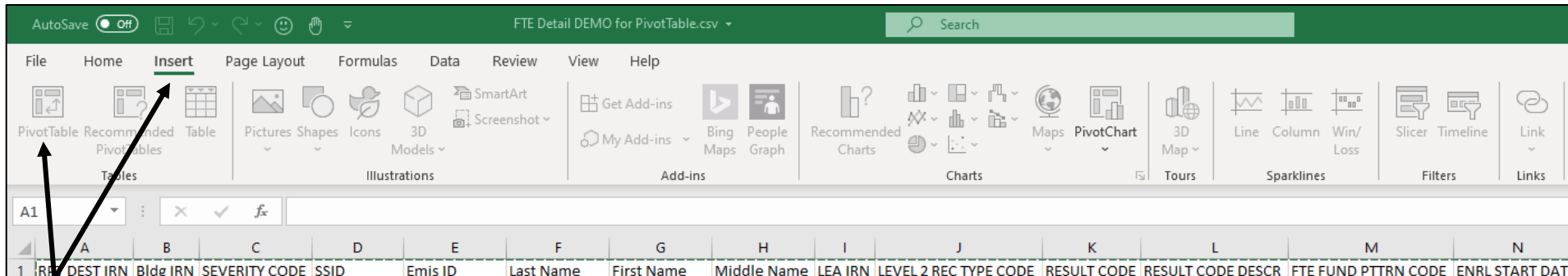
- Student Collection – Level 2

No need to prepare the report
Before creating a PivotTable

A1	RPT DEST	Bldg	IRN	SEVERITY	SSID	Emis ID	Last Name	First Name	Middle Name	LEA IRN	LEVEL 2 RE	RESULT CC	RESULT CC	FTE FUND	ENRL STA	ENRL END	ORIG FTE	ADJSTD FT
2	40404	18333	I	RK866486	Not Avail	Not Avail	Not Avail	Not Avail	Not Avail	18333	FTED-001	FT0000	FTE Detail	COMM	#####	#####	0.058286	0.058286
3	40404	143060	I	TE844862	Not Avail	Not Avail	Not Avail	Not Avail	Not Avail	143060	FTED-001	FT0000	FTE Detail	COMM	7/1/2019	#####	1	1
4	40404	143060	I	SK222066	Not Avail	Not Avail	Not Avail	Not Avail	Not Avail	143060	FTED-001	FT0000	FTE Detail	COMM	#####	#####	0.5	0.5
5	40404	143060	I	BO602082	Not Avail	Not Avail	Not Avail	Not Avail	Not Avail	143060	FTED-001	FT0000	FTE Detail	COMM	7/1/2019	#####	1	1
6	40404	143060	I	GI800866	Not Avail	Not Avail	Not Avail	Not Avail	Not Avail	143060	FTED-001	FT0000	FTE Detail	COMM	7/1/2019	#####	1	1
7	40404	143060	I	NL206844	Not Avail	Not Avail	Not Avail	Not Avail	Not Avail	143060	FTED-001	FT0000	FTE Detail	COMM	9/3/2019	#####	0.472527	0.472527
8	40404	143306	I	VL646242	Not Avail	Not Avail	Not Avail	Not Avail	Not Avail	143306	FTED-001	FT0000	FTE Detail	COMM	7/1/2019	#####	1	1
9	40404	143060	I	UO866440	Not Avail	Not Avail	Not Avail	Not Avail	Not Avail	143060	FTED-001	FT0000	FTE Detail	COMM	7/1/2019	#####	1	1
10	40404	36840	I	VB484640	EMIS ID	Last	Middle	First		40404	FTED-001	FT0000	FTE Detail	RGJV	7/1/2019	#####	1	1
11	40404	36840	I	QI862862	EMIS ID	Last	Middle	First		40404	FTED-001	FT0000	FTE Detail	RGJV	7/1/2019	#####	1	1
12	40404	14630	I	VB486680	EMIS ID	Last	Middle	First		44000	FTED-001	FT0000	FTE Detail	OPDD	7/1/2019	#####	1	1
13	40404	36840	I	SK860062	EMIS ID	Last	Middle	First		40404	FTED-001	FT0000	FTE Detail	RGJV	7/1/2019	#####	1	1
14	40404	10	I	SN446088	EMIS ID	Last	Middle	First		46631	FTED-001	FT0000	FTE Detail	OPDD	7/1/2019	#####	1	1
15	40404	10	I	SN446662	EMIS ID	Last	Middle	First		46631	FTED-001	FT0000	FTE Detail	OPDD	7/1/2019	#####	1	1
16	40404	36840	I	SK860226	EMIS ID	Last	Middle	First		40404	FTED-001	FT0000	FTE Detail	RGJV	7/1/2019	#####	0.88	0.88
17	40404	61303	I	SK860226	EMIS ID	Last	Middle	First		61384	FTED-001	FT0000	FTE Detail	RGJV	#####	#####	0.12	0.12
18	40404	36840	I	TX442242	EMIS ID	Last	Middle	First		40404	FTED-001	FT0000	FTE Detail	RGJV	7/1/2019	#####	1	1

FTE Detail Report PivotTable

Create a PivotTable in an FTE Detail Report



From the Insert Tab select "PivotTable"

On the Create PivotTable Prompt, select "OK"

1	RE	DEST IRN	Bldg IRN	SEVERITY CODE	SSID	Emis ID	Last Name	First Name	Middle Name	LEA IRN	LEVEL 2 REC TYPE CODE	RESULT CODE	RESULT CODE DESC	FTE FUND PTTRN CODE	ENRL START DATE
9		40404	143060	I	UO8664404	Not Avail				18333	FTED-001				
10		40404	36840	I	VB4846400	EMIS ID				143060	FTED-001				
11		40404	36840	I	QJ8628624	EMIS ID				143060	FTED-001				
12		40404	14630	I	VB4866808	EMIS ID				143060	FTED-001				
13		40404	36840	I	SK8600626	EMIS ID				143060	FTED-001				
14		40404	10	I	SN4460888	EMIS ID					D-001	FT0000	FTE Detail	COMM	7/1/2019
15		40404	10	I	SN4466622	EMIS ID					D-001	FT0000	FTE Detail	RGJV	7/1/2019
16		40404	36840	I	SK8602260	EMIS ID					D-001	FT0000	FTE Detail	RGJV	7/1/2019
17		40404	61303	I	SK8602260	EMIS ID					D-001	FT0000	FTE Detail	OPDD	7/1/2019
18		40404	36840	I	TX4422424	EMIS ID					D-001	FT0000	FTE Detail	RGJV	7/1/2019
19		40404	36840	I	OO2002282	EMIS ID					D-001	FT0000	FTE Detail	OPDD	7/1/2019
20		40404	36840	I	OO2002282	EMIS ID					D-001	FT0000	FTE Detail	RGJV	7/1/2019
21		40404	36840	I	OO2002282	EMIS ID					D-001	FT0000	FTE Detail	OPDD	7/1/2019
22		40404	61303	I	OO2002282	EMIS ID					D-001	FT0000	FTE Detail	RGJV	8/1/2019
23		40404	36840	I	QX4480840	EMIS ID					D-001	FT0000	FTE Detail	RGJV	10/21/2019
											D-001	FT0000	FTE Detail	RGJV	10/28/2019
											D-001	FT0000	FTE Detail	RGJV	10/28/2019
											D-001	FT0000	FTE Detail	RGJV	7/1/2019

Create PivotTable

Choose the data that you want to analyze

Select a table or range

Table/Range: 'FTE Detail DEMO for PivotTable'!\$A\$1:\$S\$15

Use an external data source

Choose where you want the PivotTable report to be placed

New Worksheet

Existing Worksheet

Location:

Choose whether you want to analyze multiple tables

Add this data to the Data Model

OK Cancel

PivotTable Fields

The screenshot displays the Microsoft Excel interface with the PivotTable Fields task pane open on the right. The task pane contains a search bar and a list of fields with checkboxes. Below the list are four drag-and-drop areas labeled Filters, Columns, Rows, and Values. A new worksheet tab labeled 'Sheet1' is visible at the bottom of the window. A text box in the center of the screen contains the text 'We will select PivotTable Fields next'. Another text box at the bottom left contains the text 'When inserting a PivotTable using the defaulted options, a new worksheet tab is opened'. An arrow points from the text box at the bottom left to the 'Sheet1' tab, and another arrow points from the text box in the center to the PivotTable Fields task pane.

We will select PivotTable Fields next

When inserting a PivotTable using the defaulted options, a new worksheet tab is opened

Select PivotTable Fields

PivotTable Fields

Choose fields to add to report:

Search

- LEA IRN
- LEVEL 2 REC TYPE CODE
- RESULT CODE
- RESULT CODE DESCR
- FTE FUND PTRRN CODE
- ENRL START DATE
- ENRL END DATE
- ORIG FTE
- ADJSTD FTE
- ADJSTD SPECED CAT FTE
- LEGAL DIST OF RES IRN
- STDNT PCT OF TIME
- SENT REASON 1
- SENT REASON 1 PCT

Drag fields between areas below:

Filters

Columns

Rows

Values

Defer Layout Update Update

1. Click and drag fields into the PivotTable areas below

PivotTable Fields

Choose fields to add to report:

Search

- LEA IRN
- LEVEL 2 REC TYPE CODE
- RESULT CODE
- RESULT CODE DESCR
- FTE FUND PTRRN CODE
- ENRL START DATE
- ENRL END DATE
- ORIG FTE
- ADJSTD FTE
- ADJSTD SPECED CAT FTE
- LEGAL DIST OF RES IRN
- STDNT PCT OF TIME
- SENT REASON 1
- SENT REASON 1 PCT

Drag fields between areas below:

Filters

Rows

Value Field Settings...

Defer Layout Update Update

2. If Values do not appear as "Sum of" select the dropdown arrow, then "Value Field Settings"

Value Field Settings

Source Name: ADJSTD SPECED CAT FTE

Custom Name: Sum of ADJSTD SPECED CAT FTE

Summarize Values By Show Values As

Summarize value field by

Choose the type of calculation that you want to use to summarize data from the selected field

- Sum
- Count
- Average
- Max
- Min
- Product

Number Format OK Cancel

3. Then select "Sum" and "OK"

PivotTable

3	Row Labels	Sum of ORIG FTE	Sum of ADJSTD FTE	Sum of ADJSTD SPECED CAT FTE
4	ATSM	1	1	
5	FULL	1	1	
6	COMM	6.030813	6.030813	
7	FULL	6.030813	6.030813	
8	JPSN	1	1	
9	FULL	1	1	
10	NFRG	62.823623	0	0
11	NONE	62.823623	0	0
12	OJVR	4.609997	4.609997	0.465148
13	NONE	4.153031	4.153031	0.428182
14	PART	0.456966	0.456966	0.036966
15	OPDD	224.989759	224.955585	12.959914
16	FULL	54.214431	54.21112	2.300633
17	NONE	170.775328	170.744465	10.659281
18	OPID	3.873032	3.873032	0.24
19	PART	3.873032	3.873032	0.24
20	PSET	9.994013	8.834327	8.834327
21	FULL	9.994013	8.834327	8.834327
22	PSOP	1.28	0.78	0.78
23	NONE	1.28	0.78	0.78
24	PSOT	1	0.5	0.342857
25	NONE	1	0.5	0.342857
26	PSRD	4.302174	3.1454	3.1454
27	FULL	4.302174	3.1454	3.1454
28	RGJV	609.433172	608.92514	80.844411
29	FULL	576.343107	575.835075	73.667943
30	PART	33.090065	33.090065	7.176468
31	SPCO	12.63811	12.63811	12.63811
32	FULL	8.88811	8.88811	8.88811
33	NONE	3.75	3.75	3.75
34	Grand Total	942.974693	876.292404	120.250167

Inclusions codes typically indicate where funding is initially going

- FULL and PART indicate that your LEA is initially receiving funding
- NONE indicates that the funding is initially going to another LEA

Click on specific values to drill into the detailed data

Refer to the FTE Detail Report Explanation For definitions of Fund Pattern Codes

FTE Report Explanation – FTE Fund Patterns

FTE Fund Pattern Code	FTE Fund Pattern Code Description	Detailed FTE Fund Pattern Code Description
PSIT	Preschool – ESC educating via an intermediate district, funds transferred to ESC	A resident of District means other than to an ESC. Agreed to ESC.
RGJV	Regular/Other District and Regular JVSD	This is the broadest category and covers resident student and other situations such as: Foster Placement, Following District Employee, Senior Year, and also includes students coded with the 'CE' Sent Reason. This includes students from JVSD that are not reported Vocational.
SBDD	School age educated at County Board of Developmental Disabilities	
SPCO	Special Ed Co-Op	Students reported by students.
STEM	STEM District Student	Students reported by a STEM district
****	The default value	If no other code fits, then '****' will appear in the FTE Fund Pattern Code column

This is a small section of the FTE Fund Pattern Code section of the report explanation

Use this information to learn what attending situations your LEA has and if the funding is flowing as expected

Pivot Table Filter

	A	B	C	D	E
1					
2					
3	Row Labels	Sum of ORIG FTE	Sum of ADJSTD FTE	Sum of ADJSTD SPECED CAT FTE	
	Select field:			1	
	FTE FUND PTRN CODE			1	
	A Z Sort A to Z	6.030813			
	Z A Sort Z to A	6.030813			
	More Sort Options...	1			
	Clear Filter From "FTE FUND PTRN CODE"	0		0	
	Label Filters	4.609997	0.465148		
	Value Filters	4.153031	0.428182		
	Search	0.456966	0.036966		
	<input checked="" type="checkbox"/> (Select All)	224.959914	12.959914		
	<input checked="" type="checkbox"/> ATSM	54.21112	2.300633		
	<input checked="" type="checkbox"/> COMM	170.744465	10.659281		
	<input checked="" type="checkbox"/> JPSN	3.873032	0.24		
	<input checked="" type="checkbox"/> NFRG	3.873032	0.24		
	<input checked="" type="checkbox"/> OJVR	8.834327	8.834327		
	<input checked="" type="checkbox"/> OPDD	8.834327	8.834327		
	<input checked="" type="checkbox"/> OPID	0.78	0.78		
	<input checked="" type="checkbox"/> PSET	0.78	0.78		
		0.5	0.342857		
		0.5	0.342857		
		3.1454	3.1454		
27	FULL	4.302174	3.1454	3.1454	
28	RGJV	609.433172	608.92514	80.844411	
29	FULL	576.343107	575.835075	73.667943	
30	PART	33.090065	33.090065	7.176468	
31	SPCO	12.63811	12.63811	12.63811	
32	FULL	8.88811	8.88811	8.88811	
33	NONE	3.75	3.75	3.75	
34	Grand Total	942.974693	876.292404	120.250167	

Filter on Row Labels and select just the Fund Pattern Codes you would like to see, then click "OK"

	Row Labels	Sum of ORIG FTE	Sum of ADJSTD FTE	Sum of ADJSTD SPECED CAT FTE
3				
4	ATSM	1	1	
5	FULL	1	1	
6	JPSN	1	1	
7	FULL	1	1	
8	SPCO	12.63811	12.63811	12.63811
9	FULL	8.88811	8.88811	8.88811
10	NONE	3.75	3.75	3.75
11	Grand Total	14.63811	14.63811	12.63811

In this example only ATSM, JPSN, and SPCO were selected in the filter

Quick Check

PivotTables can provide a summary of a large amount of data that allows the data to be analyzed in smaller sections. Try using Recommended PivotTables to view different ways to analyze your data.

- Are you able to create a PivotTable and drill into the detailed data?
- What other fields in the FTE Report could be brought into a PivotTable?
- Can you think of other reports that could be analyzed using PivotTables?

Summary

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

Resources

- Access previous EMIS Alliance sessions
 - <https://community.mcoecn.org/display/EM/EMIS+Alliance+Public+Space>
- Microsoft Excel Help within Excel “?” Articles and Videos
- Google it
- Microsoft Excel Classes
- Your ITC

Questions?