

Introduction to Data Visualization

BAN140 - Section NBB /NCC

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Week Topics



Previous Week

- Design Concepts
- Think like a designer

Current Week

- dissecting model visuals

dissecting model visuals

Chapter Six: From Storytelling with Data: A Data Visualization Guide for Business Professionals, Wiley, 2017

Available online through Seneca Libraries: https://senecacollege-primo.hosted.exlibrisgroup.com/permalink/f/t3376v/01SENC_ALMA5146374280003226



Introduction

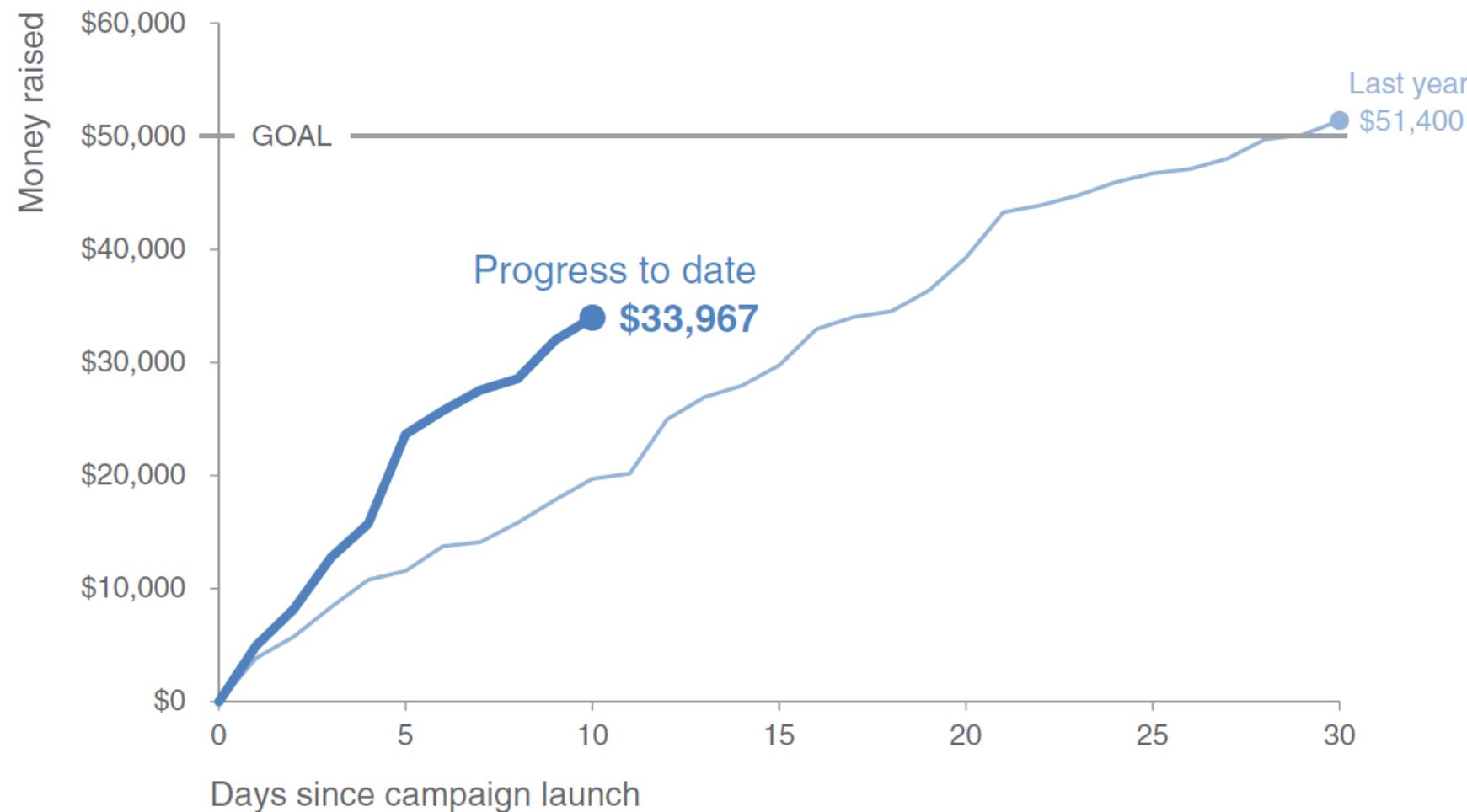
- Now that you understand the basics of what makes a visual effective.
 - **We can look at what “good” data visualization looks like.**
 - Always, remember to think about how you want the audience to process the information and made corresponding choices regarding what to emphasize and draw the audience’s attention to as well as what to de-emphasize.

Learn by Example

We can learn by examining effective visual displays and considering the design choices that were made to create them.

Model visual #1: line graph - Pros

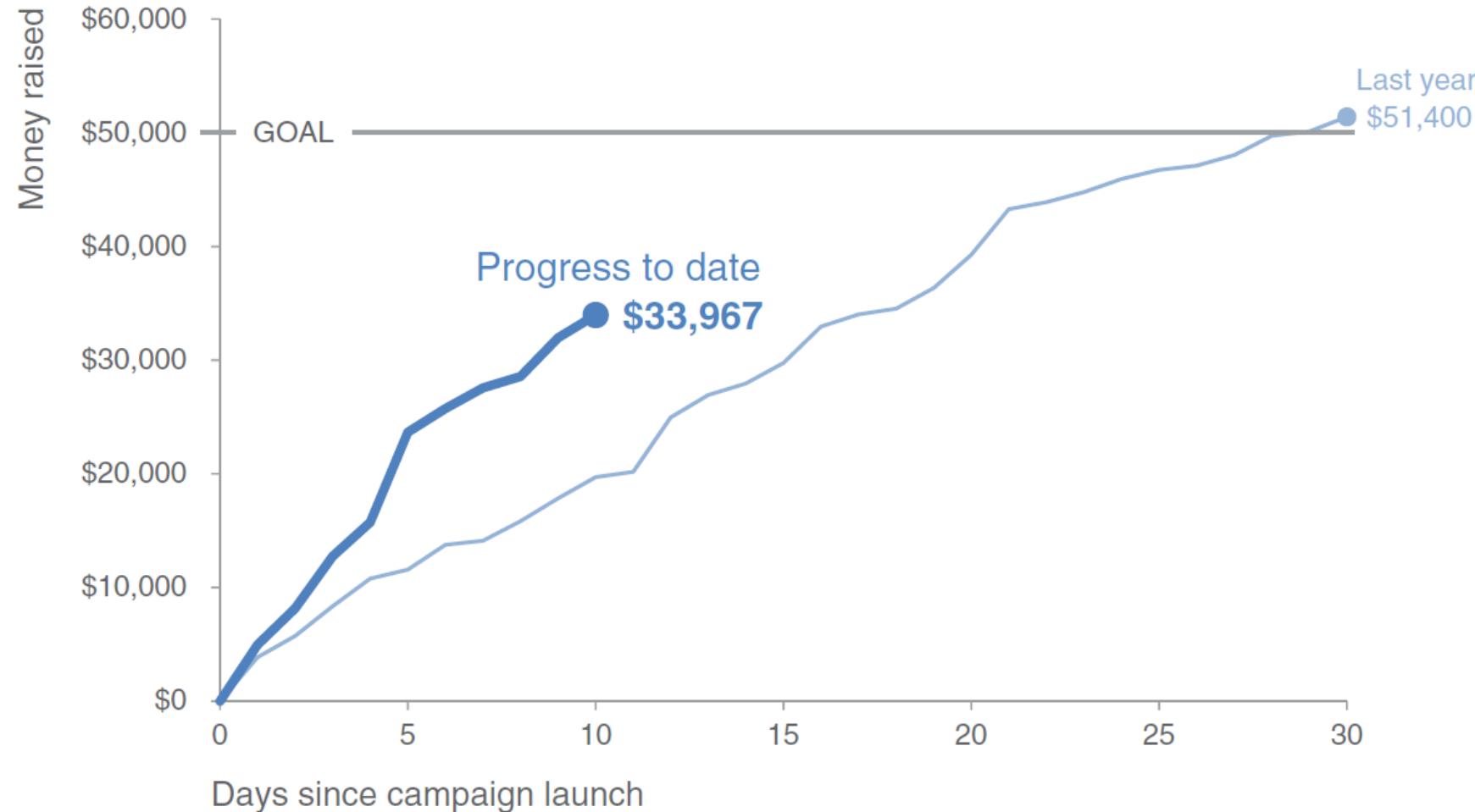
Annual giving campaign progress



**Good use of text
makes this visual
accessible**

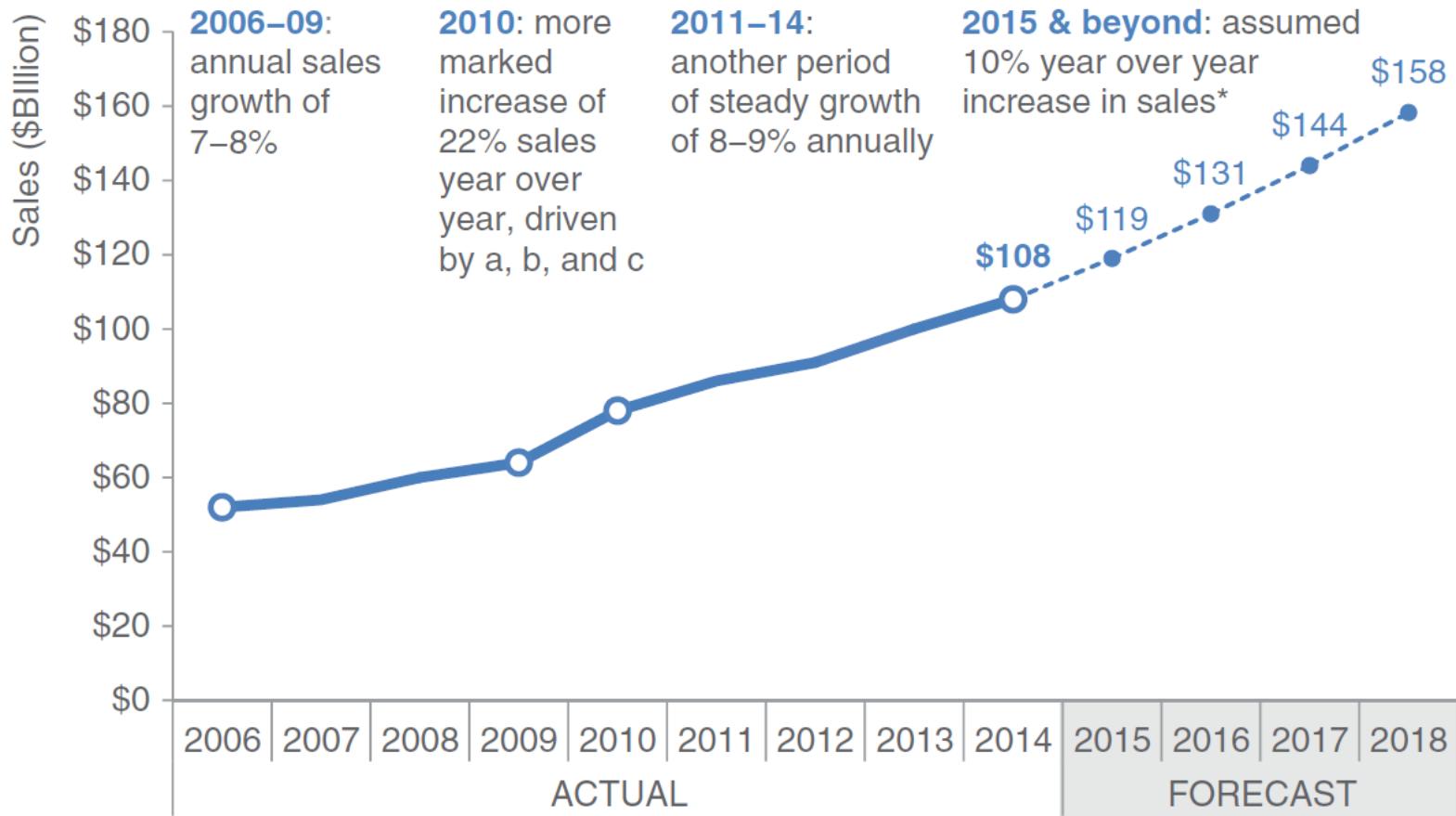
Model visual #1: line graph- Cons

Annual giving campaign progress



Model visual #2: annotated line graph with forecast - Pros

Sales over time

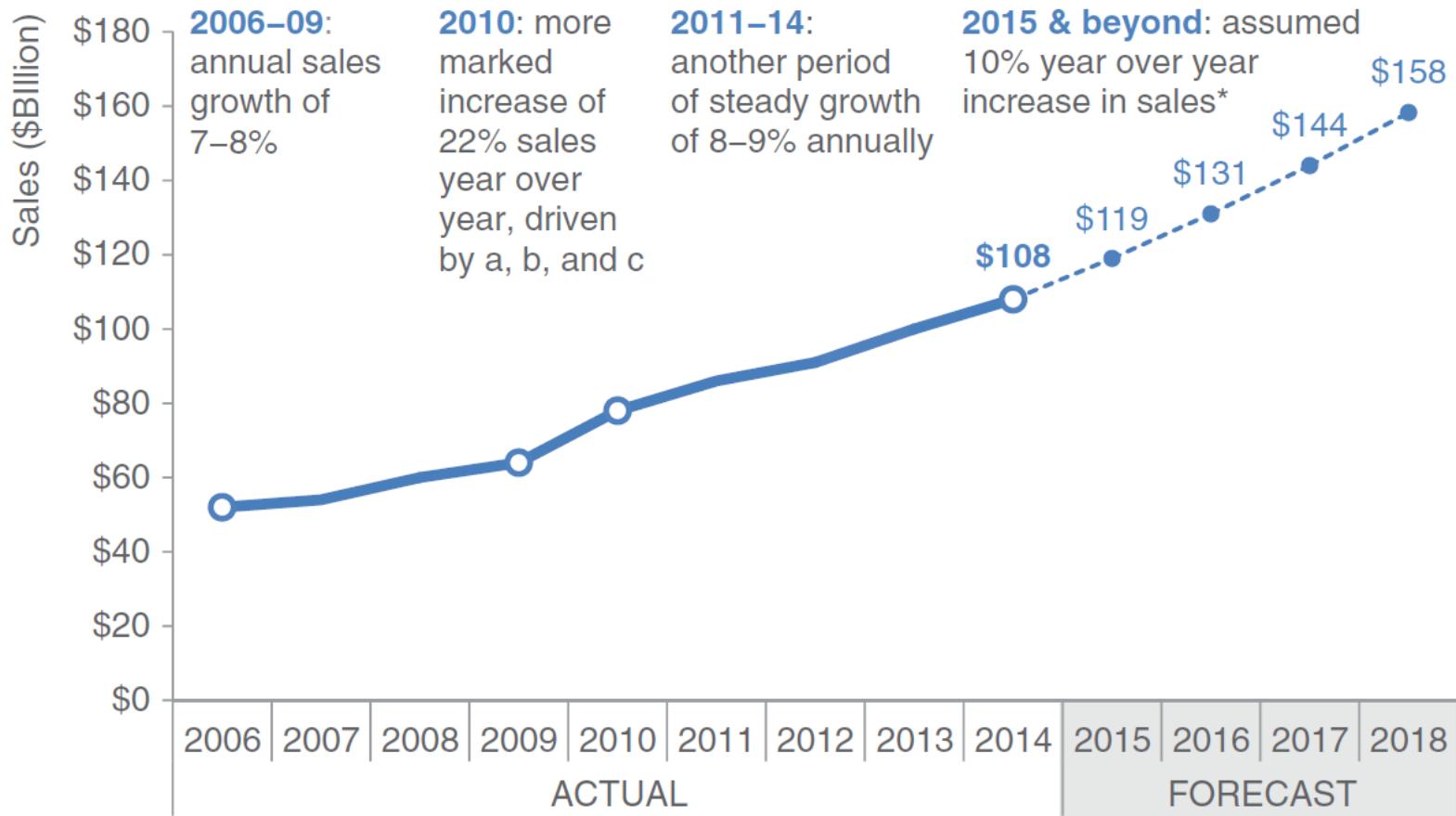


Data source: Sales Dashboard; annual figures are as of 12/31 of the given year.

*Use this footnote to explain what is driving the 10% annual growth forecast assumption.

Model visual #2: annotated line graph with forecast - Cons

Sales over time



Data source: Sales Dashboard; annual figures are as of 12/31 of the given year.

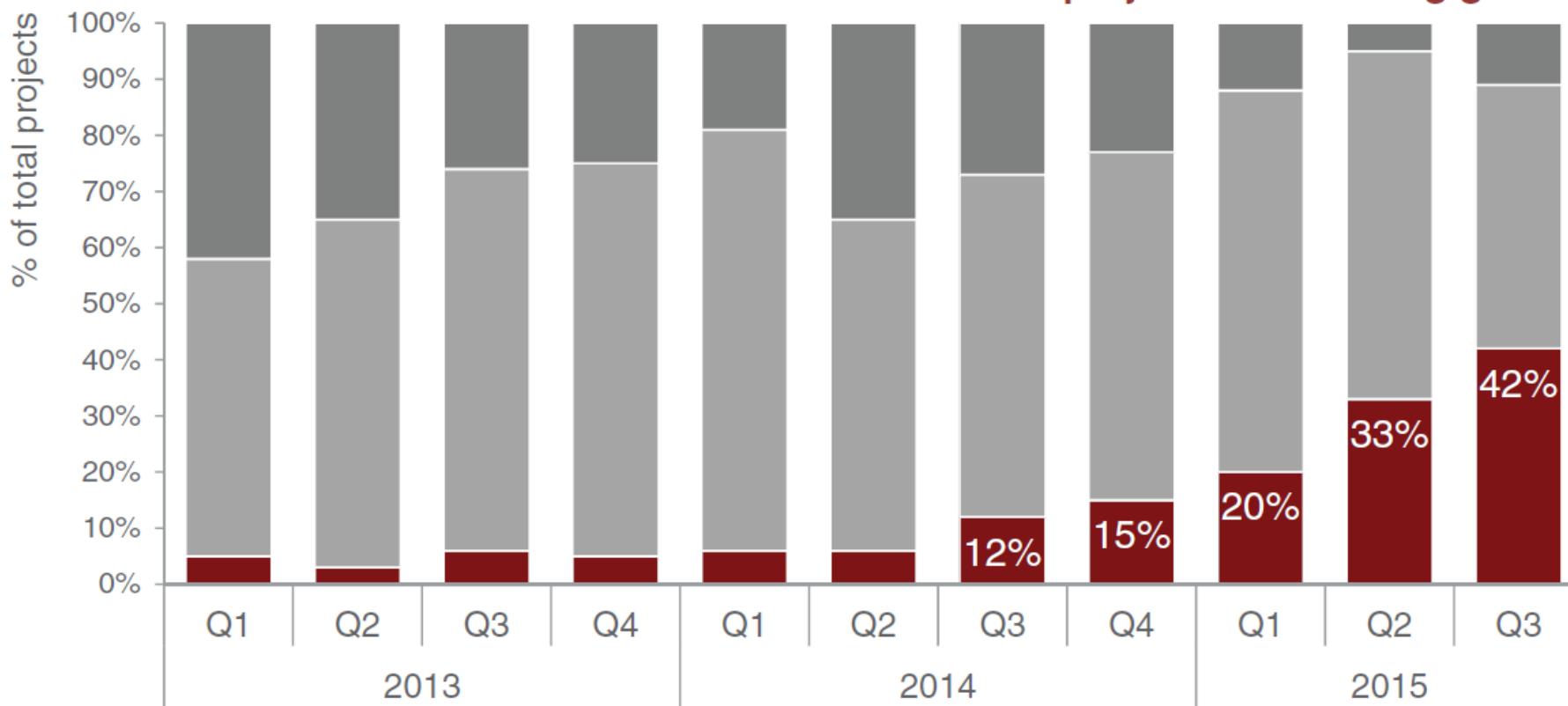
*Use this footnote to explain what is driving the 10% annual growth forecast assumption.

Model visual #3: 100% stacked bars

Goal attainment over time

■ Miss ■ Meet ■ Exceed

As of Q3 2015, more than 1/3 of projects are missing goals



The alignment of objects

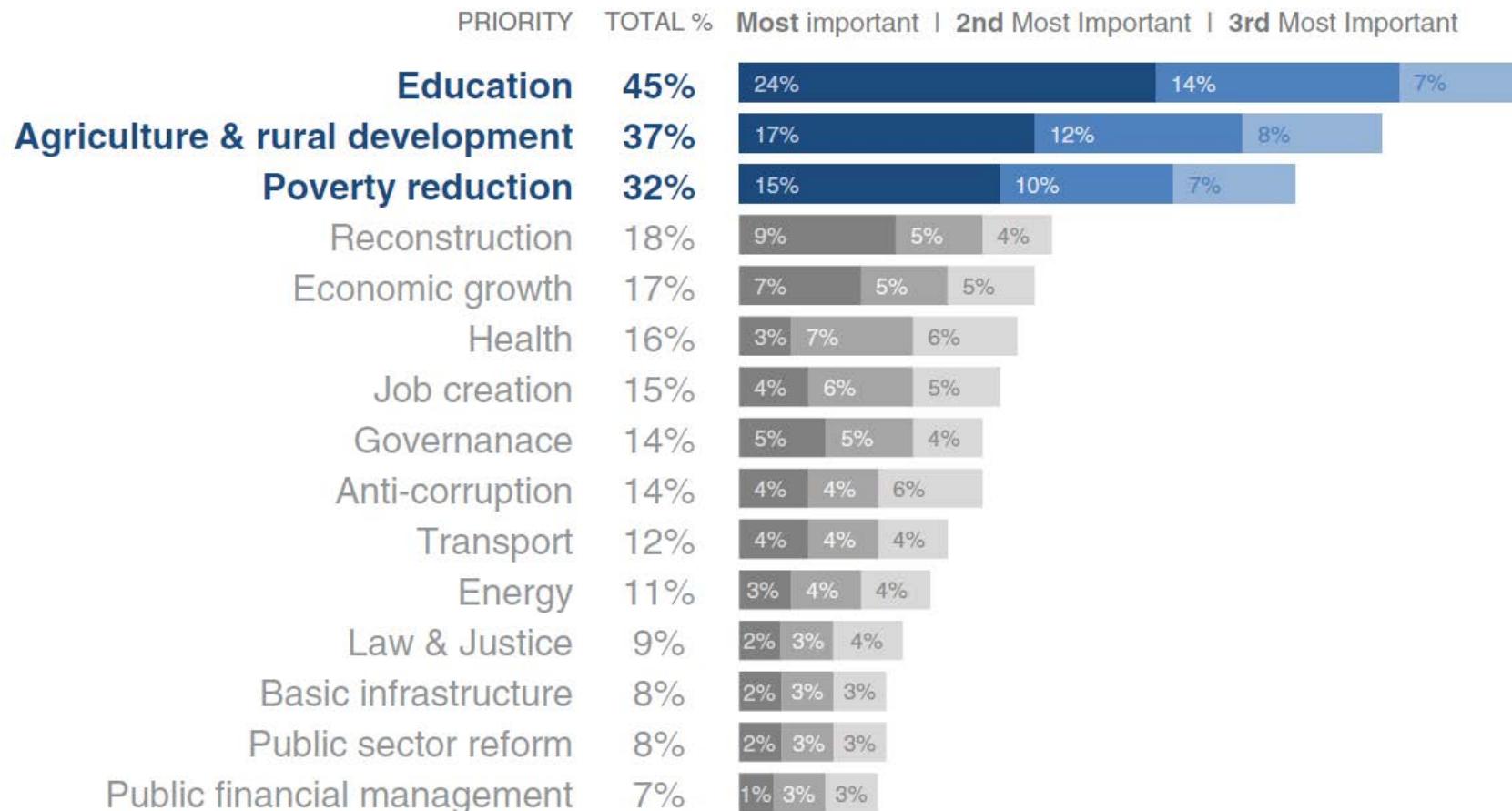
The use of red color as the single attention-grabbing color

Words make the visual accessible

Data source: XYZ Dashboard; the total number of projects has increased over time from 230 in early 2013 to nearly 270 in Q3 2015.

Model visual #5: horizontal stacked bars

Top 15 development priorities, according to survey



N = 4,392. Based on responses to item, *When considering development priorities, which one development priority is the most important? Which one is the second most important priority? Which one is the third most important priority?* Respondents chose from a list. Top 15 shown.

References and Resources

- [Knaflic] Cole Nussbaumer Knaflic, **Storytelling with Data: A Data Visualization Guide for Business Professionals**, Wiley, 2017
 - Available online through Seneca Libraries: https://senecacollege-primo.hosted.exlibrisgroup.com/permalink/f/t3376v/01SENC_ALMA5146374280003226
- [Ryan] Lindy Ryan, **Visual Data Storytelling with Tableau**, Pearson Addison-Wesley, 2018
 - Available online through Seneca Libraries: https://senecacollege-primo.hosted.exlibrisgroup.com/permalink/f/t3376v/01SENC_ALMA5167006190003226
- [Healy] Kieran Healy, **Data Visualization: A Practical Introduction**, Princeton University Press, 2018.
 - Available (hardcopy) at Seneca Libraries: https://senecacollege-primo.hosted.exlibrisgroup.com/permalink/f/t3376v/01SENC_ALMA2172469250003226
- **A Reader on Data Visualization:** https://mschermann.github.io/data_viz_reader/
- **Data visualization:** https://en.wikipedia.org/wiki/Data_visualization
- **Section 5: Data concepts** <https://www.statcan.gc.ca/eng/dli/guide/section5>