





WEDNESDAY'S
News You Can Use

Financial Reporting and Data Visualization


Presented by
Amanda M. Wilkson, CPA





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BUSINESS ADVISORS AND CPAs

Communicating Financial Information




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Define the Parameters

- > Know your audience: Will information be presented to upper management, program staff, volunteers, donors or board members?
- > Understand how the users of the financial reports/data measure success.
- > Determine the format: Will presentation be written or verbal? Will a full presentation or abbreviated version be used?



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Make it Relevant

How does a financial professional relate to nonfinancial people?

- › Start at the beginning, the budget
- › Understanding the fear factor
- › Get upper management involved in the process of educating nonfinancial users
- › Keep it simple, use "non-accounting" language

The Importance of Language

"I don't want to become an auto mechanic, I just want my car fixed —I don't know what a distributor is, and I don't want to"

How can we eliminate "accountant-speak"?

DISCUSS!

How can these technical terms be explained?

- › Accrual
- › Prepaid
- › Temporary restriction
- › Fund Balance

Other Techniques to Clarify Statements

- › Use of dashboards — a picture is worth a thousand words!
- › The executive summary — pinpoint and highlight issues which show up in the numbers.
- › Using both techniques may help make the financial statements more comprehensible to a wider group of people.

Explain the Story

- > Don't just tell the numbers – explain what they MEAN
- > Offer suggestions for action when describing problems or unachieved goals
- > Start broad and build into the more complex issues
- > Limit data to what is helpful to the audience

Communication vs. Noise

Communication – the transfer of an idea, concept, data, or other information from one person to another

Noise – unwanted sound, or the failure to successfully transfer an idea, concept, data, or other information from one person to another

Both can result in ACTION

- > Proceed with true information
- > Proceed with inaccurate information
- > Decide to not listen at all

Considerations before Preparation

- > What Is the intent of the communication?
- > What information is available for presentation?
- > What is the audience's background and knowledge base?
- > When and where is the presentation to take place?

What to Avoid

- > Acronyms
 - > (ex: GASB, OPEB, GAGAS, etc.)
- > Technical complexities
- > Small fonts
- > Endless lists of data
- > Reporting numbers that are difficult to comprehend
 - > (ex: \$23,311.65 vs \$23k)

Suggestions

- > Utilize charts and graphs
- > Provide an overview
- > Use plain language
- > Use examples the specific audience can find relatable

Dashboards

What is a Dashboard?

- › Analyze key data from financial reports in a visual way
- › Monitor effectiveness and/or impact of a program or service against defined goals and objectives
- › A data dashboard is an information tool that visually tracks and displays key performance indicators (KPI) based on a set of specific business objectives
- › Dashboards take data collected over time from various data sources, and translate that data into tables, line charts, bar charts, and other visualization appropriate for each data type

Benefits of Dashboards

- › Visual representation of performance, such as with charts and graphs
- › The ability to identify trends
- › An easy way of measuring efficiency
- › The means to generate detailed reports with a single click
- › The capacity to make more informed decisions
- › Total visibility of all systems, campaigns, and actions
- › Quick identification of data outliers and correlations

What is the goal?

- › A car dashboard displays vital information about the car's performance that helps you make safe driving decisions and prevent serious damage to your vehicle.
- › Similarly, data dashboards display your organization's most important data to help you make better business decisions and avoid costly incidents.
- › Dashboards help you quickly visualize and drill down on trends and patterns in your data in order to answer business questions.
 - › What are the questions?
 - › What is the important data?

Poll Question

What method do you currently use to present financial information?

- a. Interim reporting only, exclusively number based
- b. Mostly numerical reports, some visual tools may be used periodically
- c. Deliberate effort made to simplify reported information and use visual aids to assist interpretation of reported numbers

Data Dashboard vs. Data Visualization

- Data visualization: a visual representation of your data — such as a chart, diagram, or picture typically containing data for a single metric
 - Example: electricity usage
- Data dashboard: a collection of data visualizations assembled into a single, unified view.
 - Example: a single dashboard might display data visualizations for electricity usage, energy costs, CO2 emissions, and peak/off peak use
 - Dashboards provide a collection of reports that together help answer your questions

Visual Data

- Display information using data visualizations like line graphs, pie charts, and scatter plots
 - take advantage of the human brain's ability to process visual information
 - the human brain processes visual data 60,000x faster than text. By displaying your data in a visual format, dashboards make it easier to understand large amounts of information.

Design

- Keep it simple
 - Should be a high-level overview
 - Easy to read and understand
 - Avoid cluttering the page
 - Easy to update
- Add interest by using various sizes and shapes for charts/graphs/tables

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Consider Non-Financial Data

- There are many options for non-financial data to support the financial information
- Consider Operating Indicators, such as
 - Number of traffic violations
 - Volume of 911 calls answered
 - Miles of roads resurfaced/paved
 - Number of permits issued
 - New water connections
 - Full-Time Equivalent Employees
 - May also report FTE Employees per capita
- If preparing an Annual Comprehensive Financial Report, this information is already accumulated for reporting in the Statistical Section

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Utilizing Excel for Data Visualization

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Ways to Use Excel to Present Data

- > Excel Uses & Tools
- > Sparklines
- > Charts and Graphs
- > Linked Data

Poll Question

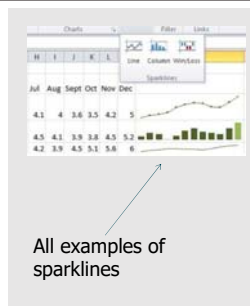
How comfortable with Excel would you rate yourself?

- a. Hate it, actively avoid using Excel
- b. Excel is a necessary evil
- c. I use Excel well enough for my purposes
- d. Love it, I should teach this class

Sparklines

Sparklines help provide visual representations of data, by acting as a tiny chart in the background of a cell.

Patterns can be hard to spot on a glance. Sparklines provide a clear, compact, graphical representation of data.



Sparklines, cont.

Line Sparkline

Column Sparkline

Win/Loss Sparkline

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Sparklines, cont.

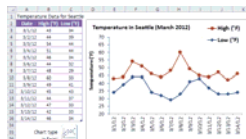
- Select an empty cell/group of cells in which you want to insert a Sparkline
- On the insert tab, click the type you would like to create
 - line, column, or win/loss.
- In the Data box, type the range of cells that contain data on which you want to base the Sparkline
- In the Location box, indicate the cell in which you want the Sparkline to be seen

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Charts & Graphs



Although Sparklines are good at a glance, sometimes more exact detail is required.

Charts & Graphs based on any set of data can easily be created and imported into your Excel document.

Types: Column Chart, Line Graph, Pie Graph, Bar Graph, Scatter Chart, etc.

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Charts & Graphs, cont.

- To insert a chart or graph: select the data you want to include.
 - Typically, this should be in a table format.
- Choose the type of chart/graph you'd like to insert from the Insert tab.
- To change the axes, right click on the graph, click 'Select Data' and click 'Switch Row/Column'.
- You can always change the type of graph by right clicking and selecting 'Change Chart Type'
- Charts/Graphs made within Excel can easily be imported into word documents, power point presentations, e-mail, etc.

Linked Data

- Linking between Excel and other Microsoft Office applications allows data to be updated in an excel spreadsheet and the linked data is also updated
- Charts, graphs, and tables can be linked from Excel
- To create a linked chart or table in Word:
 - Open both the Word document and the Excel worksheet
 - Copy the target table or chart in Excel
 - In Word, Paste Special as Microsoft Office Excel object

Linked Data, cont.

To check the link between files, go to the File tab and select "Edit Links to Files"

- Related Documents
- 📁 Open File Location
 - 🔗 Edit Links to Files
 - [Show All Properties](#)

Change Source to browse for the file location if it has been moved since the link was created

Examples: Charts & Graphs

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EXAMPLE: Current Budget Usage by Department

Chart Type: STACKED BAR

Sum of Actual highlighted in **GOLD**

Sum of Budget highlighted in **GREY**

Budget Usage by Department

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EXAMPLE: Current Budget Usage by Department

Chart Type: STACKED COLUMN (3-D)

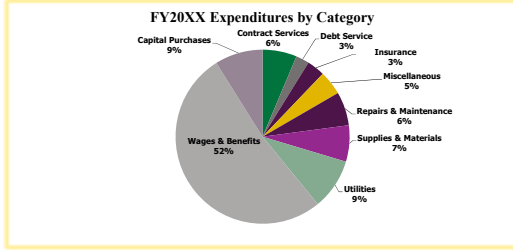
Sum of Actual highlighted in **DARK BLUE**

Sum of Budget highlighted in **LIGHT BLUE**

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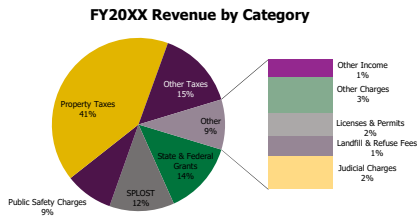
EXAMPLE: Expenditures by Category

Chart Type: PIE



EXAMPLE: Revenue by Category

Chart Type: BAR OF PIE



Poll Question


Which Chart/Graph do you find the most useful?

- a. Pie
- b. Bar of Pie
- c. Bar Chart
- d. Column Chart

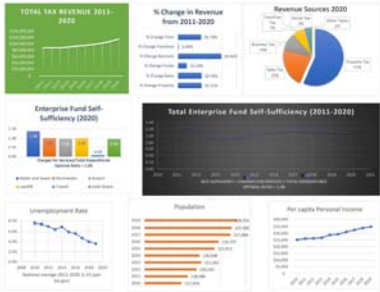
Examples: Dashboards

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Dashboard Examples




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Dashboard Examples

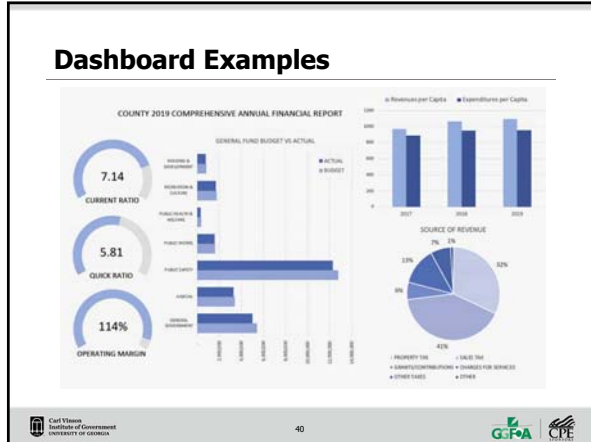
Financial Dashboard



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QUESTIONS?

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