Effective Presentation of Data

Florida Office of Economic & Demographic Research

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Presenters

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Why are we Presenting?

- We have asked ourselves the same question
- We collect data, conduct research, and prepare reports - These are scheduled and ad hoc
- We produce Fact Books, publish data via the web and run strategic data workshops
- Met with Don, Jose, and Amy to discuss your challenges and outputs
- We represent an outside perspective

Objectives Given to Us

- Look at conference materials and provide feedback and suggestions
- Provide general rules of thumb for spreadsheet usage

Operating Assumptions

- Everyone here has some expertise in Excel – we are just a different set of eyes
- These data come from numerous offices and numerous analysts – consistency difficult
- Many of these reports a completed “just in time”
- There are two audiences for your reports
  - Conference Participants
  - Post-Conference Consumers
    - Lobbyists
    - Legislative Staff
    - Affected Parties
    - General Public

Our Initial Observations

- You are trying to tell a story with data
- The Word Template provides a good context and consistency
- Data and Sources are inconsistent
- Methodology and Assumptions need to be complete
- Supporting documentation doesn’t tie cleanly to the template
- It is difficult to define the line between too much and not enough data
- Some reports we reviewed are like a composition that tells a story, but others are a collection of information

Four Areas of Focus

- Template
- Display/Format
- Context
- Composition

Report Template Observations

- The Word Template provides a good structure
  - Title should include Tax, Issue, and Bill(s) - “Revenue Estimating Conference” should be secondary
  - Section 1: Narrative – These provide good context
  - Section 2: Description of Data Sources – These vary, but are generally sufficient
  - Section 3: Methodology and Assumptions – These vary widely in depth. They should combine with the prior sections to create the full context for the estimates or recommendations
  - Section 4 Proposed Fiscal Impact – These are generally pretty succinct, but it isn’t always clear from the Methodology and supporting data where these numbers came from. Outlier estimates should be footnoted .
  - Section 5 – Consensus Estimate – Brief contextual narrative

Template Supporting Data

- The challenge is to tie the supporting data to the template and the estimates so as to paint a picture
- The presentation of these data should guide us to discover the salient data used to make the estimates
- Tie these data to your narrative using consistent headers and labeling.
- Emphasize the most salient data – the bottom line
- Make sure to include only data that are relevant
- The goal is to simplify as much as possible without eliminating data that affected the estimates.
- The page header for all supporting spreadsheets should reference the report title (Tax, Issue, and Bill(s)).

Display/Formatting

- Font Style
  - Should be consistent throughout book
  - Pick one that scales well to PDF
  - Determine if you prefer a serif or non-serif style (distinguishing l from 1 for example)
  - ‘green’ consideration (not too heavy)
  - ***We recommend using the same font as the template – Times New Roman*** (Edward Tufte recommends Gill Sans MT)
- Font Size
  - Not too small
  - Be wary of font shrinking after compressing page
  - ***We recommend 10pt, but 8pt is acceptable. Anything less is testing the eyesight of user***

Formatting Page Layout

- Do everything you can to use portrait so user doesn't have to flip the book back and forth
- Sometimes it is absolutely necessary to use landscape.
- If there is an unsorted table with numerous rows and columns, print column letters and row numbers. ***Page Setup : Sheet : row and column headings***
- Use a print preview to see how the page will look when printed. From there or page setup, you can:
  - Scale (compress) rows/columns/all to fit to page
  - Set margins (should be standardized to fit in book)
  - Choose to print sheet or print selection
- Repeat rows at the top of pages where a lengthy table continues to the next page
  - **Page Setup : Sheet : rows to repeat at top**

Formatting Tables

- Justify Text in tables
  - Columns with numbers: right justify numbers and also **right justify corresponding column headers**
  - Columns with text of varying length (e.g., county names): left justify
  - Columns with flags and other consistent character length: center justify
- Number Format
  - Consistent in number of decimal places (If decimals are needed)
  - Consistent in use of dollar sign – consider labeling “in Dollars” or only adding to “Totals”
  - Use commas for thousands
  - Indicate if rounded to thousands or millions (either in table, header, or footnote)

Use of Charts and Graphics

- Consider whether a chart could paint a clear picture that may be hard to notice in a data table.
- Charts are best used when there are distinct and meaningful differences as opposed to tracking 2% change over five years.
- Color charts are fine and look great in PDF or when printed in color. However, be sure that the color differential is present when printing in B&W.
- Less is best. We recommend an executive summary for charts. Too many details cause clutter and confusion.
- Use a title and legend, but don't let it interfere with the presentation.

Other Excel Suggestions

- Learn shortcuts to wrap text and merge cells. Use row height to maximize effectiveness. When appropriate, use vertical text orientation (format cells : alignment). These are very useful for table column/row headers.
- Use borders. Helps to read across numerous columns. Line weights on borders are good to emphasize. Appropriate user of border negates need to print gridlines that clutter the page. Consider making internal borders in grey to replace gridlines
- Be careful using cell shading. It looks good in color, but sometimes the text is not readable in black and white. A **light** grey shading is usually OK
- Know when to use zero versus blank space. Use a zero if there is a numeric value of zero, use a blank if there is not a value. Clean up errors (e.g., #DIV/0!) by using condition: = if(A1=0,””,B1/A1).
- Use Spellchecker (pin to top for easy use)

More Excel Suggestions

- Be consistent in sources and footnotes (italics work well for source; asterisk for footnotes)
- Utilize new sheets if multiple tables of varying column widths are used
- Bold headers and totals to emphasize
- In later versions of Excel, you can pin often-used features (e.g., hide columns, spell checker). Pin the icons that you use often but have trouble finding in the ribbon
- Learn the keyboard shortcuts to work faster and more efficiently. Example: click on a row number, click CTRL-C, then CTRL-+ (Control & Plus sign) to insert a duplicated row.
- Google "Excel Tips" to read bout many cool features and shortcuts that you may not have known
- If you use a report template annually, add a Notes tab that describes information about how you generated the data.

Context (for Guidance)

- The Word Template provides some of the context at the report level
- The conference book is a compendium of many reports that can be extracted and each report or page of a report may be used as a reference
- Every page and table should have the capacity to stand alone if separated from the context of the book or the Word Template

Adding/Reinforcing Context

- Titles – Every table should have a title
- Labeling
  - Labels should be clear (avoiding abbr., defining jargon, and constraining elements of time and scope)
  - Labels should be used to separate observed data from estimated/predicted/projected data
  - Distinguish between raw data and summary data (Question: do your summary data need to be as detailed as the raw data?)
- Source information should be included with each table
- Estimates (high-mid-low) should be set apart
- Treatment of formulae in labels or footnotes
- Identifying cohorts – outliers, populations, and subpopulations

Composition

- Composition refers to how you tell your story in your report
- The challenge is to balance being succinct without losing context or the flow from data to decision.
- You are the expert and have committed hours to research that may be consumed in minutes. How do you guide the learner to the nuances?
- Is there a clear connection between your supporting data and the narrative, estimates and recommendations?
- Are data presented in a clear and concise way?
- Would a chart paint a necessary relationship among the data that may not be clearly represented in a table?
- Do supporting tables or data within tables move logically to a bottom line?
- Do tables appear to add clarity or clutter?

Questions?

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