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Workforce Analytics Resources

Child Welfare Quality Improvement Center for
Workforce Development (QIC-WD)

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Data Visualization (VIDEO)

Quality Improvement Center for Workforce Development

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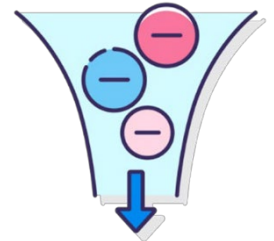
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Data Visualization

How Can You Better Collect and Organize Data to Support Visualization?

- ▶ Collect data at the lowest level of granularity as possible
- ▶ Determine how data elements are collected and are related to each other
- ▶ Understand who and how institutional data is currently governed
- ▶ Map changes to data elements, collection methods, and governance across relevant time periods
- ▶ Identify opportunities to “close” open text elements



What Visual Is Most Appropriate for Your Data?

Understanding how your data is structured can eliminate certain design options.

Interactive version @ <https://ft-interactive.github.io/visual-vocabulary/>

Visual vocabulary

Designing activities

There are so many ways to visualise data, how do we know which one to pick? Use the categories across the top to decide which data relationships is most fit for your in your story, then look at the different types of chart within the category to figure some ideas, then think what might work best. This list is not meant to be exhaustive, nor is static, but is a useful starting point for missing information and meaningful data visualisations.

ft.com/vocabulary

How Can You Develop Visualizations That Respect Visual Perception of Information?

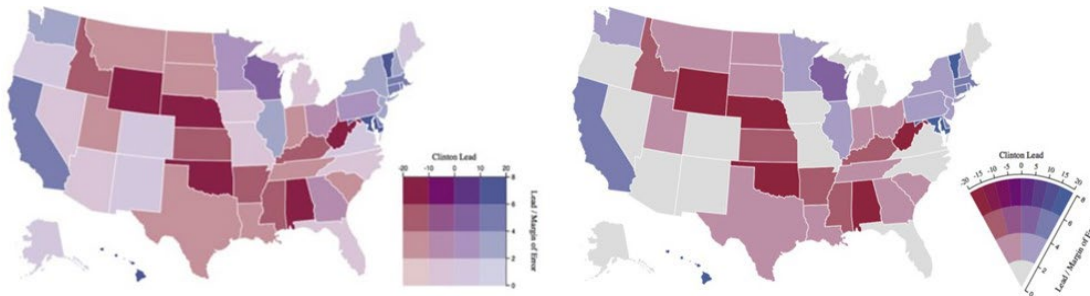
Design Objectives

- ▶ Accurate representation
- ▶ Facilitates accurate and quick understanding
- ▶ Memorable
- ▶ Appropriate amount of data/context

- Orientation
- Shape/Symbols
- Line length
- Line width
- Size
- Hue
- Tint – amount of white
- Shade - amount of black
- Colorfulness as compared to gray
- Saturation/Brightness – amount of gray
- Curvature
- Enclosure
- Spatial position
- Motion
- Texture

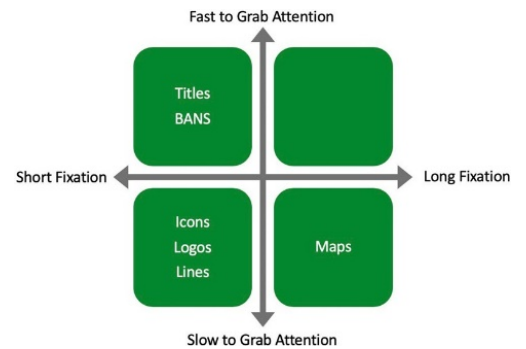
Selecting Color Palette

- ▶ Color-blind
- ▶ Perceptual ordering/categories
- ▶ Captures nuances of variations
- ▶ Conveys gradients
- ▶ Displays uncertainty when relevant
- ▶ Works across mediums



Focusing Intended Users' Focus

- ▶ Understand what your end-users will focus their attention on based on their role, interest, expertise, and familiarity with data and relevant issues.
- ▶ Every element you add to the page or screen takes up a cognitive load on the end-user
- ▶ Does your design reflect what areas you want the end-user to focus their attention



How Should You Start?

Tools & Platforms

Beginner	Intermediate	Jedi
Excel	Tableau	D3.js
my.visme.co	Power BI	R
Infogram.com	Google Data Studio	Python
piktochart.com	Qlik	
	Domo	
	SAS	