

---

# Presenting information effectively

Steven Fiala & Anne Celovsky  
Grantees & Contractors Meeting  
October 29, 2019



Center for Prevention and Health Promotion  
Health Promotion Chronic Disease Prevention Section

---

# Our time together

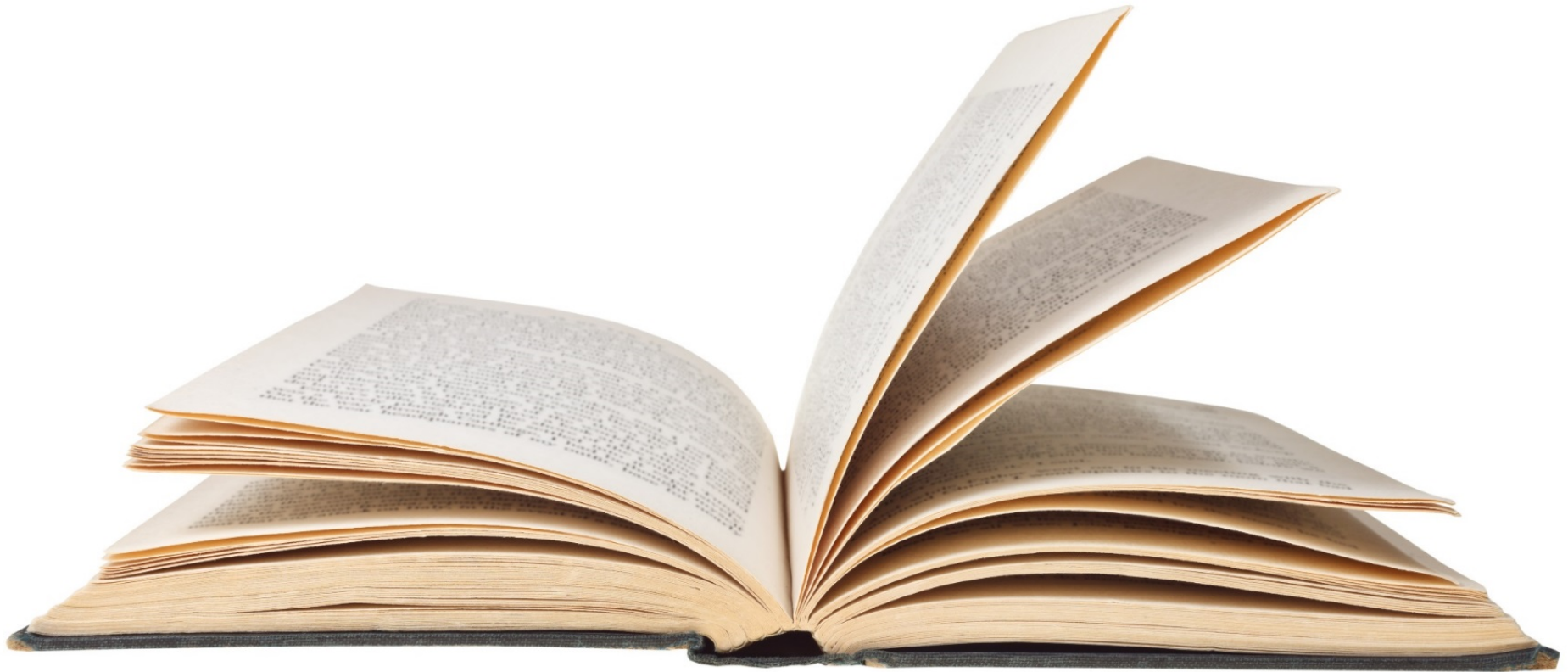
1. Science of data viz
2. Best practices
3. Examples
4. Continued learning





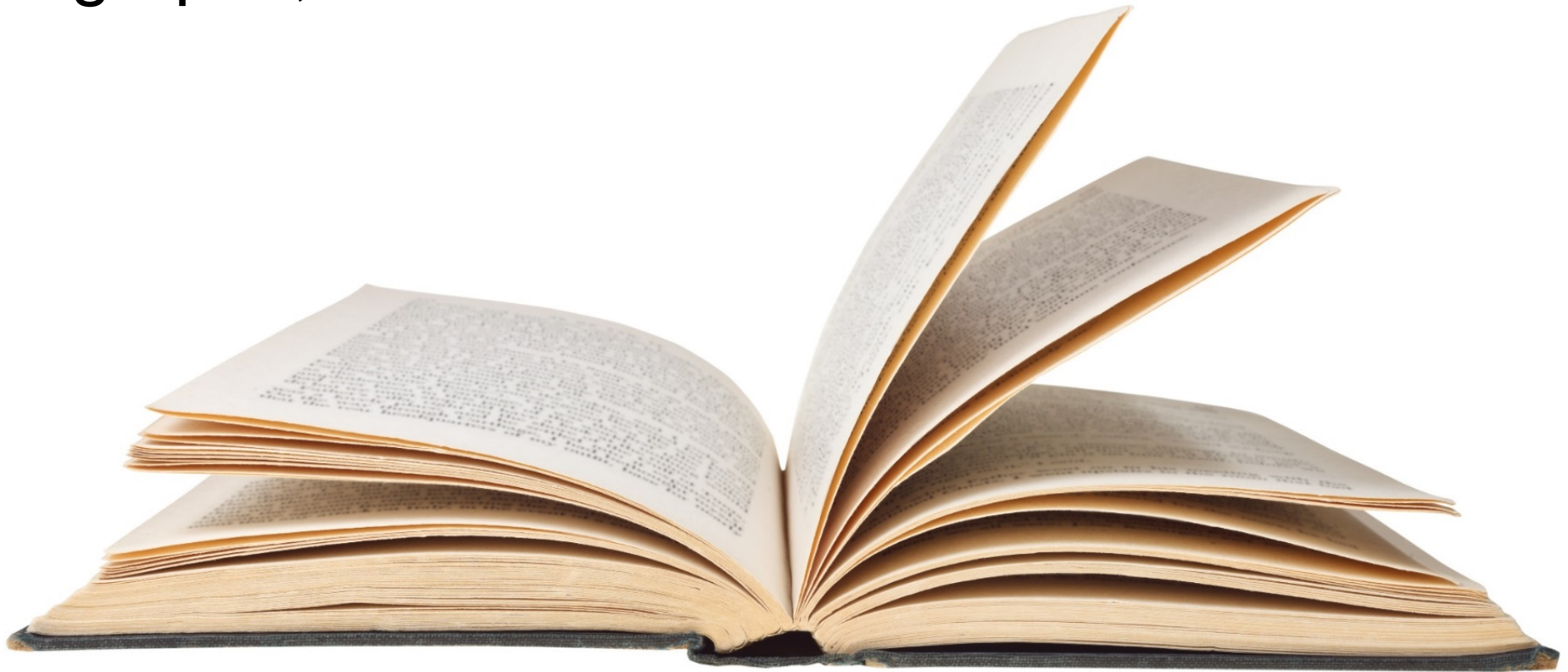
# Information design

Practice of presenting information in a way that fosters efficient and effective understanding of it



# Data visualization

Process of applying information design practices to data visuals such as charts, graphs, and tables

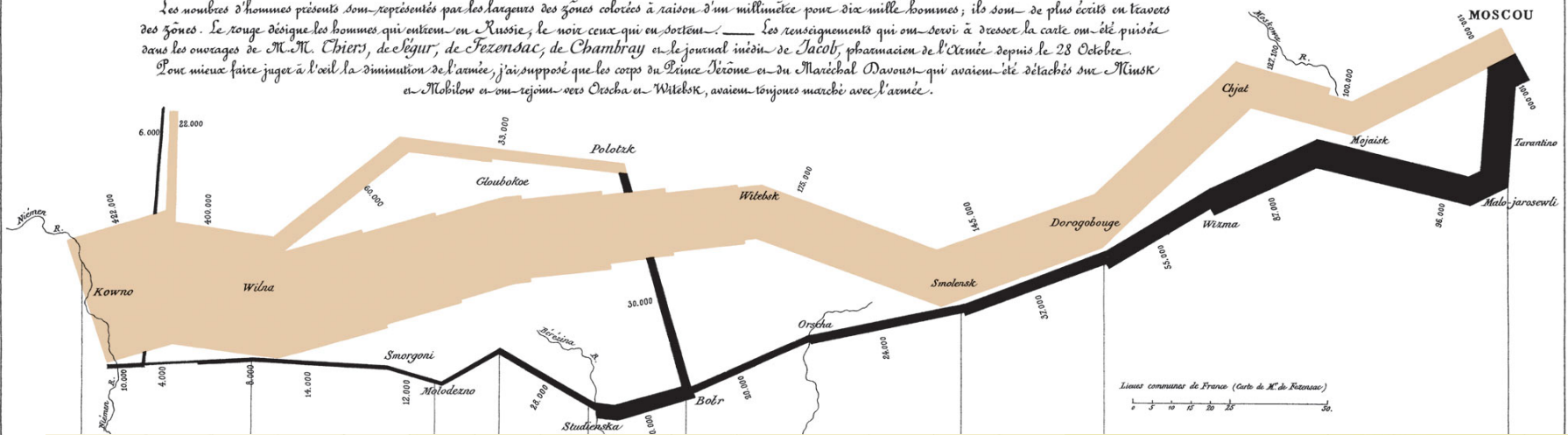


# Carte Figurative des pertes successives en hommes de l'Armée Française dans la campagne de Russie 1812-1813.

Dressée par M. Minard, Inspecteur Général des Ponts et Chaussées en retraite, Paris, le 20 Novembre 1869.

Les nombres d'hommes présents sont représentés par les largeurs des zones colorées à raison d'un millimètre pour dix mille hommes; ils sont de plus écrits en travers des zones. Le rouge désigne les hommes qui entrent en Russie, le noir ceux qui en sortent. Les renseignements qui ont servi à dresser la carte ont été puisés dans les ouvrages de M. M. Thiers, de Fénelon, de Chambray et le journal inédit de Jacob, pharmacien de l'Armée depuis le 28 Octobre.

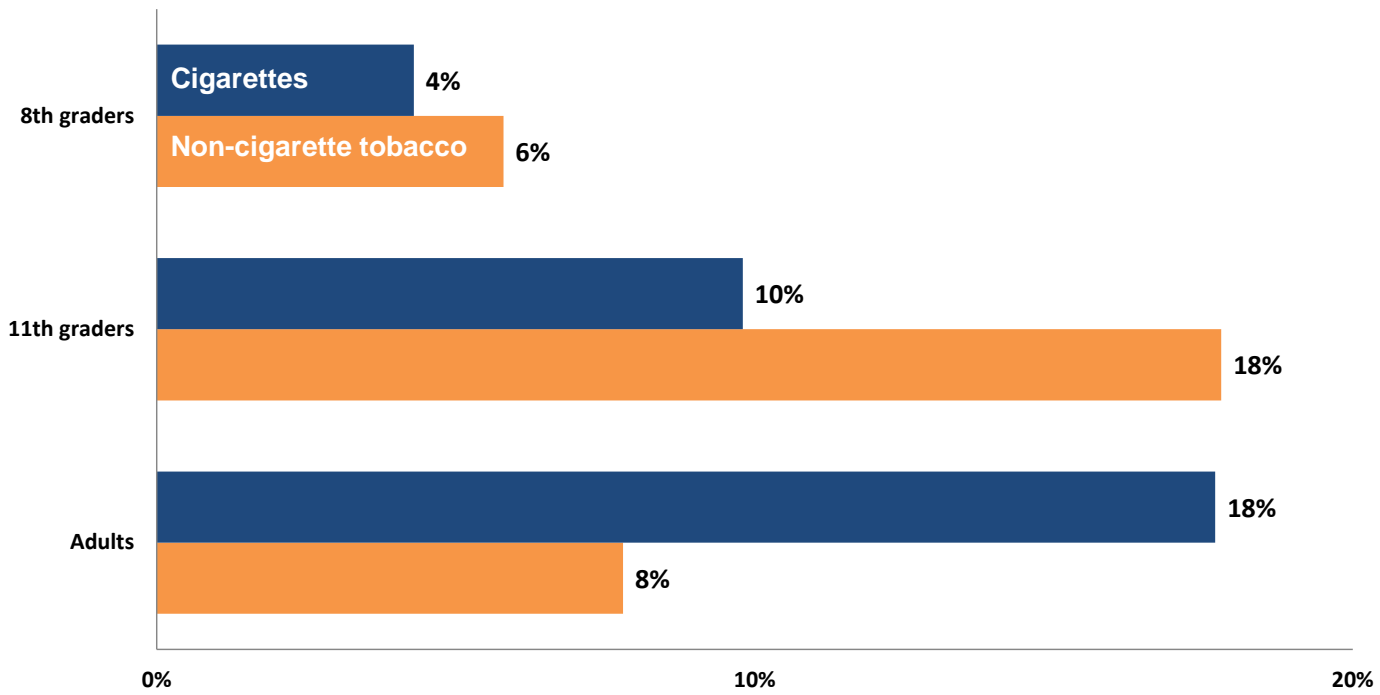
Tout mieux faite juger à l'œil la diminution de l'armée, j'ai supposé que les corps du Prince Reoume et du Maréchal Davoust qui avaient été détachés sur Minsk et Moliow et qui rejoignirent Orescha et Witebsk, avaient toujours marché avec l'armée.

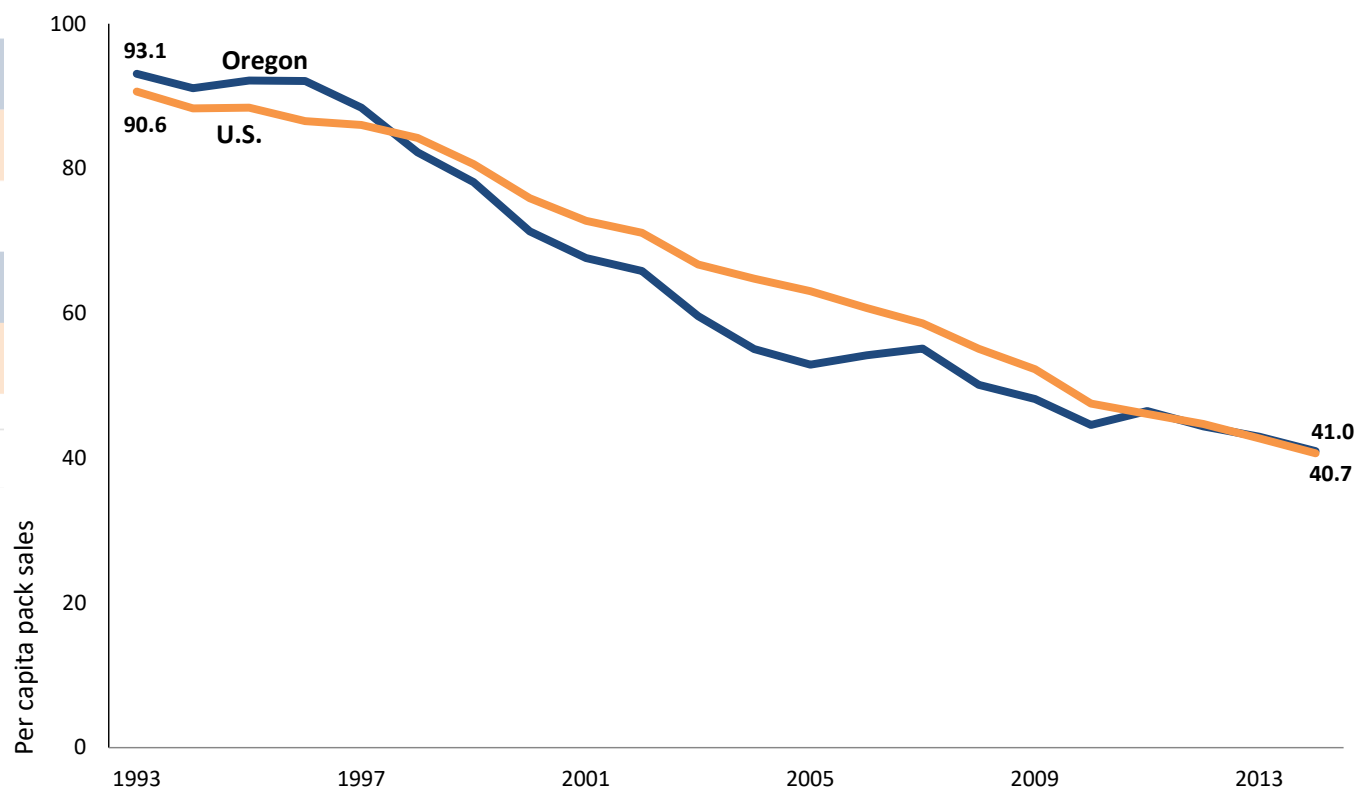
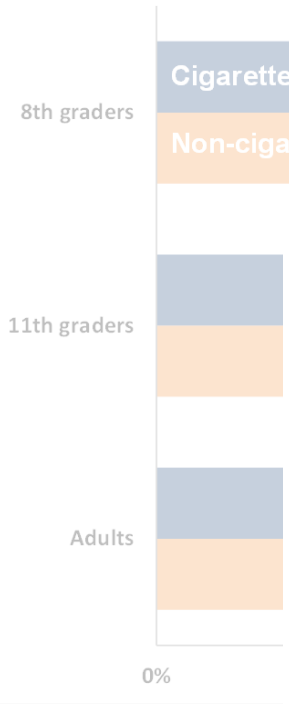


# The Genealogy of Pop/Rock Music 1955-1978

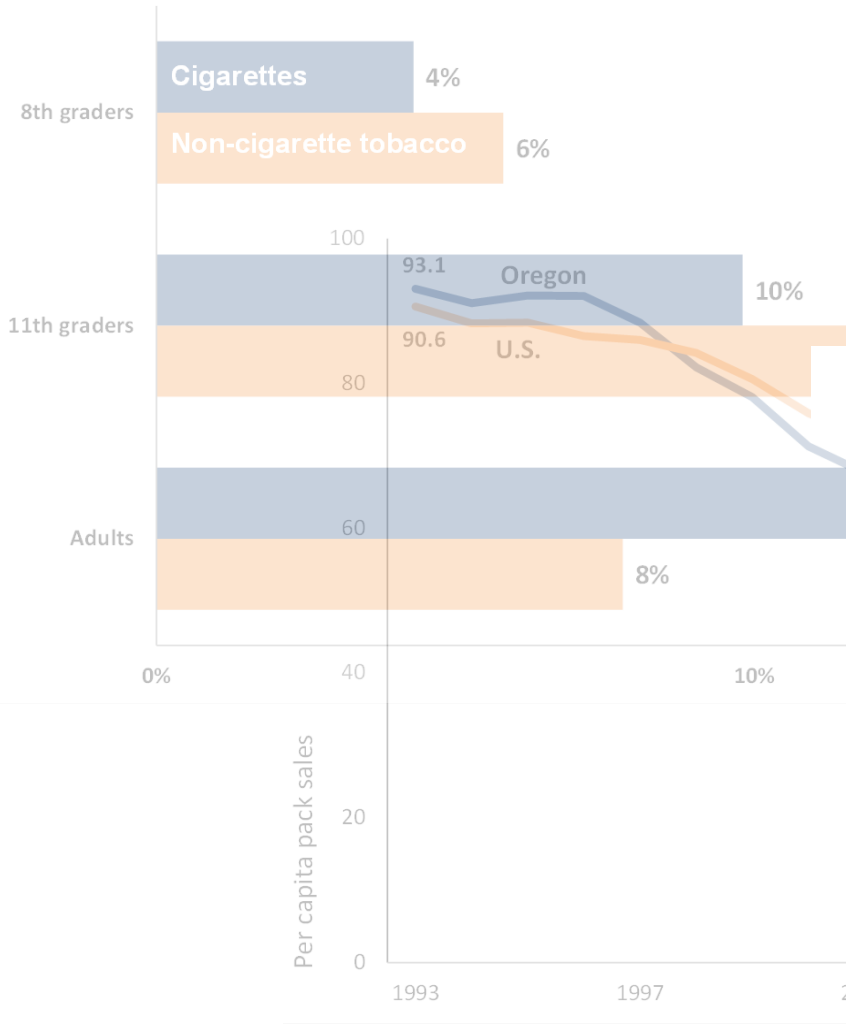
by Reebec Garofalo











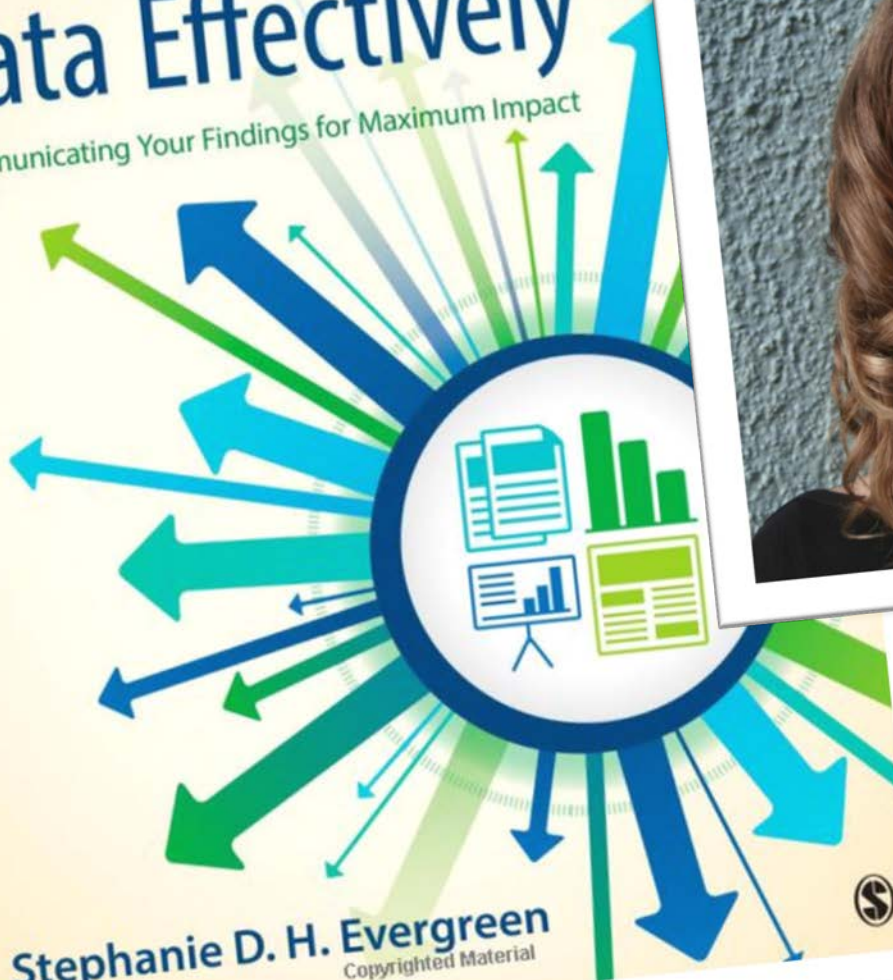
# Best practices exist!



Copyrighted Material

# Presenting Data Effectively

Communicating Your Findings for Maximum Impact



Stephanie D. H. Evergreen  
Copyrighted Material





# Pictorial superiority effect

Vision  
dominates

Take advantage  
of the eye!

Move information  
along the memory  
continuum

Affix in  
memory



Catch attention



Focus  
attention



# Early attention

Color

Alignment

Orientation

Order

Size



1 2 37 58 90 2 3 3 93 23 8 9  
34 2 38 93 4 27 95 4 2 38 64  
5 2 3 94 1 2 37 58 90 2 3 3  
93 23 8 9 34 2 38 93 2 27 95  
4 2 38 64 5 2 3 94 1 2 37 58  
90 2 3 3 93 23 8 9 34 2 38  
93 4 27 95 6 2 38 94 1 2 37

1 2 37 58 90 2 3 3 93 23 8 9  
34 2 38 93 4 27 95 4 2 38 64  
5 2 3 94 1 2 37 58 90 2 3 3  
93 23 8 9 34 2 38 93 2 27 95  
4 2 38 64 5 2 3 94 1 2 37 58  
90 2 3 3 93 23 8 9 34 2 38  
93 4 27 95 6 2 38 94 1 2 37



# Working memory



# Working memory



Format

Proximity

Font

Color

Size

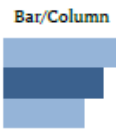
Graph type

# Long-term retention



REMEMBER THIS IMPORTANT NUMBER

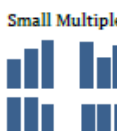
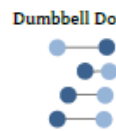
Big Number  
**23%**



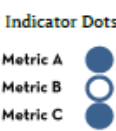
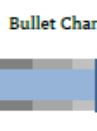
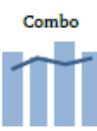
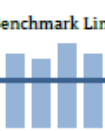
# CHART CHOOSER 3.0

BY STEPHANIE EVERGREEN

COMPARE 2 OR MORE THINGS

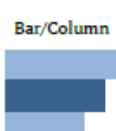
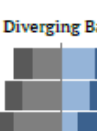
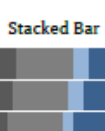


COMPARE TO A TARGET

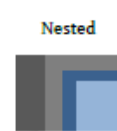


WATCH FOR OVERLAPPING POINTS

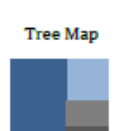
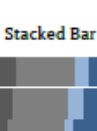
SHOW SURVEY RESPONSES



Number & Icon  
**45%**  
their jobs

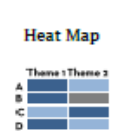
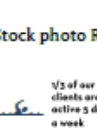
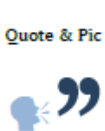


THESE ARE THE PARTS OF THIS WHOLE



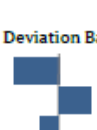
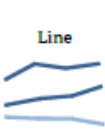
FOR BRANCHING QUESTIONS!

VISUALIZE OPEN-ENDED COMMENTS



ALSO GOOD FOR SHOWING FLOW

HEY, THINGS CHANGED OVER TIME



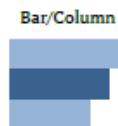
THIS THING CHANGES WHEN THAT THING DOES



FOR MORE SEE  
[STEPHANIEEVERGREEN.COM/TAG/STEP-BY-STEP](http://STEPHANIEEVERGREEN.COM/TAG/STEP-BY-STEP)  
[STEPHANIEEVERGREEN.COM/BLOG](http://STEPHANIEEVERGREEN.COM/BLOG)  
*PRESENTING DATA EFFECTIVELY*

REMEMBER THIS IMPORTANT NUMBER

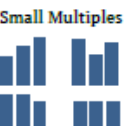
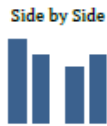
Big Number  
**23%**



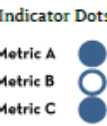
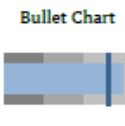
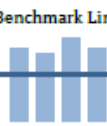
# CHART CHOOSER 3.0

BY STEPHANIE EVERGREEN

COMPARE 2 OR MORE THINGS

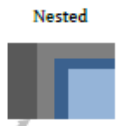
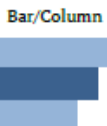
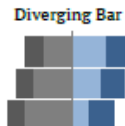
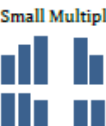
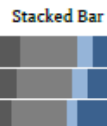


COMPARE TO A TARGET

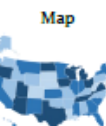
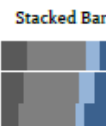


WATCH FOR OVERLAPPING POINTS

SHOW SURVEY RESPONSES

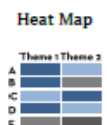
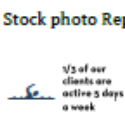
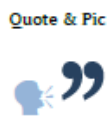


THESE ARE THE PARTS OF THIS WHOLE



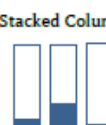
FOR BRANCHING QUESTIONS!

VISUALIZE OPEN-ENDED COMMENTS

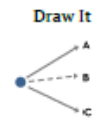


ALSO GOOD FOR SHOWING FLOW

HEY, THINGS CHANGED OVER TIME



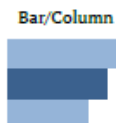
THIS THING CHANGES WHEN THAT THING DOES



FOR MORE SEE  
[STEPHANIEEVERGREEN.COM/TAG/STEP-BY-STEP](http://STEPHANIEEVERGREEN.COM/TAG/STEP-BY-STEP)  
[STEPHANIEEVERGREEN.COM/BLOG](http://STEPHANIEEVERGREEN.COM/BLOG)  
*PRESENTING DATA EFFECTIVELY*

REMEMBER THIS IMPORTANT NUMBER

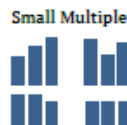
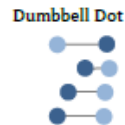
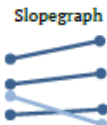
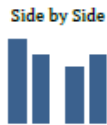
Big Number  
**23%**



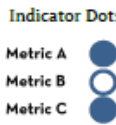
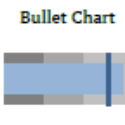
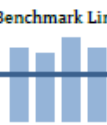
# CHART CHOOSER 3.0

BY STEPHANIE EVERGREEN

COMPARE 2 OR MORE THINGS

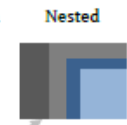
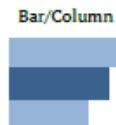
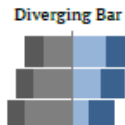
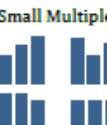
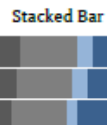


COMPARE TO A TARGET

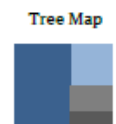
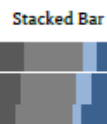


WATCH FOR OVERLAPPING POINTS

SHOW SURVEY RESPONSES

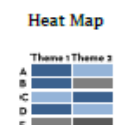
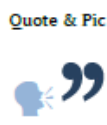


THESE ARE THE PARTS OF THIS WHOLE



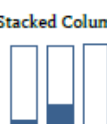
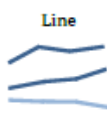
FOR BRANCHING QUESTIONS!

VISUALIZE OPEN-ENDED COMMENTS

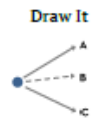


ALSO GOOD FOR SHOWING FLOW

HEY, THINGS CHANGED OVER TIME



THIS THING CHANGES WHEN THAT THING DOES



FOR MORE SEE  
[STEPHANIEEVERGREEN.COM/TAG/STEP-BY-STEP](http://STEPHANIEEVERGREEN.COM/TAG/STEP-BY-STEP)  
[STEPHANIEEVERGREEN.COM/BLOG](http://STEPHANIEEVERGREEN.COM/BLOG)  
*PRESENTING DATA EFFECTIVELY*

REMEMBER THIS IMPORTANT NUMBER

Big Number

23%

Icon Array



Pie/Donut



Bar/Column



# CHART CHOOSER 3.0

BY STEPHANIE EVERGREEN

COMPARE 2 OR MORE THINGS

Side by Side



Slopegraph



Back-to-Back



Dot Plot



Dumbbell Dot

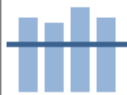


Small Multiples



COMPARE TO A TARGET

Benchmark Line



Combo



Bullet Chart



Indicator Dots



WATCH FOR OVERLAPPING POINTS

SHOW SURVEY RESPONSES

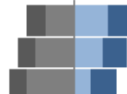
Stacked Bar



Small Multiples



Diverging Bar



Bar/Column



Number & Icon



Nested



THESE ARE THE PARTS OF THIS WHOLE

Pie/Donut



Stacked Bar



Histogram



Tree Map



Map



FOR BRANCHING QUESTIONS!

VISUALIZE OPEN-ENDED COMMENTS

Quote & Pic



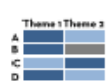
Word cloud



Stock photo Rep



Heat Map



Prezi



ALSO GOOD FOR SHOWING FLOW

HEY, THINGS CHANGED OVER TIME

Line



Stacked Column



Deviation Bar



Slopegraph



Dot Plot



Sankey



THIS THING CHANGES WHEN THAT THING DOES

Scatterplot



Draw It



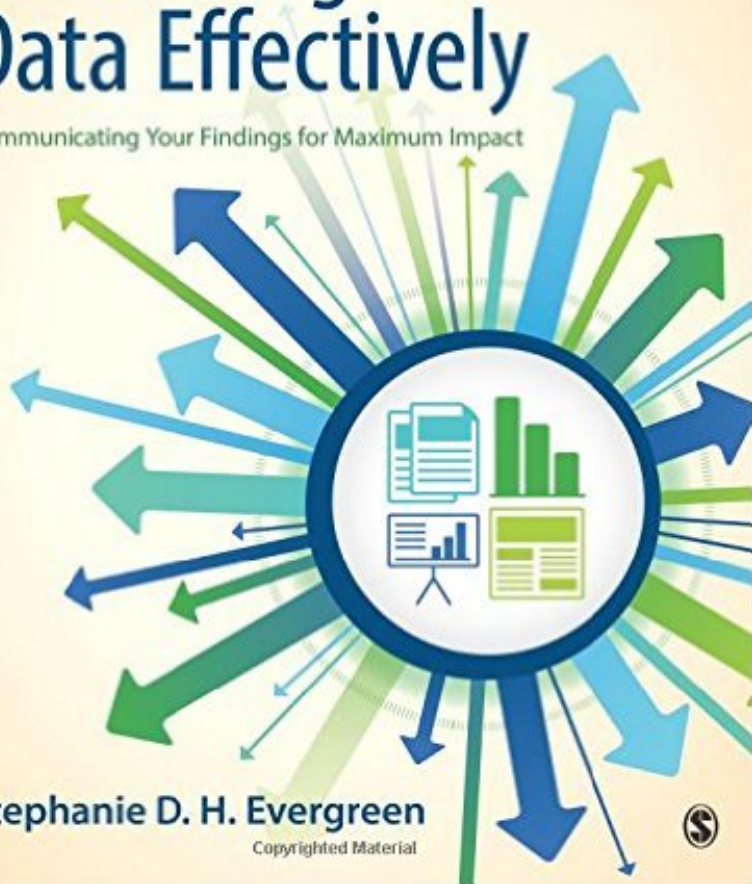
FOR MORE SEE

STEPHANIEEVERGREEN.COM/TAG/STEP-BY-STEP  
STEPHANIEEVERGREEN.COM/BLOG  
PRESENTING DATA EFFECTIVELY

Copyrighted Material

# Presenting Data Effectively

Communicating Your Findings for Maximum Impact



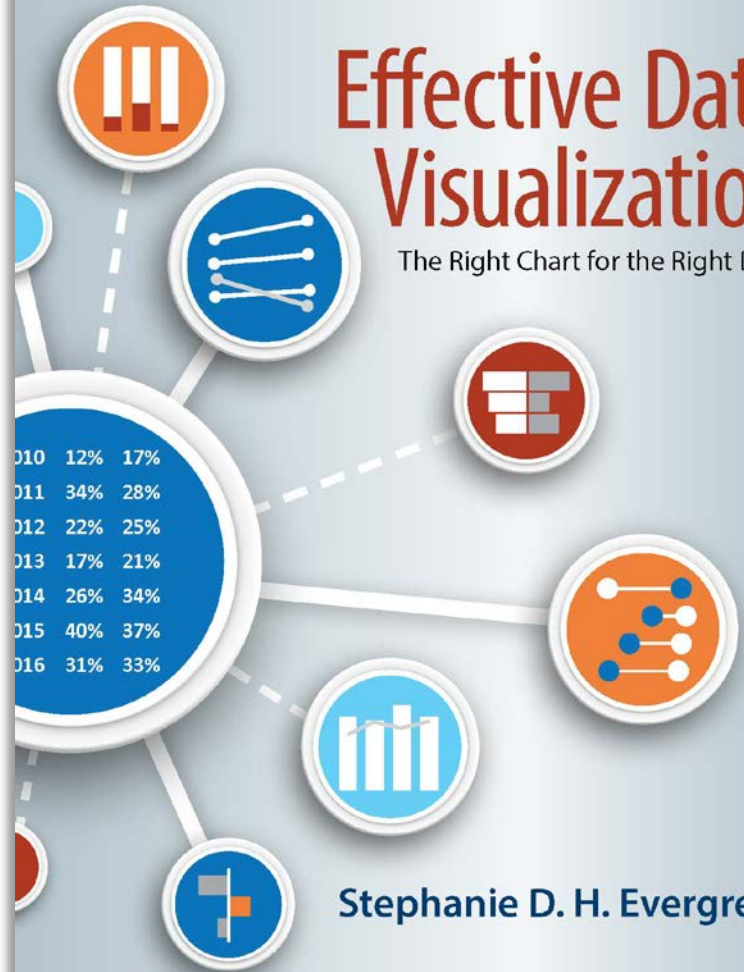
Stephanie D. H. Evergreen

Copyrighted Material



# Effective Data Visualization

The Right Chart for the Right Data



Stephanie D. H. Evergreen







## Stephanie says...

“ [We can't] assume that the average viewer takes the time to engage with the data and to pull out the most pertinent elements.”



## Stephanie says...

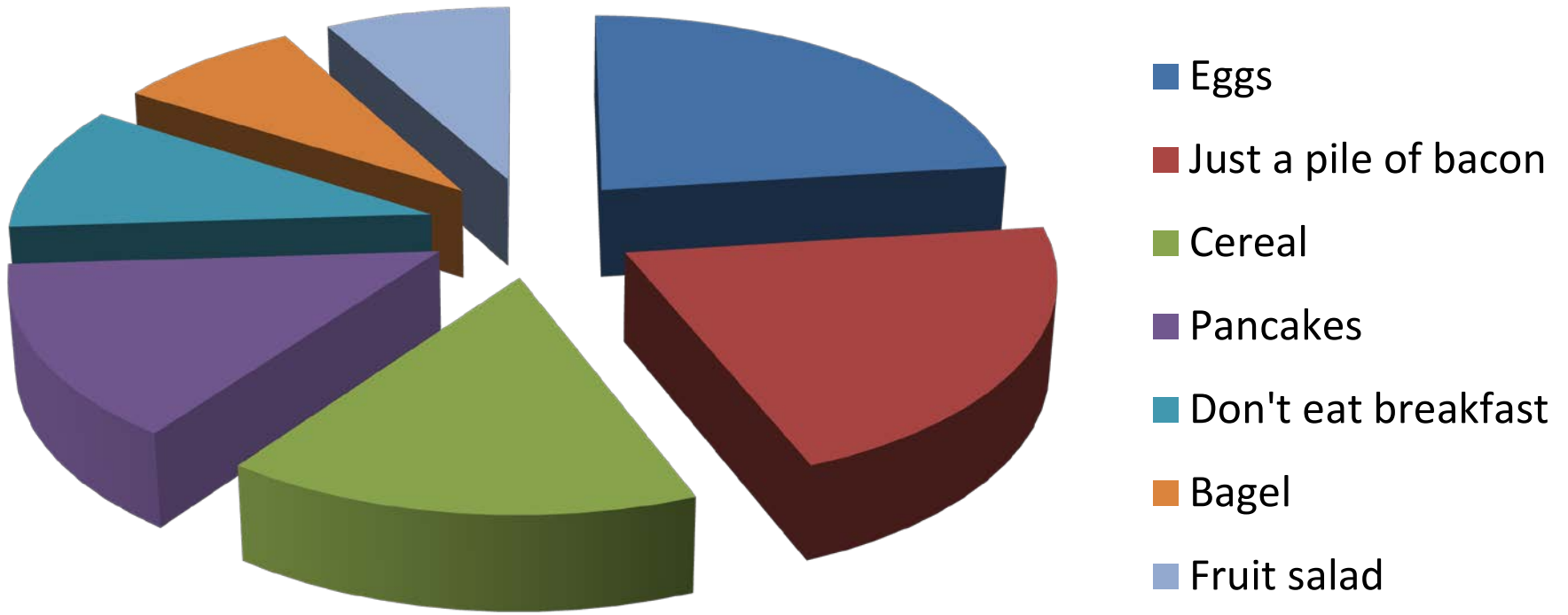
“ It is about displaying data in ways that align with how the human brain operates and how people retain information. ”

Let's apply  
best practices

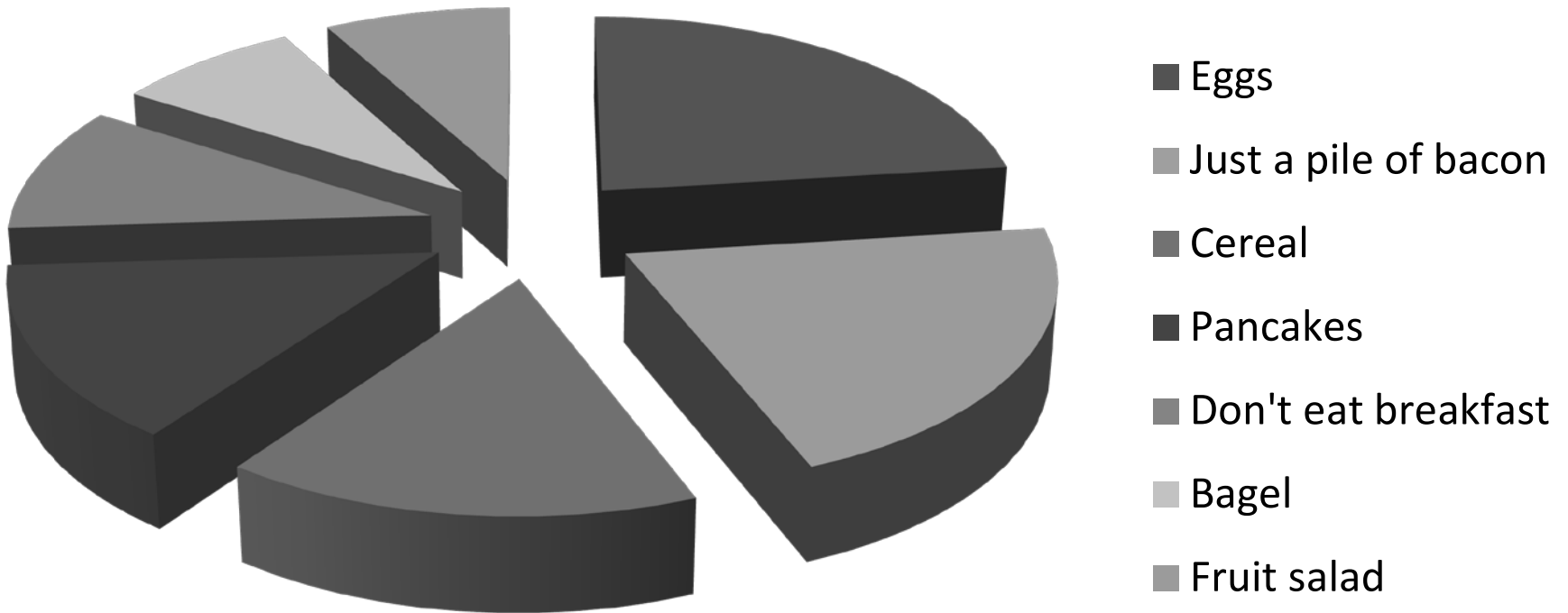
Graphs and Charts



# Analyst breakfast preferences

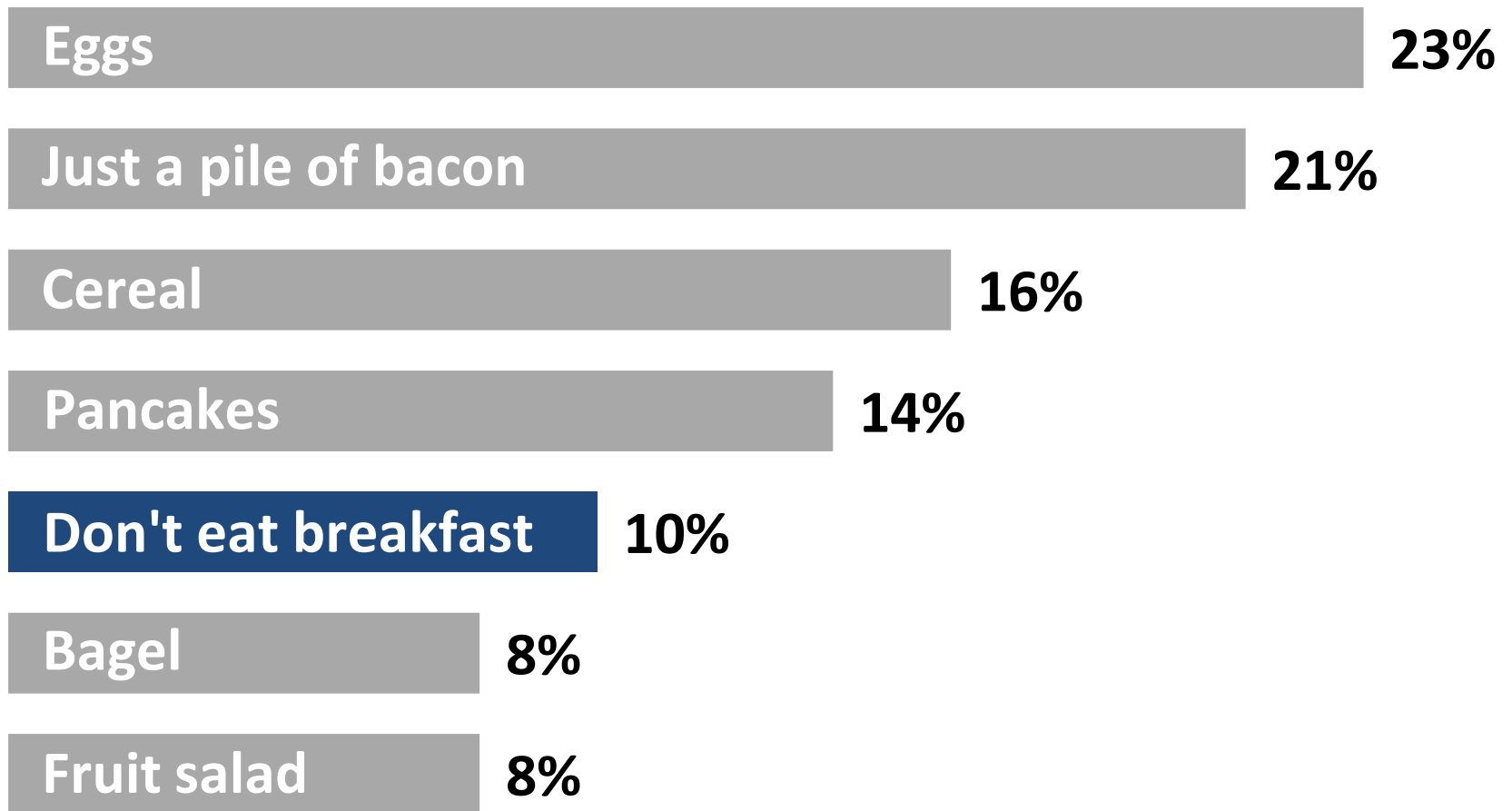


# Analyst breakfast preferences



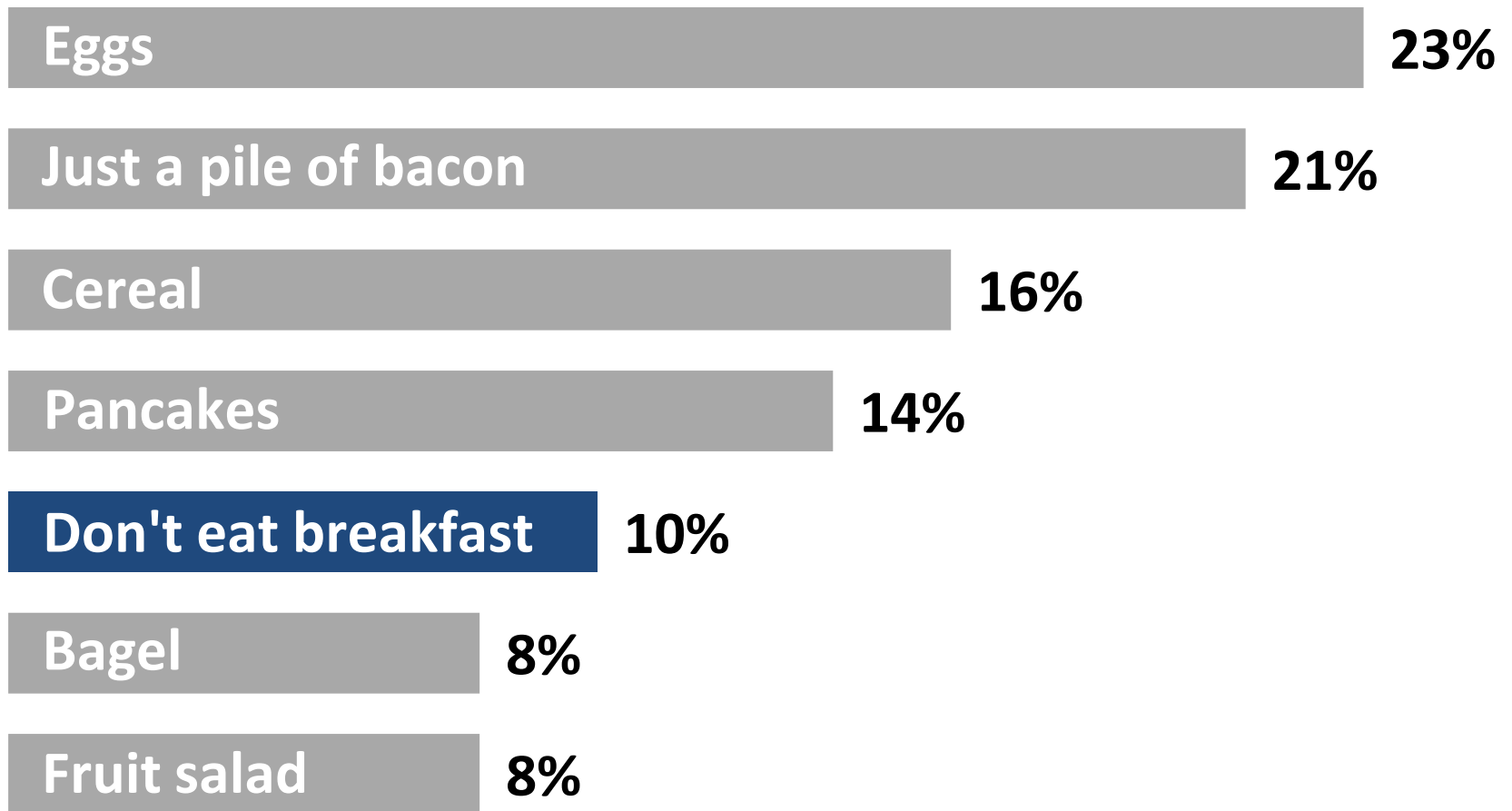
# Analyst breakfast preferences

One in ten fellow analysts do not consume adequate energy for their first meal of the day



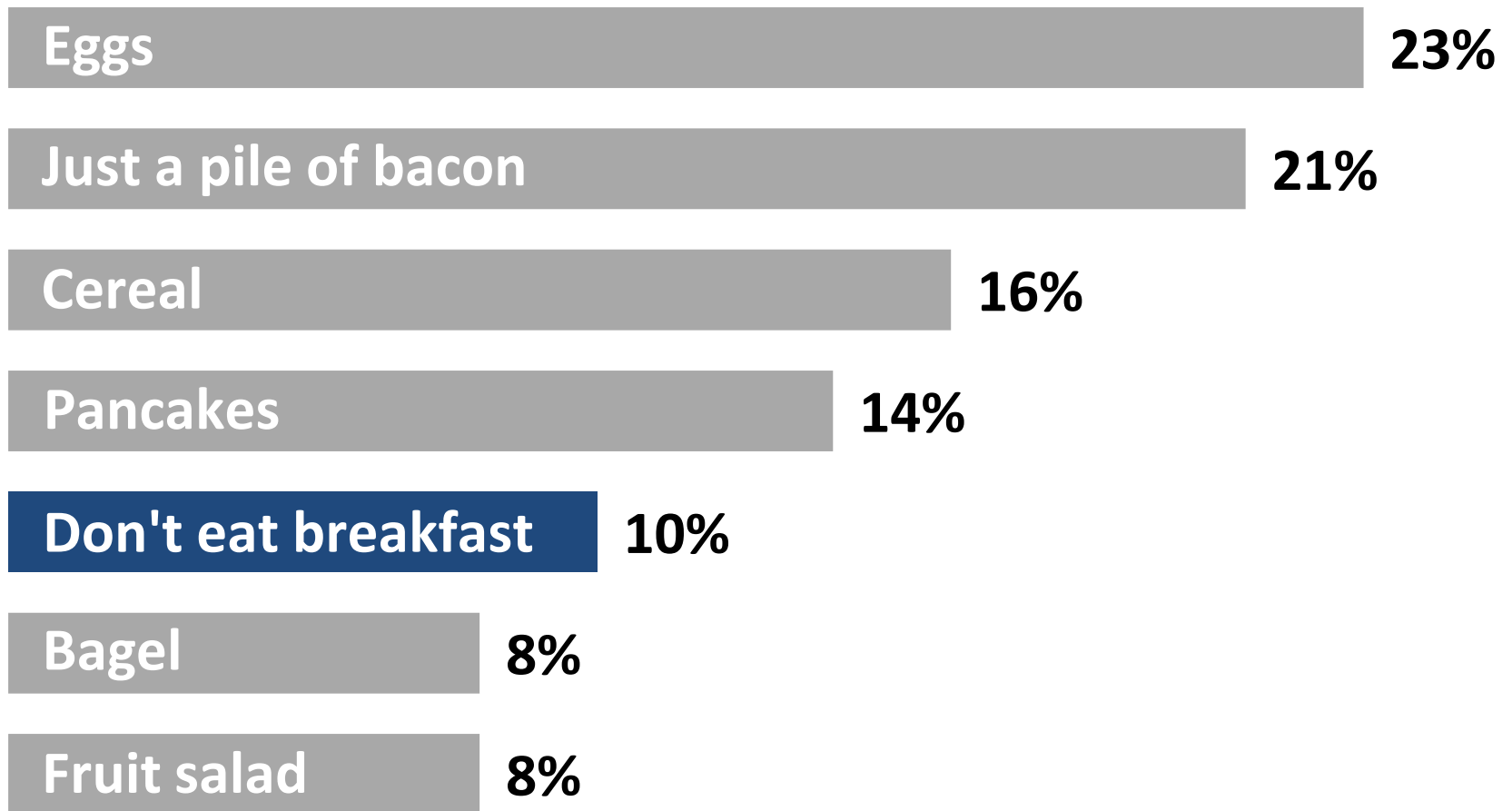
# Analyst breakfast preferences

One in ten fellow analysts do not consume adequate energy for their first meal of the day



# Analyst breakfast preferences

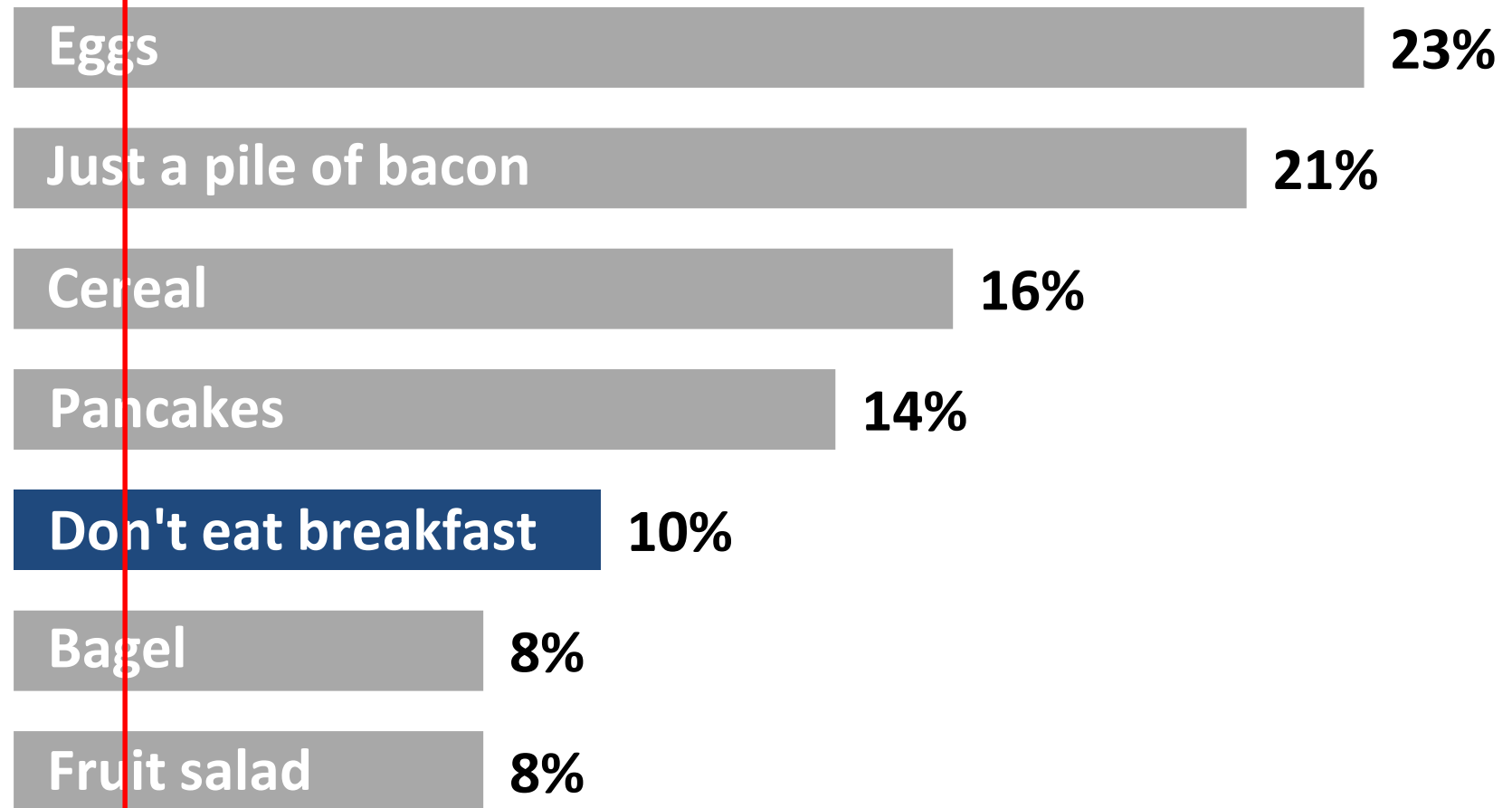
One in ten fellow analysts do not consume adequate energy for their first meal of the day





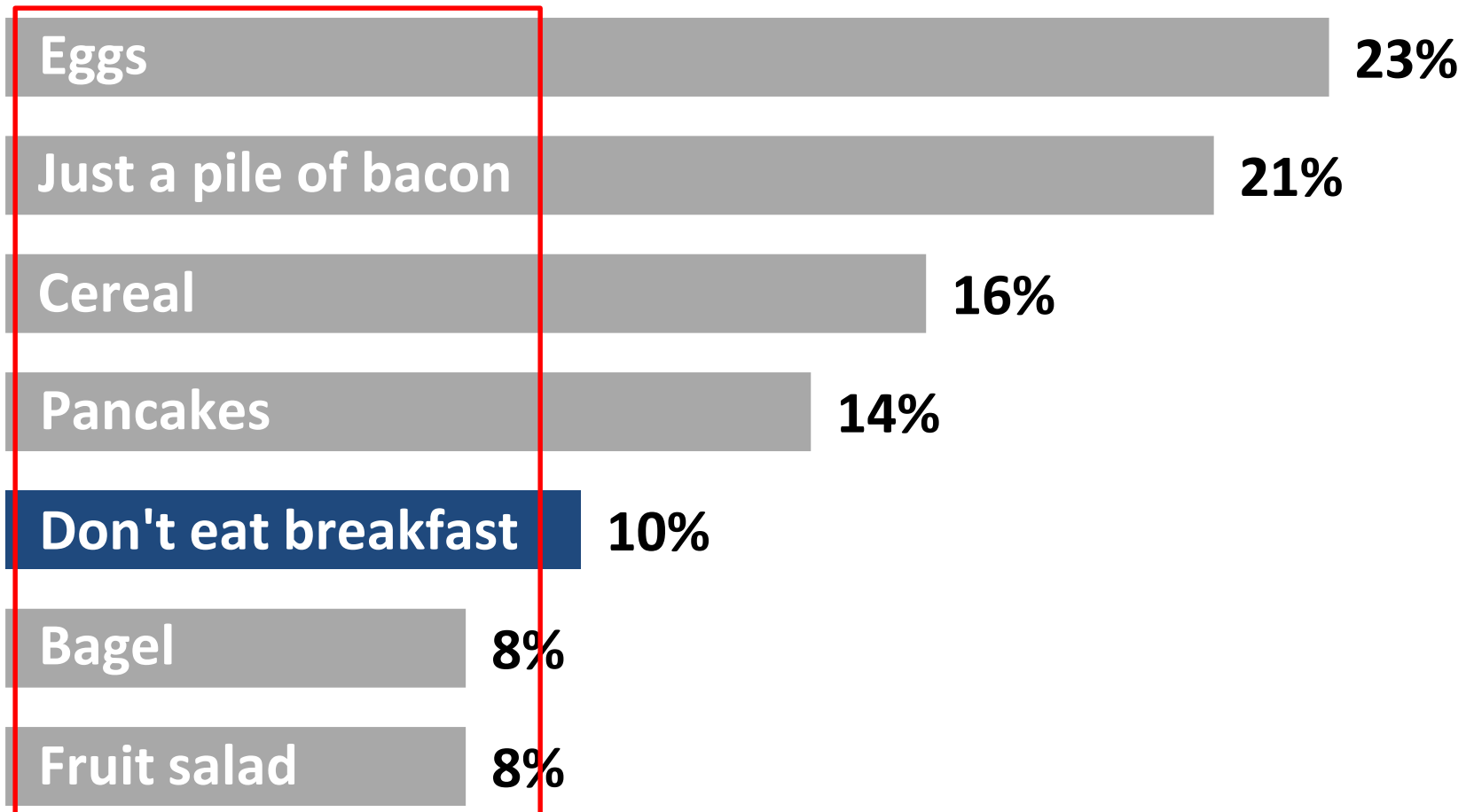
# Analyst breakfast preferences

One in ten fellow analysts do not consume adequate energy for their first meal of the day



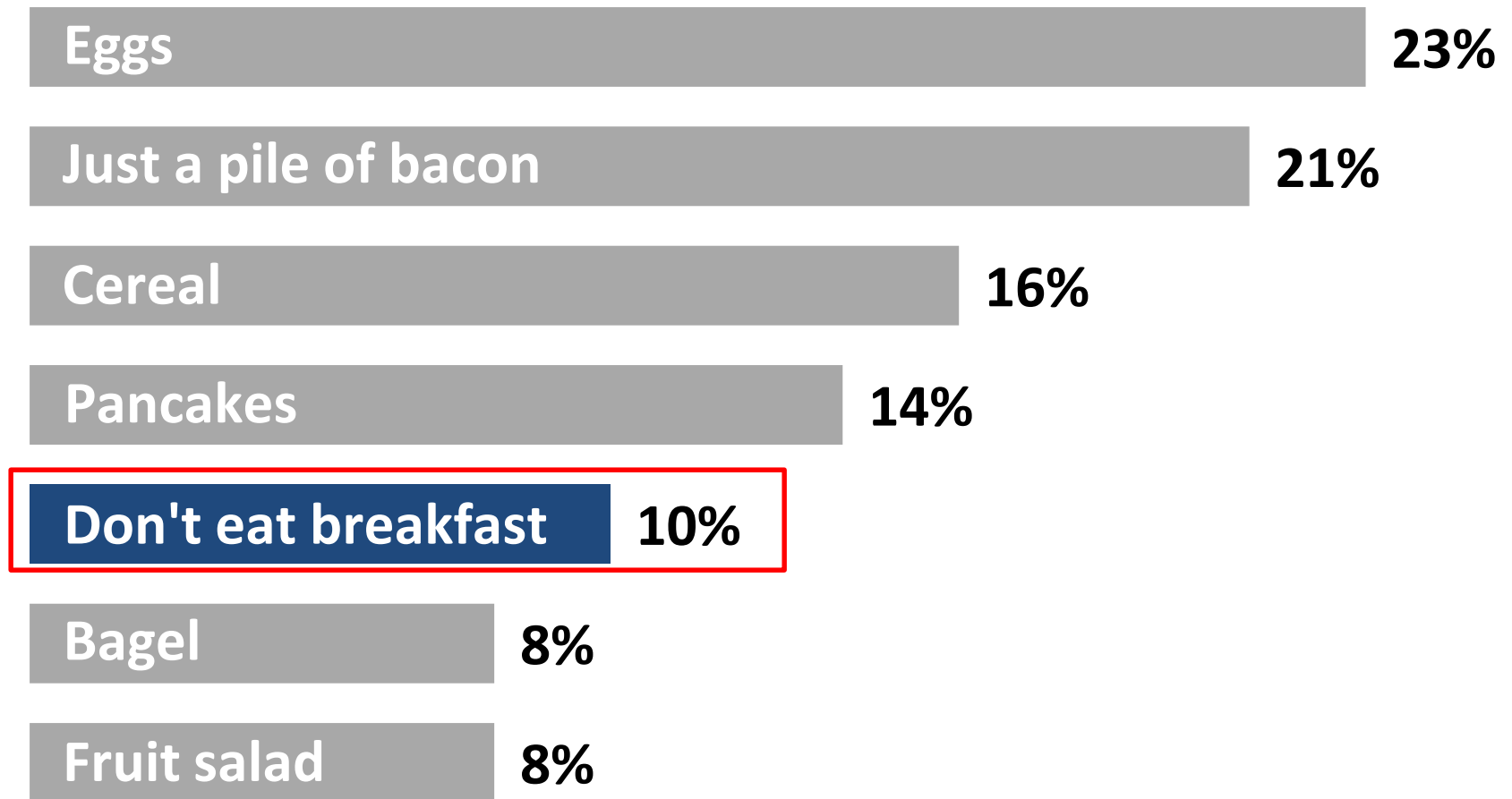
# Analyst breakfast preferences

One in ten fellow analysts do not consume adequate energy for their first meal of the day

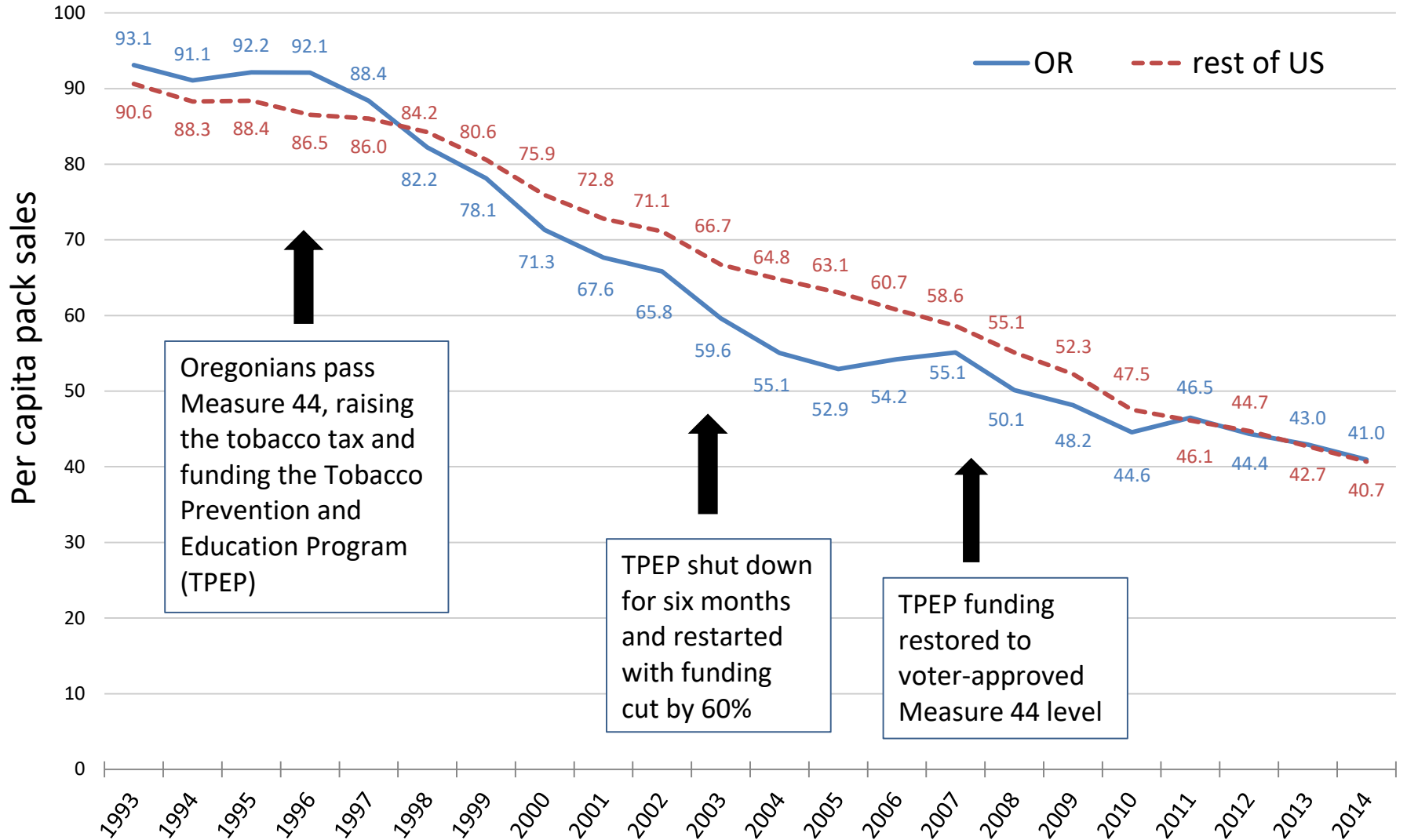


# Analyst breakfast preferences

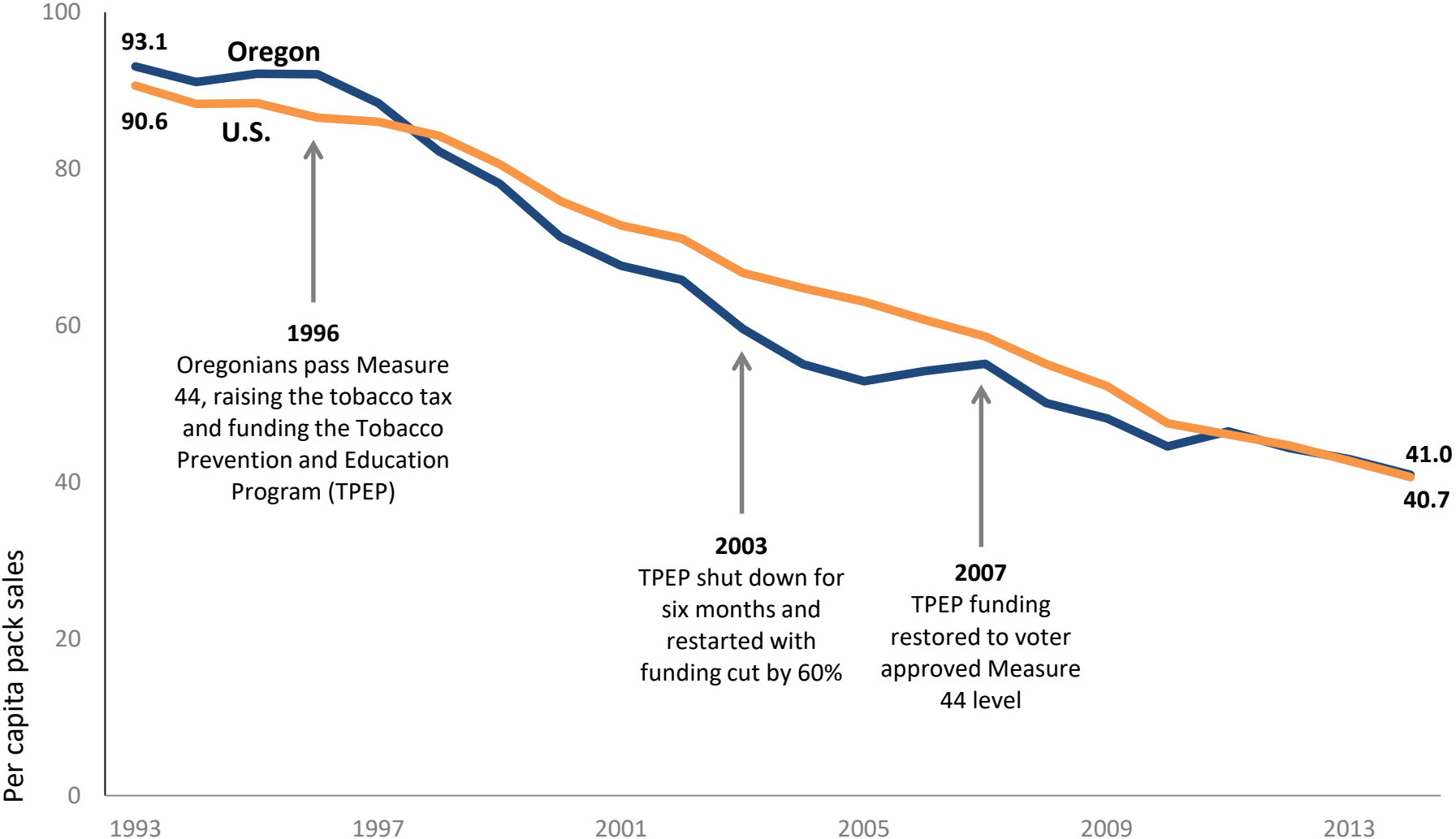
One in ten fellow analysts do not consume adequate energy for their first meal of the day



# Per capita cigarette pack sales, Oregon vs. rest of United States, FY 1993 through 2014

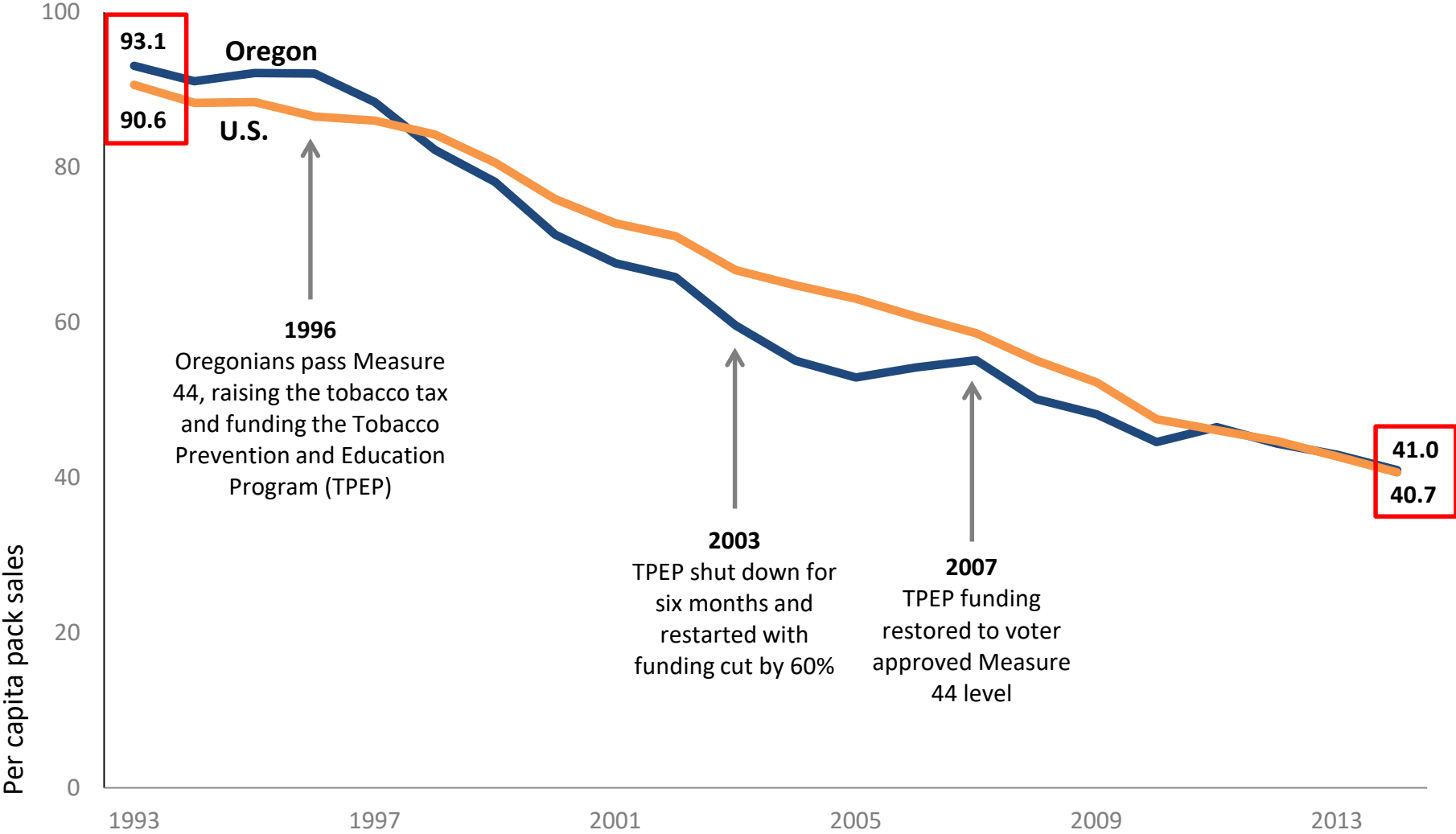


# Per capita cigarette pack sales in Oregon and the United States, Fiscal Year 1993–2014



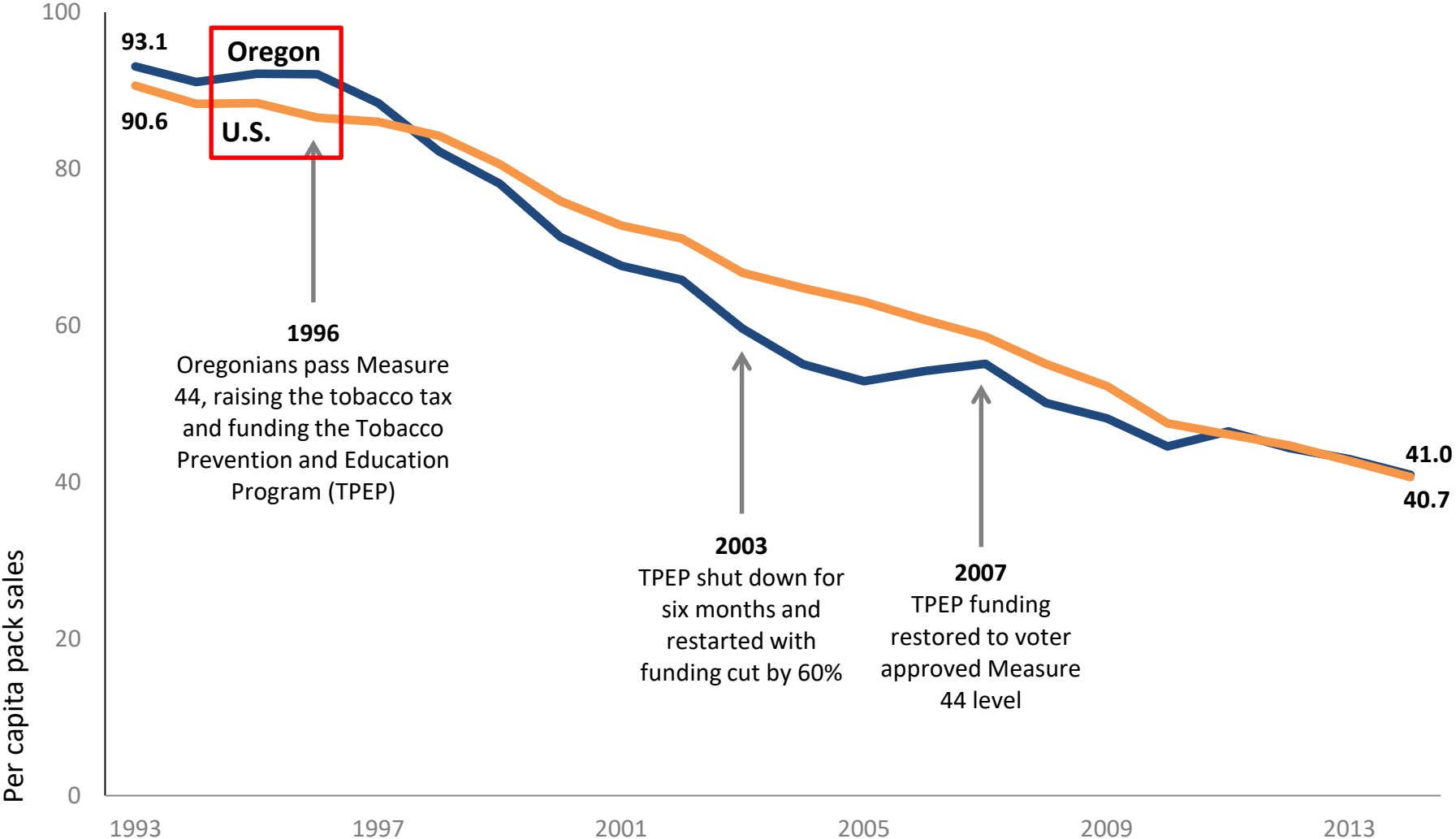
Source: Orzechowski and Walker (2014). The Tax Burden on Tobacco.

# Per capita cigarette pack sales in Oregon and the United States, Fiscal Year 1993–2014



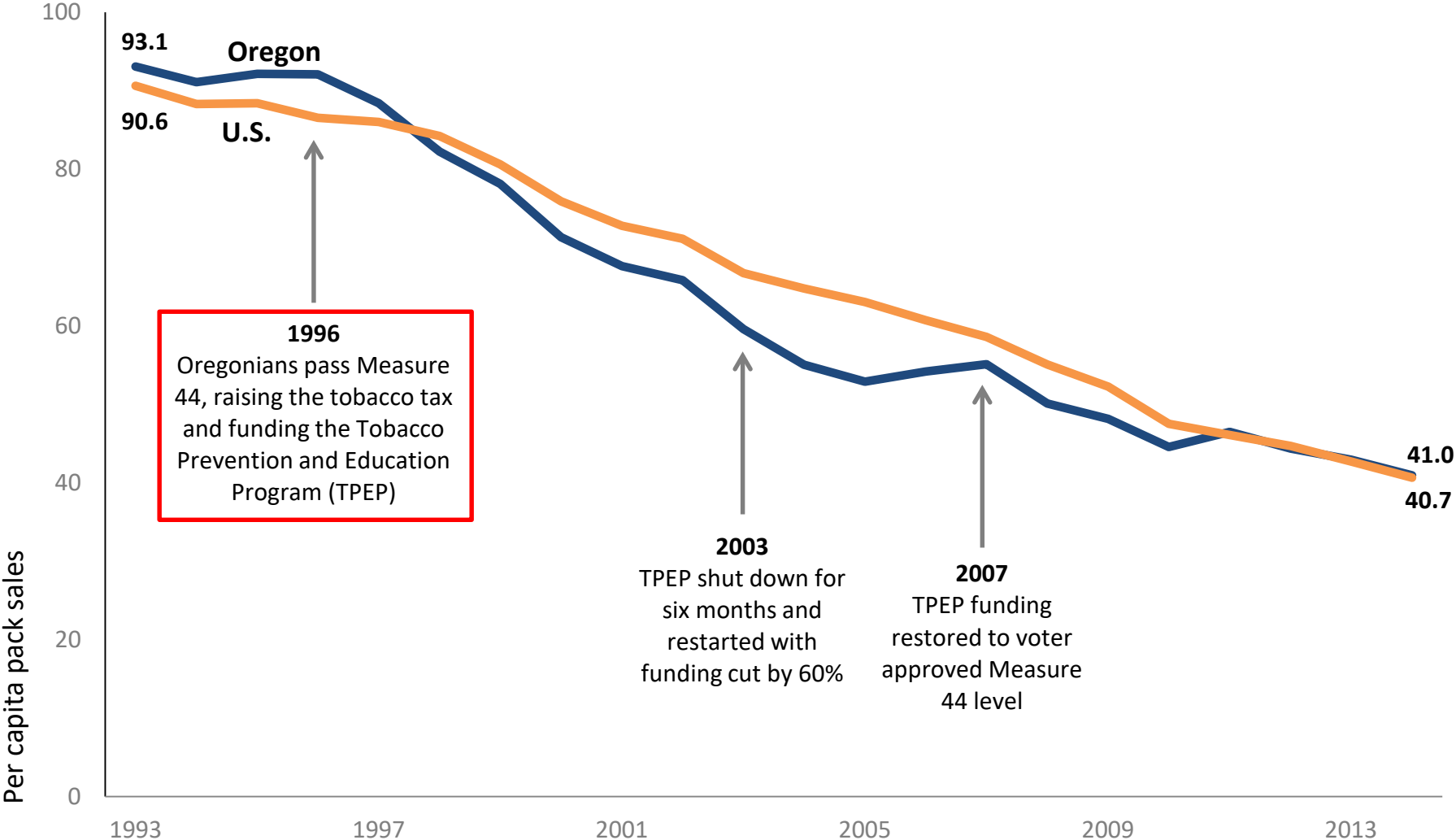
Source: Orzechowski and Walker (2014). The Tax Burden on Tobacco.

# Per capita cigarette pack sales in Oregon and the United States, Fiscal Year 1993–2014



Source: Orzechowski and Walker (2014). The Tax Burden on Tobacco.

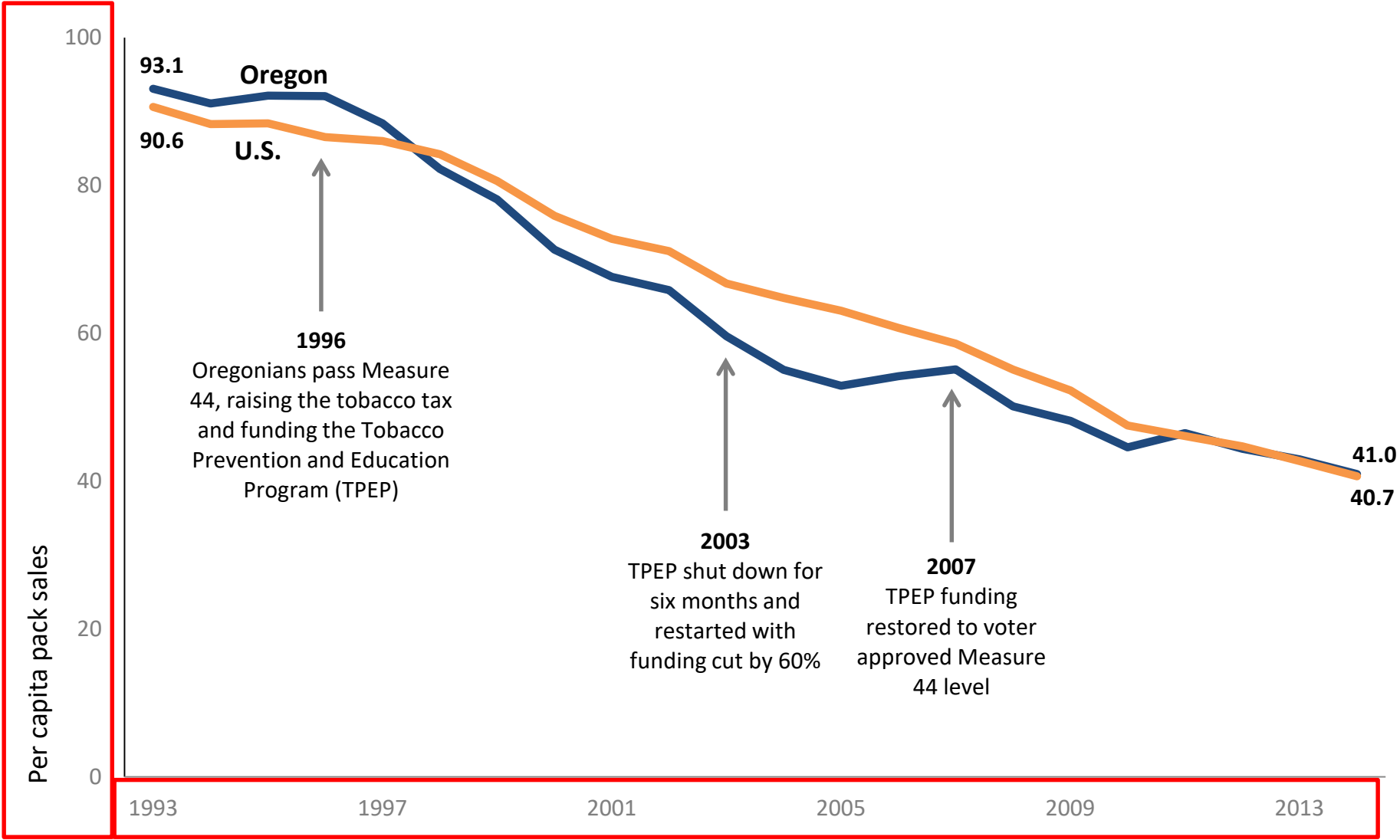
# Per capita cigarette pack sales in Oregon and the United States, Fiscal Year 1993–2014



Source: Orzechowski and Walker (2014). The Tax Burden on Tobacco.



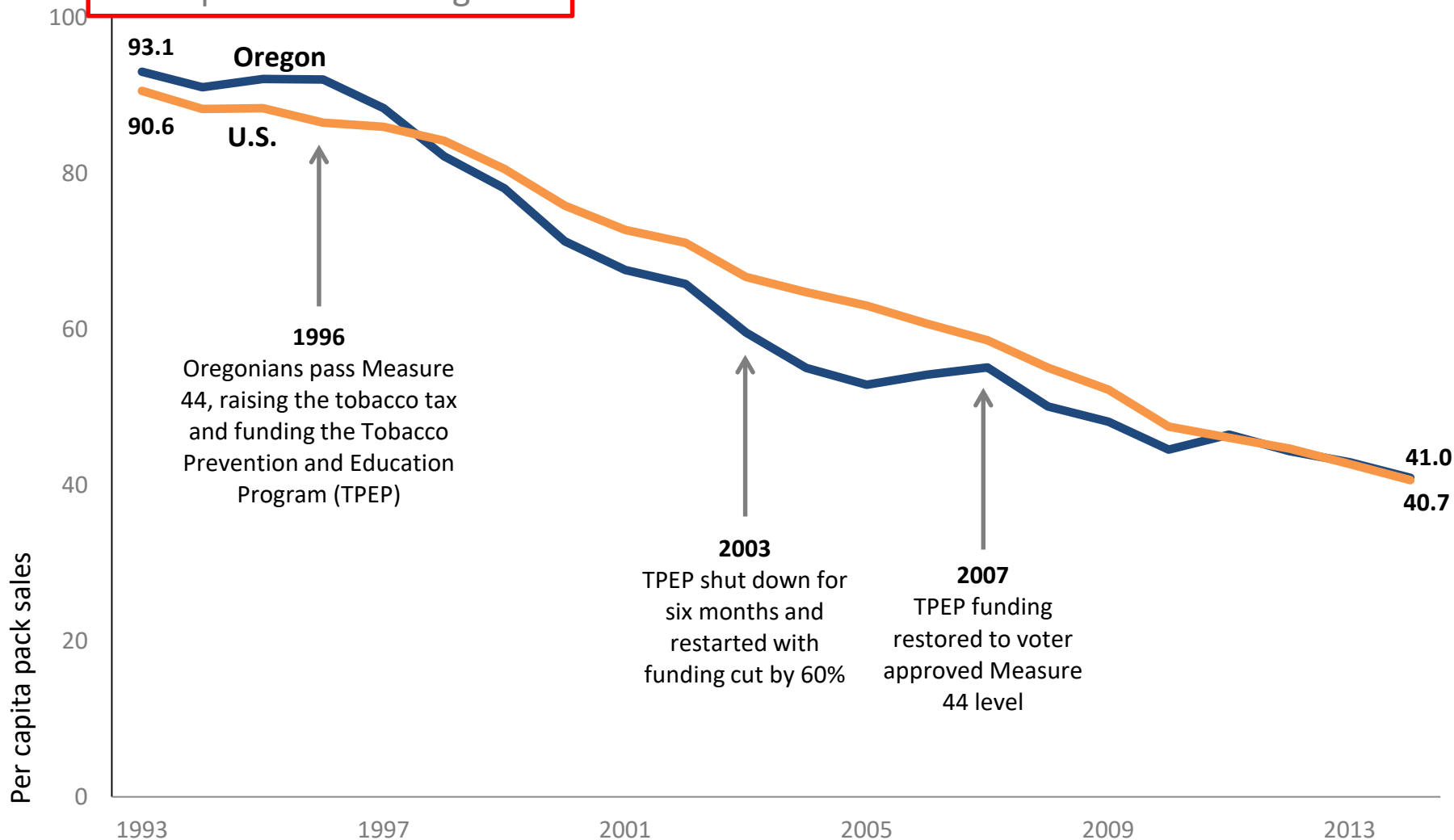
# Per capita cigarette pack sales in Oregon and the United States, Fiscal Year 1993–2014



Source: Orzechowski and Walker (2014). The Tax Burden on Tobacco.

# Per capita cigarette pack sales in Oregon and the United States, Fiscal Year 1993–2014

Descriptive subheading here



# Things to remember

- Visualize data that need attention
- Simplify, remove clutter
- Text encapsulates your message and packs a punch
- Color is used **intentionally**
- Thoughtful arrangement makes a visualization easier to interpret



**Let's apply  
best practices**

**PowerPoints & Fact Sheets**



**Make a point**



# Problem:

## Too many bullet points

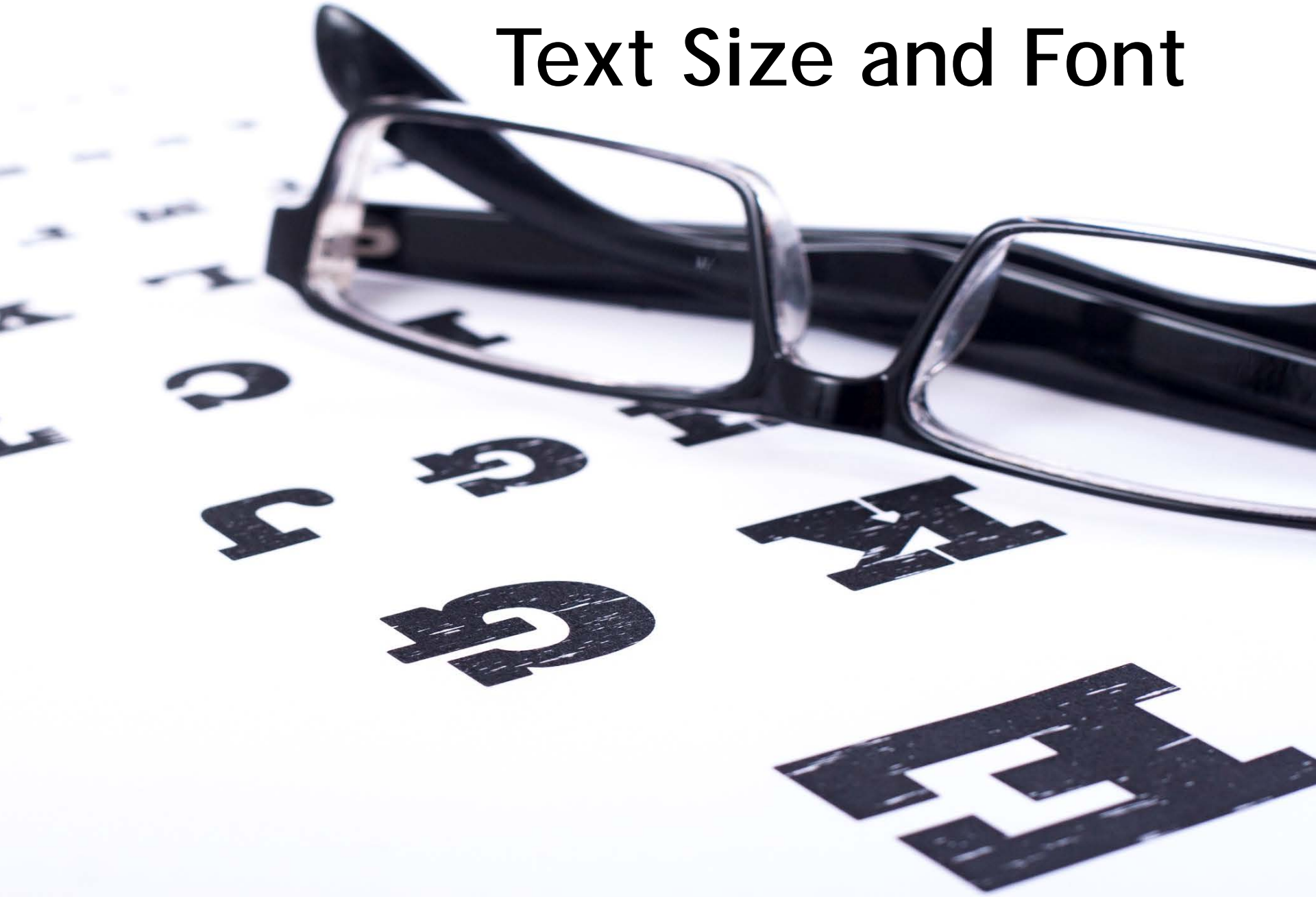
- Audience members can't read your slides and listen to you speak at the same time.
- A slide filled with words screams “ignore the presenter”!
- You might as well stand silently for 2 minutes while they read, because they aren't listening to you.
- Slides are to help the audience remember your information, not to help you remember your own information.
- A typical audience member can read 3 to 5 words per second, but then they need time to comprehend, conceptualize and contextualize.

# Solution:

## Use 3-5 key points

- Text should be reserved only for **key words**.
- Details and explanation should be **delivered verbally**.
- Don't worry about the number of slides you have. **Slides are free**.

# Text Size and Font





# Problem:

## Text is hard to read

*Always avoid script type fonts. These fonts are hard to read.*

Don't use anything smaller than an 24 point font.

Additionally, changing fonts throughout a presentation tends to distract and confuse readers.

Text that is centered can also be difficult to read. Our brains are used to reading left to right, so left justify as much as possible

# Solution:

Use large, san serif fonts

- Look for a font with **thick, even lines**.
- Fonts should be **easily read** on screen.
- Consistently apply the **same font** for the entire presentation.
- **Left align** your text for easier reading.

**I am sans.**

I am serif.

**Color**



1 2 37 58 90 2 3 3 93 23 8 9  
34 2 38 93 4 27 95 4 2 38 64  
5 2 3 94 1 2 37 58 90 2 3 3  
93 23 8 9 34 2 38 93 2 27 95  
4 2 38 64 5 2 3 94 1 2 37 58  
90 2 3 3 93 23 8 9 34 2 38  
93 4 27 95 6 2 38 94 1 2 37

1 2 37 58 90 2 3 3 93 23 8 9  
34 2 38 93 4 27 95 4 2 38 64  
5 2 3 94 1 2 37 58 90 2 3 3  
93 23 8 9 34 2 38 93 2 27 95  
4 2 38 64 5 2 3 94 1 2 37 58  
90 2 3 3 93 23 8 9 34 2 38  
93 4 27 95 6 2 38 94 1 2 37

# Solution:

Use large, san serif fonts

- Look for a font with **thick, even lines**.
- Fonts should be **easily read** on screen.
- Consistently apply the **same font** for the entire presentation.

# Solution:

Use large, san serif fonts

- Look for a font with thick, even lines.
- Fonts should be easily read on screen.
- Consistently apply the same font for the entire presentation.



Problem:

Bad color combinations

**RED**

**GREEN**

**ORANGE**

**BLUE**

**BLUE**

**RED**

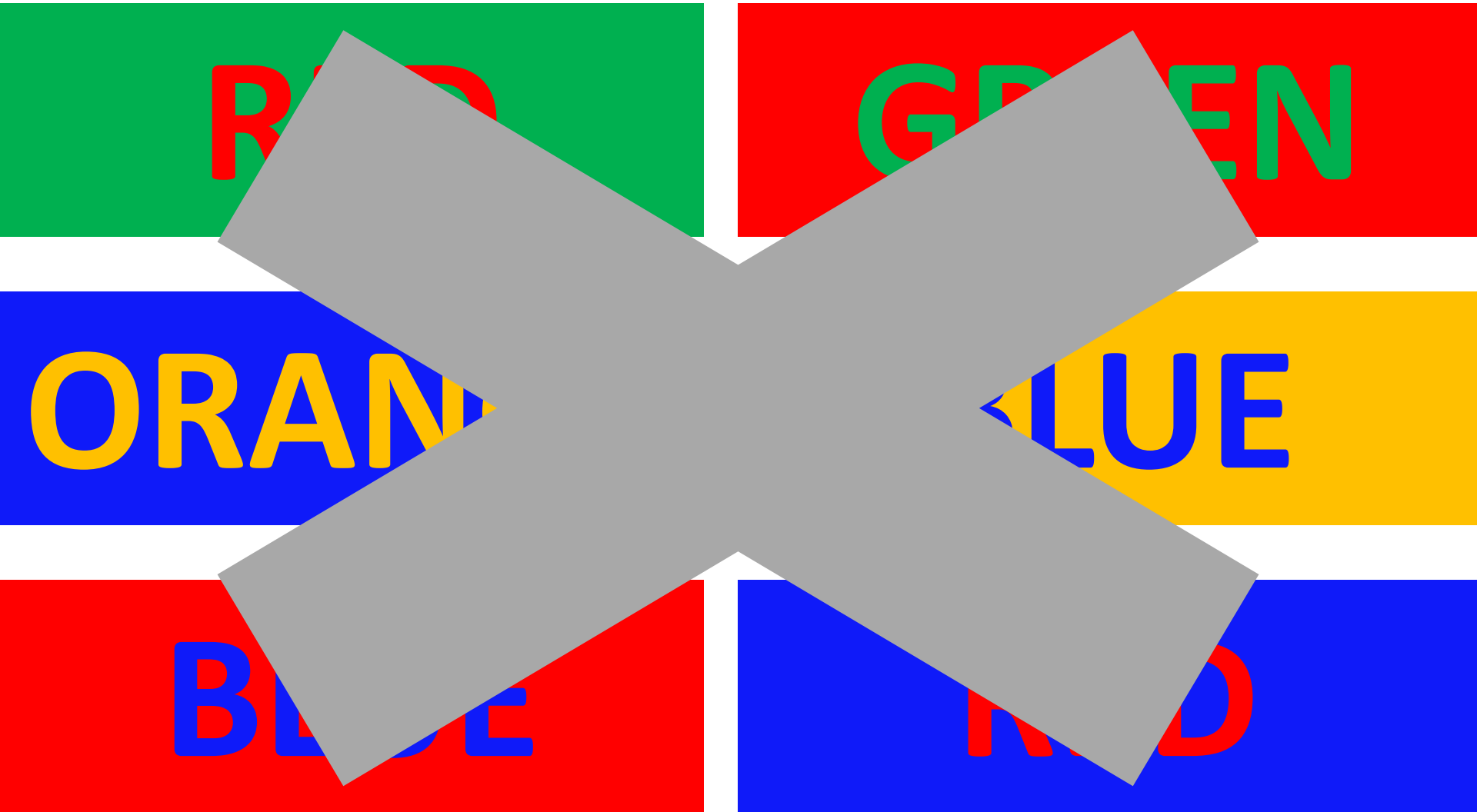
# Stereopsis

a visual illusion where the impression of depth is conveyed in two-dimensional color images, usually of red-blue or red-green colors

- Does this look fuzzy?
- Is the text wobbly?
- How long do you think you can continue to stare at these slides?

Problem:

Bad color combinations



# Solution:

## Limit color choice

- Limit color choice to **two main colors** with white being the third (background).
- Make sure the text and background colors are **distinct** and **unique**.

# Solution:

Make meaningful color choices

- Don't pick colors for decoration.  
Pick colors to **draw attention**  
and to **categorize**.

Number of data classes:  i [how to use](#) [updates](#) [downloads](#) [credits](#)

**COLORBREWER 2.0**  
color advice for cartography

Nature of your data: i  
 sequential  diverging  qualitative

Pick a color scheme:

Multi-hue: i Single hue:

Only show: i  
 colorblind safe  
 print friendly  
 photocopy safe

Context: i  
 roads  
 cities  
 borders

Background:  
 solid color  terrain  
 color transparency

3-class PuBu  
     
 HEX   
 #ece7f2  
 #a6bddb  
 #2b8cbe

EXPORT

<http://colorbrewer2.org/>



# Images

**Problem:**  
**Images are too small**



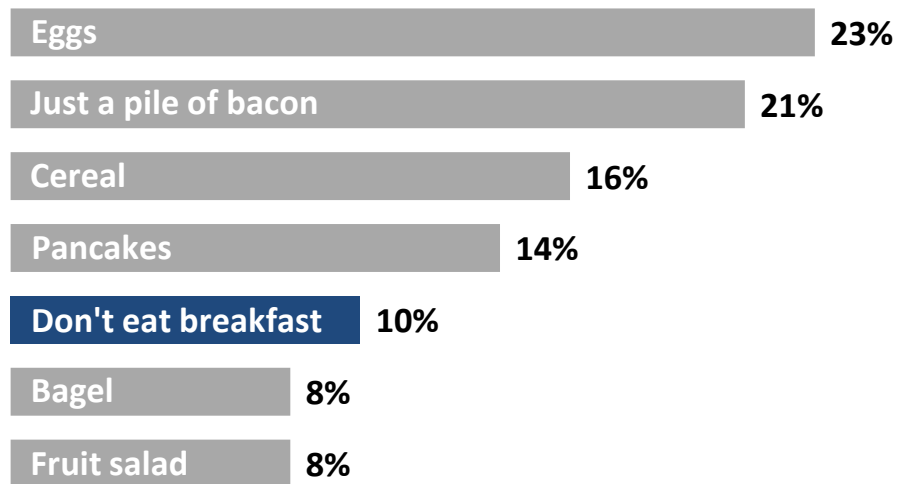


**Solution:**  
“Bleed” your images



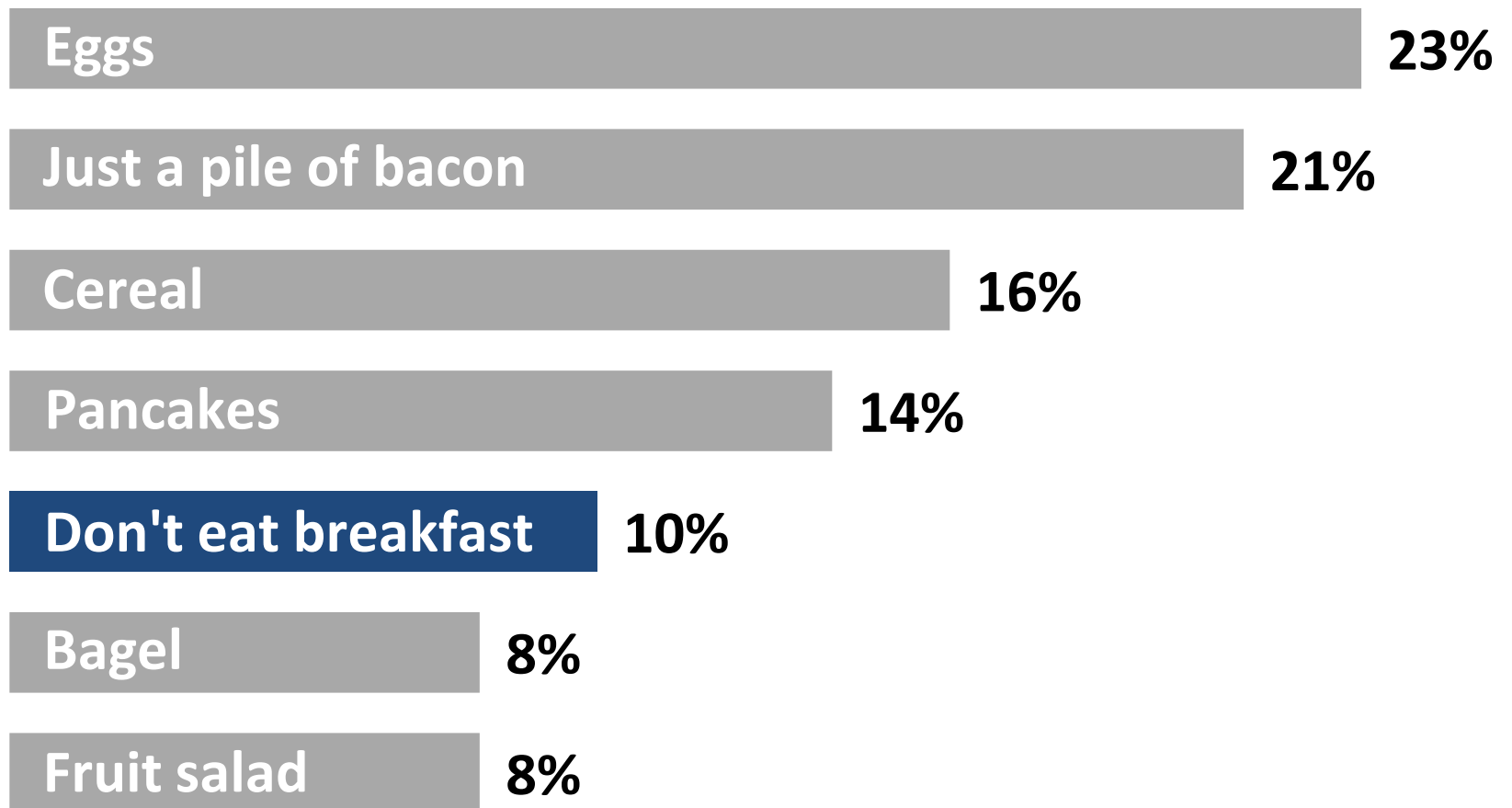
# Problem:

## Images are too small



# Solution:

## Enlarge your images



**Problem:**

**Images do not look professional**



# Solution:

Use high quality pictures or graphics, free of watermarks





# Pictorial superiority effect

Vision  
dominates

Take advantage  
of the eye!

# Which will you remember?



Hedgehog wearing  
a Santa hat

= 10% recall  
after 3 days

Hedgehog wearing  
a Santa hat

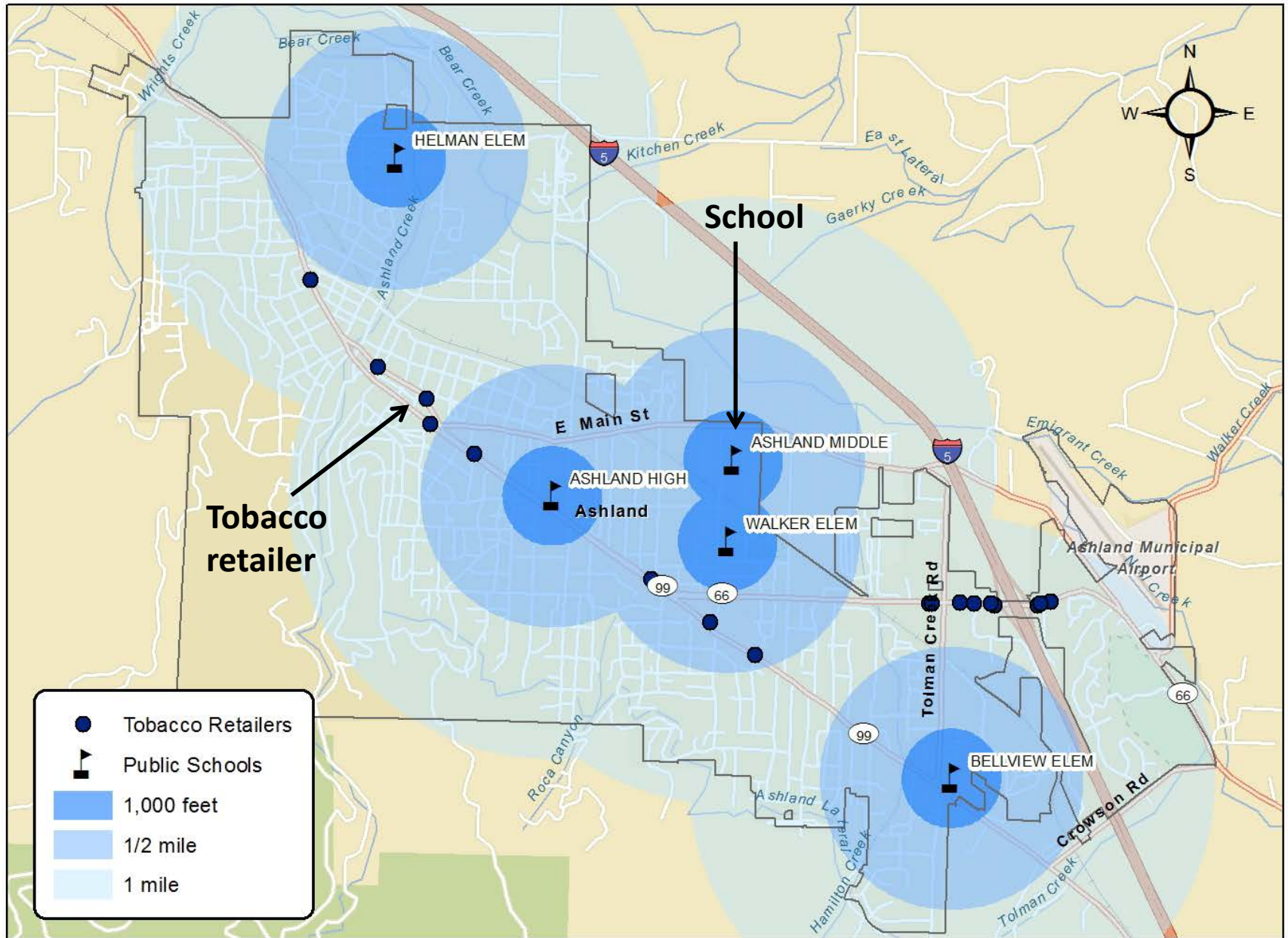
= 65% recall  
after 3 days



**XX%** of tobacco retailers display tobacco products at a child's eye level







# Things to remember

- Visualize data that need attention
- Simplify, remove clutter
- Text encapsulates your message and packs a punch
- Color is used **intentionally**
- Thoughtful arrangement makes a visualization easier to interpret



# Why is this important?



Saves time



Adds credibility  
to organization

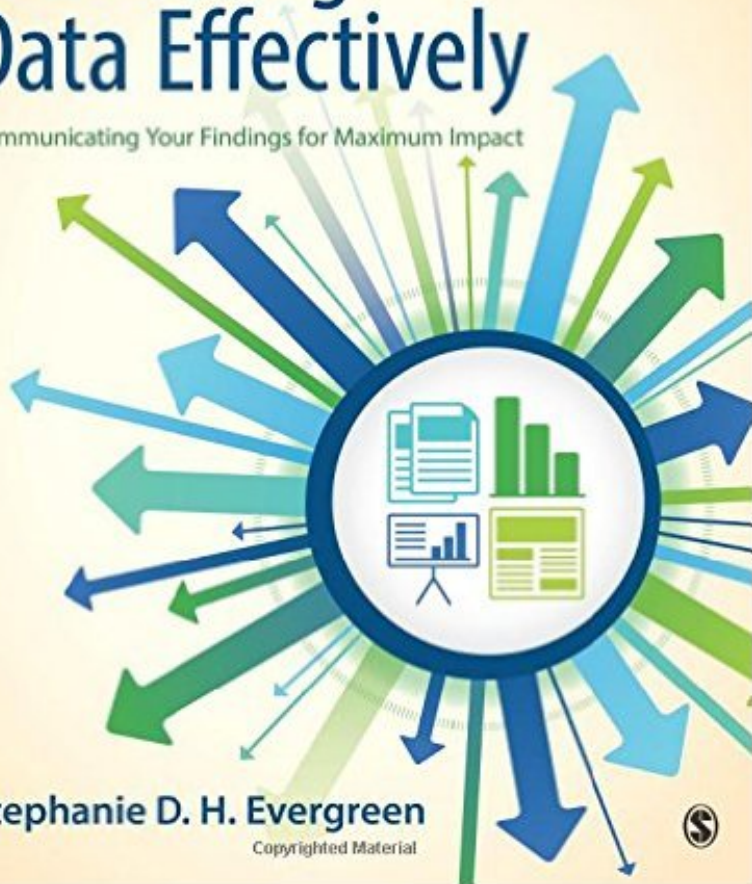
A stack of several books is positioned on the right side of the image. The books have various colored covers, including red, green, and blue. The pages are yellowed with age. The background is a blurred bookshelf filled with many books, creating a sense of a library or a large collection of resources.

Resources!

Copyrighted Material

# Presenting Data Effectively

Communicating Your Findings for Maximum Impact



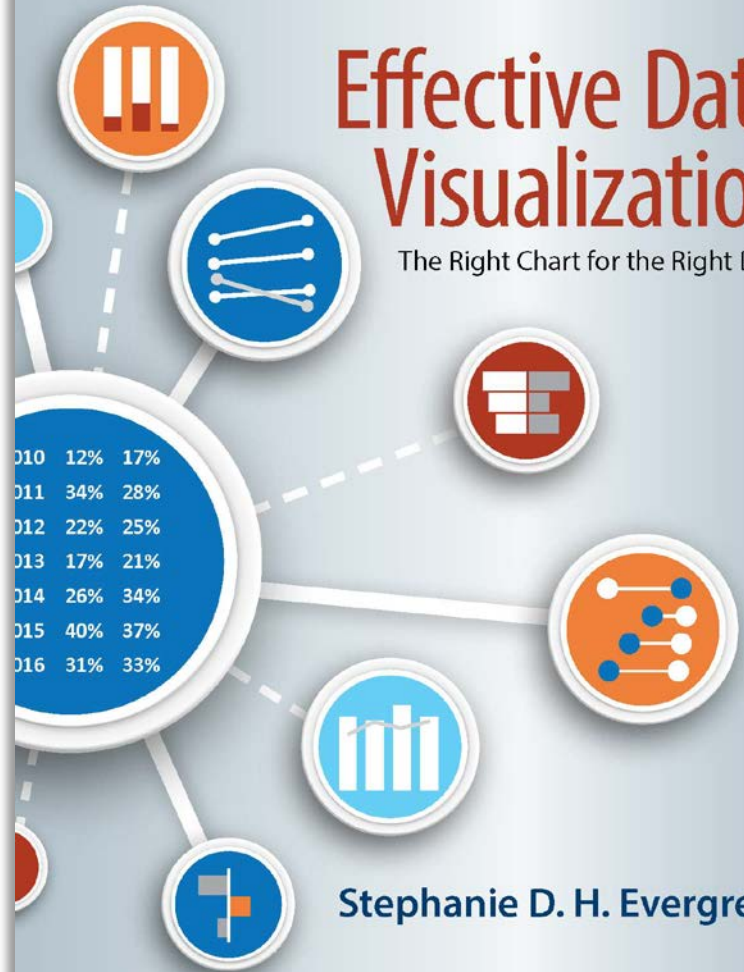
Stephanie D. H. Evergreen

Copyrighted Material



# Effective Data Visualization

The Right Chart for the Right Data



Stephanie D. H. Evergreen



REMEMBER THIS IMPORTANT NUMBER

Big Number

23%

Icon Array



Pie/Donut



Bar/Column



# CHART CHOOSER 3.0

BY STEPHANIE EVERGREEN

COMPARE 2 OR MORE THINGS

Side by Side



Slopegraph



Back-to-Back



Dot Plot



Dumbbell Dot



Small Multiples



COMPARE TO A TARGET

Benchmark Line



Combo



Bullet Chart



Indicator Dots



WATCH FOR OVERLAPPING POINTS

SHOW SURVEY RESPONSES

Stacked Bar



Small Multiples



Diverging Bar



Bar/Column



Number & Icon



Nested



THESE ARE THE PARTS OF THIS WHOLE

Pie/Donut



Stacked Bar



Histogram



Tree Map



Map



FOR BRANCHING QUESTIONS!

VISUALIZE OPEN-ENDED COMMENTS

Quote & Pic



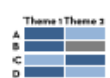
Word cloud



Stock photo Rep



Heat Map



Prezi



ALSO GOOD FOR SHOWING FLOW

HEY, THINGS CHANGED OVER TIME

Line



Stacked Column



Deviation Bar



Slopegraph



Dot Plot



Sankey



THIS THING CHANGES WHEN THAT THING DOES

Scatterplot



Draw It



FOR MORE SEE

[STEPHANIEEVERGREEN.COM/TAG/STEP-BY-STEP](http://STEPHANIEEVERGREEN.COM/TAG/STEP-BY-STEP)

[STEPHANIEEVERGREEN.COM/BLOG](http://STEPHANIEEVERGREEN.COM/BLOG)

PRESENTING DATA EFFECTIVELY

# QUALITATIVE CHART CHOOSER 3.0

BY JENNIFER LYONS & STEPHANIE EVERGREEN

TRY THIS VIZ

QUANTIFICATION

NON-QUANTIFICATION

WHAT STORY ARE YOU TRYING TO TELL?

WAYS TO HIGHLIGHT A WORD

THEMATIC ANALYSIS

WAYS TO HIGHLIGHT A WORD

THEMATIC ANALYSIS

create learn new skill



I love data. It is so much fun.



THE DATA ARE...

WORD CLOUD

SPECTRUM DISPLAY

HEATMAP

HISTOGRAM

BUBBLE CHART

SPEEDOMETER

ICONS AND COLOR CODING

INDICATOR DOTS

VENN DIAGRAM

QUOTE AND PIC

CALLOUT BOX

BOLDED WORDS

CHANGE PHOTOS

CONCEPT MAPPING

NETWORK MAPPING

TIMELINE

JOURNEY MAP

DENDROGRAM

MIND MAPPING

FLOW/PATH DIAGRAM

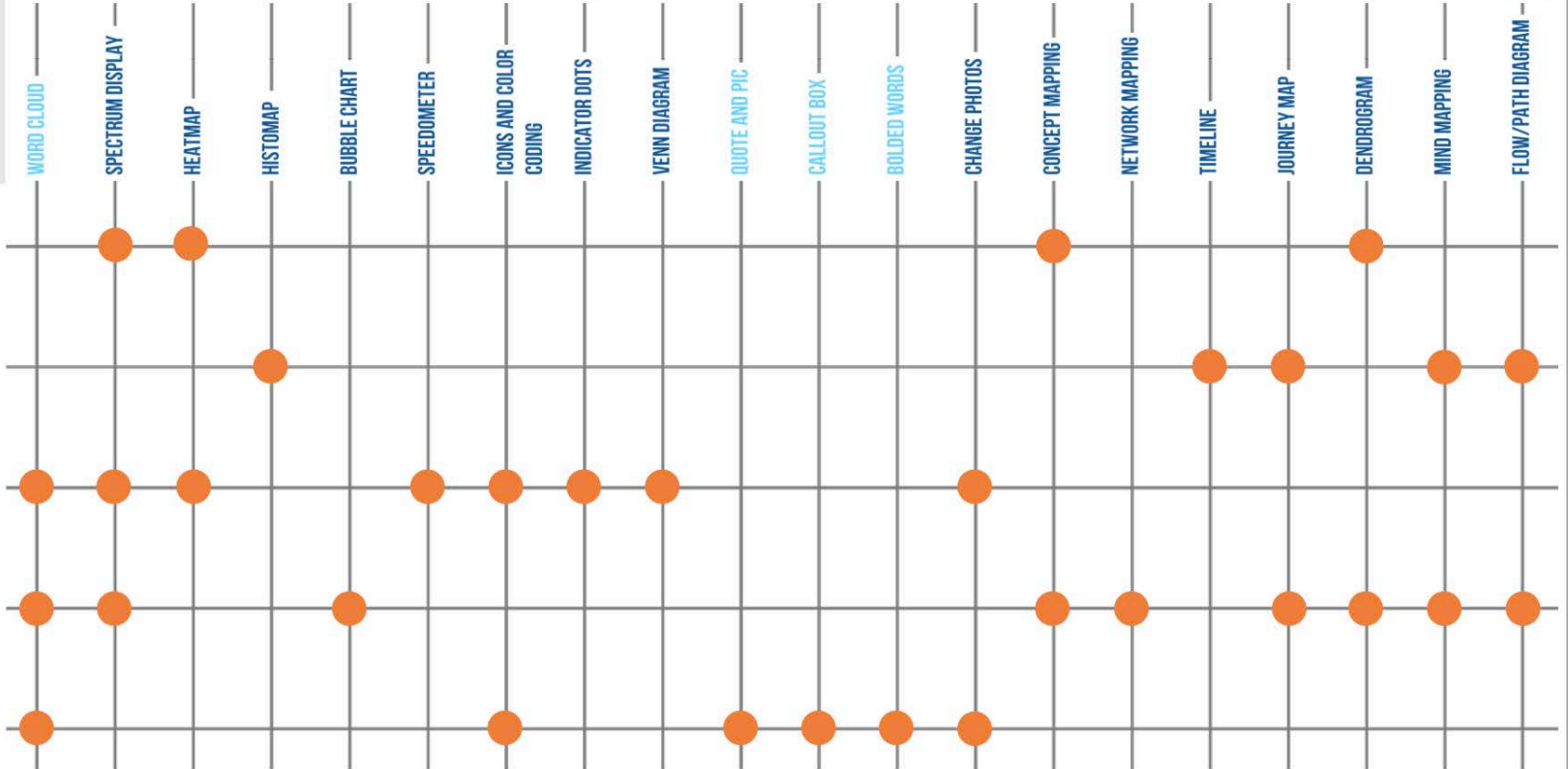
HIERARCHY

FLOW

COMPARISON

CLUSTER

COMMENT/WORDS



# Data Visualization Checklist

by Stephanie Evergreen & Ann K. Emery  
May 2016

This checklist is meant to be used as a guide for the development of high impact data visualizations. Rate each aspect of the data visualization by circling the most appropriate number, where 2 points means the guideline was fully met, 1 means it was partially met, and 0 means it was not met at all. n/a should not be used frequently, but reserved for when the guideline truly does not apply. For example, a pie chart has no axes lines or tick marks to rate. If the guidelines has been broken intentionally to make a point, rate it n/a and deduct those points from the total possible. Refer to the Data Visualization Anatomy Chart on the last page for guidance on vocabulary and the Resources at the end for more details.

Text	Guideline	Rating	
Graphs don't contain much text, so existing text must encapsulate your message and pack a punch.	<b>6-12 word descriptive title is left-justified in upper left corner</b>	2 1 0 n/a	
	Short titles enable readers to comprehend takeaway messages even while quickly skimming the graph. Rather than a generic phrase, use a descriptive sentence that encapsulates the graph's finding or "so what?" Western cultures start reading in the upper left, so locate the title there.	2 1 0 n/a	
	<b>Subtitle and/or annotations provide additional information</b>	Subtitles and annotations (call-out text within the graph) can add explanatory and interpretive power to a graph. Use them to answer questions a viewer might have or to highlight specific data points.	2 1 0 n/a
	<b>Text size is hierarchical and readable</b>	Titles are in a larger size than subtitles or annotations, which are larger than labels, which are larger than axis labels, which are larger than source information. The smallest text - axis labels - are at least 9 point font size on paper, at least 20 on screen.	2 1 0 n/a
	<b>Text is horizontal</b>	Titles, subtitles, annotations, and data labels are horizontal (not vertical or diagonal). Line labels and axis labels can deviate from this rule and still receive full points. Consider switching graph orientation (e.g., from column to bar chart) to make text horizontal.	2 1 0 n/a
	<b>Data are labeled directly</b>	Position data labels near the data rather than in a separate legend (e.g., on top of or next to bars and next to lines). Eliminate/embed legends when possible because eye movement back and forth between the legend and the data can interrupt the brain's attempts to interpret the graph.	2 1 0 n/a
	<b>Labels are used sparingly</b>	Focus attention by removing the redundancy. For example, in line charts, label every other year on an axis. Do not add numeric labels *and* use a y-axis scale, since this is redundant.	



# Evaluation Report Layout Checklist

by Stephanie D. H. Evergreen, PhD

This checklist is meant to be used as a diagnostic guide to identify elements of evaluation reports that could be enhanced using graphic design best practices and/or the assistance of a graphic design expert. Suggestions are best suited for those using standard Microsoft Word software.

**Instructions** Rate each aspect of the report using the following rubric, by circling the most appropriate letter. Use Best Practice section as a guide for improvement.

**F=Fully Met   P=Partly Met   N=Not Met**

Type	Rating	Best Practice
Text fonts are used for narrative text	F   P   N	Use serif fonts. Nothing with lots of graphic detail.
Long reading is in 9-11 point size	F   P   N	Studies have shown that 11 point text is easiest to read at length, but it can depend on the typeface (font).
Body text has stylistic uniformity	F   P   N	Each text section has unbolded, normal text in sentence case (no all caps), except in short areas of intentional emphasis. This supports undistracted reading.
Line spacing is 11-13 points	F   P   N	For lines within paragraph, generally choose 1-2 points larger than the size of the body text.
Headers & callouts are emphasized	F   P   N	Header should be 150-200% of body text size. Sans serif or decorative is okay. Use sentence case. Contrast with body text by using different size, style, and/or color. Too similar looks unintentional.
No more than 3 fonts are used	F   P   N	A change in font will indicate a change in meaning. Use font changes to guide reader through information according to importance.
Bullets are slightly less thick than text	F   P   N	If bullets must be used, decrease their size to slightly less (70-80%) than the point size of the font. Otherwise, they are too strong and distracting. If good spacing is used in lieu of bullets, this best practice is Fully Met.

## Notes

*Nice serif choices* include Garamond, Palatino, Cambria

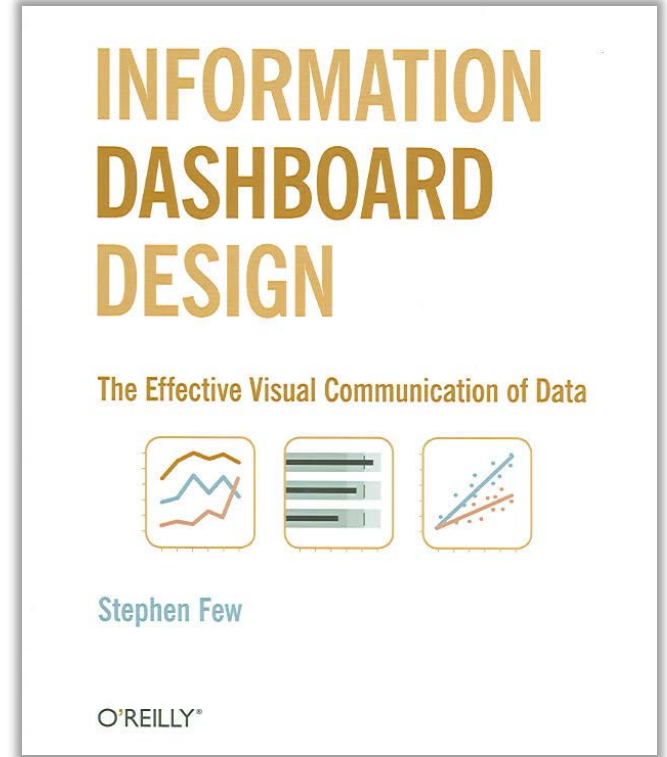
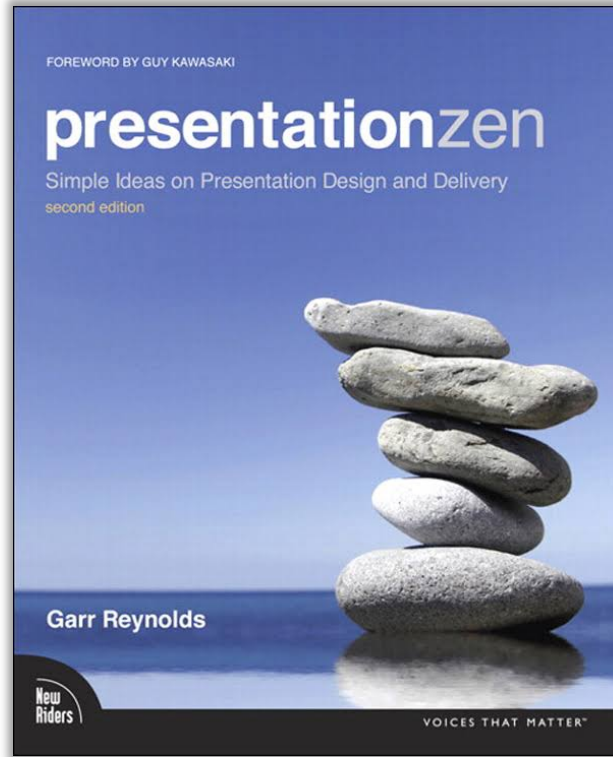
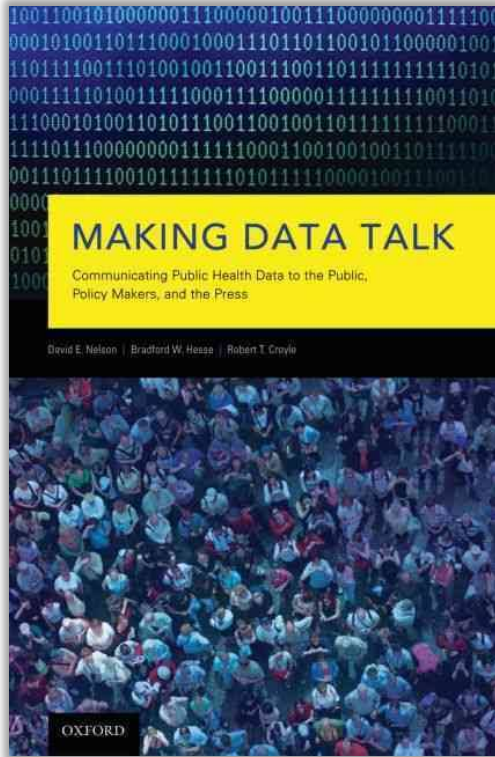
*Nice sans serif choices* are Trebuchet, Verdana, Calibri

*Sentence case* is when the first letter of the line is capitalized and all others are lowercase, excepting proper nouns.

*Body text* is that which comprises the narrative of the report.

By contrast, *header text* is that which comprises your headlines and titles. Also known as display text.

- Default bullet size (too big)
- Appropriate bullet size







Activity time!

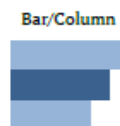
# Activity

## Evaluate and re-design

1. Take a few minutes to evaluate the chart or graph below.  
**What is it trying to tell you?**
2. Think about how the chart or graph could be **re-designed using some of the data visualization best practices** that were discussed. How could it be improved?
3. **Re-create the chart or graph** based upon the improvements you identified.
4. Discuss at your table what **improvements** you made and describe any difficulties you may have encountered while doing so.
5. **Report back:** Please designate one person from your table to share back to the large group. Describe one thing you did to improve the chart or graph.

REMEMBER THIS IMPORTANT NUMBER

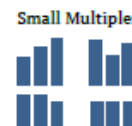
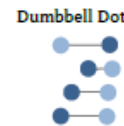
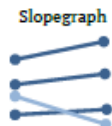
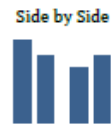
Big Number  
**23%**



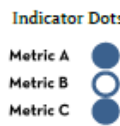
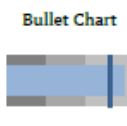
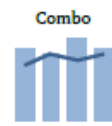
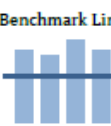
## CHART CHOOSER 3.0

BY STEPHANIE EVERGREEN

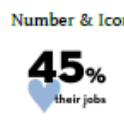
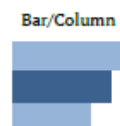
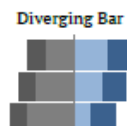
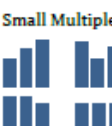
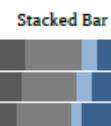
COMPARE 2 OR MORE THINGS



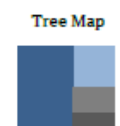
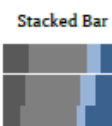
COMPARE TO A TARGET



SHOW SURVEY RESPONSES

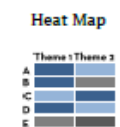
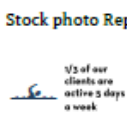
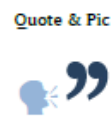


THESE ARE THE PARTS OF THIS WHOLE



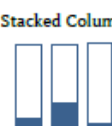
FOR BRANCHING QUESTIONS!

VISUALIZE OPEN-ENDED COMMENTS

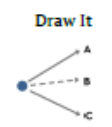
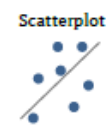


ALSO GOOD FOR SHOWING FLOW

HEY, THINGS CHANGED OVER TIME



THIS THING CHANGES WHEN THAT THING DOES



FOR MORE SEE  
[STEPHANIEEVERGREEN.COM/TAG/STEP-BY-STEP](http://STEPHANIEEVERGREEN.COM/TAG/STEP-BY-STEP)  
[STEPHANIEEVERGREEN.COM/BLOG](http://STEPHANIEEVERGREEN.COM/BLOG)  
PRESENTING DATA EFFECTIVELY

## What Do You Most Want to Learn About Blogging?

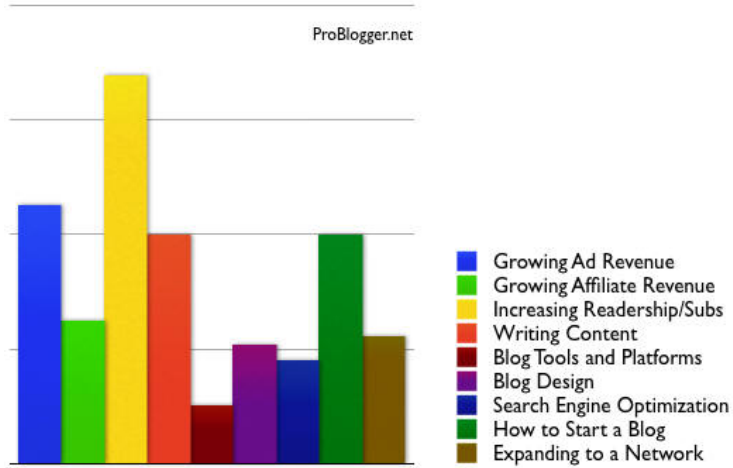
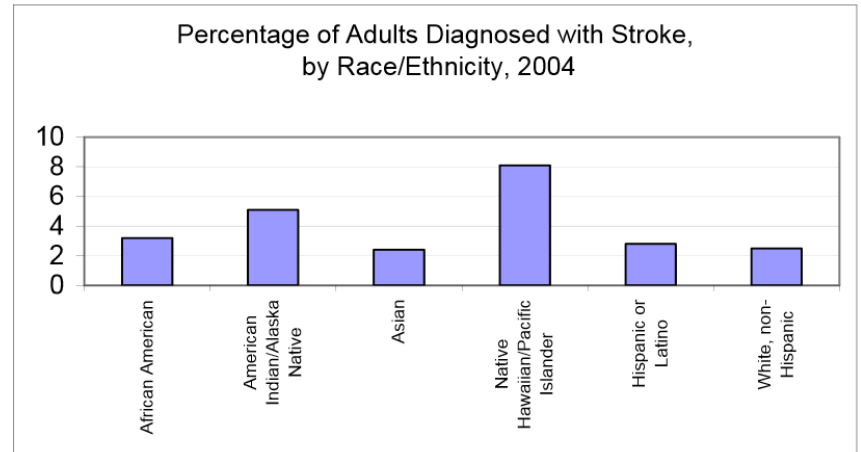


Figure 30



Source: National Health Interview Survey, 2004

## HIV infection, by age at diagnosis, Oregon, 2005–2012

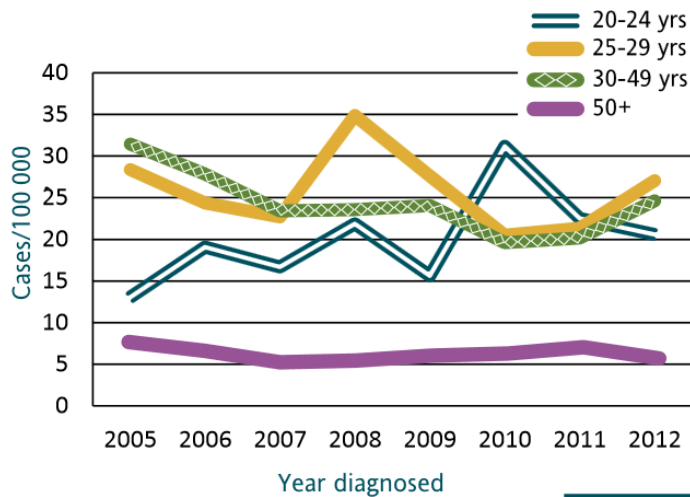
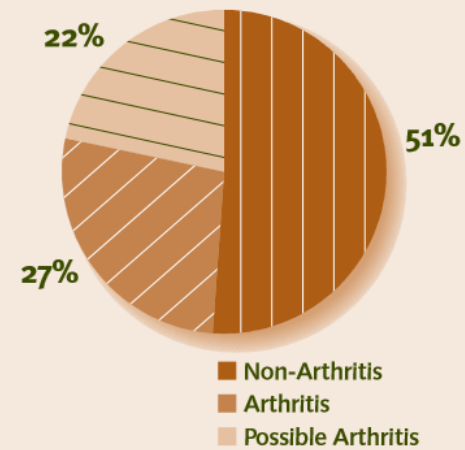


Figure 2

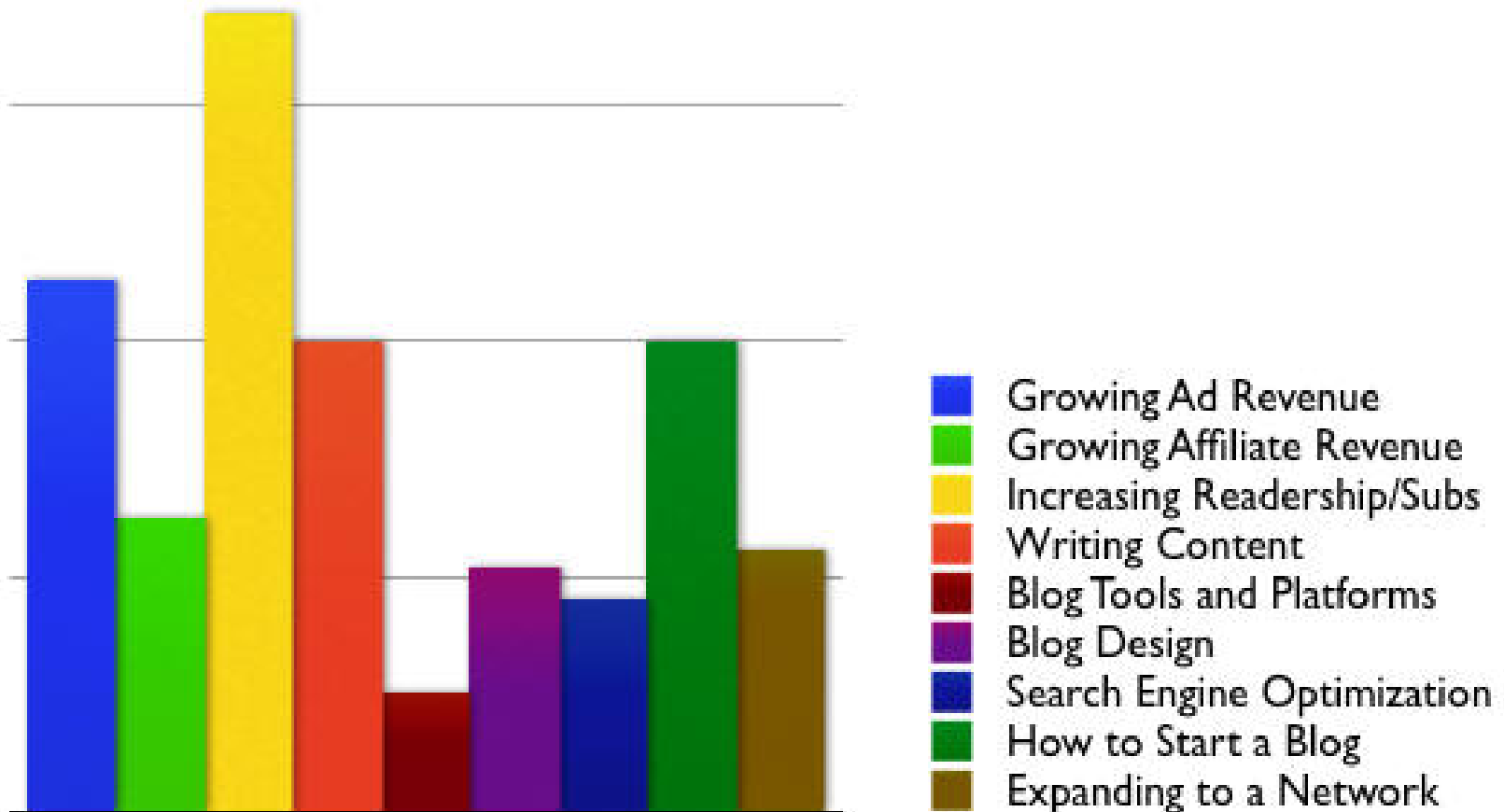
## Percentage of Adult Oregonians with Arthritis, 2004



Data on children not available in Oregon

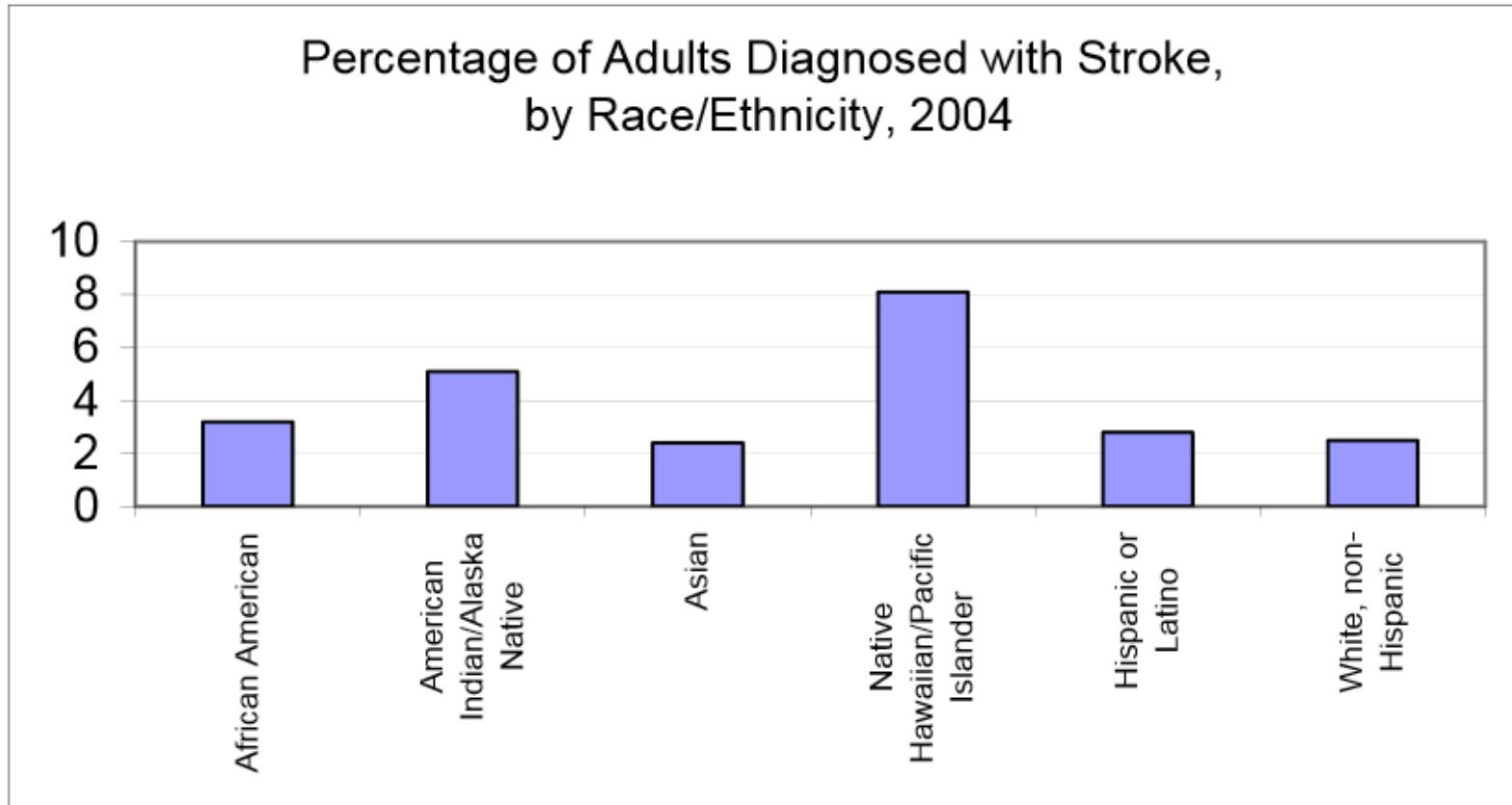
# What Do You Most Want to Learn About Blogging?

ProBlogger.net



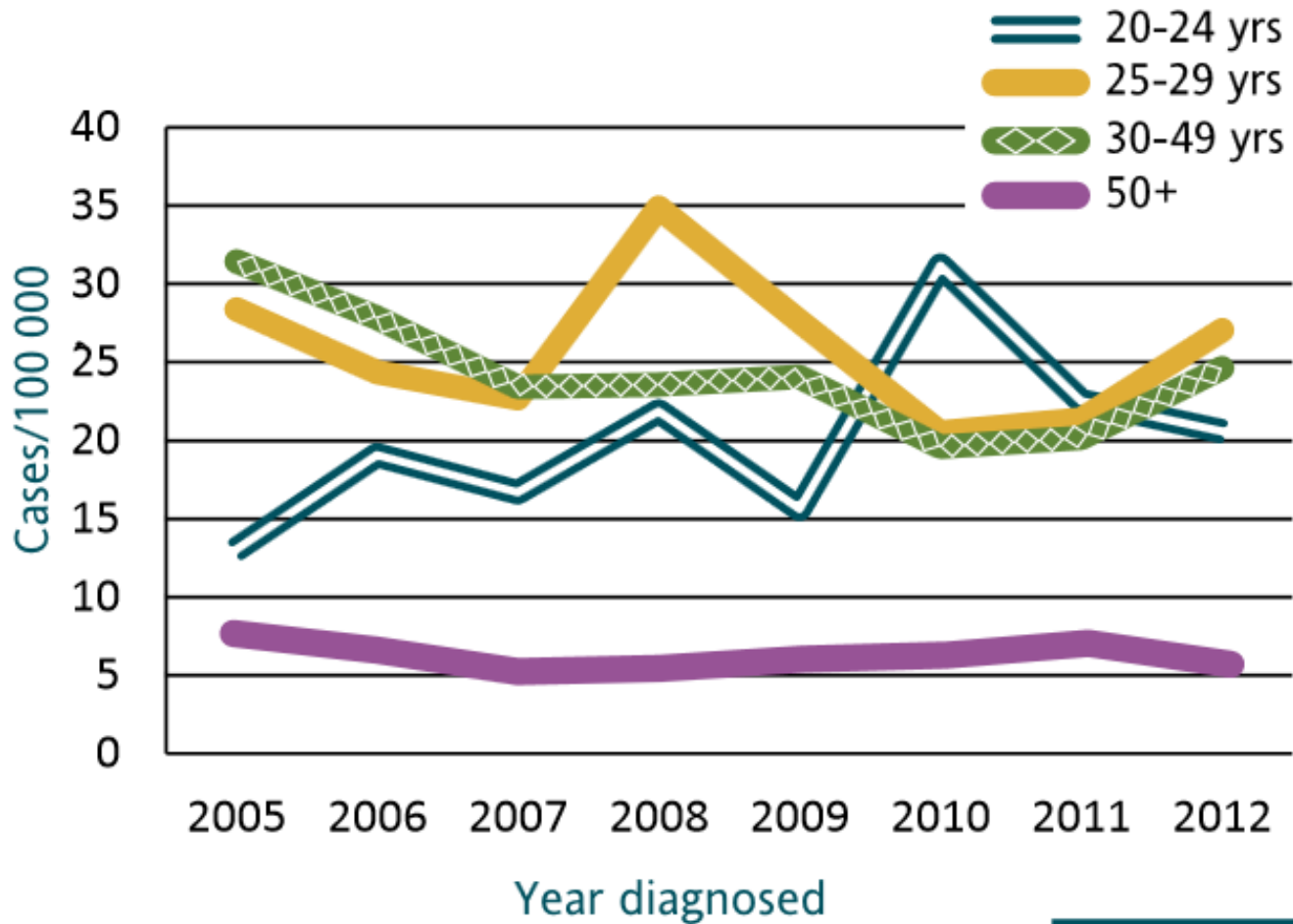


**Figure 30**



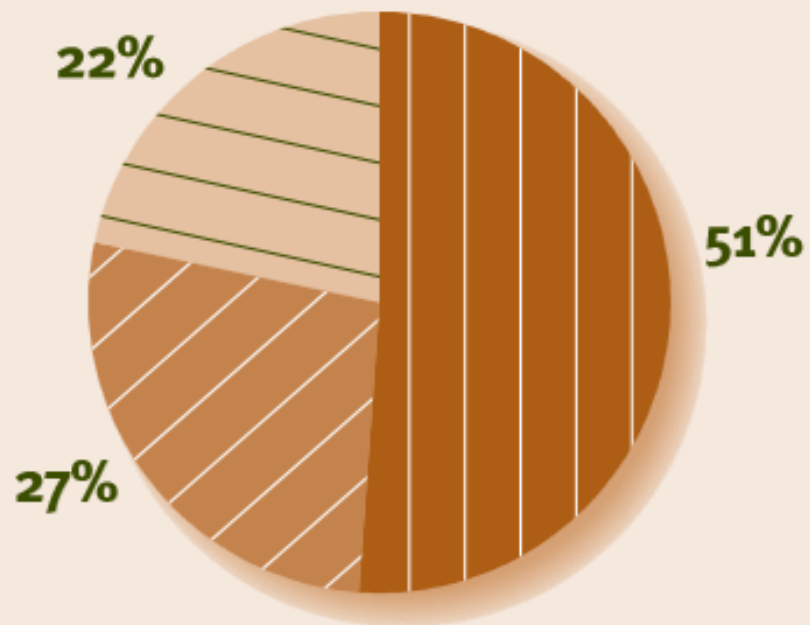
Source: National Health Interview Survey, 2004

## HIV infection, by age at diagnosis, Oregon, 2005–2012



**Figure 2**

## Percentage of Adult Oregonians with Arthritis, 2004



- Non-Arthritis
- Arthritis
- Possible Arthritis

*Data on children not available in Oregon*



Thank

You!

0

5

10

15

20

25

**Steven Fiala** [steven.c.Fiala@state.or.us](mailto:steven.c.Fiala@state.or.us)

**Anne Celovsky** [anne.s.celovsky@state.or.us](mailto:anne.s.celovsky@state.or.us)