

Using Excel for Organizing

Part 2

While we wait to begin, please:

1

Rename yourself:
Name/State/Pronouns
(Sam/GA-his/him)

2

Download data set

3

Complete the analogy
in the chat.

"I am to excel, as a
duck is to..."

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Land Acknowledgement

We begin by acknowledging that through a history of colonization and brutality, we are currently on the traditional lands stewarded by generations of the Indigenous people.

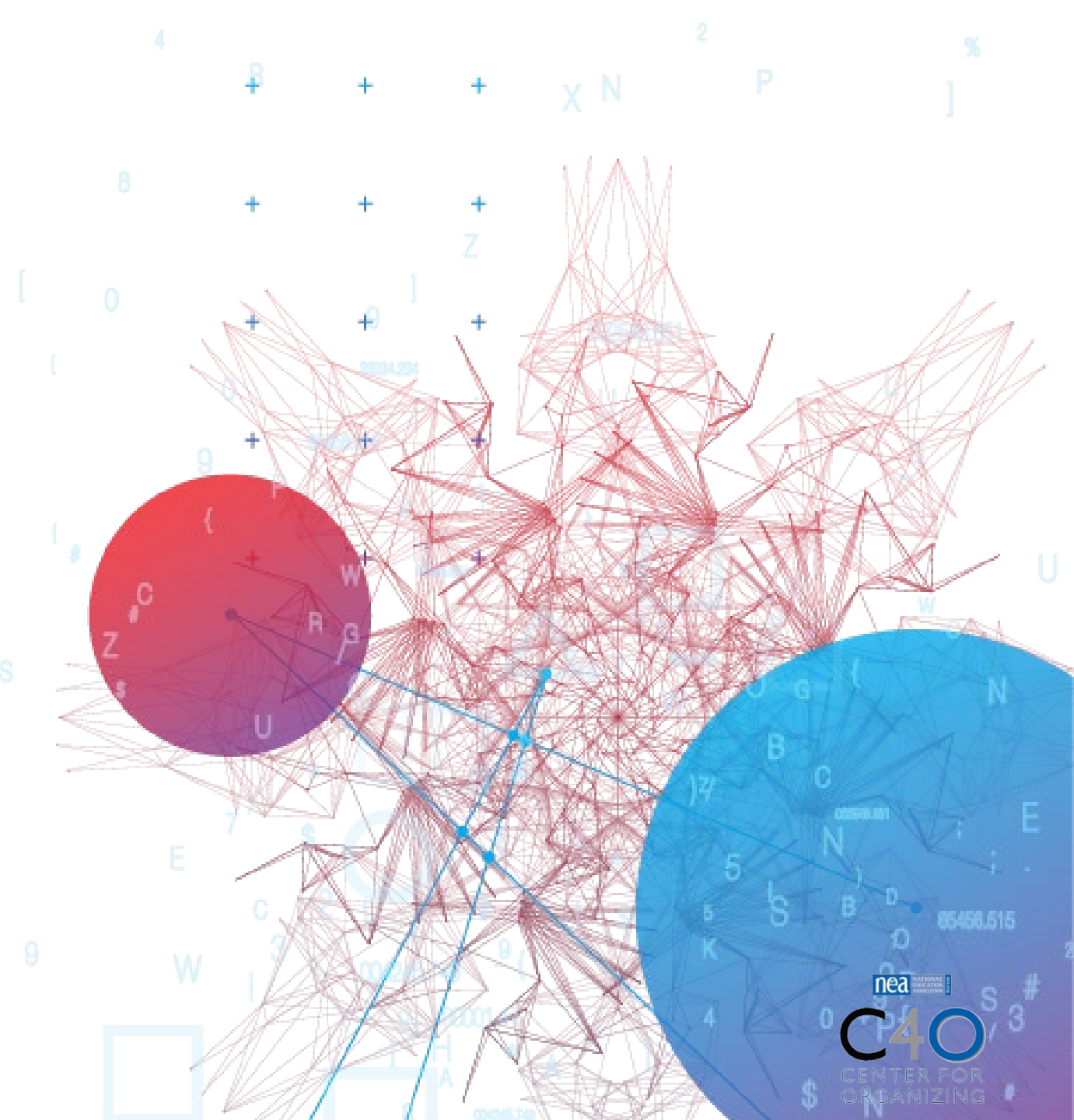
We honor these Indigenous people, all elders, past, present, and emerging. We are called to learn and share these learnings about this tribal history, culture, and contributions that have been suppressed in the telling of the story of what we now call the United States of America.



Series Overview

- October 10, 2024
Part 1: Evaluating membership data
- December 5, 2024
Part 2: Analyzing your power
- May 15, 2024
Part 3: Disseminating information

Each session is 2:30pm-4:00pm EST

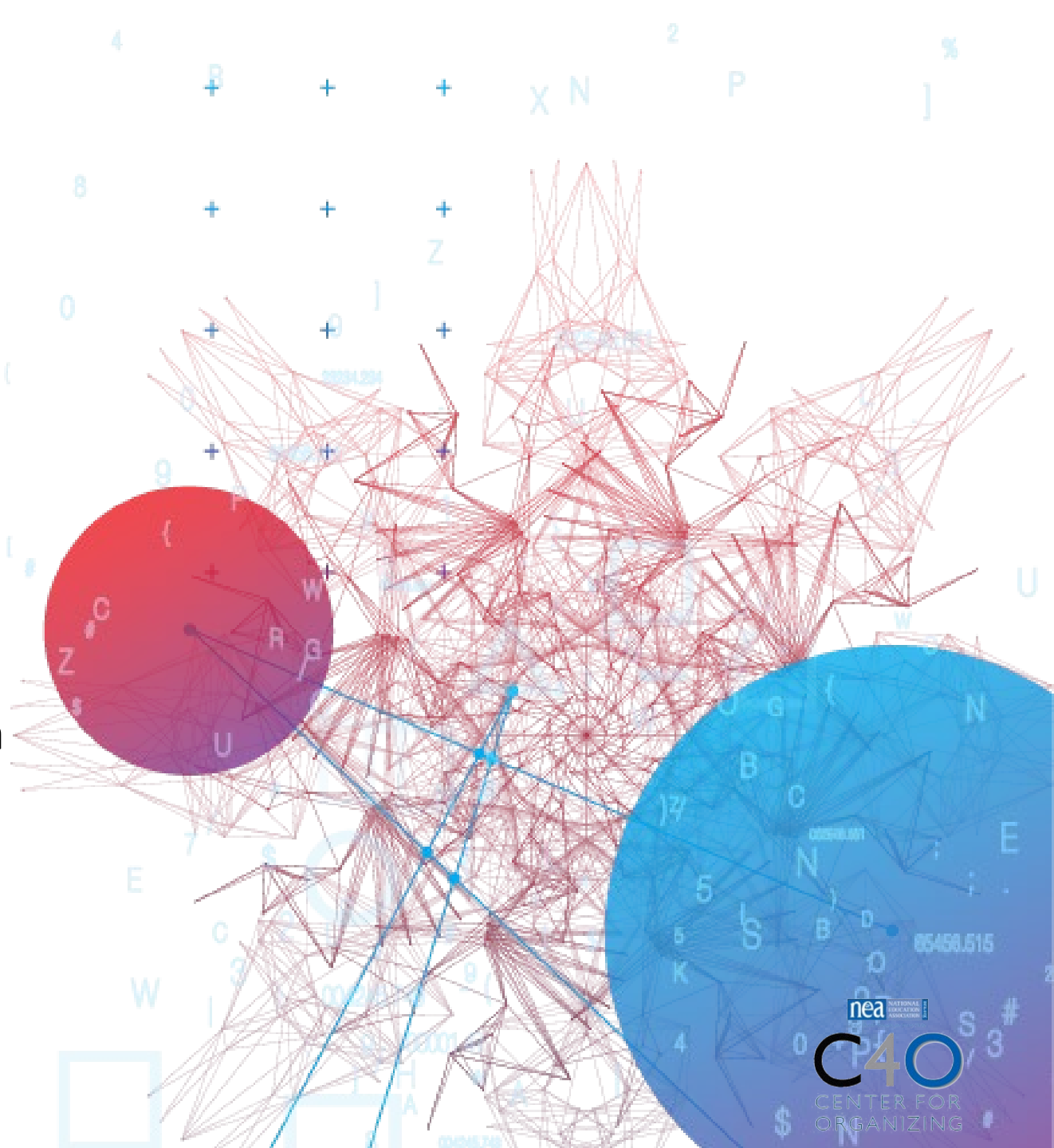


Today's Agenda

- How to manipulate and evaluate the data derived in the field

Session Outcomes

- Explore benefits of using Excel to analyze data
- Explore the features within Excel that can assist with organizing
- Practice using the features within Excel
 - Pivot Tables
 - Goal Seeking
 - Bonus content: 3D Mapping

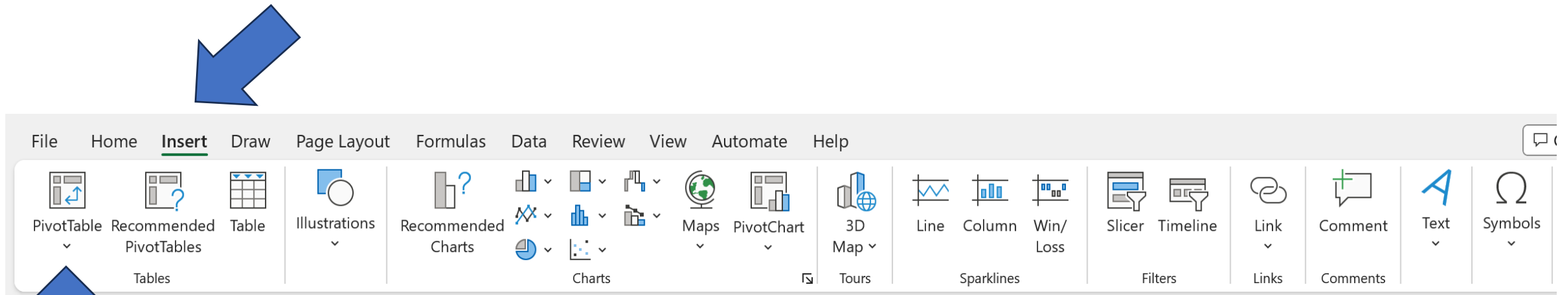


Pivot Tables

Benefits of Pivot Tables

- Summarizes large data sets quickly
- Automatically updates

How to Create A Pivot Table



- Insert Tab
- Click PivotTable

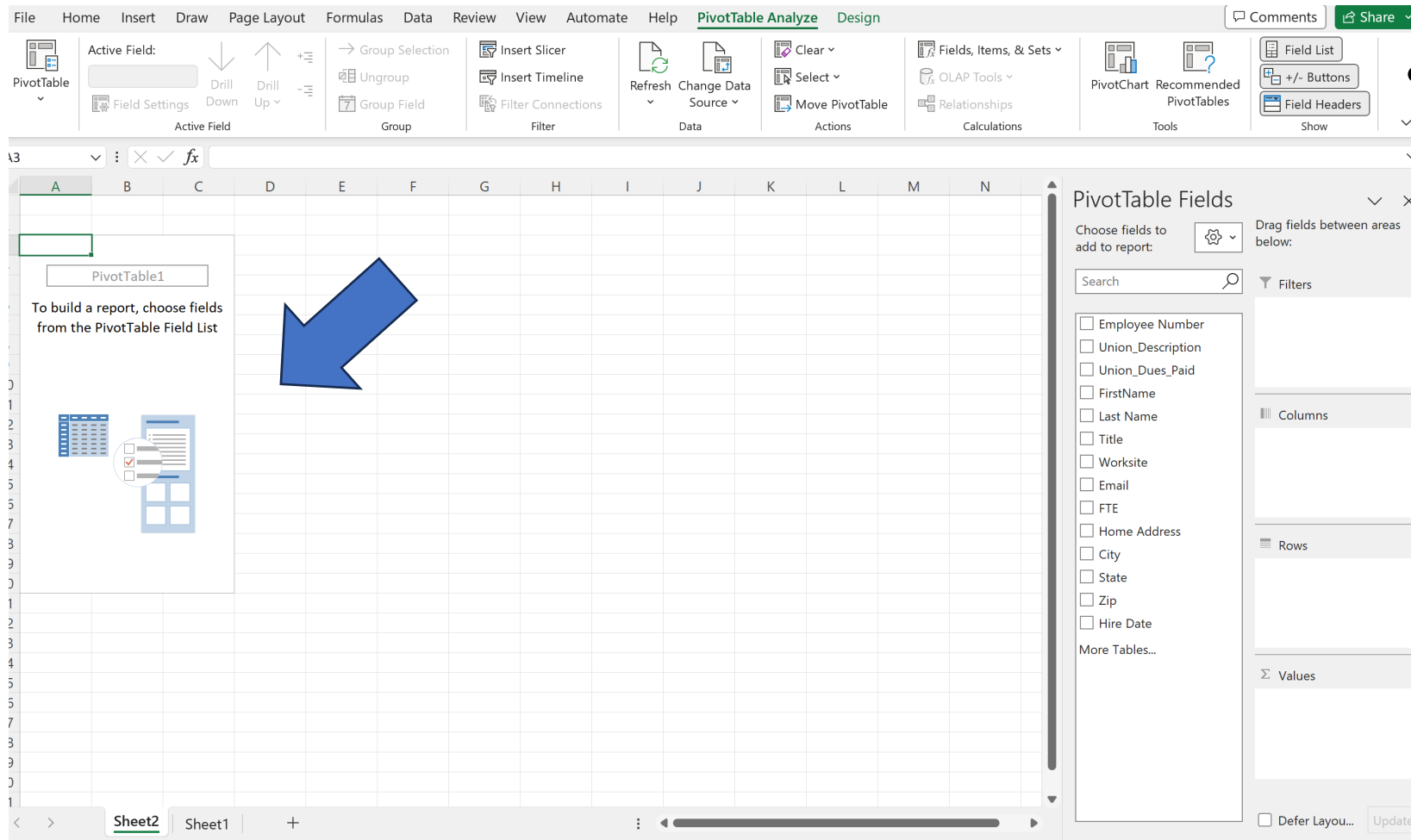
How to Create A Pivot Table

The screenshot shows the Microsoft Excel interface with the 'Insert' tab selected. The 'Tables' group contains the 'PivotTable' icon, which is highlighted by a blue arrow. The 'PivotTable from table or range' dialog box is open, showing the 'Table/Range' as 'Sheet1!\$A\$1:\$N\$303'. The 'Choose where you want the PivotTable to be placed' section has 'New Worksheet' selected. The 'Choose whether you want to analyze multiple tables' section has 'Add this data to the Data Model' unchecked. The 'OK' button is highlighted by a blue arrow.

Employee Number	Union_Description	Union
79	ESP	Yes
169	CERTIFICATED	Yes
238	CERTIFICATED	Yes
241	CERTIFICATED	Yes
223	CERTIFICATED	No
235	CERTIFICATED	Yes
220	CERTIFICATED	Yes
236	CERTIFICATED	No
176	CERTIFICATED	Yes
15	ESP	No
216	CERTIFICATED	Yes

- Pop-up window will appear asking for the data set being analyzed
- The table range default is the active table.
- Recommendation: place the PivotTable in New Worksheet
- Select OK

How to Create A Pivot Table



- This is where you identify the data that is to be summarized.

How to Create A Pivot Table

The screenshot displays the Microsoft Excel interface with the 'PivotTable Analyze' tab selected. A PivotTable is set up with 'Row Labels' and 'Count of Hire Date'. The data is as follows:

Row Labels	Count of Hire Date
ADMIN SECRETARY I	1
ADMIN SECRETARY II	1
ADMIN SECRETARY III	19
ART-ELEMENTARY	2
ART-SECONDARY	1
BENEFIT & RETIREMENT REPRESENTATIVE	1
BUSINESS EDUCATION	1
CAREER RESEARCH & DEVELOPMENT	2
CLERK II	1
CLERK IV	2
CONSULTING TEACHER	1
ELEMENTARY CLASSROOM	20
ENGLISH - HIGH SCHOOL	7
ENGLISH - MIDDLE SCHOOL	1
ENGLISH TEACHER	2
ESOL	5
FISCAL ASSISTANT I	4
FRENCH TEACHER	2
KINDERGARTEN TEACHER	4
LEAD CLERK	1
LIB SCI,MEDIA-ELEMENTARY	4
LIB SCI,MEDIA-SECONDARY	3
MATH TEACHER	1
MATH TEACHER-HIGH SCHOOL	2
MATHEMATICS - HIGH SCHOOL	6
MATHEMATICS - MIDDLE SCHOOL	4
MUSIC INSTRUM-ELEMENTARY	3
MUSIC INSTRUM-SECONDARY	2

The 'PivotTable Fields' task pane on the right shows the following configuration:

- Choose fields to add to report:** Search bar, Filters (empty), Columns (empty), Rows (Title), Values (Count of Hire Date).
- Fields List:** Employee Number, Union_Description, Union_Dues_Paid, FirstName, Last Name, Title (checked), Worksite, Email, FTE, Home Address, City, State, Zip, Hire Date (checked).

Two blue arrows point from the 'Title' and 'Hire Date' fields in the task pane to the 'Row Labels' and 'Count of Hire Date' headers in the PivotTable, respectively.

- In this example determine how many people within the bargaining unit are in each job title.
- What are the top 3 represented job titles?
- What are the least represented job titles?

How to Create A Pivot Table

The screenshot shows an Excel spreadsheet with a PivotTable. The PivotTable has 'Row Labels' and 'Count of Union_Dues_Paid'. The data is as follows:

Row Labels	Count of Union_Dues_Paid
ADMIN SECRETARY I	1
Yes	1
ADMIN SECRETARY II	1
Yes	1
ADMIN SECRETARY III	19
Yes	11
No	8
ART-ELEMENTARY	2
Yes	1
No	1
ART-SECONDARY	1
Yes	1
BENEFIT & RETIREMENT REPRESENTATIVE	1
Yes	1
BUSINESS EDUCATION	1
Yes	1
CAREER RESEARCH & DEVELOPMENT	2
Yes	1
No	1
CLERK II	1
Yes	1
CLERK IV	2
Yes	2
CONSULTING TEACHER	1
No	1
ELEMENTARY CLASSROOM	20
Yes	13
No	7

The PivotTable Fields task pane on the right shows the following configuration:

- Choose fields to add to report: Search
- Filters: (empty)
- Columns: (empty)
- Rows: Title, Union_Dues_Paid
- Values: Count of Union_Dues_Paid

Two blue arrows point from the 'Title' and 'Union_Dues_Paid' fields in the task pane to the corresponding columns in the PivotTable.

- In this example determine how many people are members based on job title.
- Which job title has the most membership?
- Which job title has the most potential?

How to Create A Pivot Table

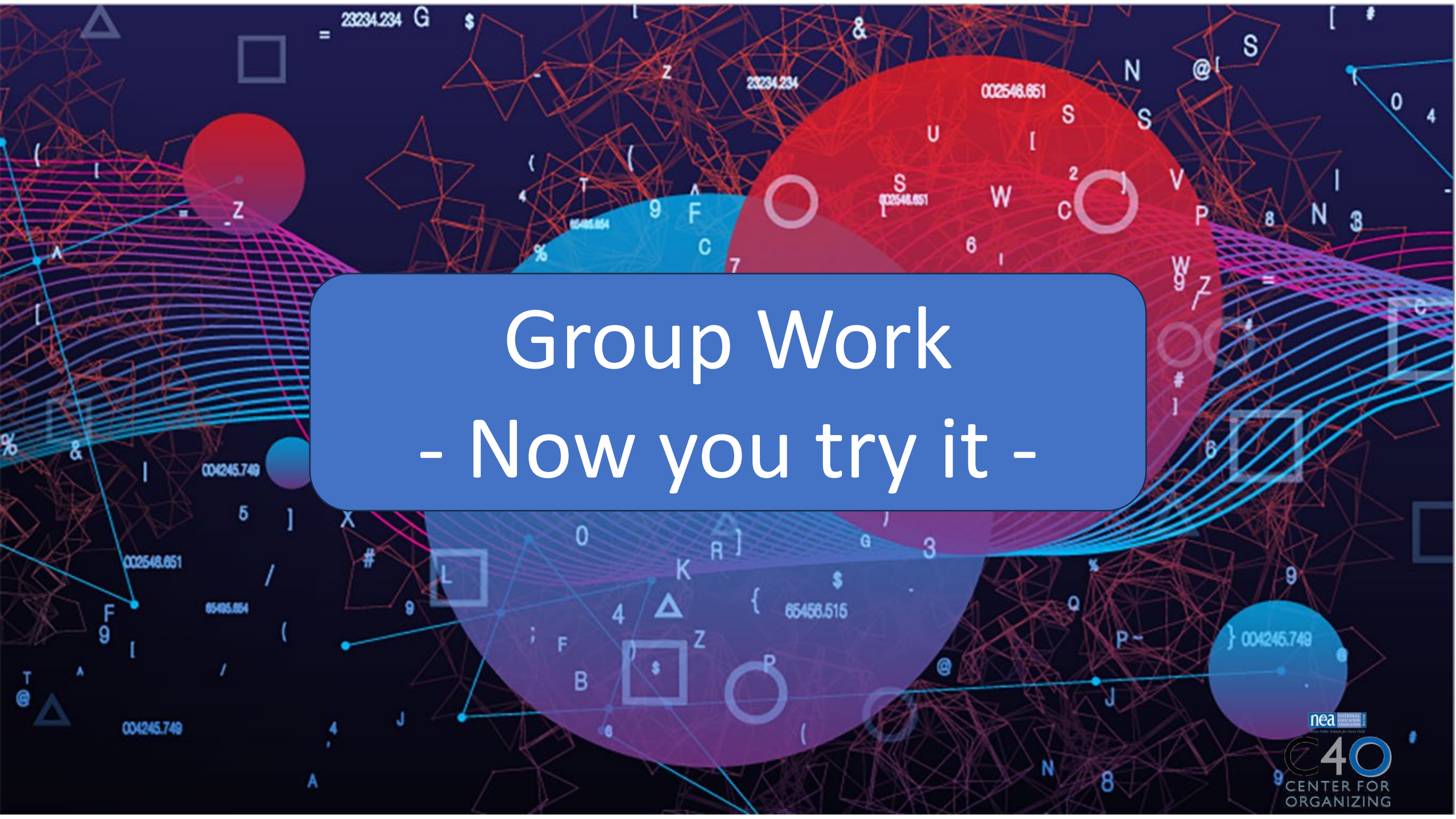
The screenshot shows an Excel spreadsheet with a PivotTable and the PivotTable Fields task pane. The PivotTable is titled 'Count of Union_Dues_Paid' and has 'Row Labels' and 'Column Labels' as headers. The data is organized by job title (rows) and dues status (columns). Two blue arrows point from the job titles in the PivotTable to the 'Title' field in the task pane, indicating the field used for the row labels.

Count of Union_Dues_Paid	Column Labels	No	Grand Total
ADMIN SECRETARY I	Yes	1	1
ADMIN SECRETARY II	Yes	1	1
ADMIN SECRETARY III	Yes	11	8
ART-ELEMENTARY	Yes	1	1
ART-SECONDARY	Yes	1	1
BENEFIT & RETIREMENT REPRESENTATIVE	Yes	1	1
BUSINESS EDUCATION	Yes	1	1
CAREER RESEARCH & DEVELOPMENT	Yes	1	1
CLERK II	Yes	1	1
CLERK IV	Yes	2	2
CONSULTING TEACHER	Yes	1	1
ELEMENTARY CLASSROOM	Yes	13	7
ENGLISH - HIGH SCHOOL	Yes	7	7
ENGLISH - MIDDLE SCHOOL	Yes	1	1
ENGLISH TEACHER	Yes	1	1
ESOL	Yes	4	1
FISCAL ASSISTANT I	Yes	2	2
FRENCH TEACHER	Yes	1	1
KINDERGARTEN TEACHER	Yes	4	4
LEAD CLERK	Yes	1	1
LIB SCI,MEDIA-ELEMENTARY	Yes	4	4
LIB SCI,MEDIA-SECONDARY	Yes	2	1
MATH TEACHER	Yes	1	1
MATH TEACHER-HIGH SCHOOL	Yes	2	2
MATHEMATICS - HIGH SCHOOL	Yes	4	2
MATHEMATICS - MIDDLE SCHOOL	Yes	3	1
MUSIC INSTRUM-ELEMENTARY	Yes	3	3

PivotTable Fields task pane:

- Choose fields to add to report: Search
- Filters: Employee Number, Union_Description, ☒ Union_Dues_Paid, FirstName, Last Name
- Columns: Union_Dues_Paid
- Rows: Title
- Values: Count of Union_Dues_Paid

- In this another example determine how many people are members based on job title.
- Which job title has the most membership?
- Which job title has the most potential?

The background is a dark blue field filled with a complex network of thin, glowing red and blue lines that form a web-like structure. Scattered throughout are various geometric shapes: triangles, squares, circles, and hexagons, some in solid colors (red, blue, purple) and others as outlines. Interspersed among these are numerous alphanumeric characters and symbols, including letters (A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z), numbers (0-9), and special characters like \$, %, &, @, #, {, }, ~, ^, _., /, and =. Some of these elements are grouped together, while others stand alone. The overall effect is one of a dense, interconnected digital or mathematical space.

Group Work
- Now you try it -

- Debrief -

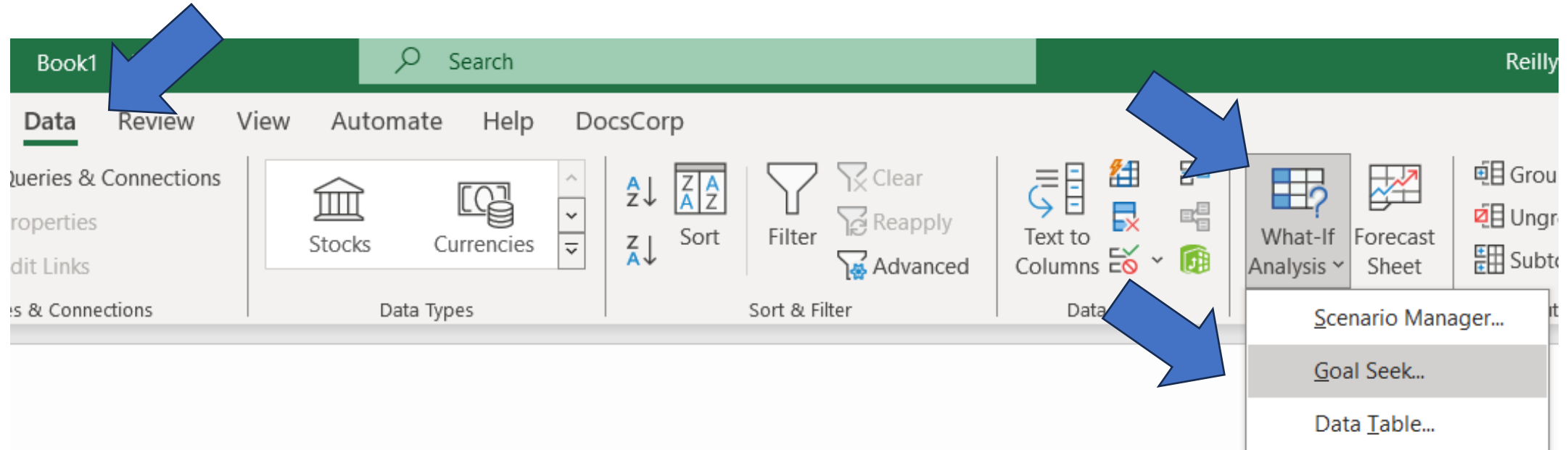
In what situations might you want to use the PivotTable feature?

Goal Seek

Benefits of Goal Seek

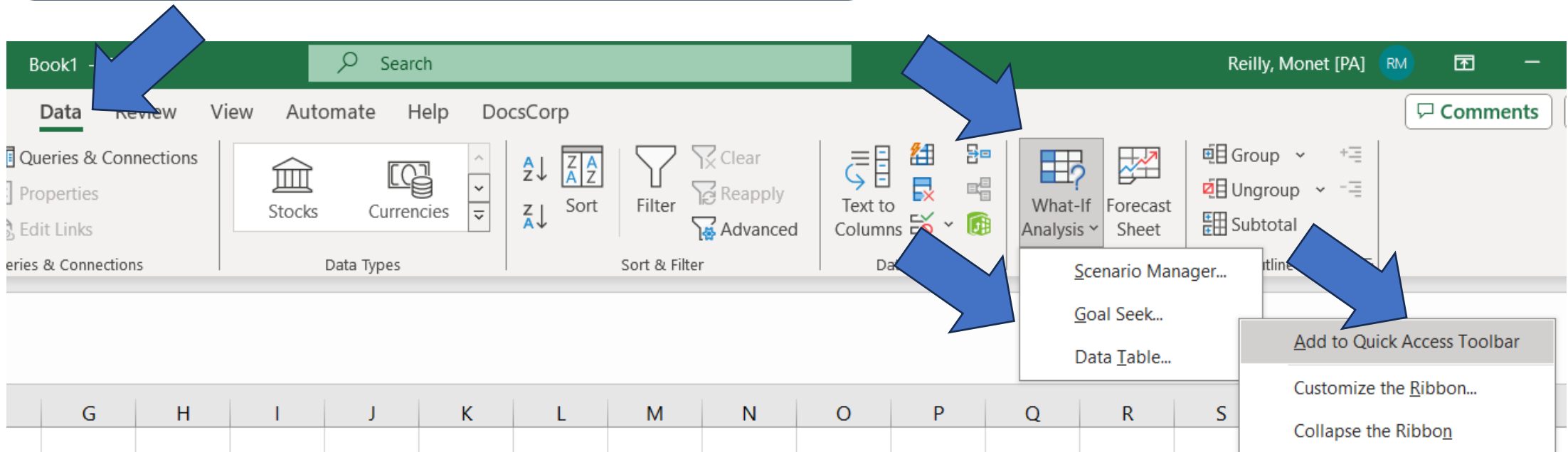
- Knowing what you want to do but not sure how to do it.
- No manual math needed.
- Quick Access Tool

Hide and Goal Seek



- Data
- What If Analysis
- Goal Seek

Hide and Goal Seek

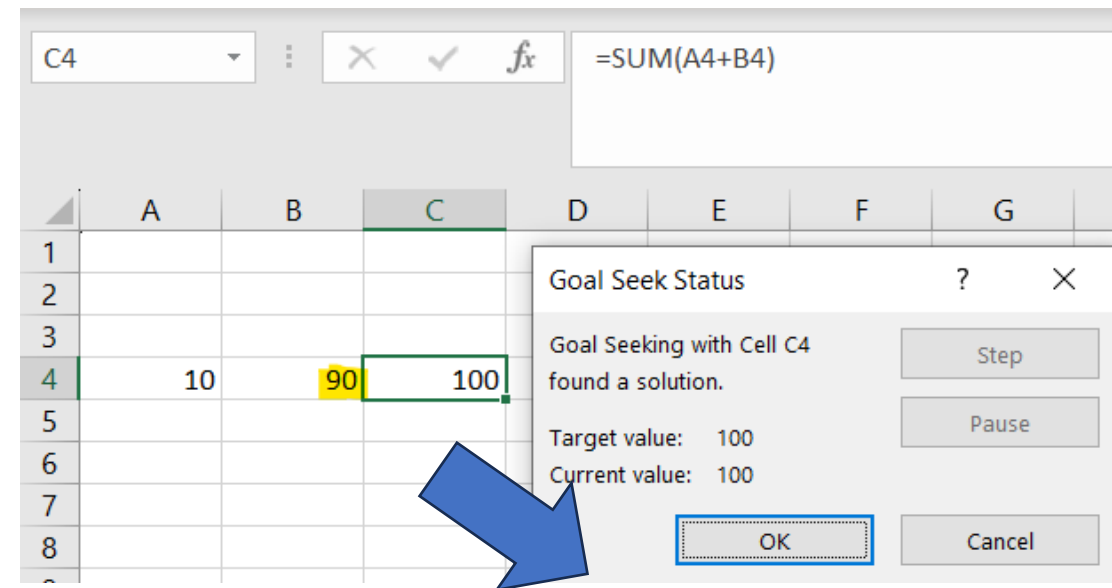
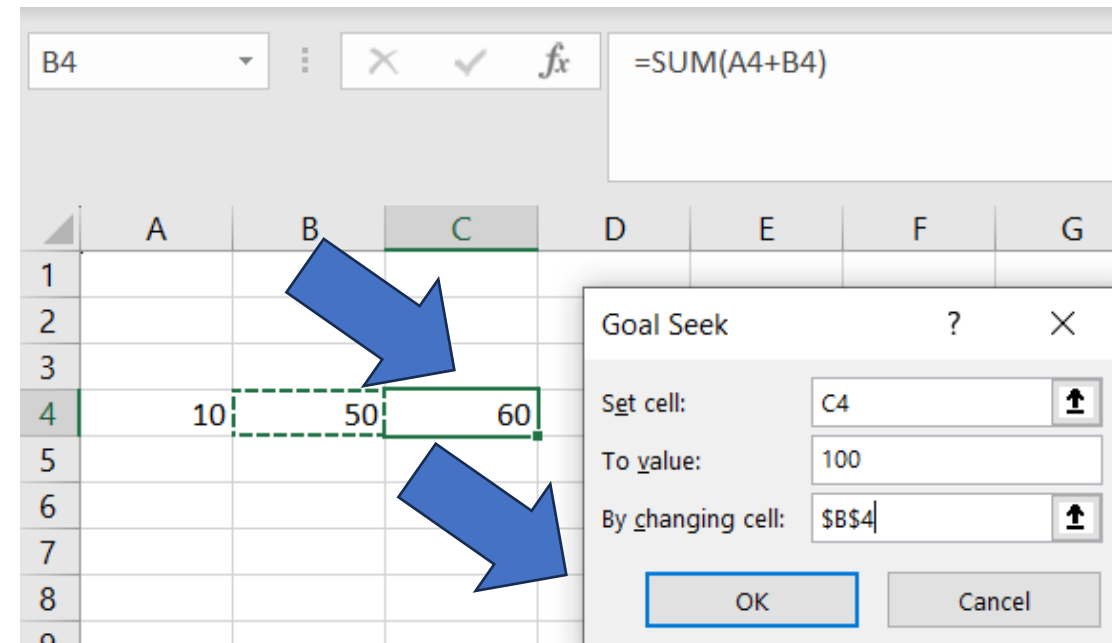


- Right Click
- Add to



How To Use Goal Seek

- Find the cell where you want your end result to be (C4.)
- Click Goal Seek
- Type what you are desiring as an end result in "To Value:" (100)
- Type what other box needs to change to do calculate the result (B4.)
- Hit OK



Directions



Open Data Sheet Titled
"Goal Seek"

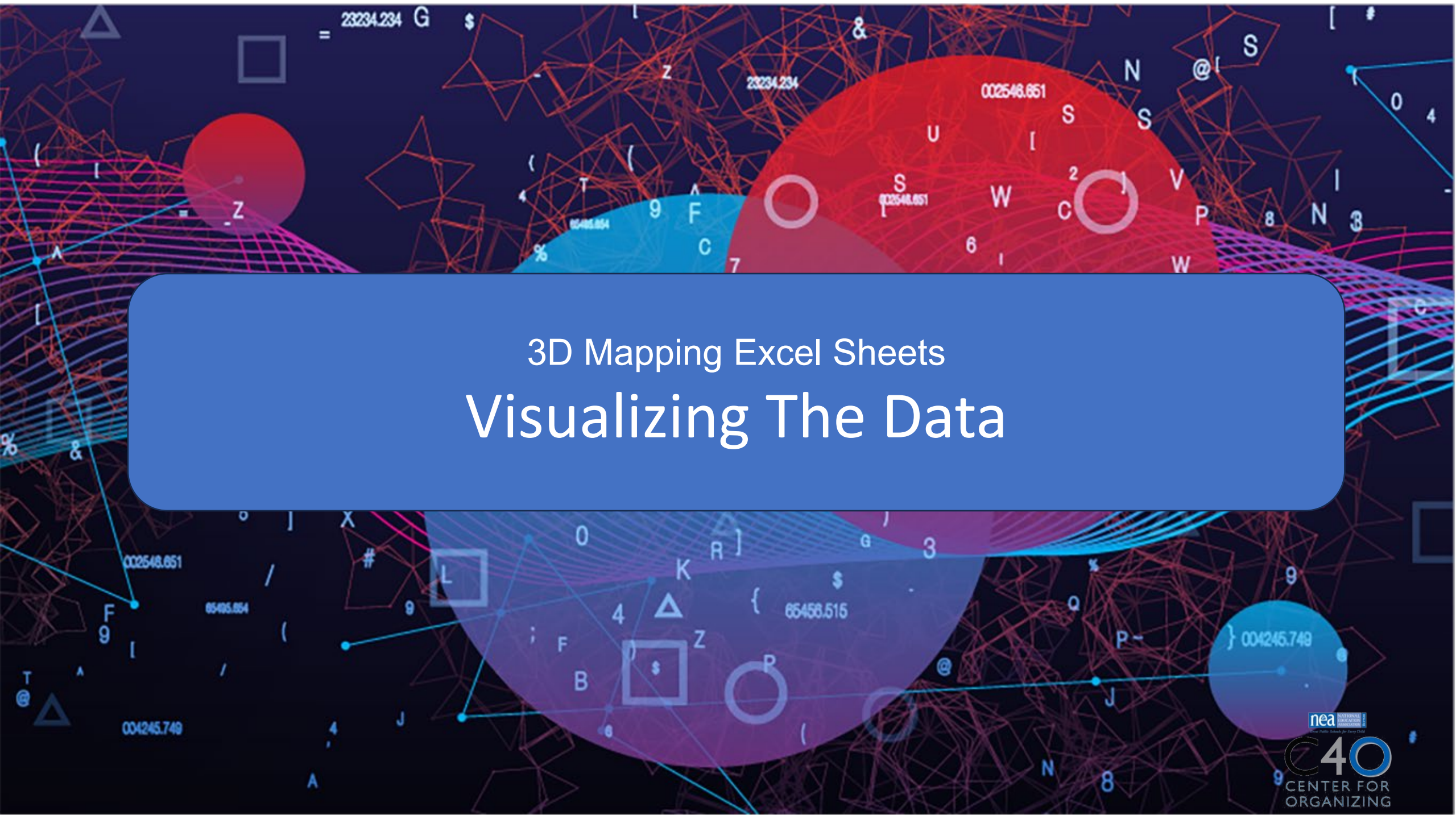


Complete all 4 Practice
Scenarios



The instructions are on
the sheet

Group Work
- Now you try it -

The background is a complex, abstract composition. It features a dark blue base with a network of thin, glowing red and orange lines that form various geometric shapes like triangles, squares, and polygons. Overlaid on this are several large, semi-transparent spheres in shades of red, orange, and blue. Scattered throughout the scene are numerous white and light blue symbols, including letters (A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z), numbers (0-9), and special characters (%, \$, @, #, {, }, ~, ^, &, <, >, =, π). Some of these symbols are enclosed within small white squares or circles. The overall effect is one of a dense, interconnected data space.

3D Mapping Excel Sheets Visualizing The Data

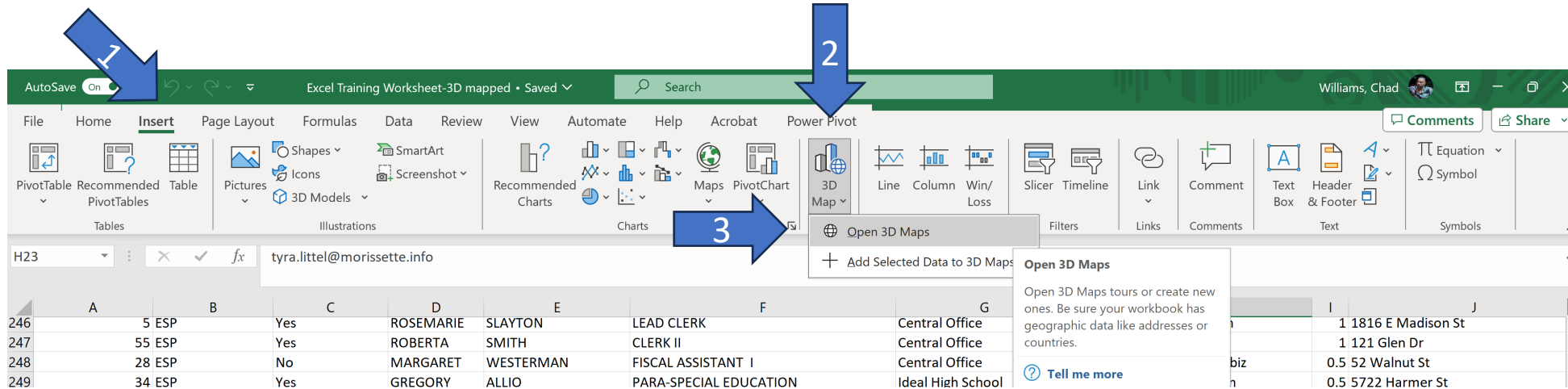
Directions



Open Data Sheet Titled
"Data Training Addresses"

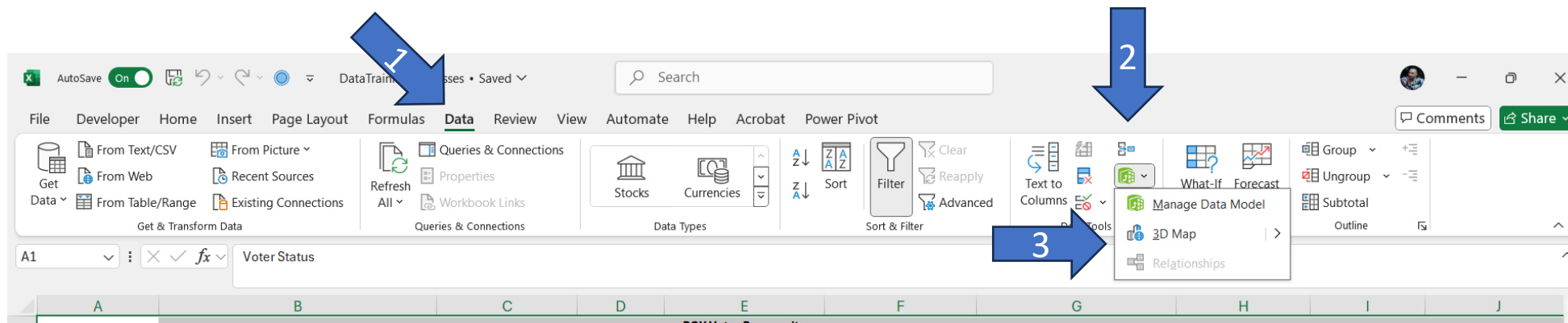
3D Mapping

Depending on your version of Office 365, you may find this feature hiding in two different places



Previous Version

1. Insert Tab
2. 3D Map
3. Open 3D Maps



Newer Version

1. Data Tab
2. Data Model
3. Open 3D Maps

3D Mapping

What is all this!?

Click on things and notice it's still just asking you which column or range you want to use

The screenshot displays the 3D Mapping software interface. At the top, a blue banner reads "3D Mapping". Below it, a toolbar contains various icons for file operations, scene management, map interaction, and data visualization. A blue arrow points to the "Street Map" view. The main map area shows a street map with numerous blue data points. A blue arrow points to the "Column Headers" in the "Field List" panel, which lists various data fields like "Date of First Membership", "Mailing City", "Mailing State Code", etc. Another blue arrow points to a tooltip that appears when hovering over a data point, showing details like "Mailing Street 2620 SIERRA AVE", "Mailing City PLAINFIELD", and "Mailing State Code IL". A third blue arrow points to the "Tour 1" panel on the left, which shows a thumbnail of the current scene. On the right side, there are several panels for layer management, data selection, and visualization options like "Location", "Height", "Category", and "Time".

Street Map

Column Headers

Mouse over info

Tour 1

Collection of views – Create new scenes to show different views of data – can animate transitions

Field List

Drag fields to the Layer Pane.

- Range
 - Date of First Membership
 - Mailing City
 - Mailing State Code
 - Mailing Street
 - Mailing Zip/Postal Code
 - PCY Voter Propensity Score
 - Political Party
 - Voter Registration Date
 - Voter State Legislative - Lower Chamber
 - Voter Status

Layer 1

Data

Location

- ☒ Mailing Street Street
- ☐ Mailing City City
- ☐ Mailing State Co... State/Province

Height

Category

Time

Filters

Layer Options

This view of data

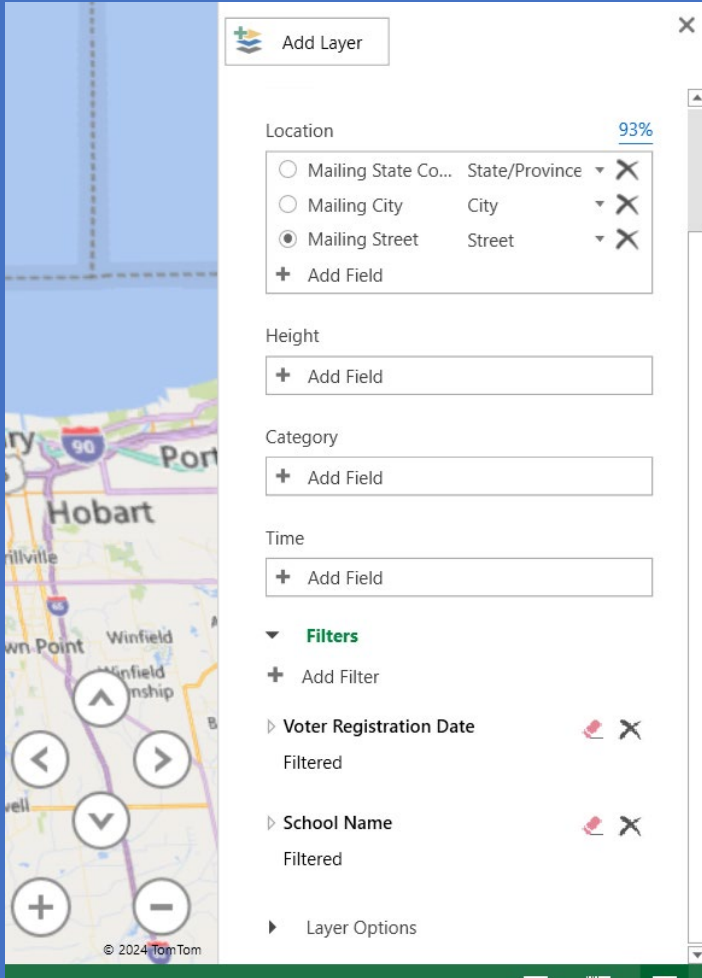
Location

Show difference

Color code by type

Remove/Include

Color / Size



Directions



Set up your location fields

3D Mapping

What is all this!?

Click on things and notice it's still just asking you which column or range you want to use

The screenshot displays the 3D Mapping software interface. At the top, a blue banner reads "3D Mapping". Below it, a toolbar contains various icons for file operations, scene management, map interaction, and data visualization. A blue arrow points to the "Street Map" view. The main map area shows a street map with numerous blue data points. A blue arrow points to the "Column Headers" in the "Field List" panel, which lists various data fields like "Date of First Membership", "Mailing City", "Mailing State Code", etc. Another blue arrow points to a tooltip that appears when hovering over a data point, showing details like "Mailing Street 2620 SIERRA AVE", "Mailing City PLAINFIELD", and "Mailing State Code IL". On the right side, a panel titled "This view of data" shows a list of data fields with checkboxes for "Location", "Height", "Category", and "Time". Below this, there are sections for "Show difference", "Color code by type", "Remove/Include", and "Color / Size". The bottom of the screen shows a Windows taskbar with various application icons and the system clock.

Street Map

Column Headers

Mouse over info

Field List

Drag fields to the Layer Pane.

- Range
 - Date of First Membership
 - Mailing City
 - Mailing State Code
 - Mailing Street
 - Mailing Zip/Postal Code
 - PCY Voter Propensity Score
 - Political Party
 - Voter Registration Date
 - Voter State Legislative - Lower Chamber
 - Voter Status

This view of data

Location

- ☒ Mailing Street Street
- ☐ Mailing City City
- ☐ Mailing State Co... State/Province

Height

Category

Time

Remove/Include

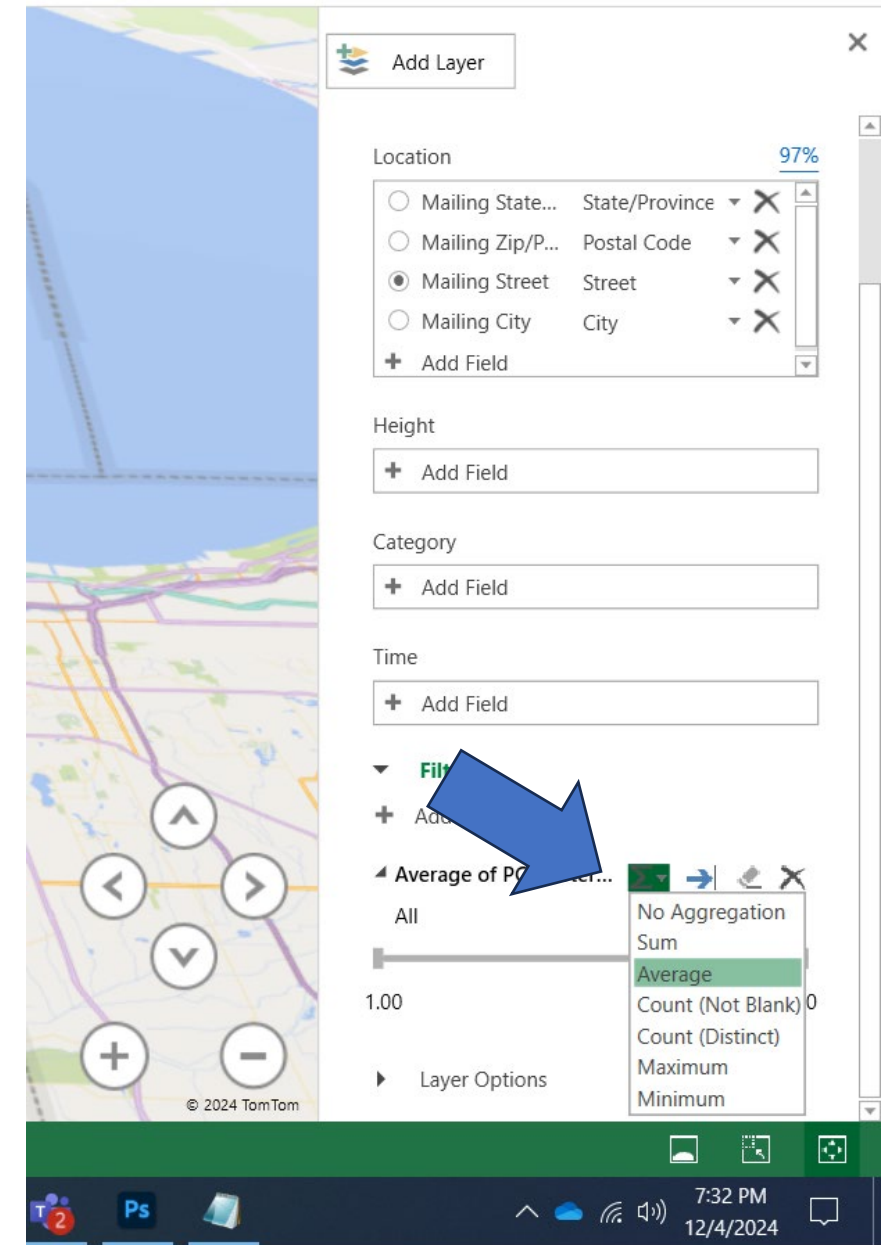
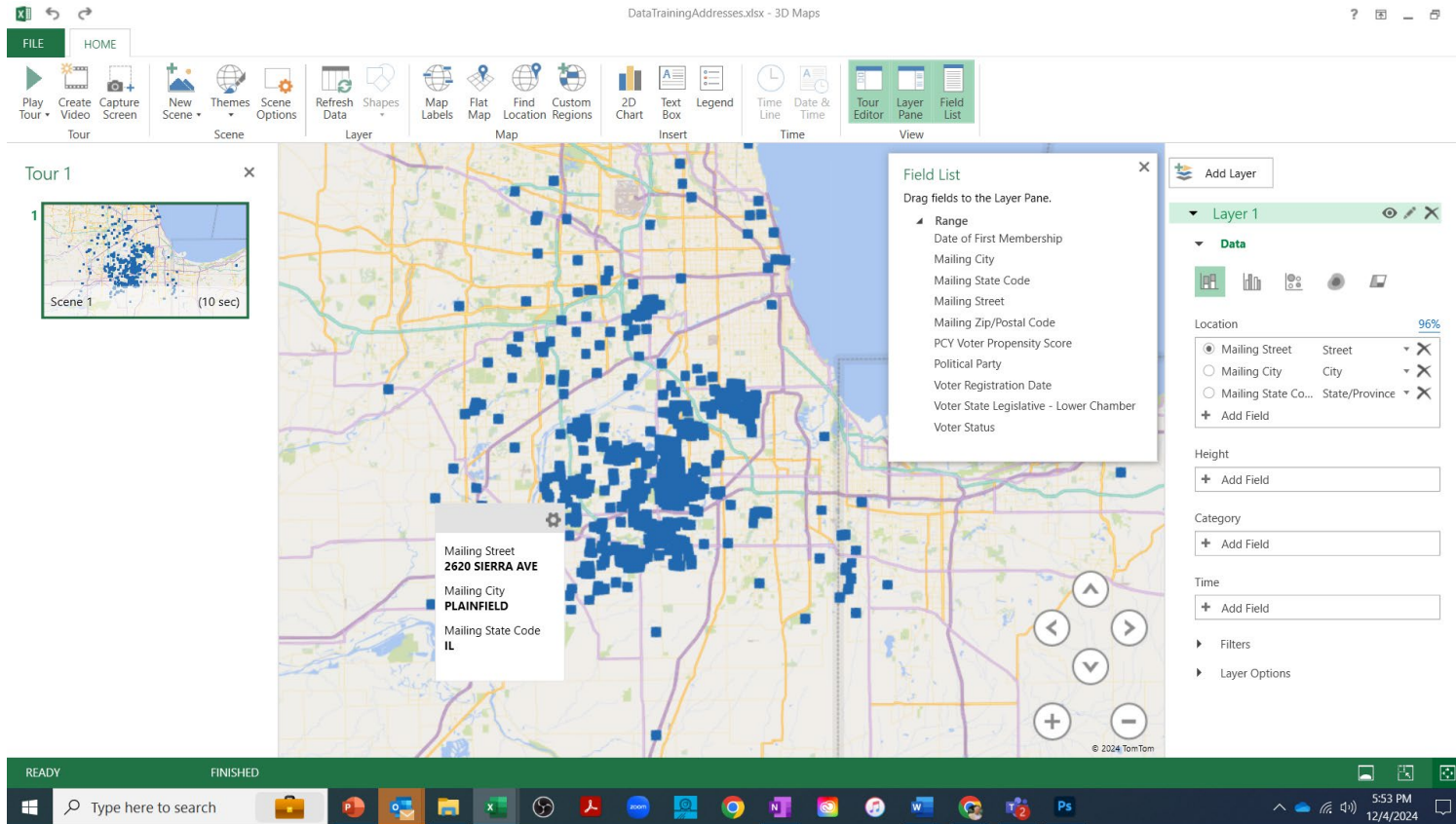
Color / Size

Collection of views – Create new scenes to show different views of data – can animate transitions

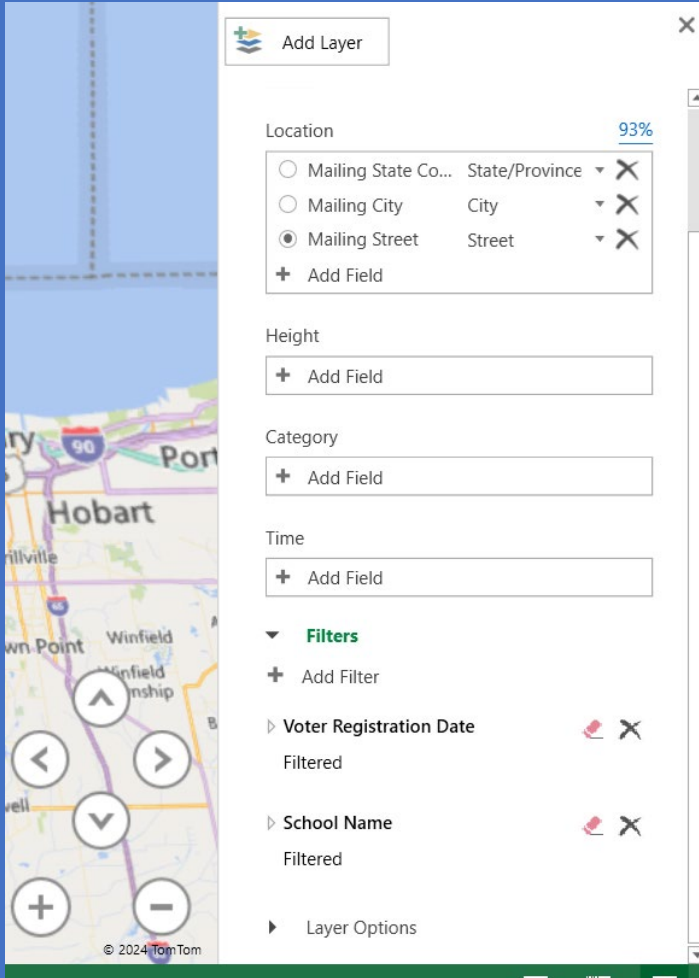
3D Mapping

How do you want to count stuff?

The SIGMA symbol determines what you want to do with all the numbers in the data



Group Work
- Now you try it -



Directions



Using just FILTERS, decide which high school's employees you would target for a door-knocking voter registration and issue campaign and why

Report out

What other mapping applications could you imagine?

Questions

Thank You - Contact Us:



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Salary Schedules

Salary Schedules

- Year one of a new schedule
- 5% overall raise inclusive of step movement
- Money to be spread evenly across schedule to minimize a jump/bump step forming
- How much money can we put on each cell to reach a 5% overall raise for this bargaining unit?

B81					
=B80/B78					
	A	B	C	D	E
73					
74	Start Increase:	\$0			
75	Career Increase:	\$0			
76	Maximum Salary Increase:	\$0			
77					
78	Previous Year total cost:	\$5,251,508.36			
79	Current year total cost:	\$5,454,126.44			
80	Dollar Increase:	\$202,618.08			
81	Percent Increase:	3.86%			
82					
83					
84					
85					
86					
87					
88					

STEP	Bachelors
1	\$50,000
2	\$52,273
3	\$54,545
4	\$56,818
5	\$59,091
6	\$61,364
7	\$63,636
8	\$65,909
9	\$68,182
10	\$70,454
11	\$72,727
12	\$75,000

Salary Schedules

- Each cell can increase \$772.64 in addition to step movement for an overall 5% raise.

B81 $\times$ $\checkmark$ f_x =B80/B78									
	A	B	C	D	E	F	G	H	I
73									
74	Start Increase:	\$773		2024-2025					
75	Career Increase:	\$773		STEP		Bachelors	BA+21	Masters	Ma+15
76	Maximum Salary Increase:	\$773		1		\$50,773			
77				2		\$53,045			
78	Previous Year total cost:	\$5,251,508.36		3		\$55,318			
79	Current year total cost:	\$5,514,083.78		4		\$57,591			
80	Dollar Increase:	\$262,575.42		5		\$59,864			
81	Percent Increase:	5.00%		6		\$62,136			
82				7		\$64,409			
83				8		\$66,682			
84				9		\$68,954			
85				10		\$71,227			
86				11		\$73,500	\$82,773	\$87,773	\$92,773
87				12		\$75,773	\$85,773	\$90,773	\$95,773
88						772.646108			

Goal Seek Status

Goal Seeking with Cell B81
found a solution.

Target value: 0.05
Current value: 5.00%

OK

Cancel