

Microsoft Excel  
Session 5:

# PIVOT TABLES & COLLABORATION

# Agenda

- Basic Problem: Summarize Data
- Review: Subtotals
- Review: SUMIF
- Review: Excel Tables
- Pivot Tables
- Nested Functions
- Collaboration Tools

# How to Summarize a Table?

1. Subtotals
2. SUMIF
3. Excel Tables

# Review: The Subtotal Tool

- Sort the data by the desired column
- Click **Data > Subtotal.**
- For **At each change in**, choose the desired column.
- Choose desired function (e.g., **Average**)
- Select the column to be calculated.
- To remove the Subtotals
  - Click **Data > Subtotals > Remove All**

# Review: SUMIF

- Adds up only certain data

SUMIF(*Criteria\_range*, *Criteria*, *Sum\_range*)

# Review: Excel Tables

- “Formatted Tables”
- Click: Format as Table
- Combines Format & Functionality

# Excel Table Functionality

- Totals without formulas (Total Row)
- Easy Filtering and Subtotals
- Column Headers stay visible
- Automatic Names for Table and Columns
- Dynamic: expand automatically
- Formulas fill a column automatically
- Easy Filtered Charts

# Converting a Table Back to a Range

*That is, remove the special functionality*

- Click any cell in the table
- Click **Table Tools Design > Convert to range**



# How to Summarize a Table?

1. Subtotals
2. SUMIF
3. Excel Tables
4. ????

What Is the Best Way to Summarize Data?

# Pivot Tables

# The Pivot Table

- Great way to compare groups of data
- Has a bad reputation
- But is very easy!

# Creating a Pivot Table

1. Click any cell within a table of data.
2. Click **Insert > PivotTable**
3. In **Create PivotTable** dialog box, click **OK**.
4. Drag desired fields (Columns) to either the **Columns** or **Rows** box.
5. Drag a numeric field to **Values** box.

# Refreshing a Pivot Table

*Warning: Pivot Tables do not automatically recalculate*

*You must manually refresh the table*

1. Rt-click any cell in the PivotTable.
2. Choose **Refresh**

# Nested Functions

- One function inside another

=ROUND(AVERAGE(B4:B8),0)

# Nested IF Functions

- Chooses among 3 options

```
=IF(C3="CT",6.35%,IF(C3="RI",7%,0))
```

# Collaboration Features

- Comments
- Text Boxes
- Shapes with Text
- Templates
- Hiding Worksheets
- Protecting Worksheets
- Online Spreadsheets



# The New Comments

Changes in Excel 2019:

- Comments now called “Notes”
- New “Comments” feature
  - Designed for conversation

# Protecting a Worksheet

- Protects **every** cell
- Thus:
- You must first **Unlock** cells for input
  - Rt-click cell
  - Choose: Format Cells
  - Choose: Protection
  - Uncheck: Locked

