REL Southwest: Exploring data visualization strategies

Part 1

Date: November 17, 2020

Meet the presenters.

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Agenda

1. Welcome and introductions

2. Review agenda and meeting goals

3. Overview of the REL Southwest

4. Fundamentals of data visualization

5. Activity: Data on my desktop

6. Reflective conversation

7. Next steps: Assignment for session 2

8. Closing

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Introductions

To give us a better sense of your work please share the following:

- Your name and where you work within the Arkansas Department of Education (ADE).

- How you interact with/use data in your work and any data visualization tools you use (such as Excel, Tableau, Power BI, Qlik).

- What you hope to gain from these three sessions.

Overview of meeting goals

Session 1 (November 2020)

- Understand data visualization fundamentals and reflect on how these might be applied in your current work context.

Session 2 (January 2021)

- Understand more deeply the practices and challenges and apply strategies to data they will bring to session 2.

Consultations (February–March 2021)

- Tailored coaching and feedback to groups applying data visualization strategies to ADE initiatives.

Session 3 (April 2021)

- Share progress, gather feedback, and plan next steps.

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Overview of federal assistance to state education agencies and REL Southwest

Comprehensive Center Program

Equity Assistance Centers

Regional Educational Laboratories (RELs)

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REL mission

To support the use of **research and evidence** to help states and school districts **improve their education programs** and ultimately, **student performance**.

This is accomplished by increasing individual and organizational capacity to access, understand, interpret, critique, apply, and/or conduct research within state education agencies, local education agencies, and other educational organizations.

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How does REL Southwest do this work?

REL Southwest conducts its work through collaborative research partnerships with stakeholders in Arkansas, Louisiana, New Mexico, Oklahoma, and Texas.

To address the priorities and interests of these states, REL Southwest supports six collaborative research partnerships.

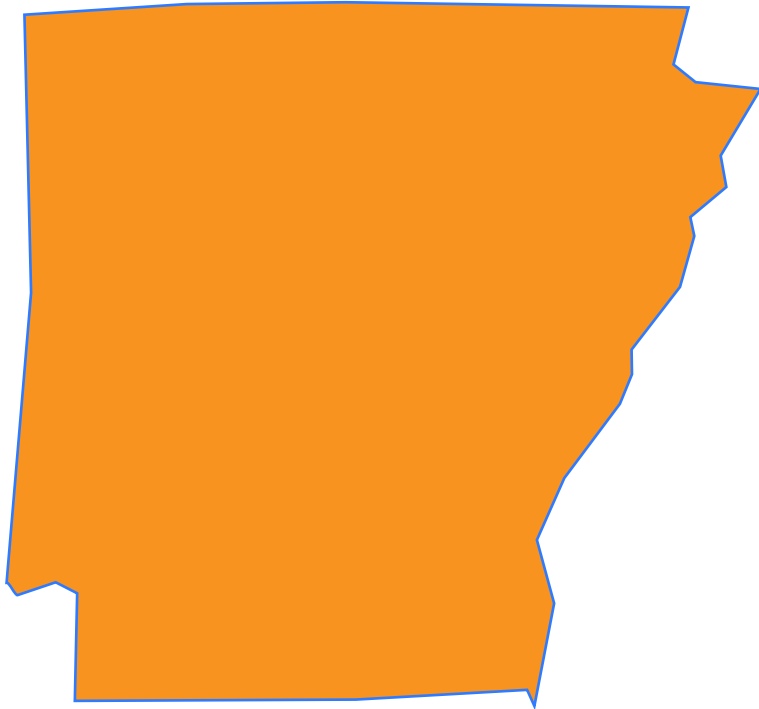College and career readiness is our focus in Arkansas.

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REL Southwest activities: Aligning with ADE Goals
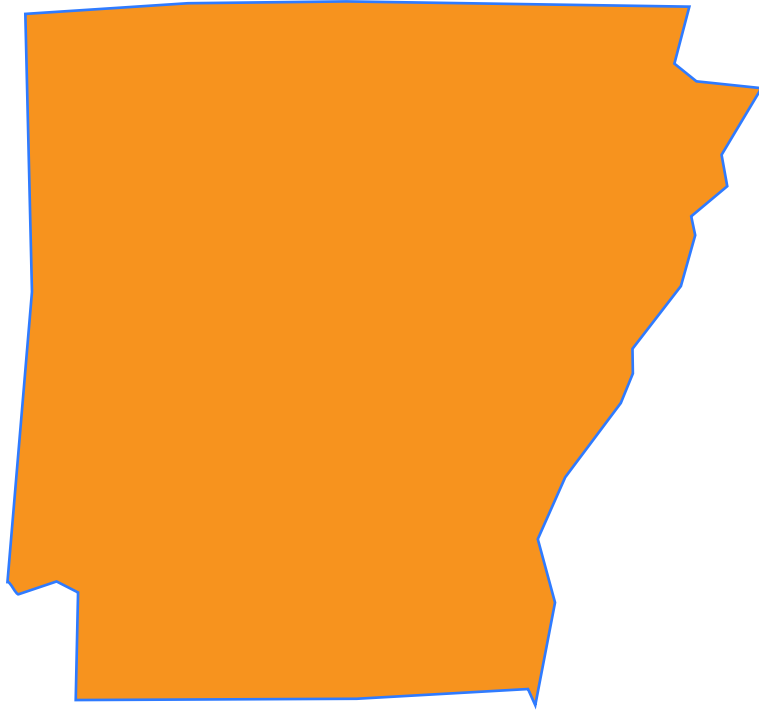
Communications

- Biweekly meetings

- Annual partnership meetings
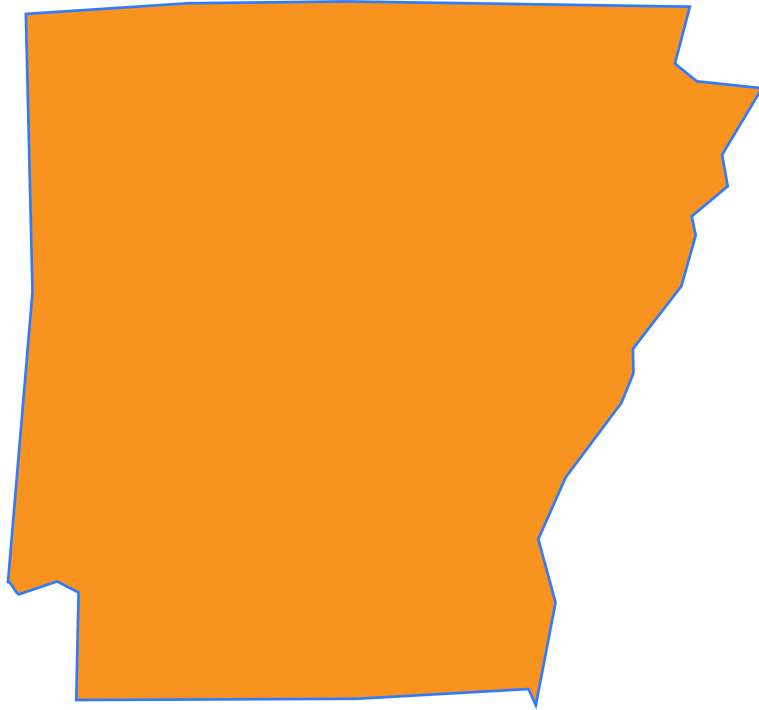
- Annual Governing Board meetings

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REL Southwest activities: Aligning with ADE Goals

Research

- Indicators study

- Proposed communications study

- Ask A REL

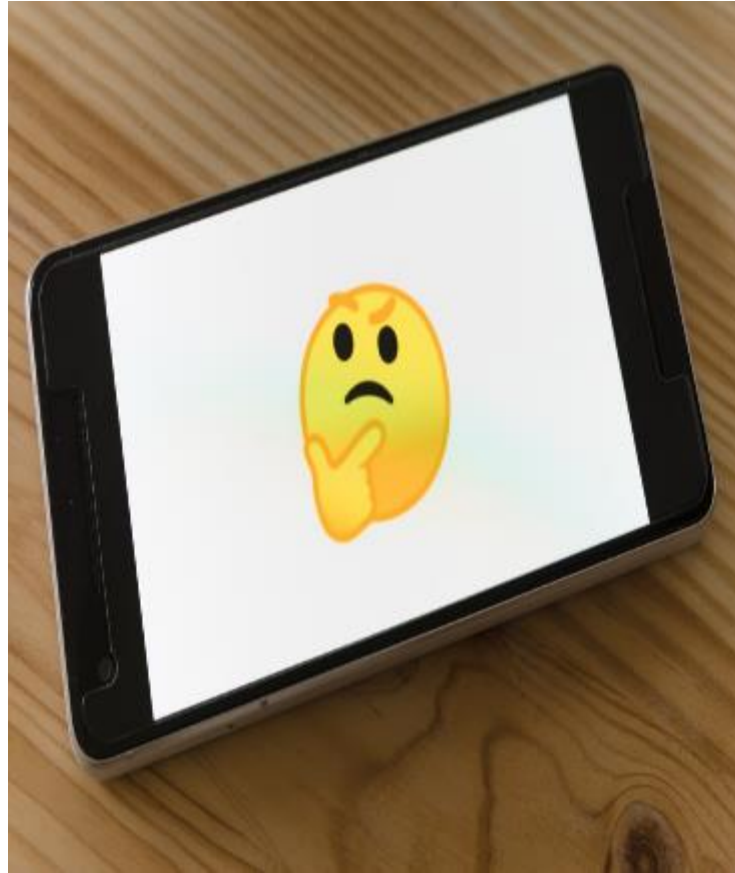# REL Southwest activities: Aligning with ADE Goals
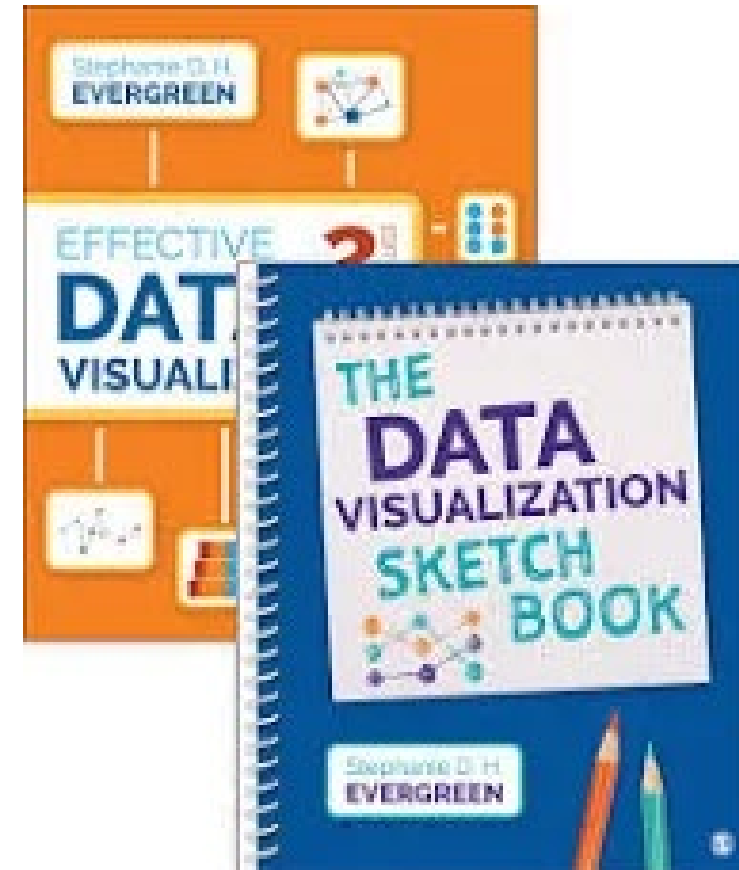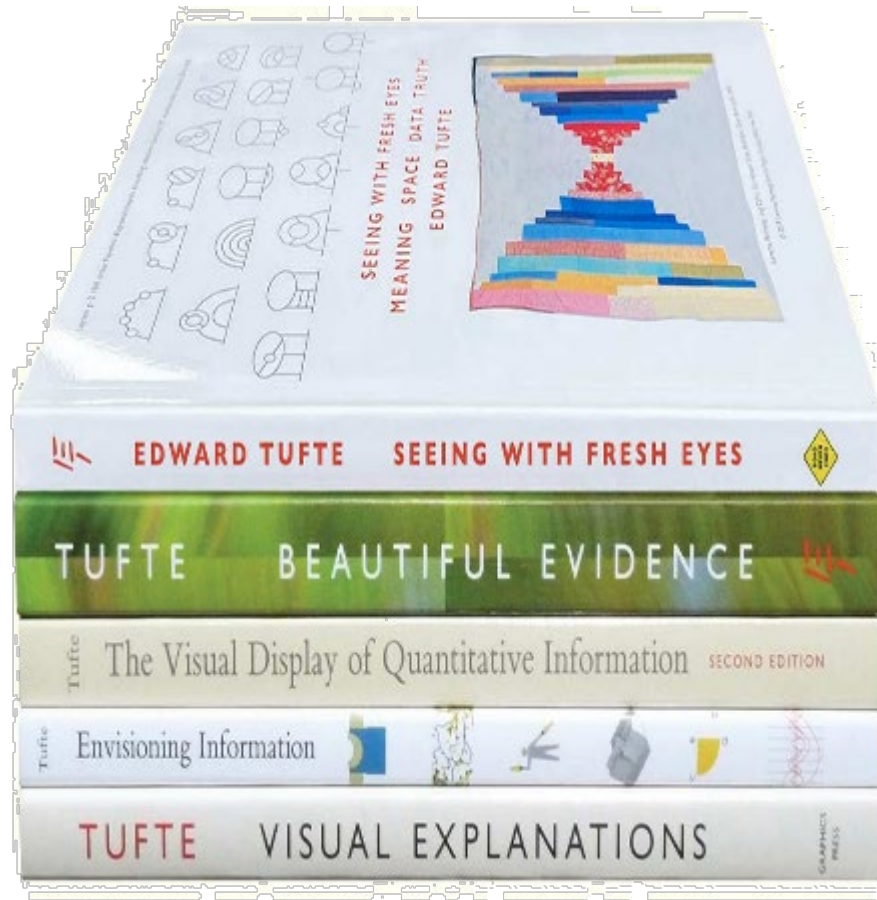
Applied research support

- Indicators alignment workshops

- Data visualization

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Exploring data visualization fundamentals
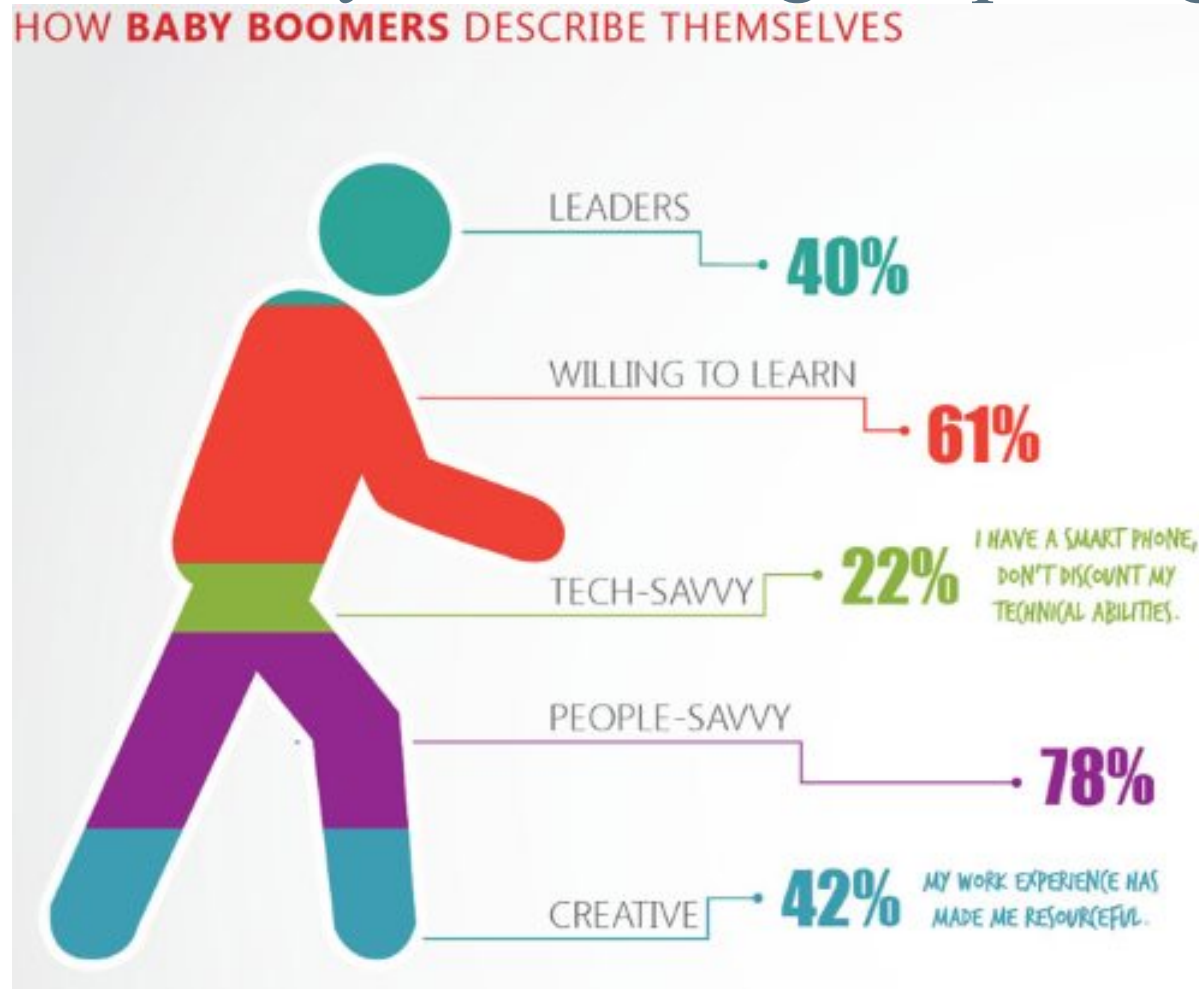
We are inherently visual creatures.

Research related to data visualization practices

Let's look at some examples: The good, the bad, and the ugly.
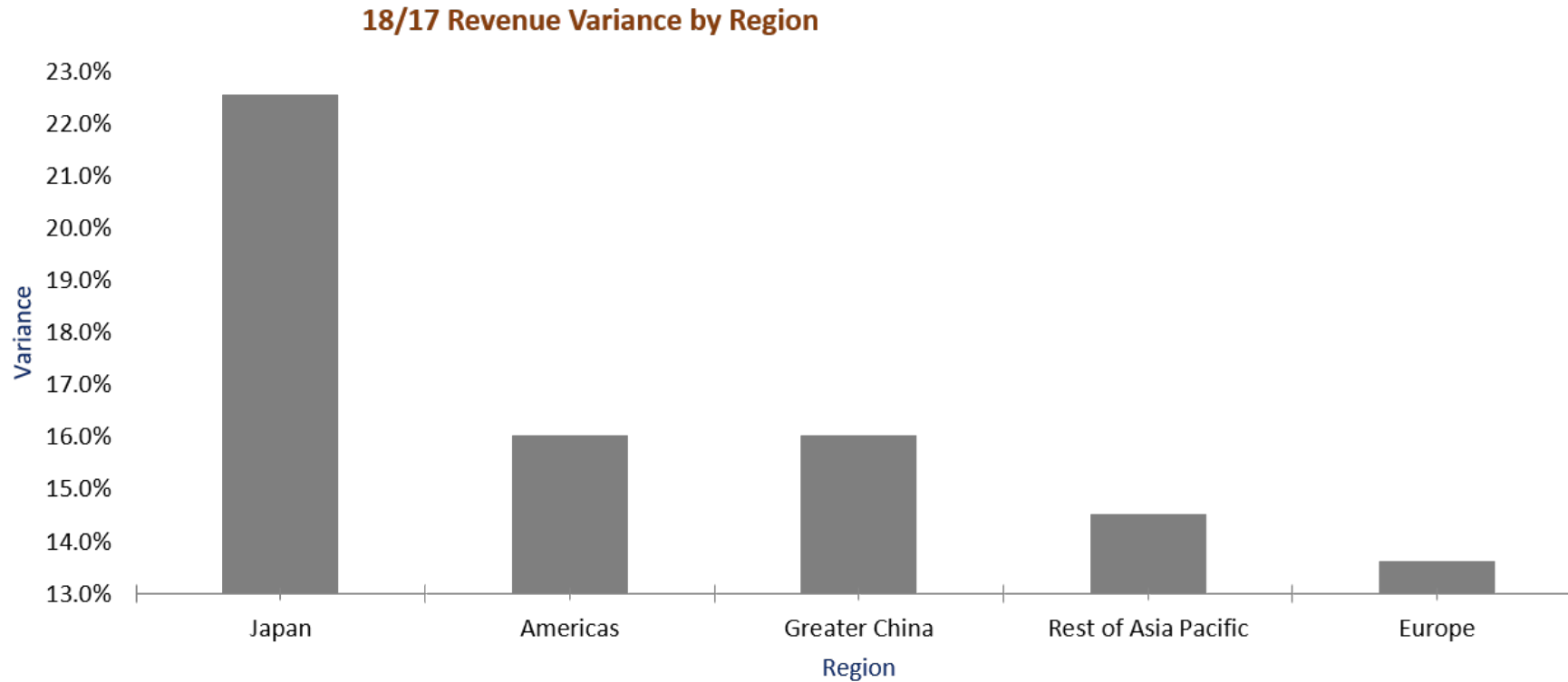
What story is this image depicting?

http://livingqlikview.com/the-9-worst-data-visualizations-ever-created/

Can you spot the misleading message of this depiction?

https://www.livescience.com/45083-misleading-gun-death-chart.html

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How does performance compare on this chart?

18/17 Revenue Variance by Region

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How does this revised bar graph change the message?

18/17 Revenue Variance by Region

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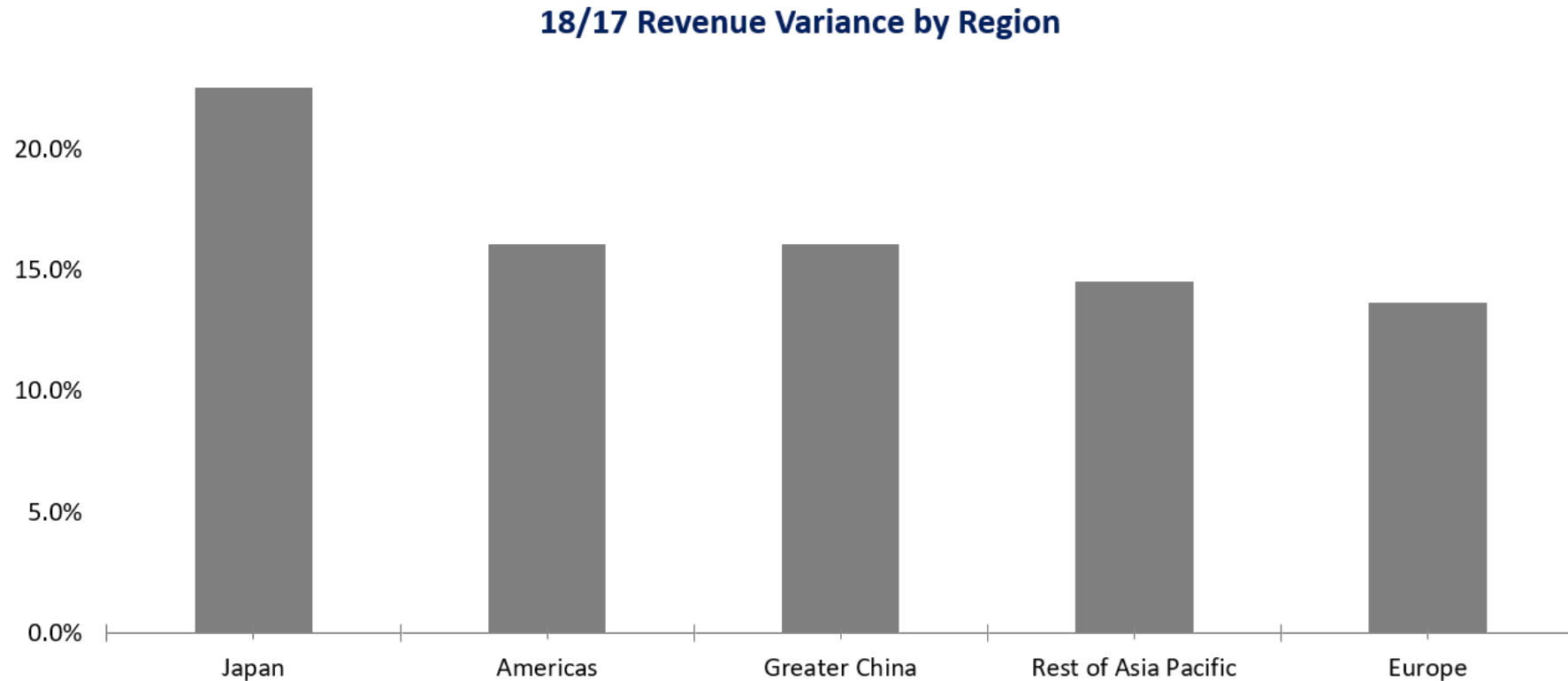
Let's look at a couple of other interesting examples

https://coronavirus.jhu.edu/data

https://informationisbeautiful.net/beautifulnews/

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Mistakes to avoid when visualizing data

- Manipulating the *x* or *y* axis; inconsistent scale.

- Cherry-picking data.

- Picking the wrong chart.

- Overly cluttered charts or graphs.

- "Cute" images that do not add to the content or message.

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Practices to consider for data visualization

- Be clear about "the point."

- Understand your audience.

- Pick a visualization strategy that highlights the message you wish to convey (for example, comparisons, correlation, trends, relative performance).

- Keep the visual simple.

- Consider visual appeal and engagement.

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