Office of
BUSINESS &
ENTREPRENEURSHIP
UNITIES OF WISCONSIN

EXCEL MADE SIMPLE:

CREATE ENGAGING GRAPHS THAT TELL YOUR FINANCIAL STORY
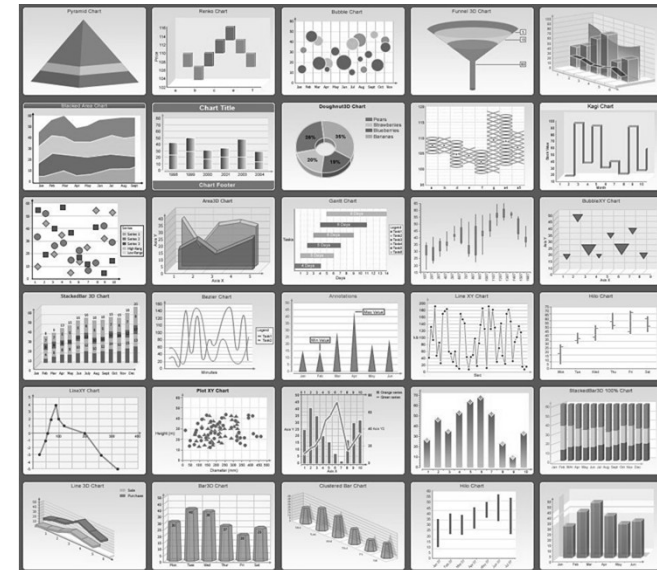
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Professional Financial Consultant for OBE
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TODAY'S WEBINAR

✓ How to choose the right chart for your data

✓ Simple steps to create and customize graphs

✓ Tips to make your visuals professional and engaging

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PART 1: WHY GRAPHS MATTER

How Data Visualization Enhances Decision-Making

Transforming Complex Information into Actionable Insights

Raw Data	Visualization	Decision Making	Business Outcomes
Complex & Unstructured	Visual Processing	Actionable Insights	Improved Performance

Transform — Interpret — Implement

① Faster Decision-Making ② Pattern Recognition ③ Enhanced Collaboration ④ Strategic A...

FROM DATA TO DECISIONS

- Graphs highlight trends and anomalies quickly.
- Enable data-driven decisions with confidence.
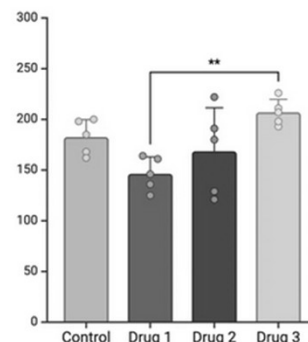- Make presentations engaging and persuasive.
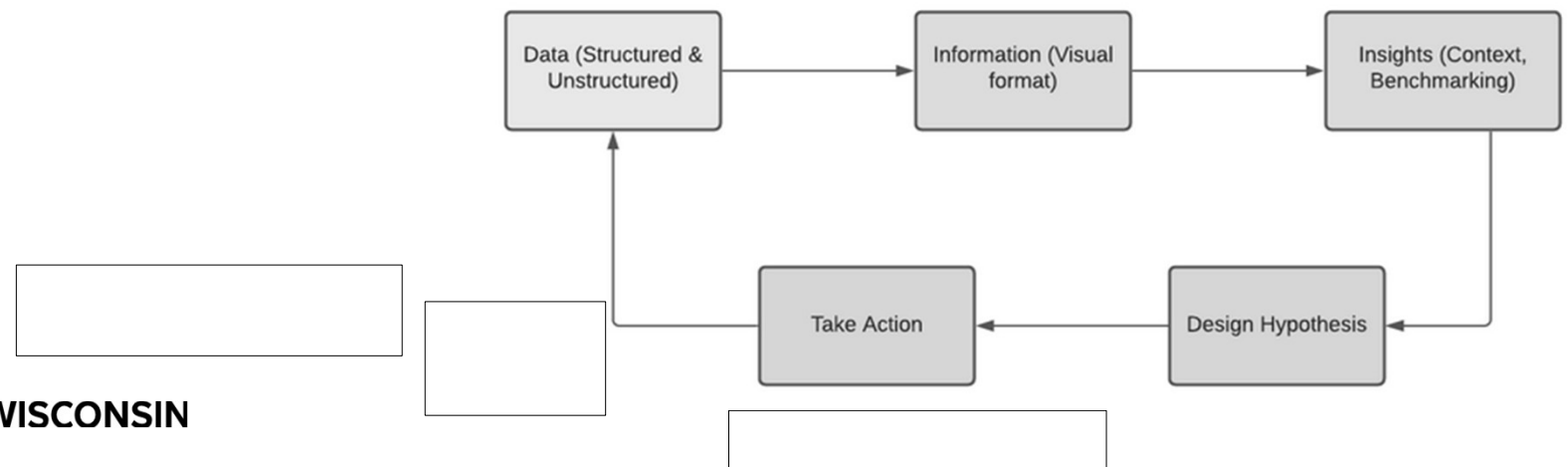
IMPORTANCE OF VISUAL STORYTELLING IN BUSINESS:

- Data Alone Doesn't Tell the Whole Story
  - Humans process visuals 60,000x faster than text.
  - Charts turn complex data into clear, actionable insights.
  - Visual storytelling helps communicate trends, comparisons, and patterns effectively.
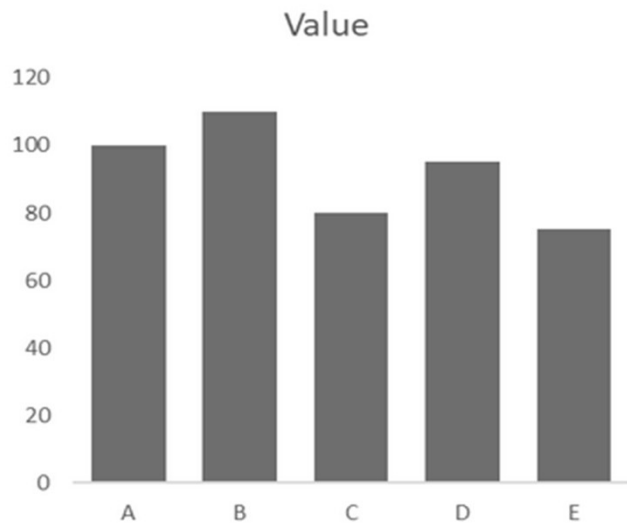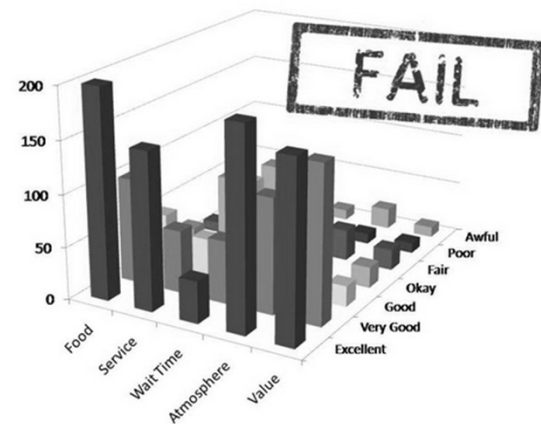
GOOD/BAD CHART: DESIGN MATTERS!

Good Graphs/Charts:

Clear labels, appropriate chart type, minimal clutter.

Bad Graphs/Charts:

Overloaded with colors, unnecessary 3D effects, misleading scales.

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CAUTION!

STICK WITH ME
STEP BY STEP!

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But if you do get lost……..

No Worries!!

We will be repeating all steps again

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Getting Started with Excel:
Essential Tools for Beginners

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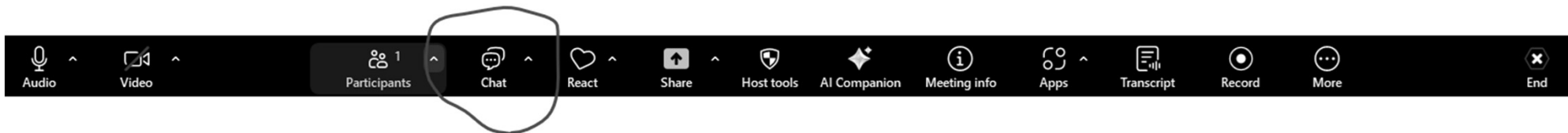
Webinars - Office of Business and Entrepreneurship

Click on Finance and Accounting Webinars to see the recording for the Excel presentation as well as others
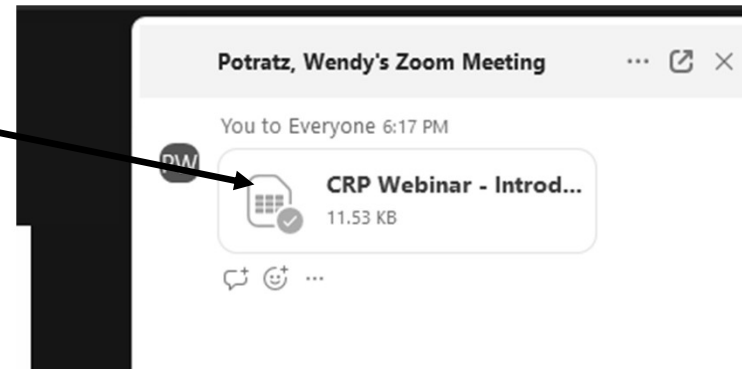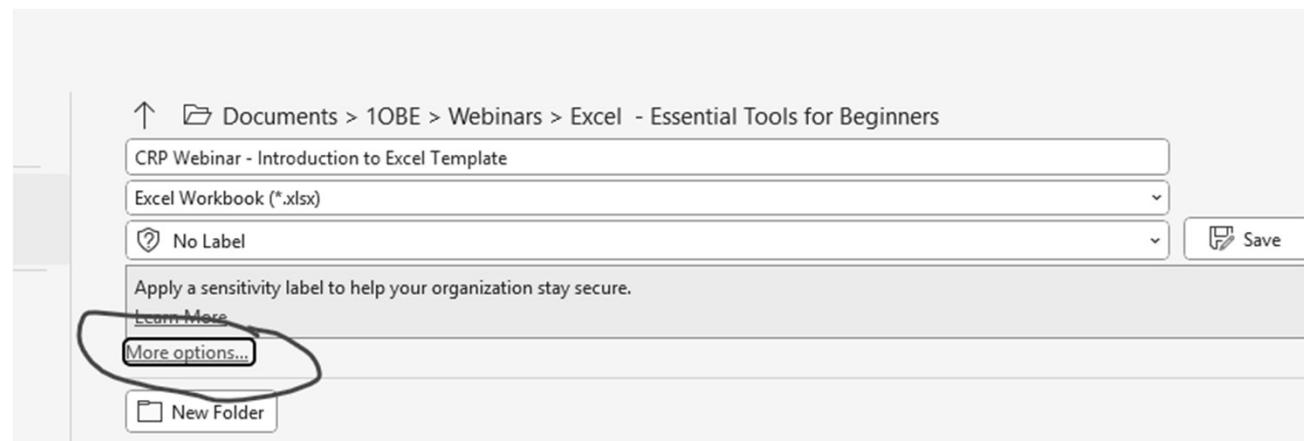
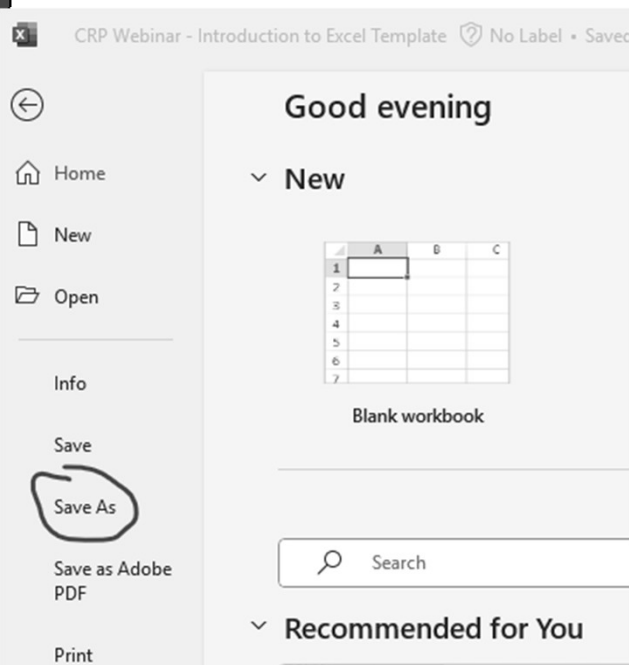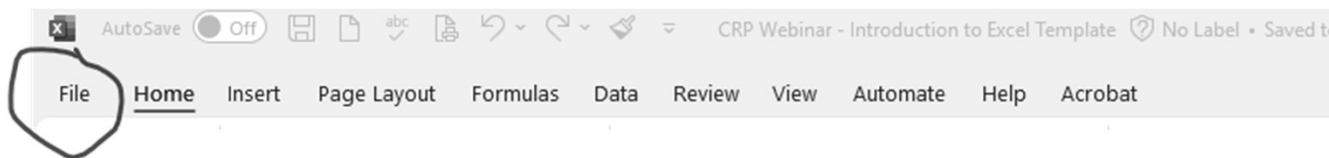UNIVERSITIES OF WISCONSIN

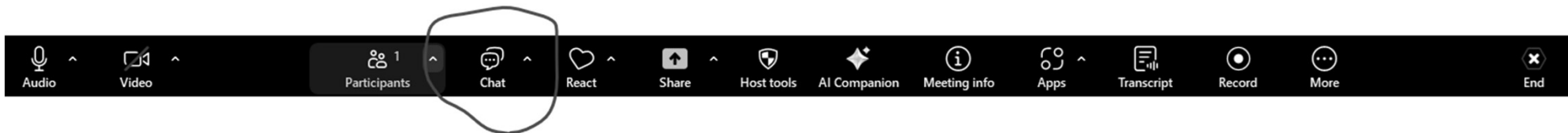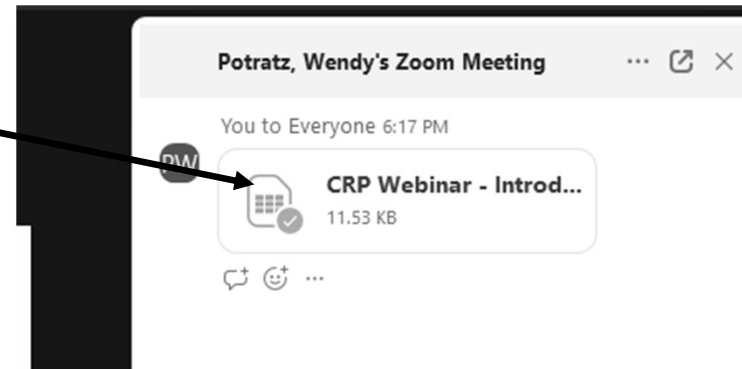# DOWNLOADING THE WORKBOOK

• download it now from the chat

Click to Open!!

SAVING THE WORKBOOK

DOWNLOADING THE WORKBOOK

• download it now from the chat

Click to Open!!

SAVING THE WORKBOOK
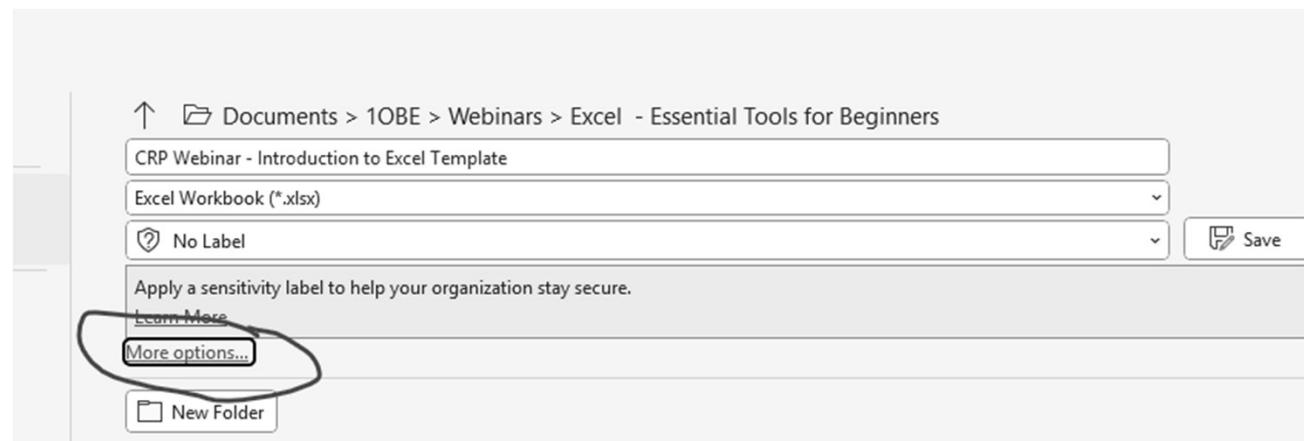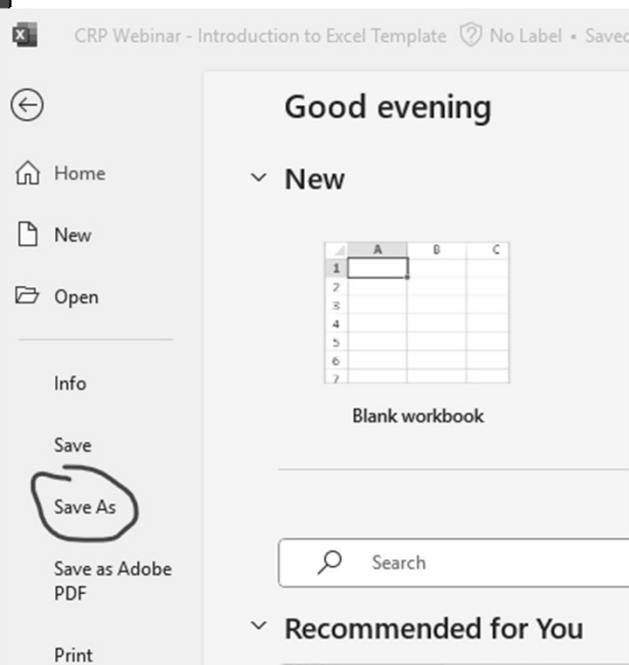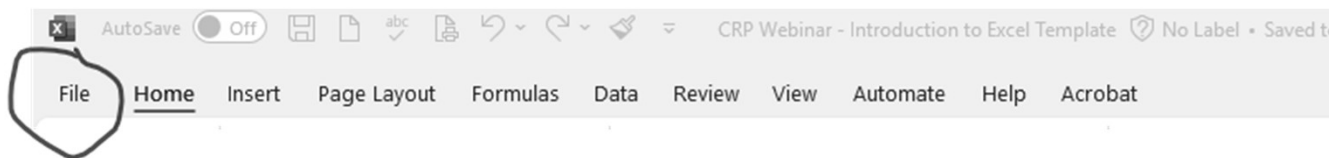
USING TODAY'S EXCEL TEMPLATE

Let's look around!

PARTS OF AN EXCEL CHART
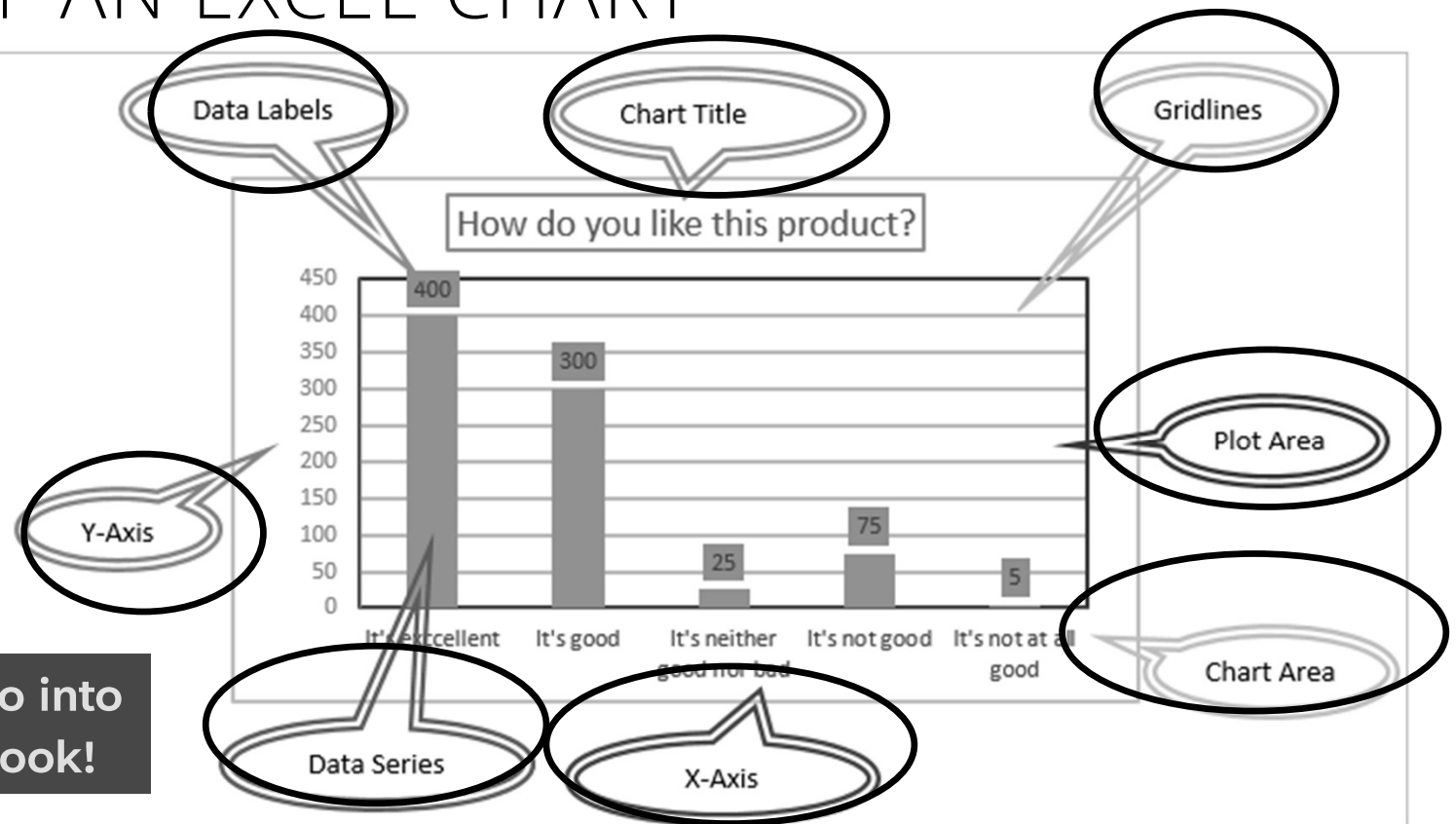
Now let's look go into the Excel Workbook!

COLUMN CHARTS: WHEN TO USE

✅ Compare discrete categories

- Use it to show differences between distinct groups
    - e.g., sales by product type, revenue by region.
- Each column represents a category, making comparisons easy.

✅ Display data over time (with few time periods)

- If you have a small number of time intervals (e.g., months or years), a column chart works well.
    - For many time points, a line chart is usually better.

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COLUMN CHARTS: WHEN TO USE

✅ Show absolute values rather than proportions
- Column charts emphasize the magnitude of each value, not percentages or parts of a whole.

✅ Highlight individual category performance
- Great for ranking or identifying the highest/lowest values among categories.

WHEN *NOT* TO USE A COLUMN CHART

- If you have too many categories
    - it becomes cluttered

- If you need to show trends over a long time period
    - use a line chart instead

- If you want to show parts of a whole
    - use a pie or stacked bar chart.

COLUMN CHART – STEP BY STEP

- Step 1: Prepare Your Data
  - Organize your data in a table format:
    - First column: Categories or 'Series' (e.g., months, product names).
    - Second - more columns: Values (e.g., sales, revenue).

- Step 2: Select the Data
  - Highlight the entire data range (including headers).
    - Use the Ctrl Key to highlight non-adjunct Cells

- Step 3: Insert the Column Chart
  - In Excel: Go to Insert → Charts → Column Chart.
  - Choose a style (e.g., Clustered Column for simple comparisons).

COLUMN CHART – STEP BY STEP

- Step 4: Customize the Chart
  - Add Titles:
    - Chart Title: Describe what the chart shows e.g., "Annual Sales"
    - Axis Titles: Label X-axis (categories) and Y-axis (values).
  - Adjust Colors & Layout:
    - Use consistent colors for clarity.
  - Add Data Labels Through Chart Styles:
    - Show actual values on top of columns for easy reading.

- Step 5: Format Axes
  - Ensure the Y-axis scale makes sense (start at zero for accurate comparison).
  - Check category labels on the X-axis for readability.

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Let's Create some column charts!!

BAR CHARTS: WHEN TO USE

Largely the same recommendations as a column chart, but with a few caveats:

- Category Names Are Long
  - Horizontal bars make it easier to read long labels without tilting or truncating text.

- You Have Many Categories
  - Bar charts handle large category lists better because they stack vertically, making the chart more readable.

- Comparing Rankings
  - Bar charts are ideal for showing ordered data (e.g., top 10 products, survey responses).

- Space Constraints
  - If your chart needs to fit in a wide but short space (like a dashboard), horizontal bars work better.

- Focus on Categories, Not Time
  - Bar charts are better for categorical comparisons, while column charts are often used for time-based data.

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BAR CHART – STEP BY STEP

- Step 1: Prepare Your Data
  - Organize your data in a table format:
    - First column: Categories (e.g., months, product names).
    - Second - more columns: Values (e.g., sales, revenue).

- Step 2: Select the Data
  - Highlight the entire data range (including headers).
    - Use the Ctrl Key to highlight non-adjunct Cells

- Step 3: Insert the Bar Chart
  - In Excel: Go to Insert → Charts → Bar Chart.
  - Choose a style (e.g., Clustered Bar for simple comparisons).

Basically the same as Column Chart!!

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BAR CHART – STEP BY STEP

- Step 4: Customize the Chart
  - Add Titles:
    - Chart Title: Describe what the chart shows e.g., "Monthly Sales"
    - Axis Titles: Label X-axis (values) and Y-axis (categories).
  - Adjust Colors & Layout:
    - Use consistent colors for clarity.
  - Add Data Labels:
    - Show actual values at end of rows for easy reading.

- Step 5: Format Axes
  - Ensure the X-axis scale makes sense
    - start at zero for accurate comparison).
  - Check category labels on the Y-axis for readability.

Basically
the same
as Column
Chart!!

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Let's Create some Bar charts!!

LINE CHARTS: WHEN TO USE

- Showing Trends Over Time
  - Ideal for time-series data (e.g., monthly sales, stock prices, temperature changes).
  - Emphasizes the direction and pattern of change rather than individual values.

- Continuous Data
  - Best for data that changes continuously rather than in discrete categories.
  - Example: tracking website traffic by day or hour.

LINE CHARTS: WHEN TO USE

- Comparing Multiple Series
  - Great for comparing trends of two or more variables over the same time period.
  - Example: revenue vs. expenses over several months.

- Highlighting Rate of Change
  - If you want to show acceleration, deceleration, or fluctuations, a line chart makes these patterns clear.

- Forecasting
  - Often used when projecting future values based on historical trends.

WHEN *NOT* TO USE A LINE CHART

- Data points are not related or sequential
  - use bar/column charts instead.

- You have too few data points
  - a bar chart might be clearer.

- Categories are nominal
  - e.g., product names, regions
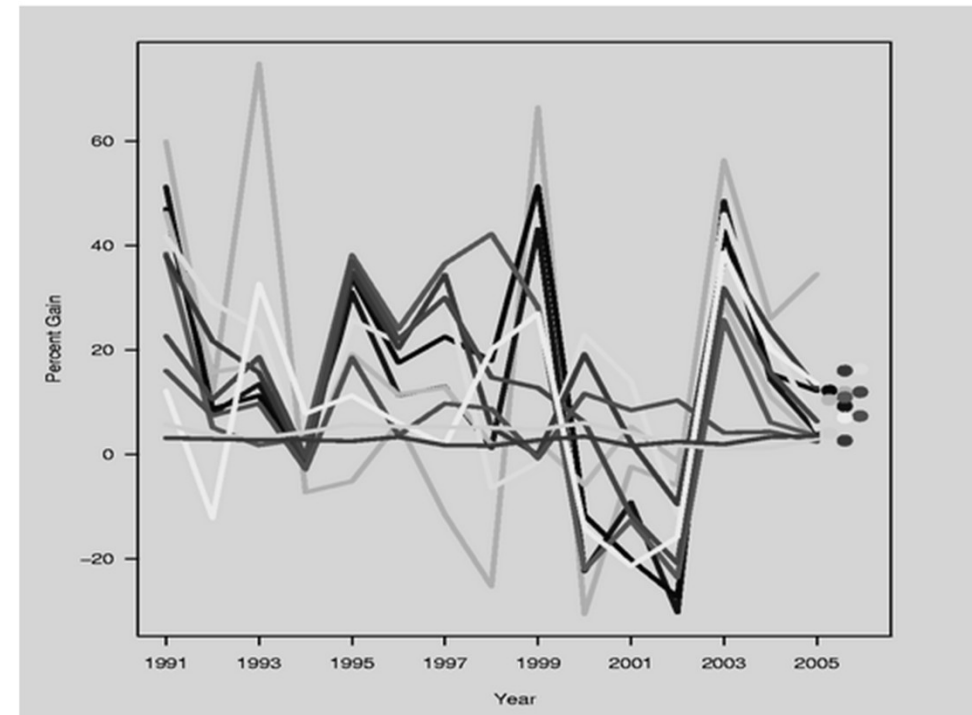
LINE CHART – STEP BY STEP

- Step 1: Prepare Your Data
  - Organize your data in a table format:
    - First column: Categories (e.g., months, product names).
    - Second - more columns: Values (e.g., sales, revenue).

- Step 2: Select the Data
  - Highlight the entire data range (including headers).
    - Use the Ctrl Key to highlight non-adjunct Cells

- Step 3: Insert the Line Chart
  - In Excel: Go to Insert → Charts → Line Chart.
  - Choose a style

Again!
Basically the
same as
Column &
Bar Charts!!

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LINE CHART – STEP BY STEP

- ## Step 4: Customize the Chart
  - ### Add Titles:
    - Chart Title: Describe what the chart shows e.g., "Monthly Sales"
    - Axis Titles: Label Y-axis (values) and X-axis (categories).
  - ### Adjust Colors & Layout:
    - Use consistent colors for clarity.
  - ### Add Data Labels:
    - Show actual values at data points for easy reading.

- ## Step 5: Format Axes
  - Ensure the Y-axis scale makes sense
    - start at zero for accurate comparison.
  - Check category labels on the X-axis for readability.

Again!
Basically the
same as
Column &
Bar Charts!!

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Let's Create some Line charts!!

(Play with switching row/column & changing the size)

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PIE CHARTS: WHEN TO USE

- Showing Proportions or Percentages
  - Ideal for illustrating how each category contributes to a total.
  - Example: Market share by company, budget allocation by department.
- Limited Number of Categories
  - Works best with 3–6 categories.
  - Too many slices make it hard to read.
- Total Equals 100%
  - The data should represent a complete whole (e.g., 100%, total revenue, total votes).
- Highlighting Dominant Categories
  - Useful when one or two categories are significantly larger than others.

WHEN *NOT* TO USE A PIE CHART

- You have many categories
  - use a bar chart instead.
- Values are similar in size
  - differences are hard to see.
- You need to show trends over time
  - use a line or column chart.
- Exact comparisons matter
  - bar charts are more precise
- Your data contains negative numbers
  - Pie charts will not register negative numbers (I'll demonstrate)
  - use a line or column chart.

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PIE CHART – STEP BY STEP

- Step 1: Prepare Your Data
  - Organize your data in a table format:
    - First column: Categories (e.g., months, product names).
    - Second column: Values (e.g., sales, revenue).
    - Use only 2 columns!!!!

- Step 2: Select the Data
  - Highlight the entire data range (including headers).
    - Use the Ctrl Key to highlight non-adjunct Cells

- Step 3: Insert the Pie Chart
  - In Excel: Go to Insert → Charts → Pie Chart.
  - Choose a style: 2-D Pie, 3-D Pie, or Doughnut

Again! Basically the same as Column & Bar Charts!!
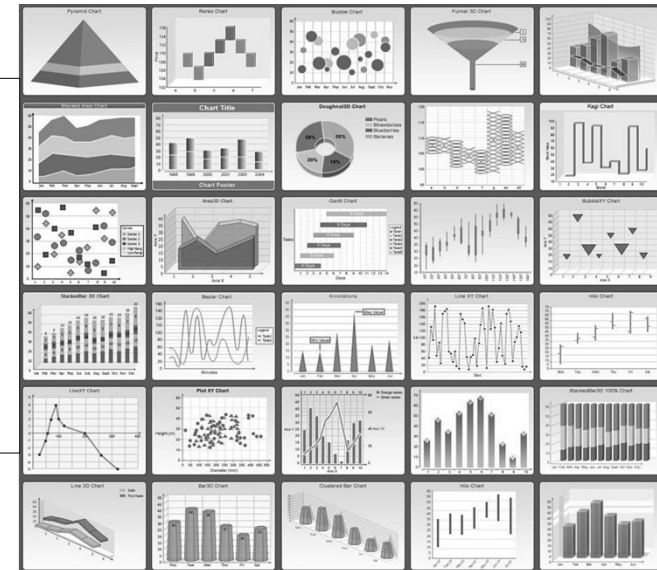
PIE CHART – STEP BY STEP

- Step 4: Customize the Chart
  - Add Titles:
    - Chart Title: Describe what the chart shows e.g., "Sales Distribution by Product"
  - Adjust Colors & Layout:
    - Use distinct colors for each slice to make categories easy to distinguish.
  - Add Data Labels:
    - Show percentages or actual values on slices for clarity.

- Step 5: Format The chart
  - Ensure the slices are proportional to the values.
  - Avoid clutter—limit the number of slices to 3–6 for readability.
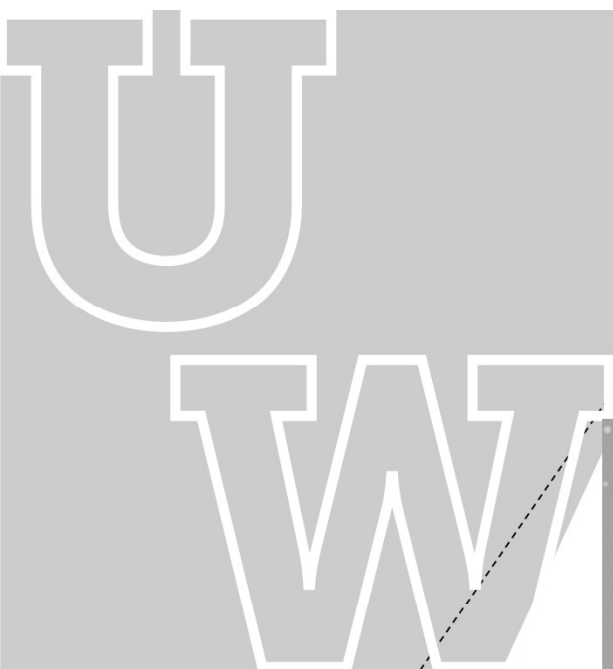
Let's Create some Pie charts!!

TODAY'S WEBINAR

✔ How to choose the right chart for your data

✔ Simple steps to create and customize graphs

✔ Tips to make your visuals professional and engaging

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