

A PRESENTATION FROM

DATA DOZEN

a visual analytics studio

ERIN WALDRON FROM DATA DOZEN · NOVEMBER 9, 2021 · DATA VISUALIZATION MAKEOVERS · WORKSHOP 2

AESTHETIC DESIGN

HOW TO BUILD VISUALIZATIONS THAT YOUR AUDIENCE WANTS TO EXPLORE



ROADMAP

Here's what we'll cover with our three workshops.

COMPREHENSION

FUNCTIONALITY

How does the visualization work?



EMOTION

AESTHETICS

How does the visualization feel?



VALIDATION

TESTING

How does the visualization perform?



ROADMAP

Here's what we'll cover with our three workshops.

COMPREHENSION FUNCTIONALITY

How does the visualization work?



EMOTION

AESTHETICS

How does the visualization feel?



VALIDATION TESTING

How does the visualization perform?



AESTHETICS

“A particular theory or conception of beauty or art:
a particular taste for or approach to what is
pleasing to the senses, especially sight.”



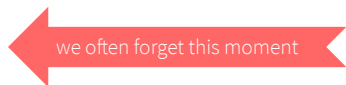
AESTHETICS

All the adjustments we make to our work
after it's accurate and functional.



ANDY COTGREAVE

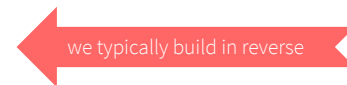
We experience visualizations in three phases:



INSTANT

VISCERAL

What's our knee jerk reaction?



TIME INVESTMENT

BEHAVIORAL

How do we engage with the viz?



FUTURE

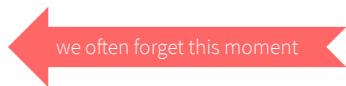
REFLECTIVE

How does the viz make us act or think?



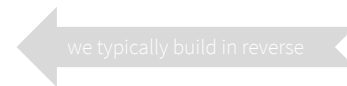
WORKSHOP 2

We can control that visceral reaction with aesthetic design.



INSTANT VISCERAL

What's our knee jerk reaction?



ENGAGEMENT BEHAVIORAL

How do we engage with the viz?



FUTURE REFLECTIVE

How does the viz make us act or think?



4

1

3

2

Which dashboards do you want to click the most?

(rank them 1 through 4)

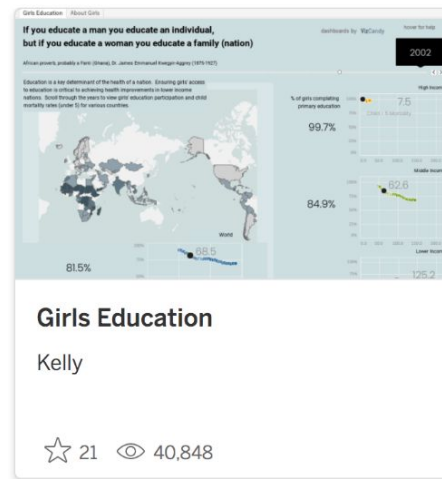
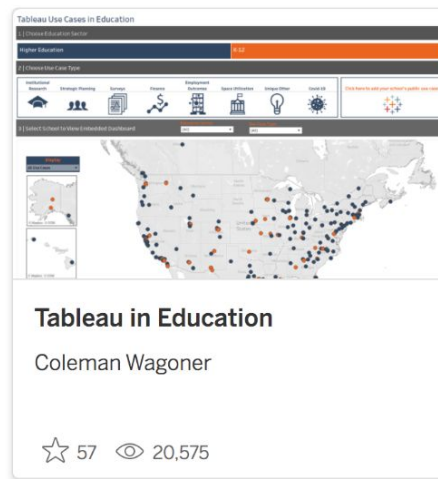
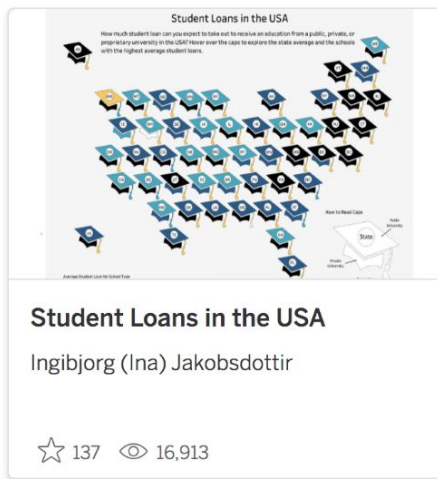
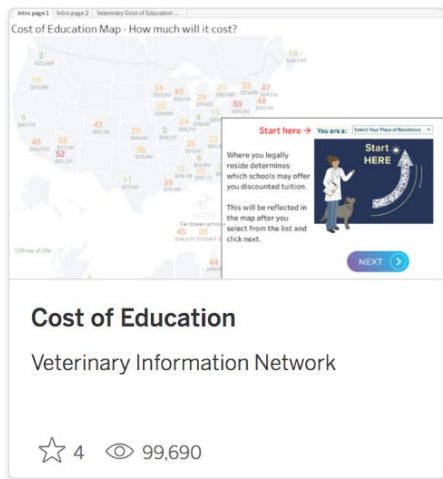
VISCERAL REACTION

4	1	3	2
1	3	4	2
3	2	1	4
1	2	4	3
4	3	1	2

Which dashboards do you want to click the most?

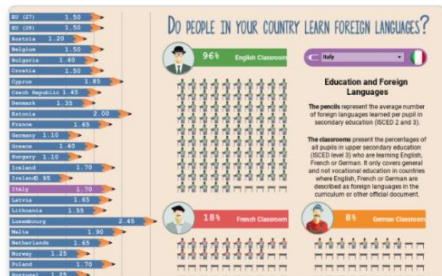
(rank them 1 through 4)

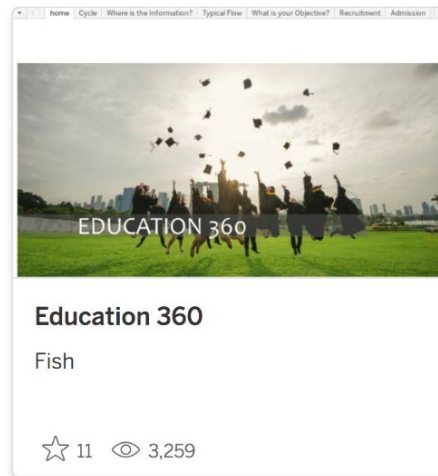
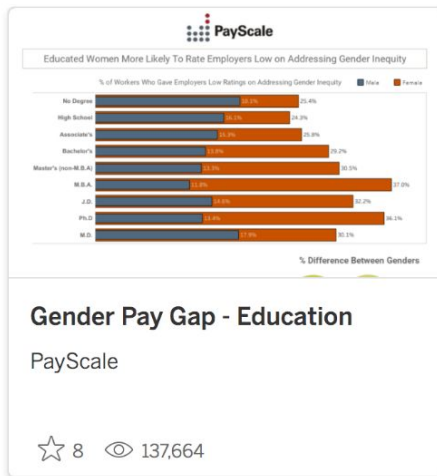
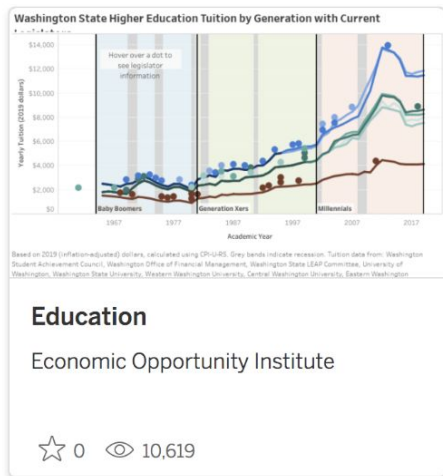
VISCERAL REACTION



Which dashboards do you want to click the most?
(rank them 1 through 4)

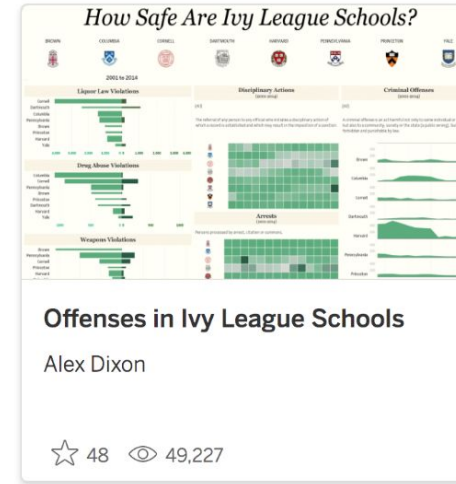
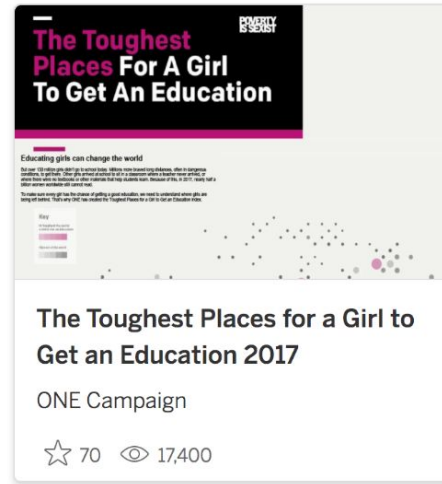
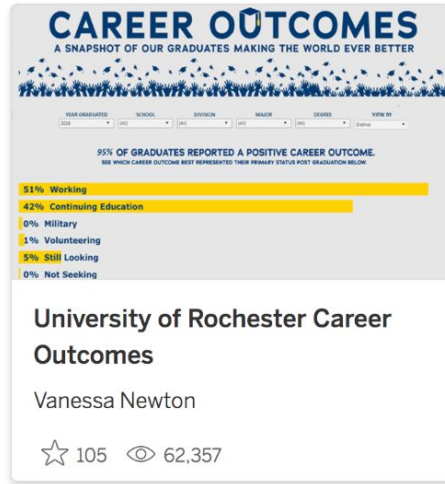
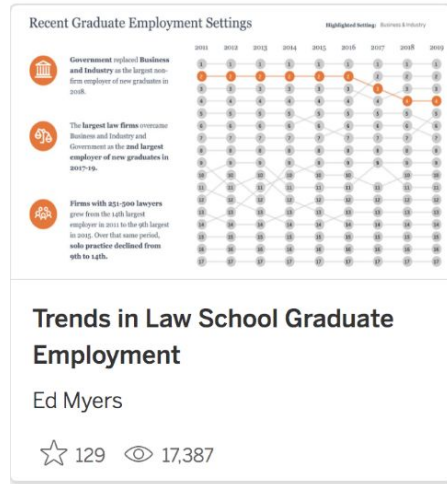
VISCERAL REACTION





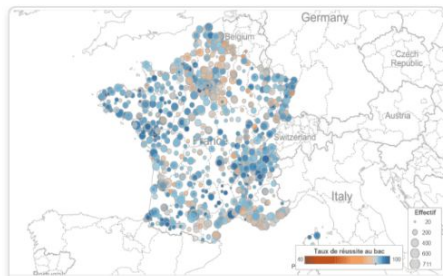
Which dashboards do you want to click the most?
(rank them 1 through 4)

VISCERAL REACTION



Which dashboards do you want to click the most?
(rank them 1 through 4)

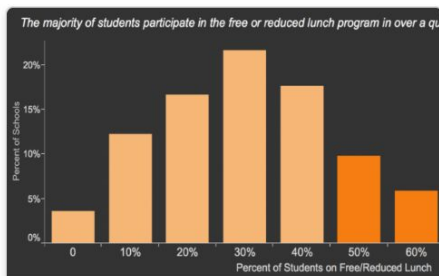
VISCERAL REACTION



French High-School Outcome Indicators 2014

Yvan Fornes

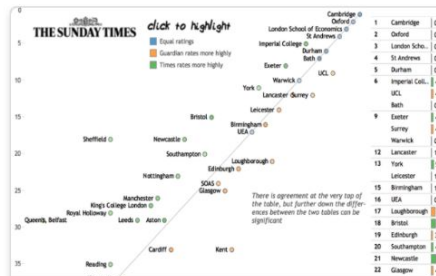
☆ 13 👁 11,592



Poverty and School Performance

Stephen Wagner

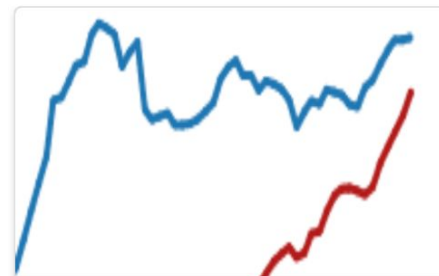
☆ 24 👁 22,846



University League Table 2014

Peter Gilks

☆ 2 👁 22,624



Enrollment at Cornell University Since 1868

Institutional Research and Planning

☆ 13 👁 227,696

Which dashboards do you want to click the most?
(rank them 1 through 4)

VISCERAL REACTION

EMOTION

How does the visualization feel?

NEGATIVE



WE PULL BACK

BUSY

overwhelming
chaotic
confusing
loud
distracting
disorienting
lopsided

DATED

dense
heavy
crowded
washed out
cutesy
tonedeaf
offensive

BORING

pointless
superficial
fluffy
time consuming
repetitive
generic
stale

STREAMLINED

intuitive
digestible
approachable
striking
intentional
familiar
balanced

MODERN

curated
clean
light
crisp
professional
thoughtful
inclusive

ENGAGING

interesting
addictive
substantial
meaningful
memorable
rewarding
unique

POSITIVE



WE LEAN IN

WORKSHOP 2

Today we'll work through one checklist and three common problems.

DASHBOARD DESIGN CHECKLIST

breakout

BUSY → STREAMLINED

1

DATED → MODERN

2

BORING → ENGAGING

3

breakout



INK

- Color
- Weight
- Lines
- Shading



WORDS

- Fonts
- Alignment
- Axes/Labels
- Popups/Tooltips



LAYOUT

- Zones
- Flow
- Balance
- Negative Space

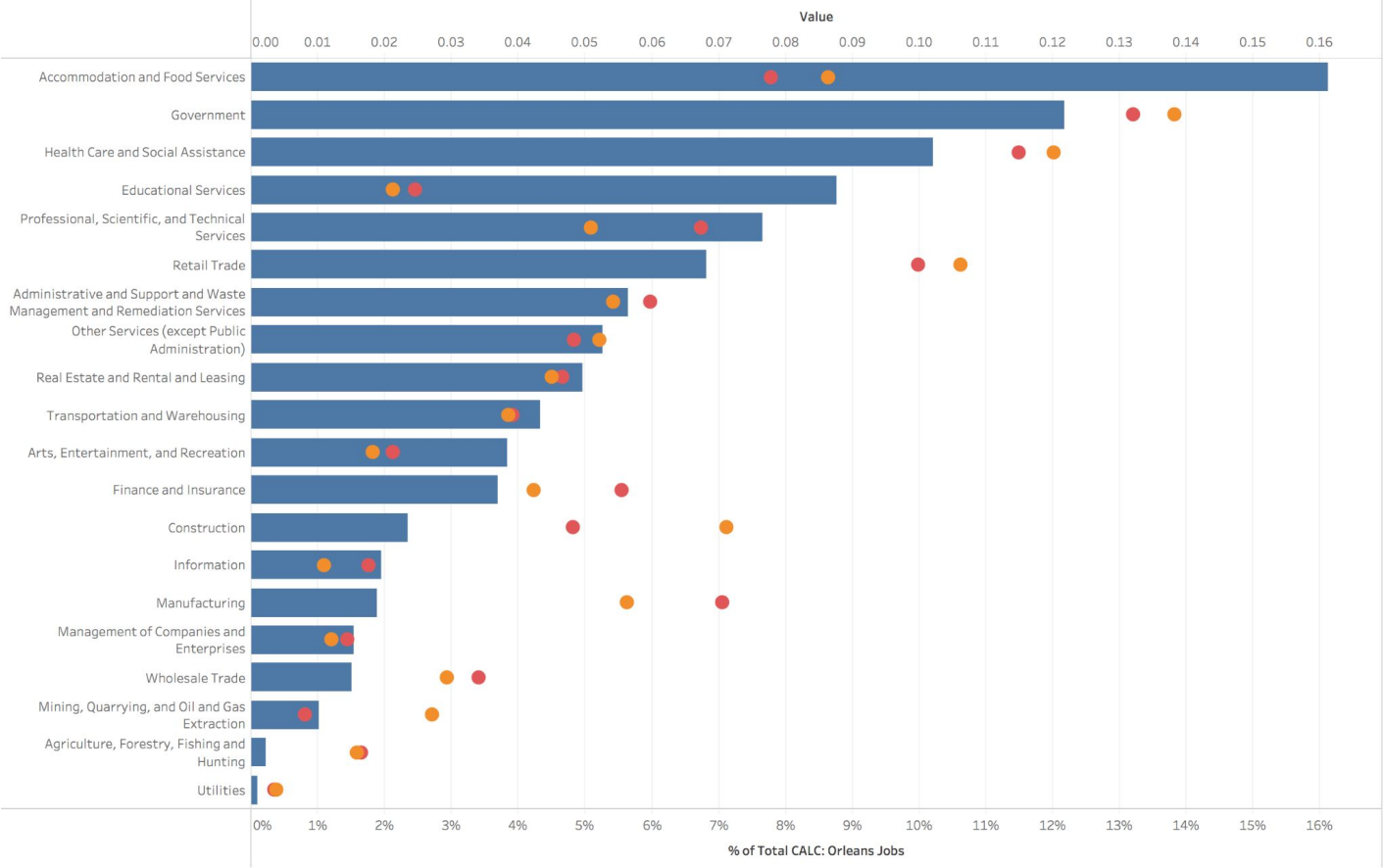


FOOTHOLDS

- Title
- Keys
- Instructions
- Annotations

THE DASHBOARD DESIGN CHECKLIST

BEFORE

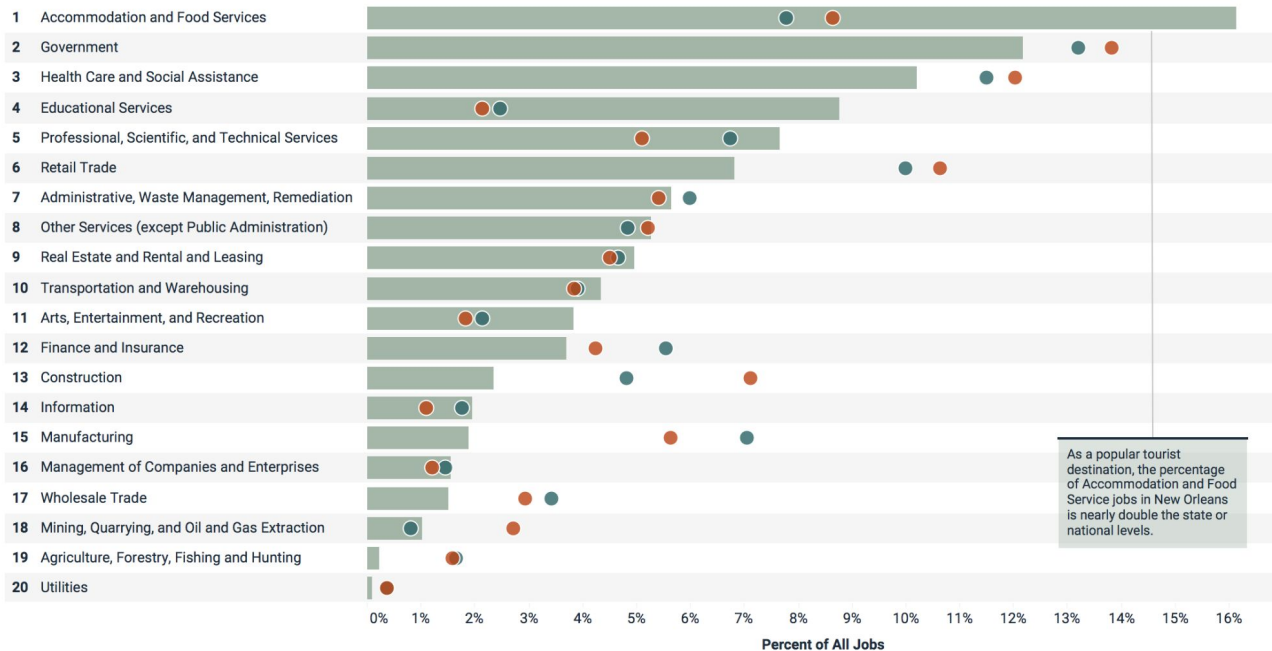




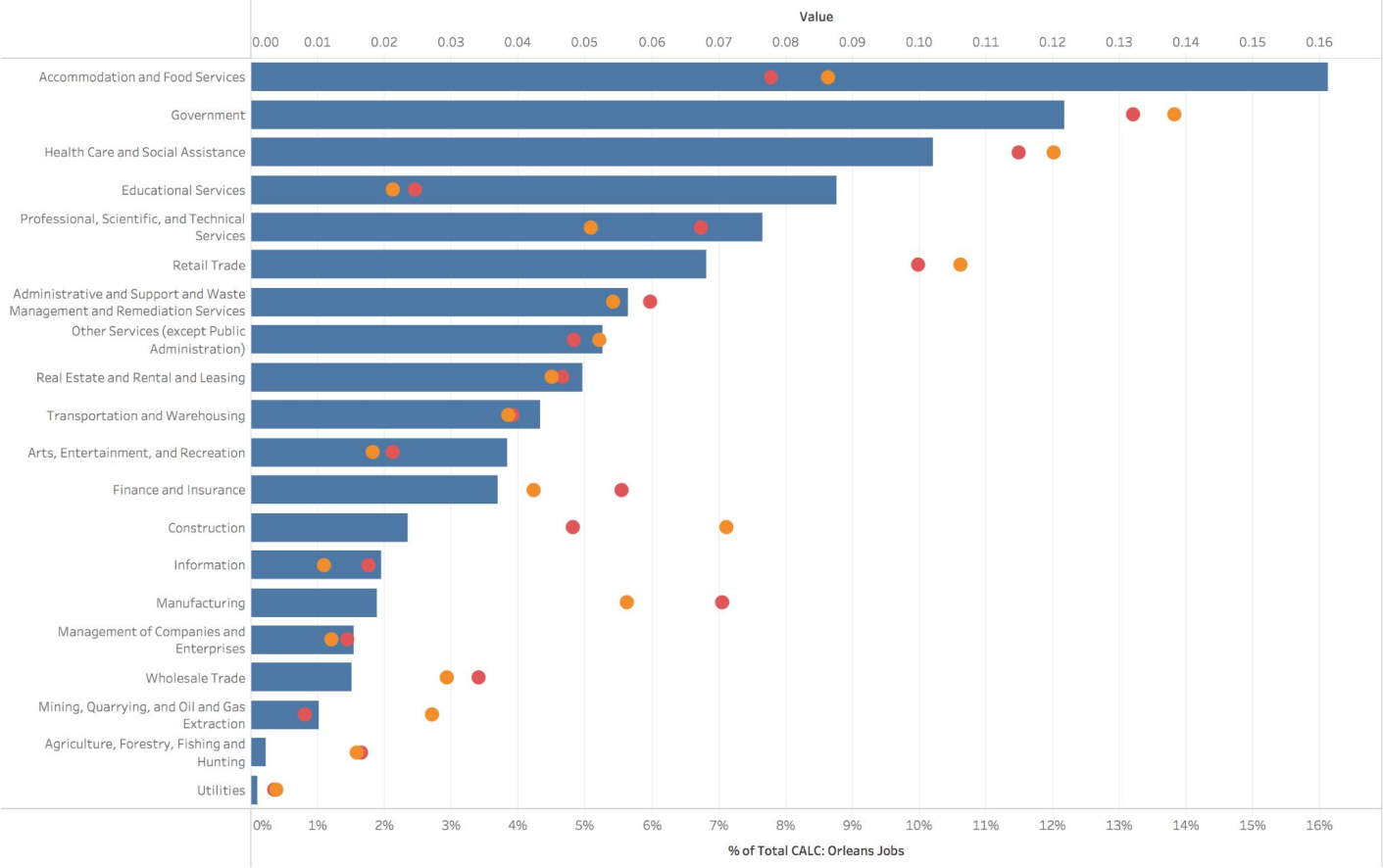
THE COWEN INSTITUTE
hover over chart to learn more

How do the major industries in New Orleans compare with Louisiana and the United States?

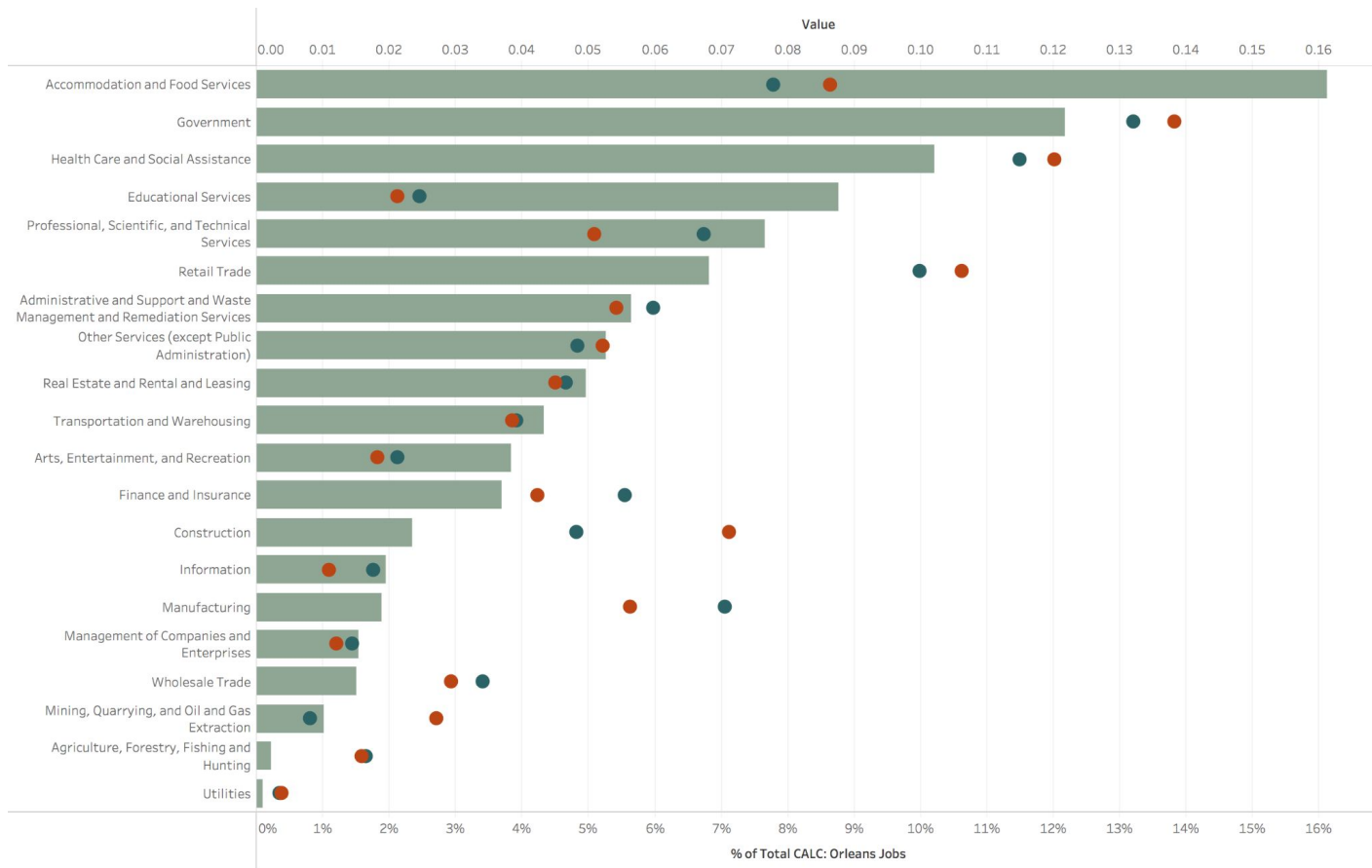
HOW TO READ THIS CHART The green bars represent 100% of the jobs in New Orleans in 2017, broken down by industry. The orange and blue dots provide the same percentage distribution for the broader state economy in Louisiana and the United States' economy as a whole. Hover over the chart to learn more.



BEFORE

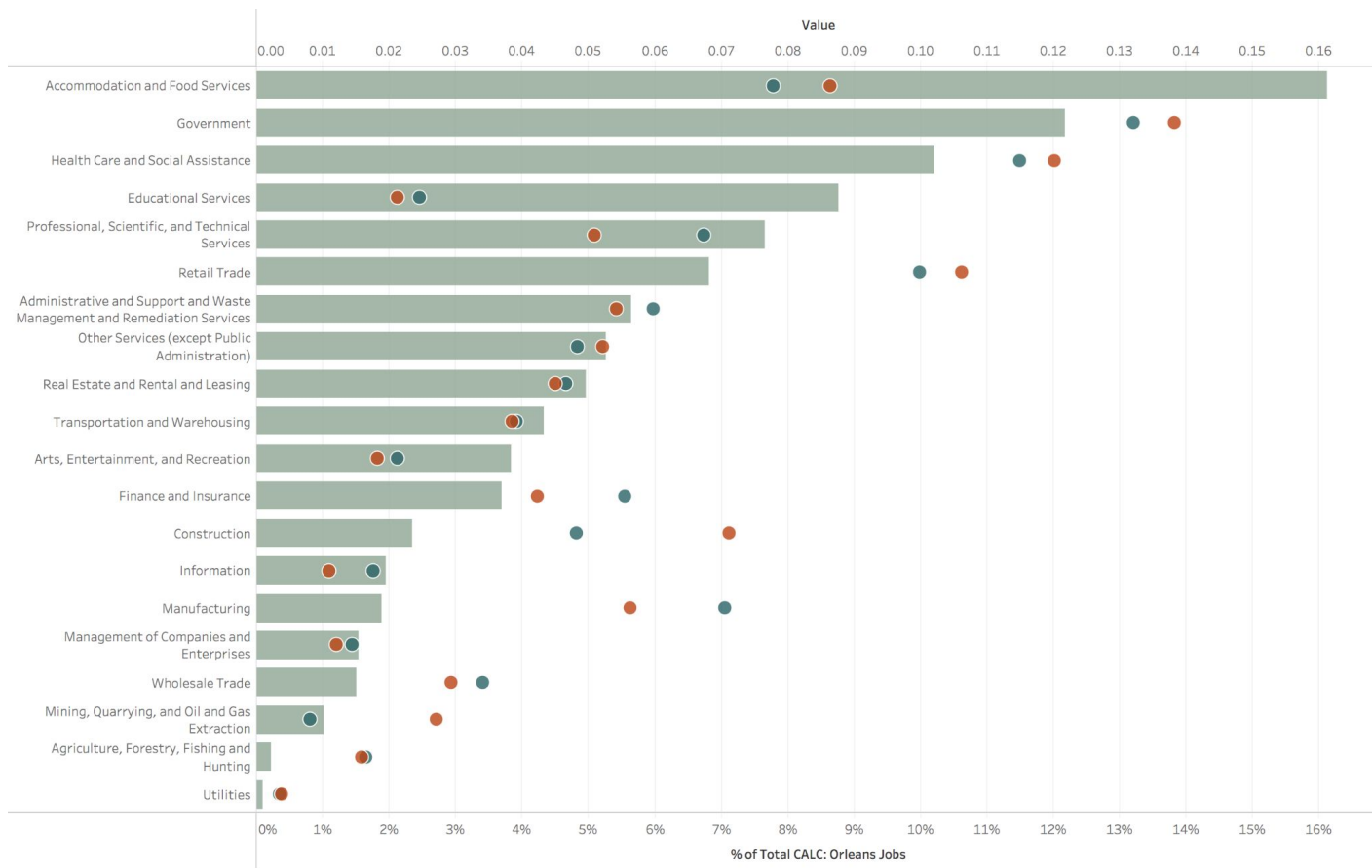


COLOR

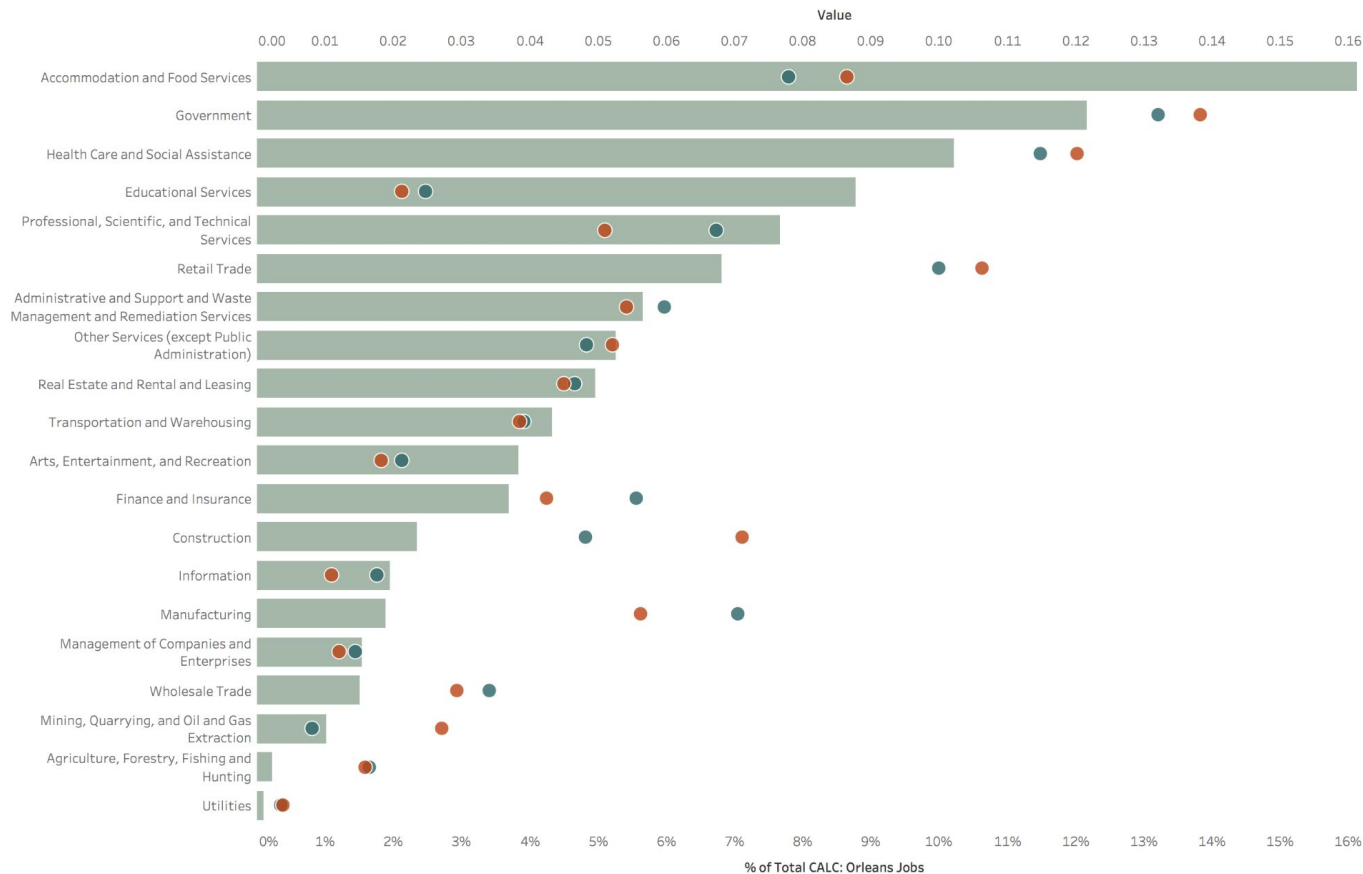


INK

WEIGHT



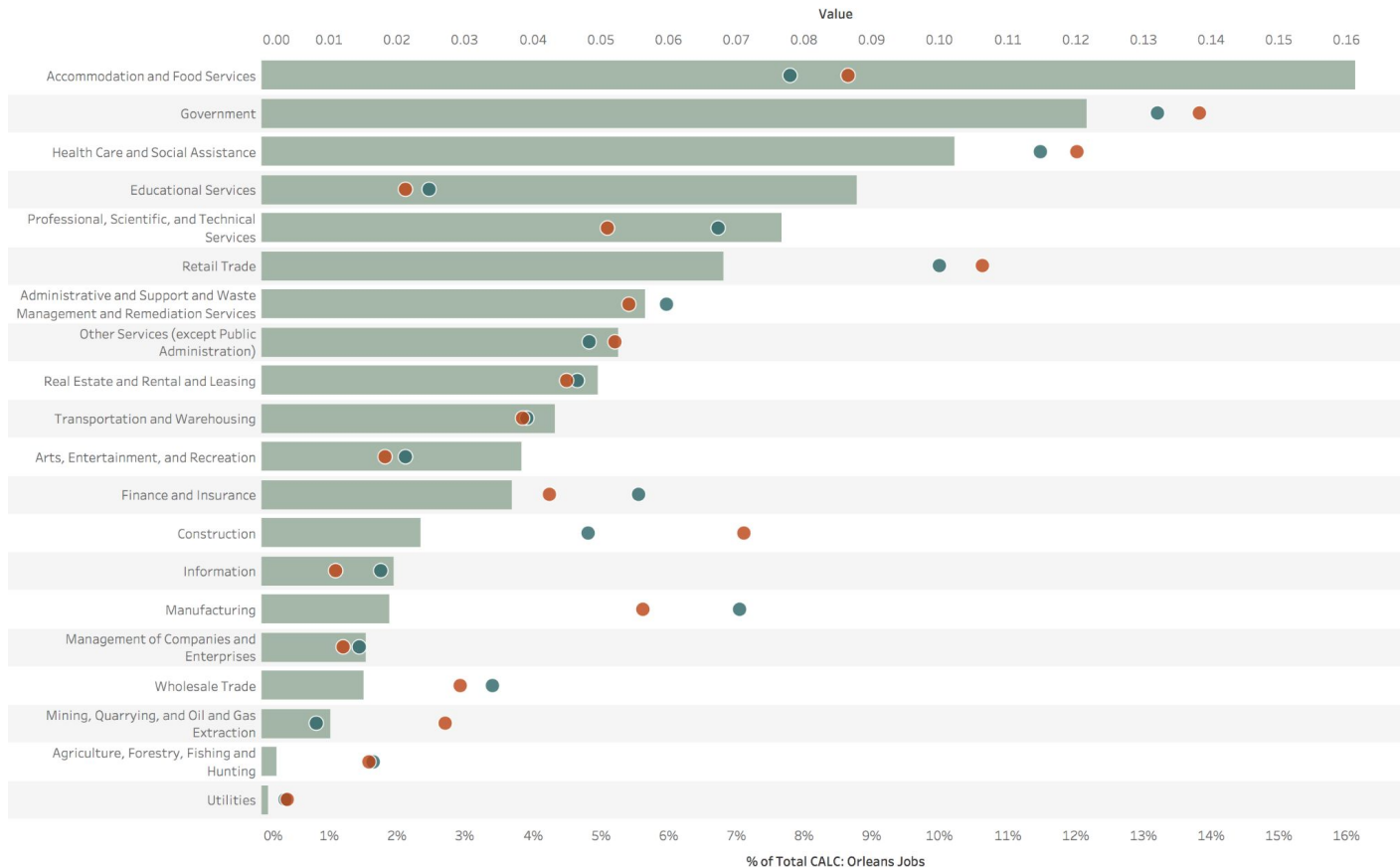
INK

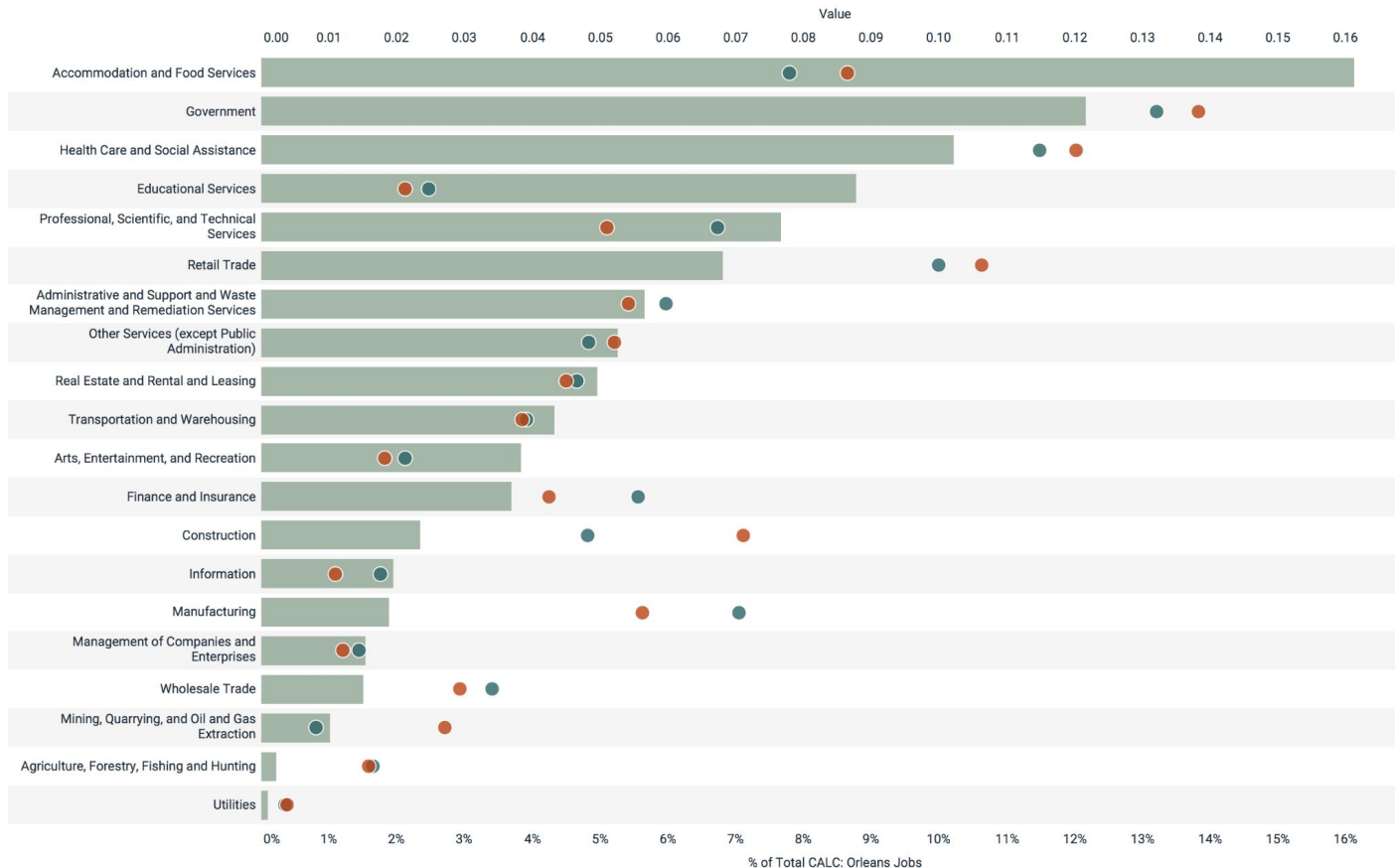


SHADING



INK

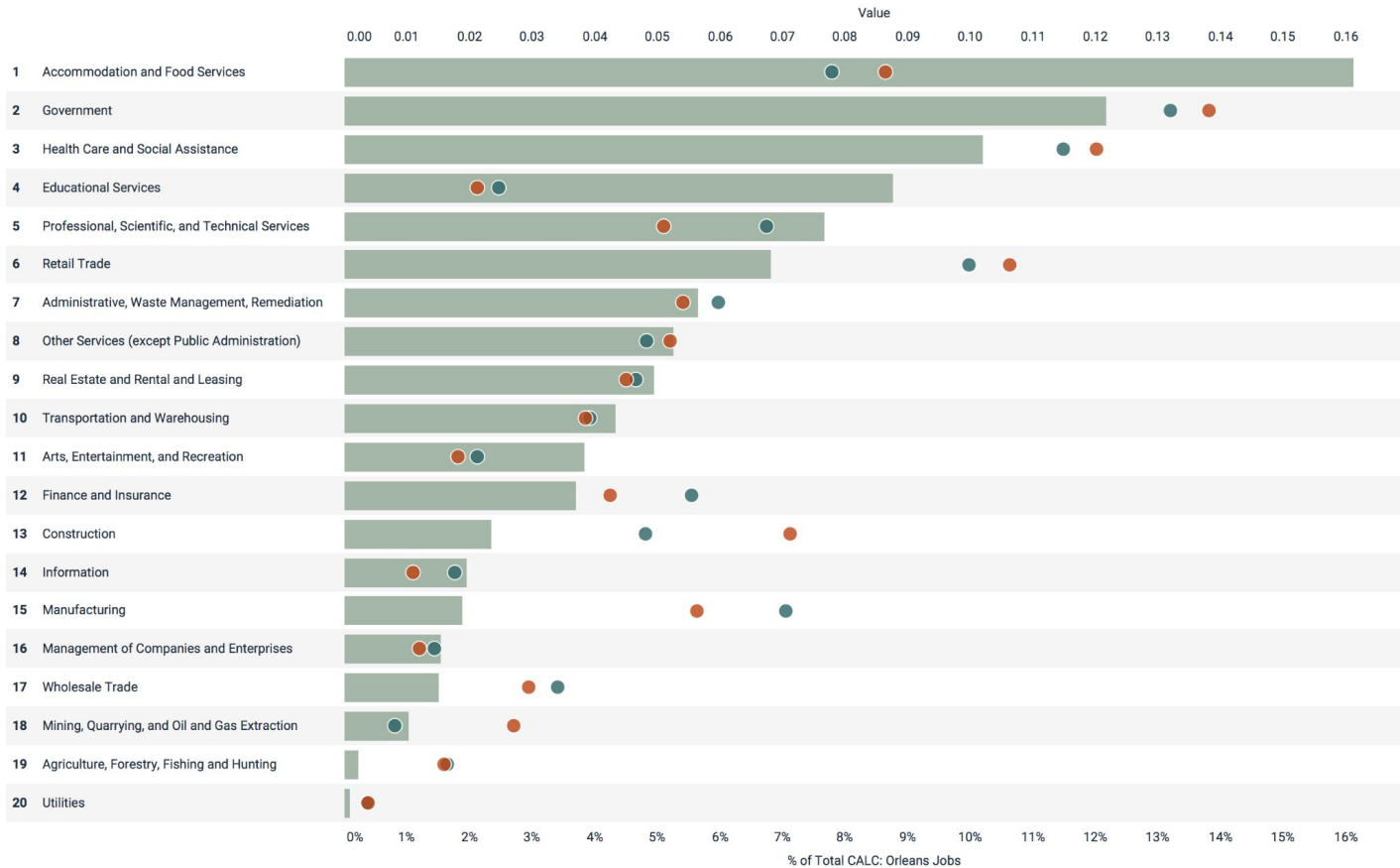




ALIGNMENT



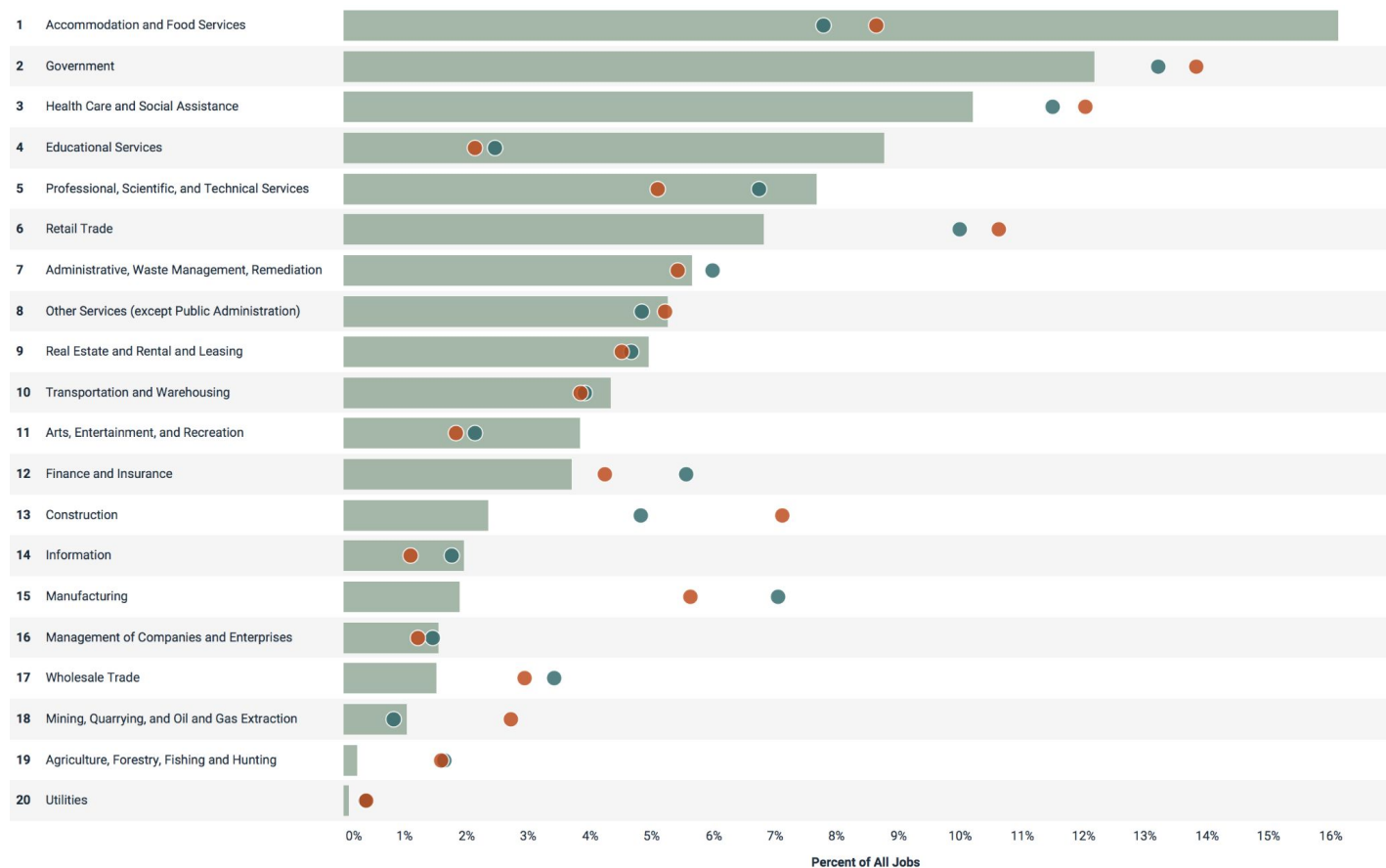
WORDS

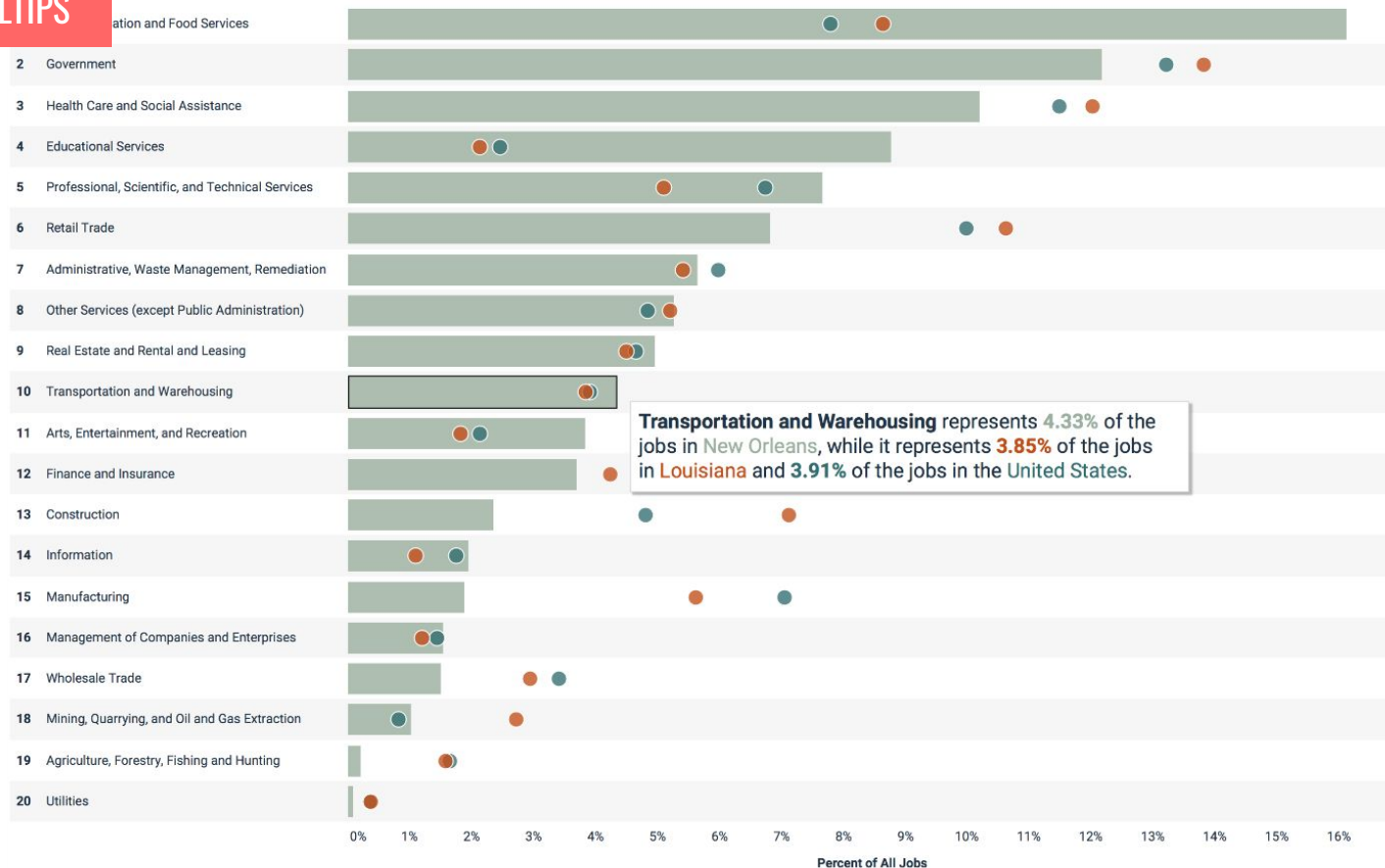


AXES / LABELS



WORDS





ZONES

logo will here
THE COWEN INSTITUTE
hover over chart to learn more

Title will go here and may
take up two lines

HOW TO READ THIS CHART Instructions will go here and
may take up two lines



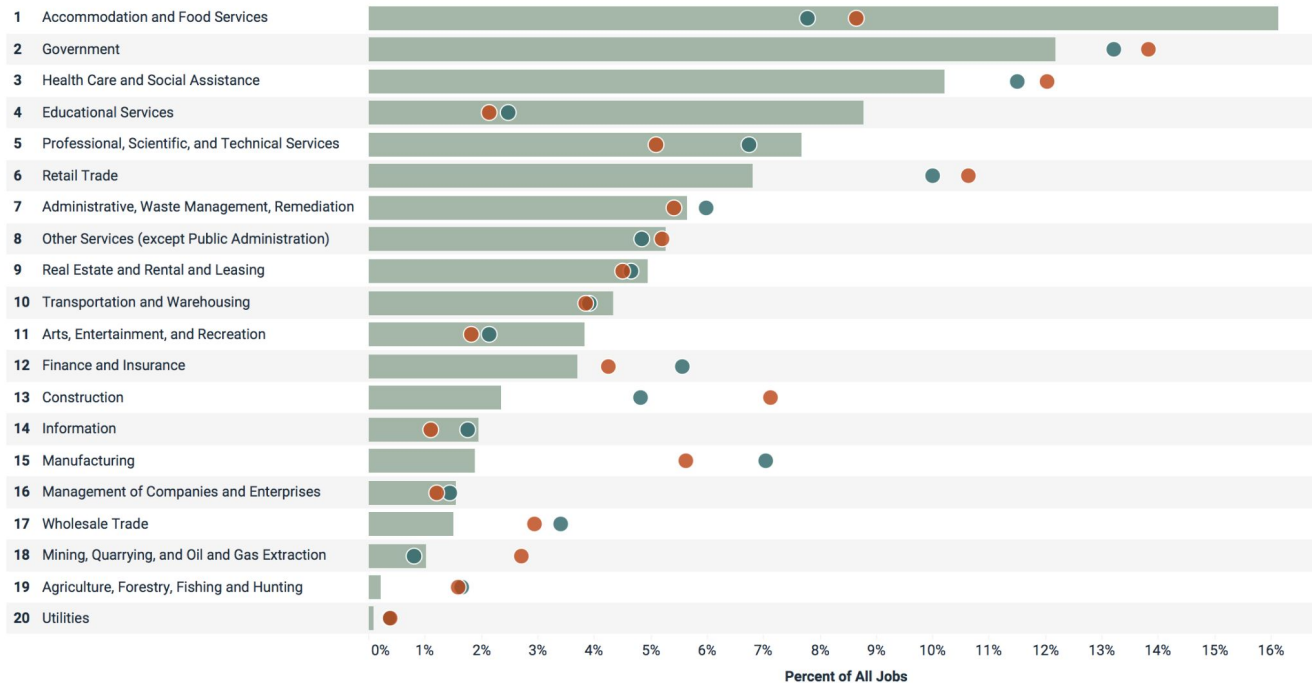
LAYOUT



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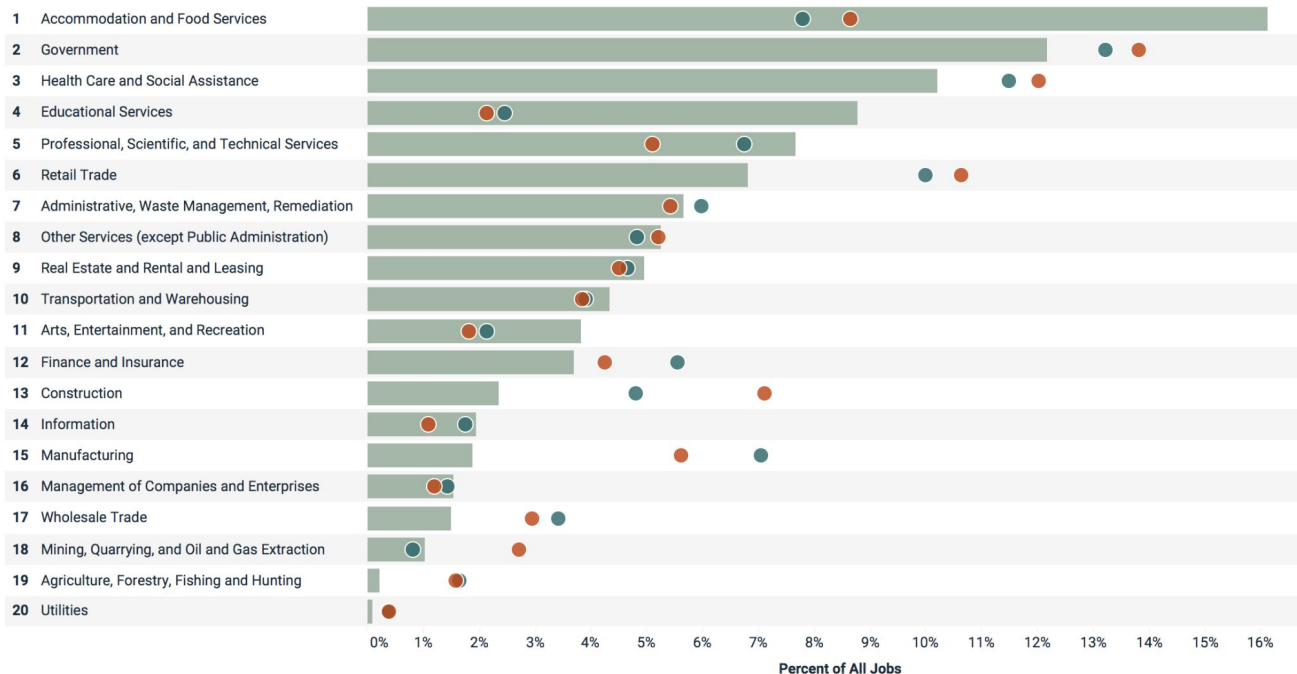
LAYOUT

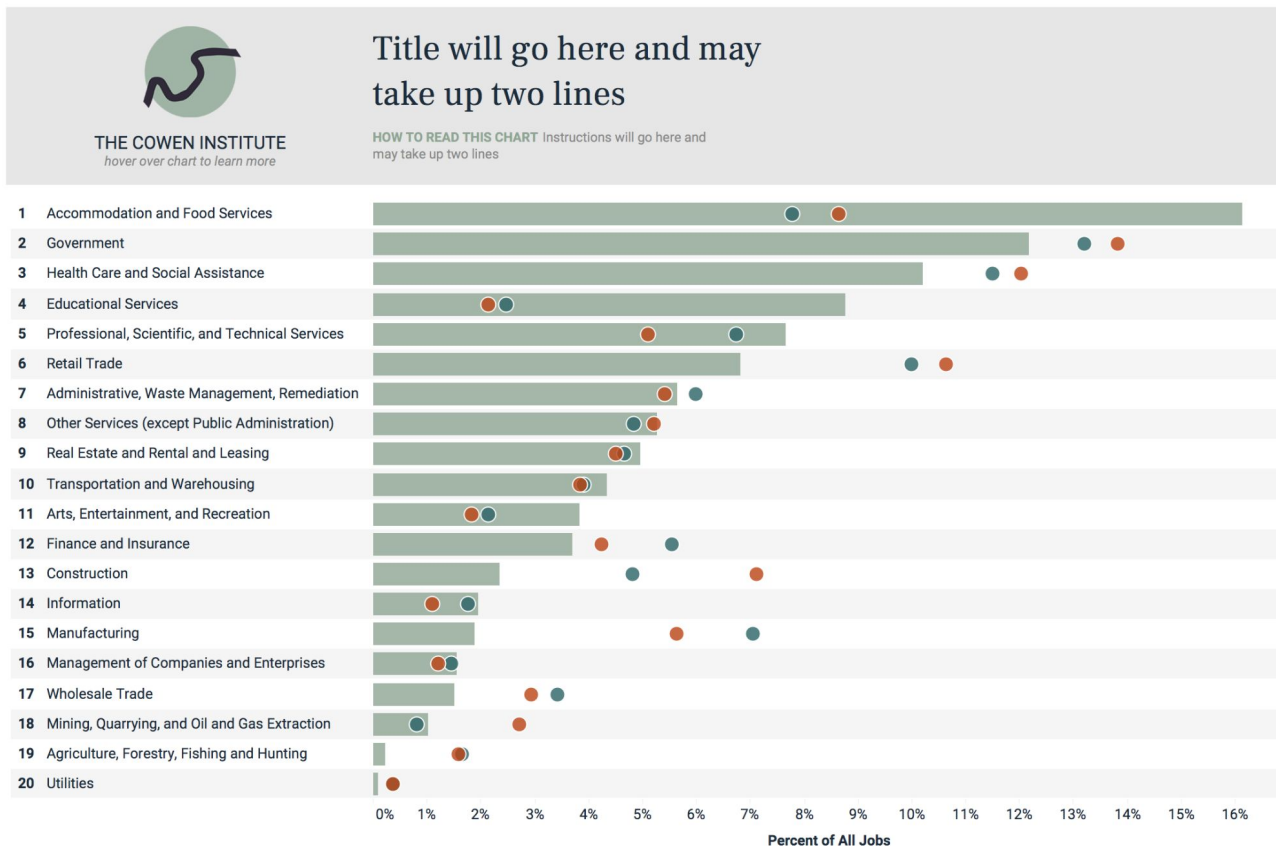


THE COWEN INSTITUTE
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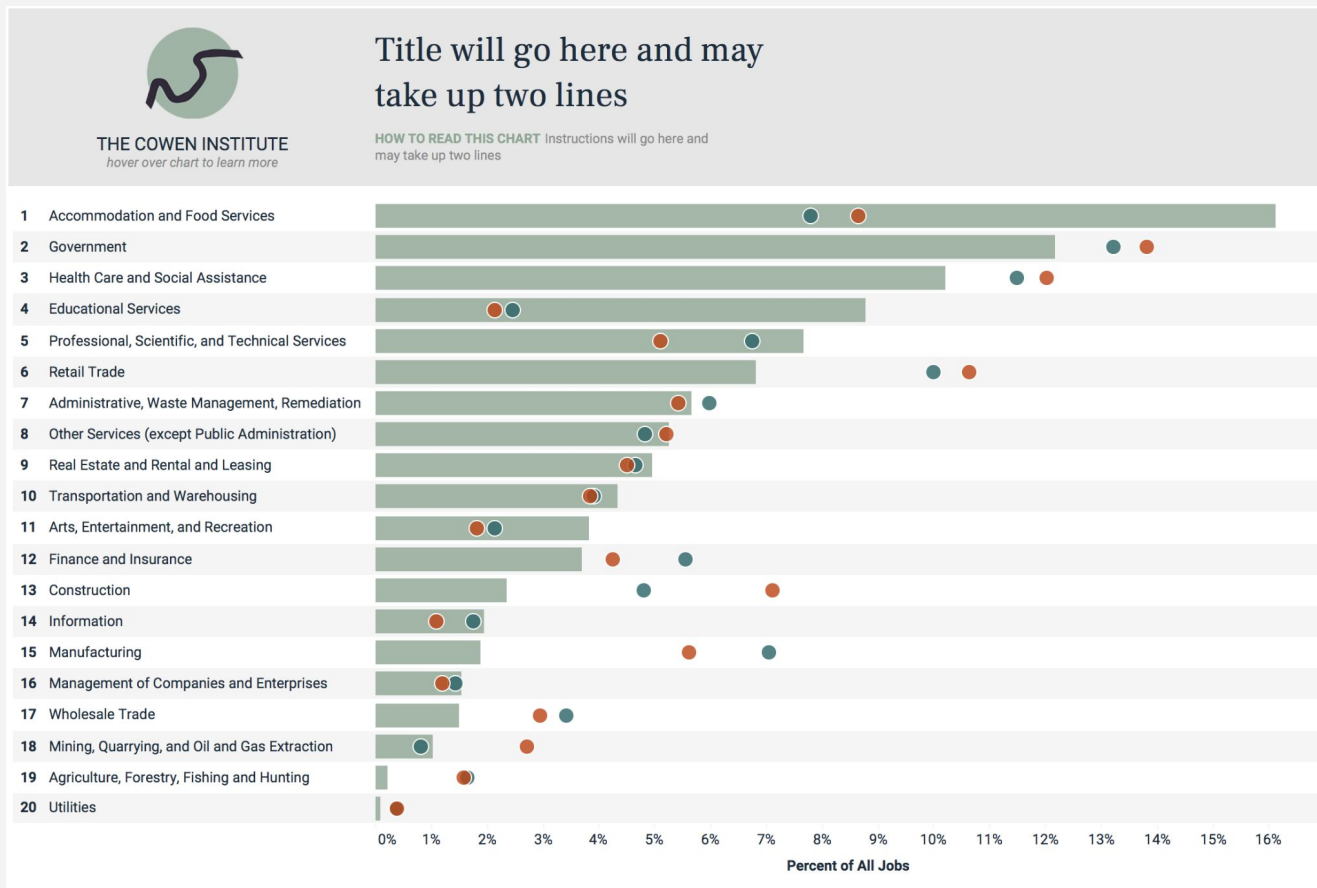
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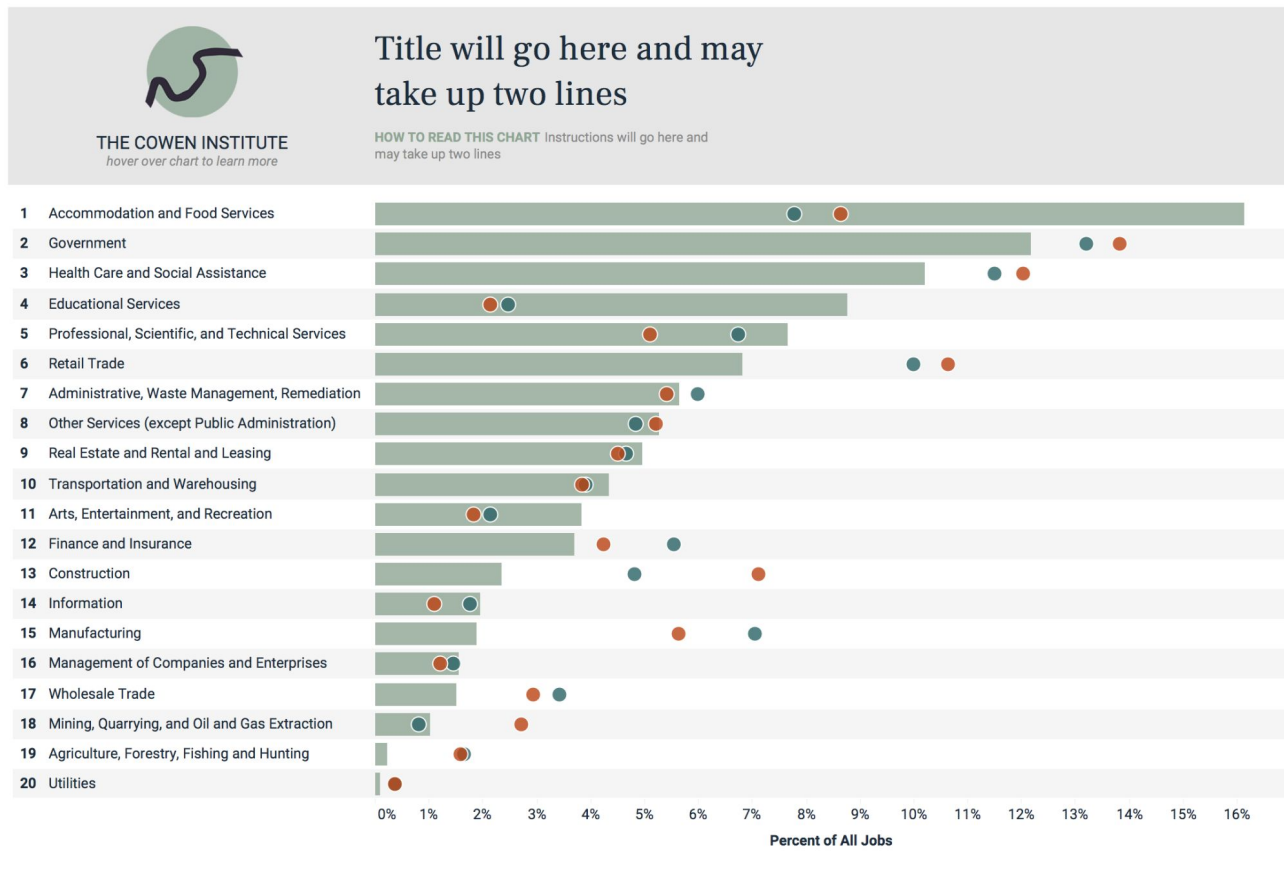




NEGATIVE SPACE



LAYOUT





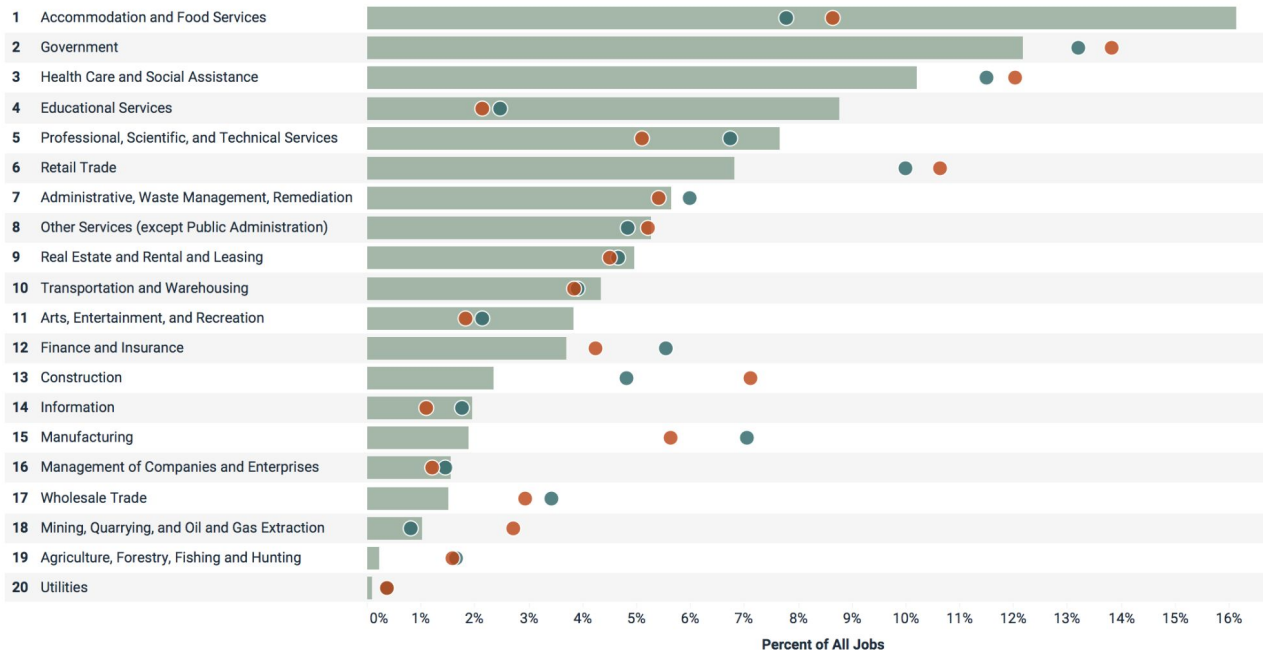
THE COWEN INSTITUTE
hover over chart to learn more

How do the major industries in New Orleans compare with Louisiana and the United States?

HOW TO READ THIS CHART Instructions will go here and may take up two lines



FOOTHOLDS

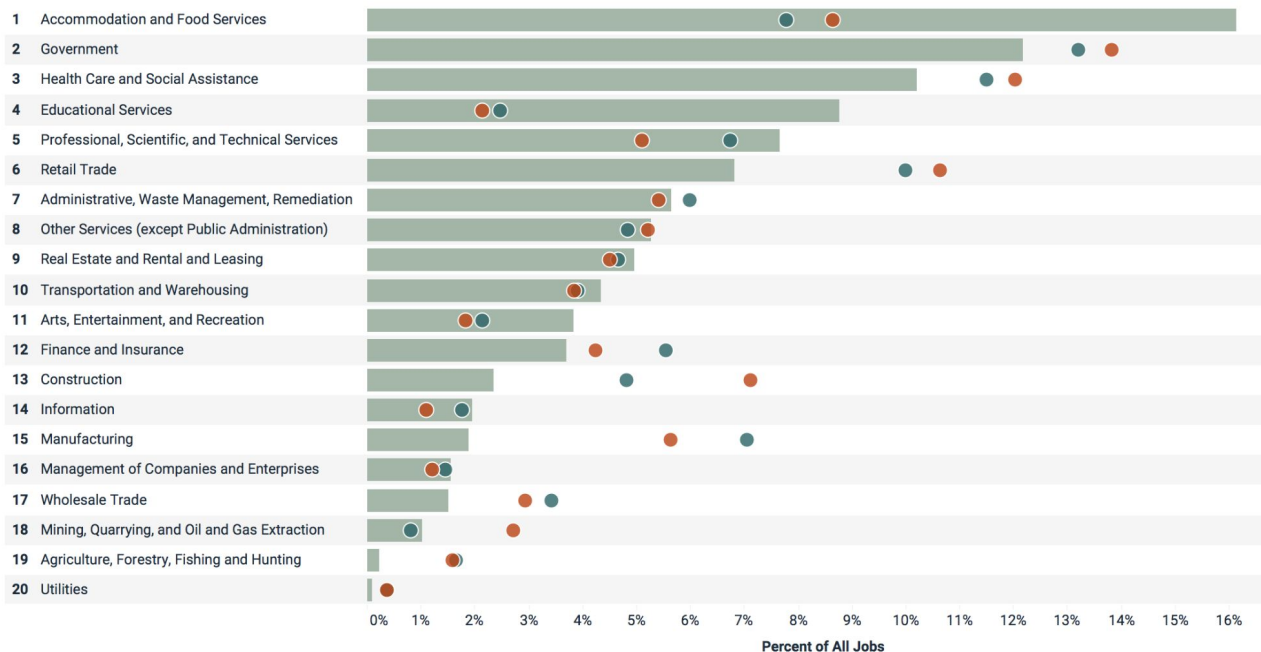




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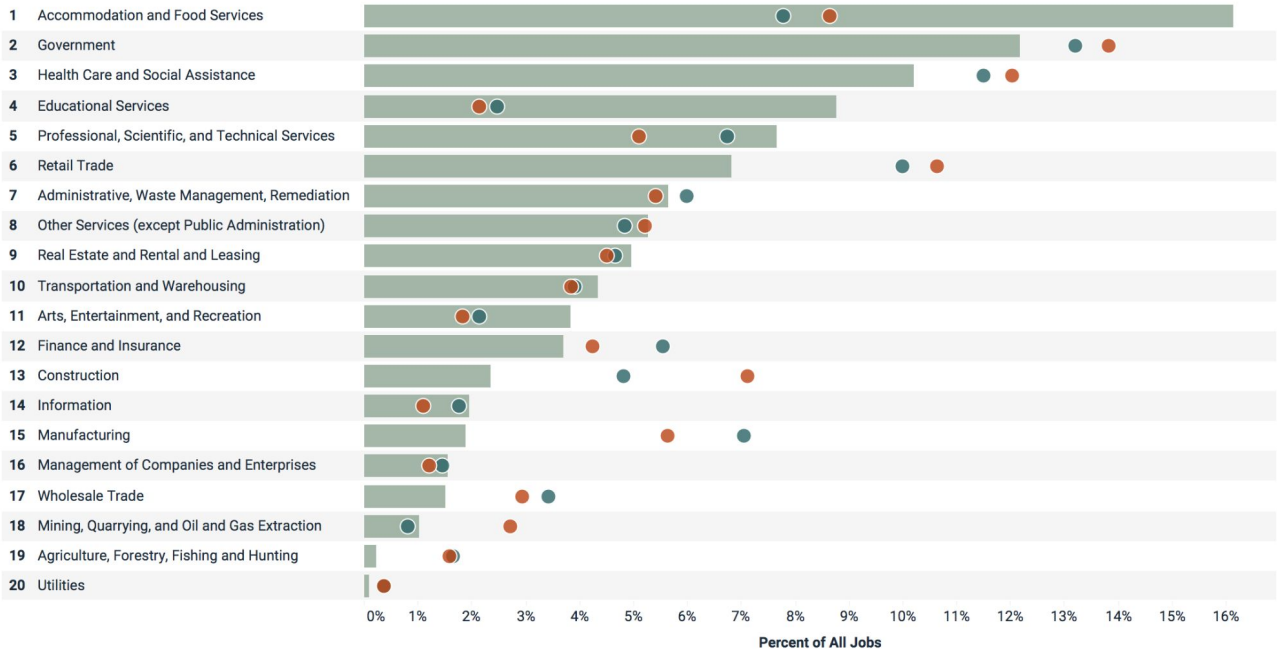




THE COWEN INSTITUTE
hover over chart to learn more

How do the major industries in **New Orleans** compare with **Louisiana** and the **United States**?

HOW TO READ THIS CHART The green bars represent 100% of the jobs in New Orleans in 2017, broken down by industry. The orange and blue dots provide the same percentage distribution for the broader state economy in Louisiana and the United States' economy as a whole. Hover over the chart to learn more.

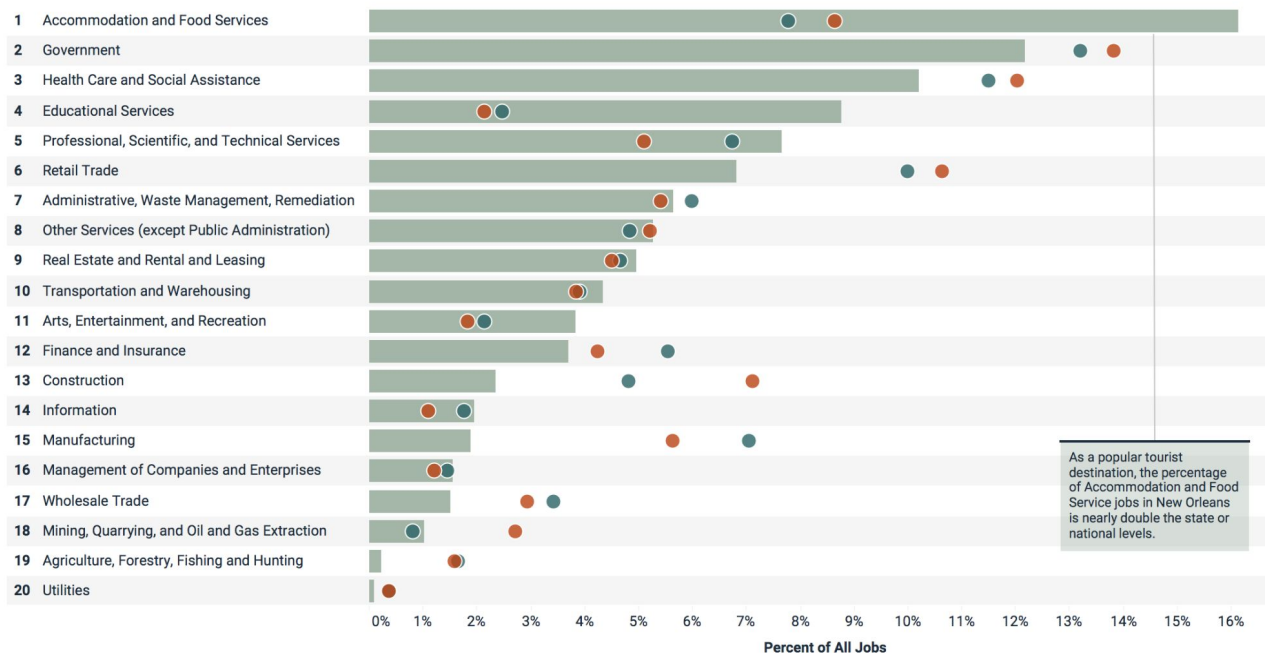




THE COWEN INSTITUTE
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How do the major industries in New Orleans compare with Louisiana and the United States?

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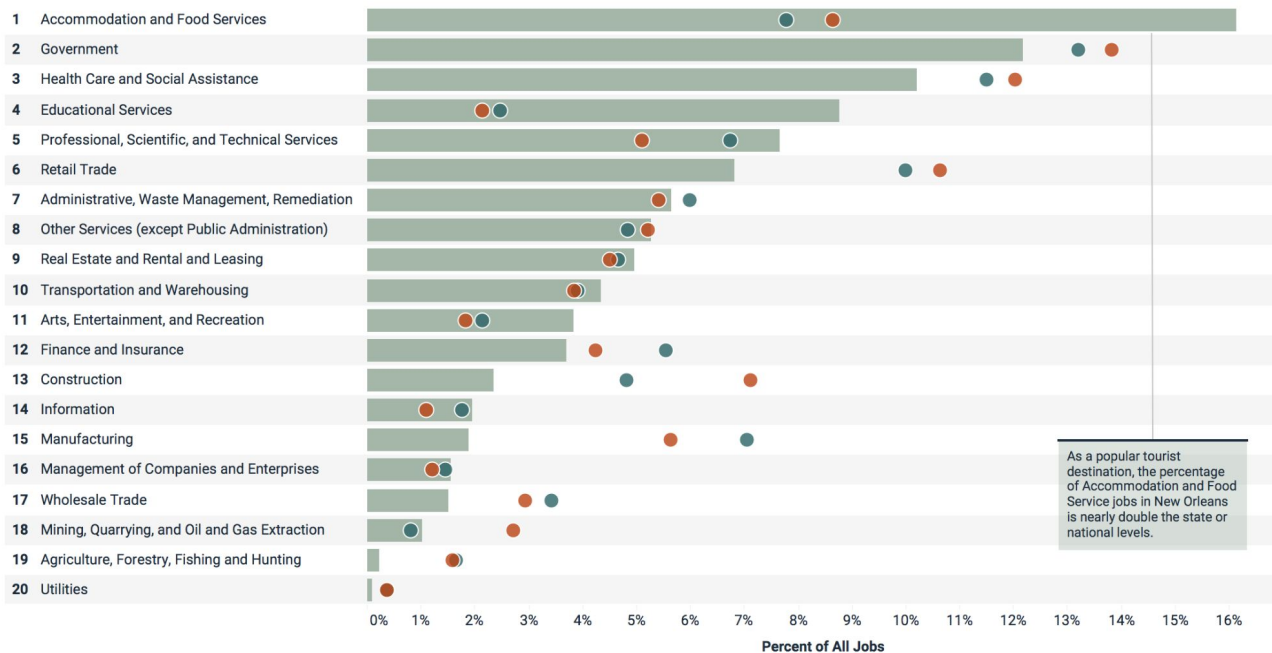
As a popular tourist destination, the percentage of Accommodation and Food Service jobs in New Orleans is nearly double the state or national levels.



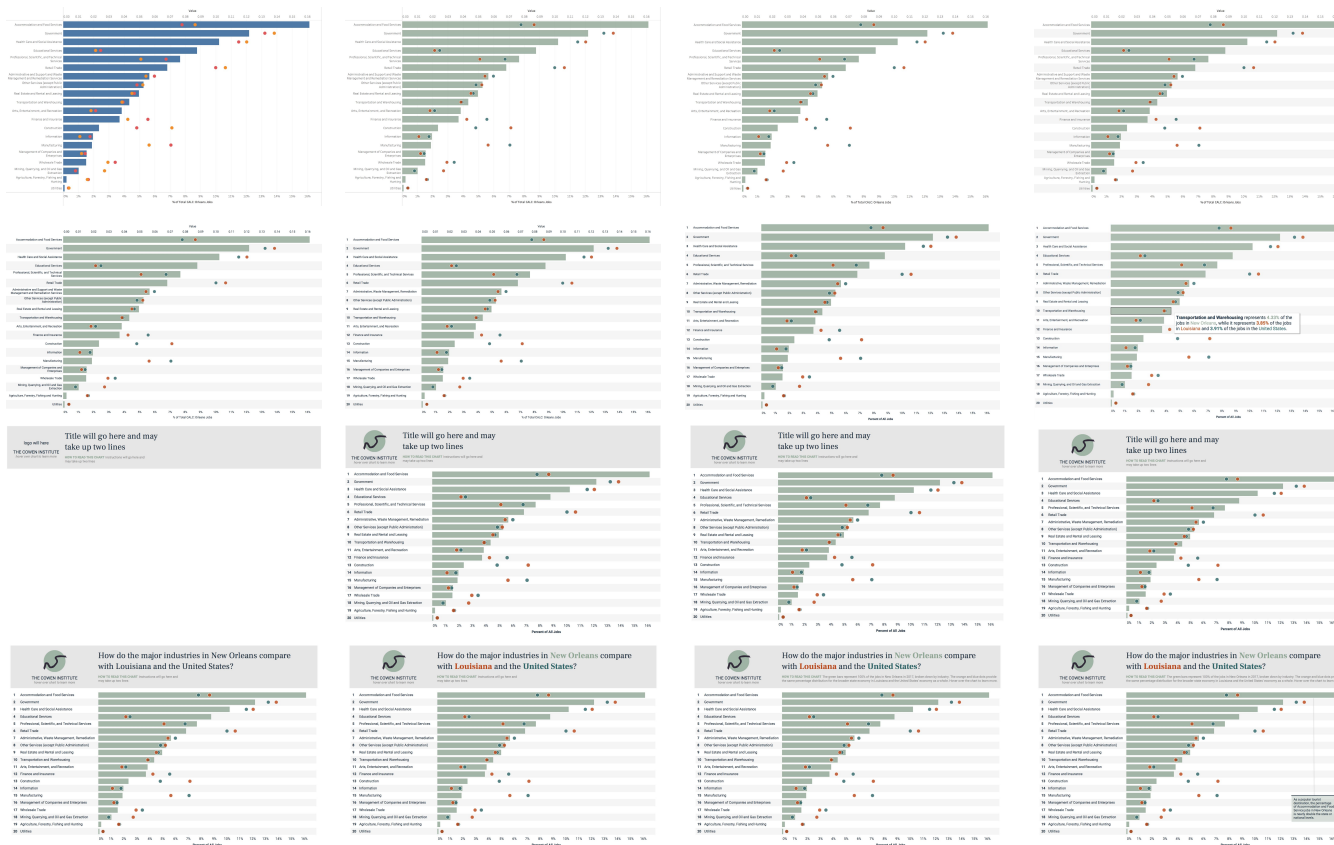
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COLOR SETS THE TONE



**ZONES
BUILD
COMPREHENSION
CONFIDENCE**



INK

- Color
- Weight
- Lines
- Shading



WORDS

- Fonts
- Alignment
- Axes/Labels
- Popups/Tooltips



LAYOUT

- Zones
- Flow
- Balance
- Negative Space



FOOTHOLDS

- Title
- Keys
- Instructions
- Annotations

Q1

Which of these design elements is strongest in your visualization?

Q2

Which of these design elements is weakest in your visualization?

Q3

Are these answers unique to this project or common to most your work?

BREAKOUT SESSION #1

WORKSHOP 2

Today we'll work through one checklist and three common problems.

DASHBOARD DESIGN CHECKLIST

BUSY → STREAMLINED

1

DATED → MODERN

2

BORING → ENGAGING

3



ERASER FIRST

- Unproductive pieces
- Default formatting
- Duplicative info
- Distracting text



OBVIOUS ZONES

- One to five zones
- Intuitive hierarchy
- Shading enclosure
- Vertical layouts



FAMILIAR PATTERNS

- Organization's brand
- Purposeful font/size
- Clear instructions
- Cultural connotations



MEANINGFUL COLOR

- Save color for the data
- Start in greyscale
- Single color emphasis
- 3-5 colors max

BUSY → STREAMLINED

DISCLAIMER

I have personally made **all** of the errors
I'm about to critique.



University League Tables 2014

Two major UK newspapers publish University rankings. We show here how they compare, and how a composite ranking would look. Click to highlight a specific institution and scroll down to see the detail for each

To 40

Show the top — universities overall

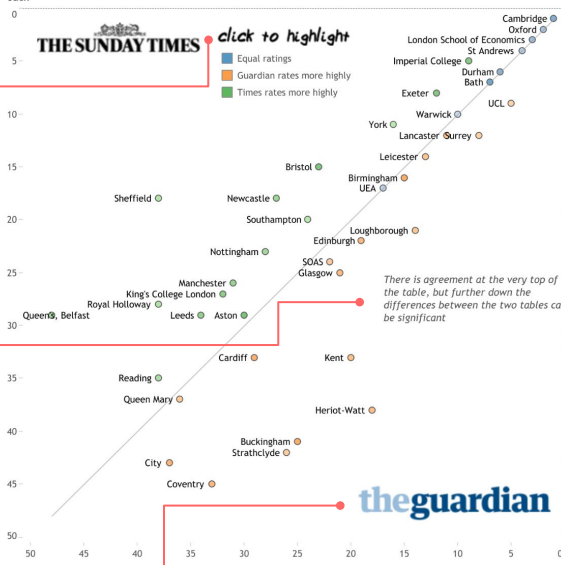
All

compare specific universities

THE SUNDAY TIMES

click to highlight

- Equal ratings
- Guardian rates more highly
- Times rates more highly



the guardian

what makes up the rankings?

	2014 Sunday Tl..	2013 Sunday Tl..	Ucas entry points	Graduate prospects	Student-staff ratio	Services/ facilities s..	Research quality	Completion Rate	Firsts / 2:1s	Student satisfaction	Value added
Cambridge	1	2	1	2	5	2	1	1	2	6	23

	2014 Guardian	2013 Guardian	Entry Tariff	Career prospects	Student staff ratio	Spending per student	Average Teaching Score	National Student Survey Fee..	National Student Survey Ove..	National Student Survey Tea..
Cambridge	1	1	1	6	5	1	1	7	3	3

Looking at the detail of the rankings shows how the two league tables differ in their constituent metrics.

Entry Tariff / Ucas entry points are identical rankings, however some similar constituent parts differ in rank order (e.g. Graduate Prospects / Career prospects). One major difference between the two is that The Guardian uses 3 elements of the National Student Survey, and therefore places greater weight on student opinion. The Sunday Times however places greater emphasis on research.

2014 Rankings. Sources and more detail:
http://www.thesundaytimes.co.uk/sto/University_Guide/
<http://www.theguardian.com/education/table/2013/jun/03/university-league-table-2014>

composite rank

1	Cambridge	0
2	Oxford	0
3	London Scho..	0
4	St Andrews	0
5	Durham	0
6	Imperial Coll..	4
	UCL	4
	Bath	0
9	Exeter	4
	Surrey	4
	Warwick	0
12	Lancaster	1
13	York	5
	Leicester	1
15	Birmingham	1
16	UEA	0
17	Loughborough	7
18	Bristol	8
19	Edinburgh	3
20	Southampton	4
21	Newcastle	9
22	Glasgow	4
	SOAS	2
24	Nottingham	5
25	Kent	13
26	Heriot-Watt	20
	Sheffield	20
28	Manchester	5
29	King's Colleg..	5
	Aston	1
31	Cardiff	4
32	Leeds	5

Difference between scores

DISTINGUISH INSTRUCTIONS

Use a unique, recognizable text for instructions to ensure the audience learns how to engage with the dashboard. Right now, the section labels, like “composite rank,” and the instructions all use the same font.

ANNOTATE POINTS OF INTEREST ONLY

Make the data marks bigger and erase the busy labels, annotating just the outliers and leave the rest just in the tooltip. A search function or a label toggle could be added. This fantastic annotation should then be emphasized.

LEVERAGE BRANDING PATTERNS

The Guardian’s logo already has an associated blue, so leverage that in the dashboard by making The Guardian’s marks blue. Right now the colors are simply Tableau’s defaults.

USE A SLOPE CHART INSTEAD OF BAR

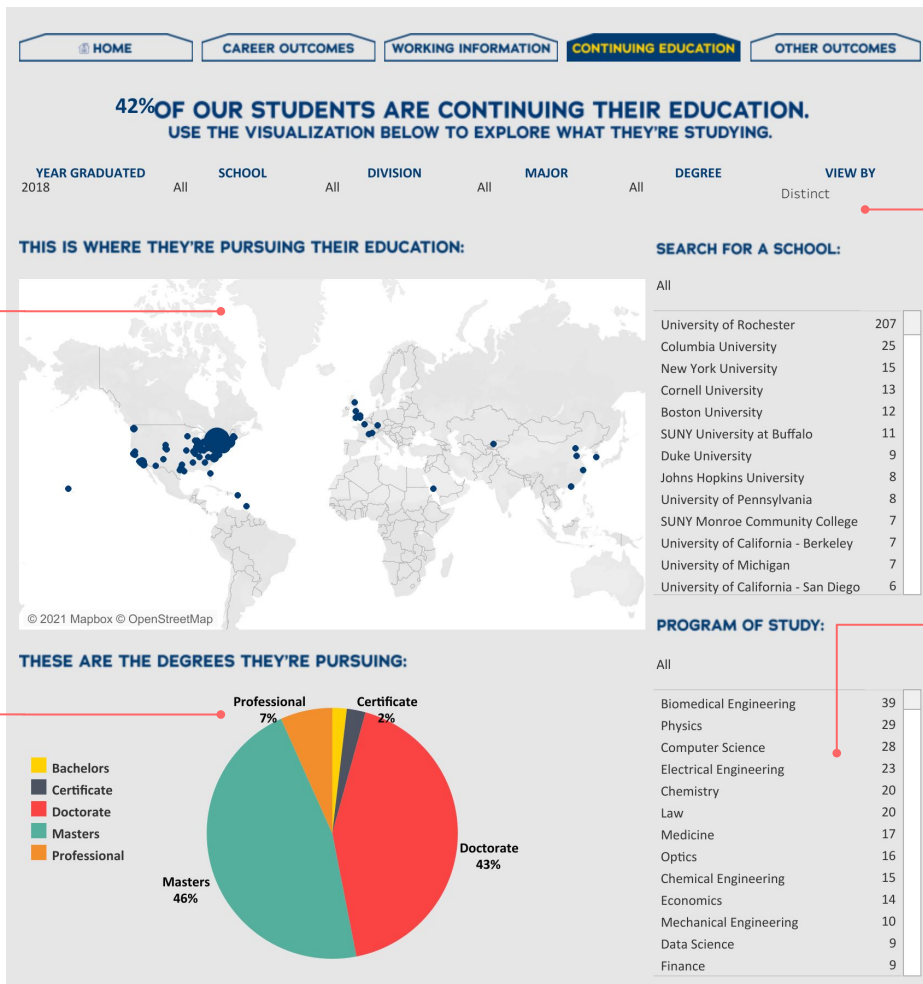
Sometimes when a chart is particularly busy, it’s a signal that it’s actually the wrong chart. A slope chart here would be easier to read and visually cleaner if the goal is showing the difference.

CREATE CLEAR ZONES

Leverage shading enclosure to create three clear zones: the scatterplot, the slope chart (currently bar chart) and the ranking composition breakdown at the bottom.

ELIMINATE OR EXTEND

Either extend the size of the dashboard into a taller vertical frame to allow the ranking compositions to be understood, or eliminate them and just keep a link back to the methodology in the footnote.



REDUCE OVERPLOTING

The majority of the dots are in the United States and are illegible due to overplotting, which feels both busy and unproductive. Test creating two maps, one of just the United States with dots that have some opacity, and another with the world as with shaded polygons.

ERASE DUPLICATIVE LABELS

Either provide the color legend or label all of the slices, but don't do both. (Also note that this is an ideal example of when a single color, sorted bar chart would much more effective than a pie chart.)

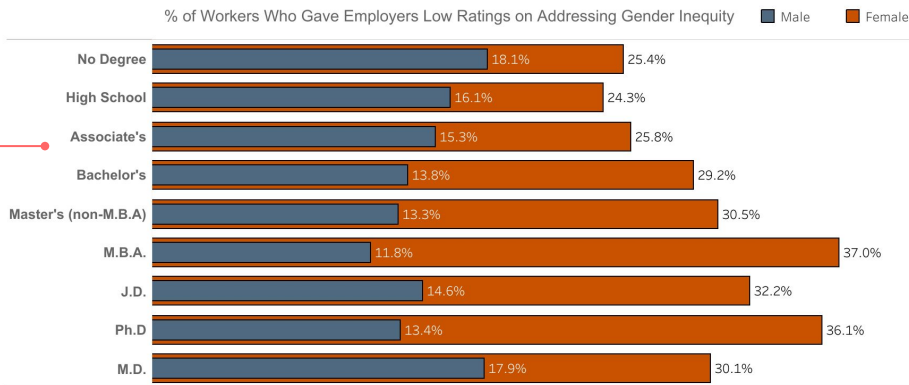
CREATE WHITE CARDS FOR ZONES

Lighten up the grey background and create white cards around each of the three sections (map, pie, tables). This will make the information more legible and dashboard feel more approachable, while still respecting the Rochester branding.

VISUALIZE OR ELIMINATE

When tables like these two quickly deteriorates into a long list with just one record each, either group those records into meaningful categories and visualize that data, show something interesting like just the top ten list, or eliminate them altogether and add the list in an appendix with summary tables.

Educated Women More Likely To Rate Employers Low on Addressing Gender Inequity



REPLACE TWO CHARTS WITH ONE

A barbell chart would visualize all three elements highlighted here: a dot for the women's rating, a dot for the men's rating, and bar connecting the two that represents the difference. The bubble chart could then be eliminated, and the dashboard would have a single, striking zone.

EMBED THE ANNOTATIONS

The additional space created by the single chart approach would then allow these observations to be embedded as direct annotations, eliminating the back and forth reading this format currently requires.

- Generally, more educated women tend to give their employers lower ratings on addressing workplace gender inequity.
- Female MBA's (37.0%) and Ph.D.s (36.1%) are the most likely to think their current employers are not doing enough to address workplace gender issues.
- The largest discrepancy for low ratings between men and women is among MBAs (25.2%).

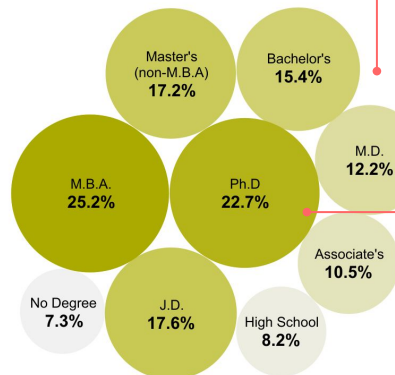
ERASE THE EXTRA LINES

The lines around the title, the chart, and the bars themselves should be eliminated. The two colors should be different enough in weight to be layered directly on top of one another without legibility issues. (Or they could be kept with the suggested barbell approach because they would be separated.)

USE A COHESIVE PALETTE

The lime green, burnt orange, and navy blue are all demanding colors that fight with each other for attention. Opt for a cohesive palette, ideally assembled by a designer.

% Difference Between Genders



AVOID DOUBLE (OR TRIPLE) ENCODING

The difference between the women and men's rating is triple encoded here with the size of the bubble, the color's intensity, and a label, and yet the categories are still difficult to compare. A single color bar chart would be more effective and efficient.

STREAMLINED

PRODUCTIVE PIECES ONLY

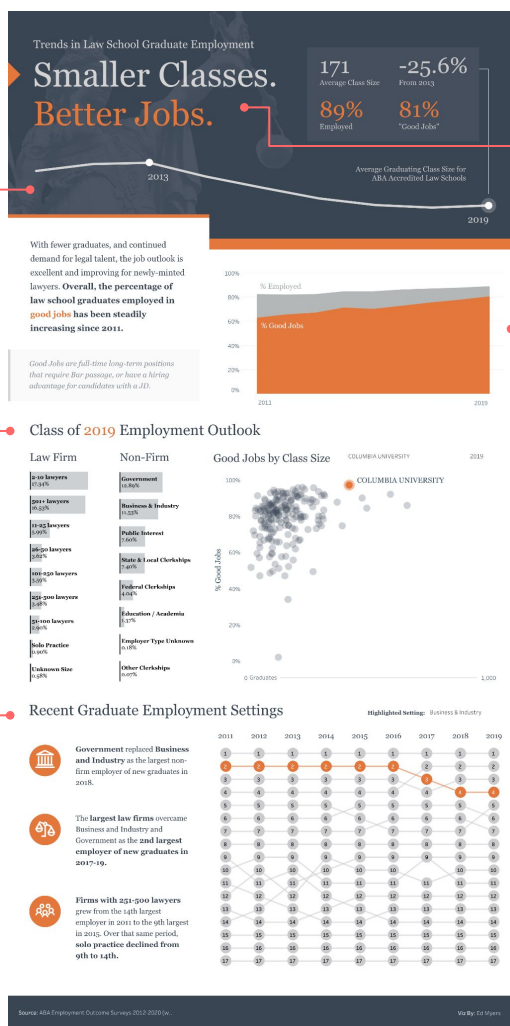
Every item on the dashboard connects back to the dashboard's theme: showing the improvement of job quality for law school graduates as the number of graduates has dropped. All unproductive elements have been removed.

OBVIOUS ZONES

At a glance, each new section is easy to recognize with both its placement and recognizable headers. The white space around each section allows them to breathe and sets it apart.

VERTICAL LAYOUT

The dashboard is tall enough to create plenty of room for each visualization. The audience intuitively scrolls down through the vertical layout just like they'd scroll through a webpage.



SUCCINCT TEXT

From the title to the annotations, the text is succinct and therefore actually gets read. Time has clearly been invested in the readability of the words as well as the charts.

INTENTIONAL COLOR

The bright orange color is saved for the most important moments in the data, particularly for highlighting the rise of good jobs for law graduates.

MINIMALIST LABELS

Every axis and label has been slimmed down to just the essentials, which makes them more effective and creates an overarching streamlined sensation.

WORKSHOP 2

Today we'll work through one checklist and three common problems.

DASHBOARD DESIGN CHECKLIST

BUSY → STREAMLINED

1

DATED → MODERN

2

BORING → ENGAGING

3



MODERN COLORS

- Background shading
- Greys over browns
- Rich contrast
- Contemporary palettes



UPDATED FONTS

- Sans serif text
- Large, bold titles
- Digital legibility
- Lighter support text



NEGATIVE SPACE

- Outer padding (margin)
- Inner padding
- Breathing room
- Light or dark mode



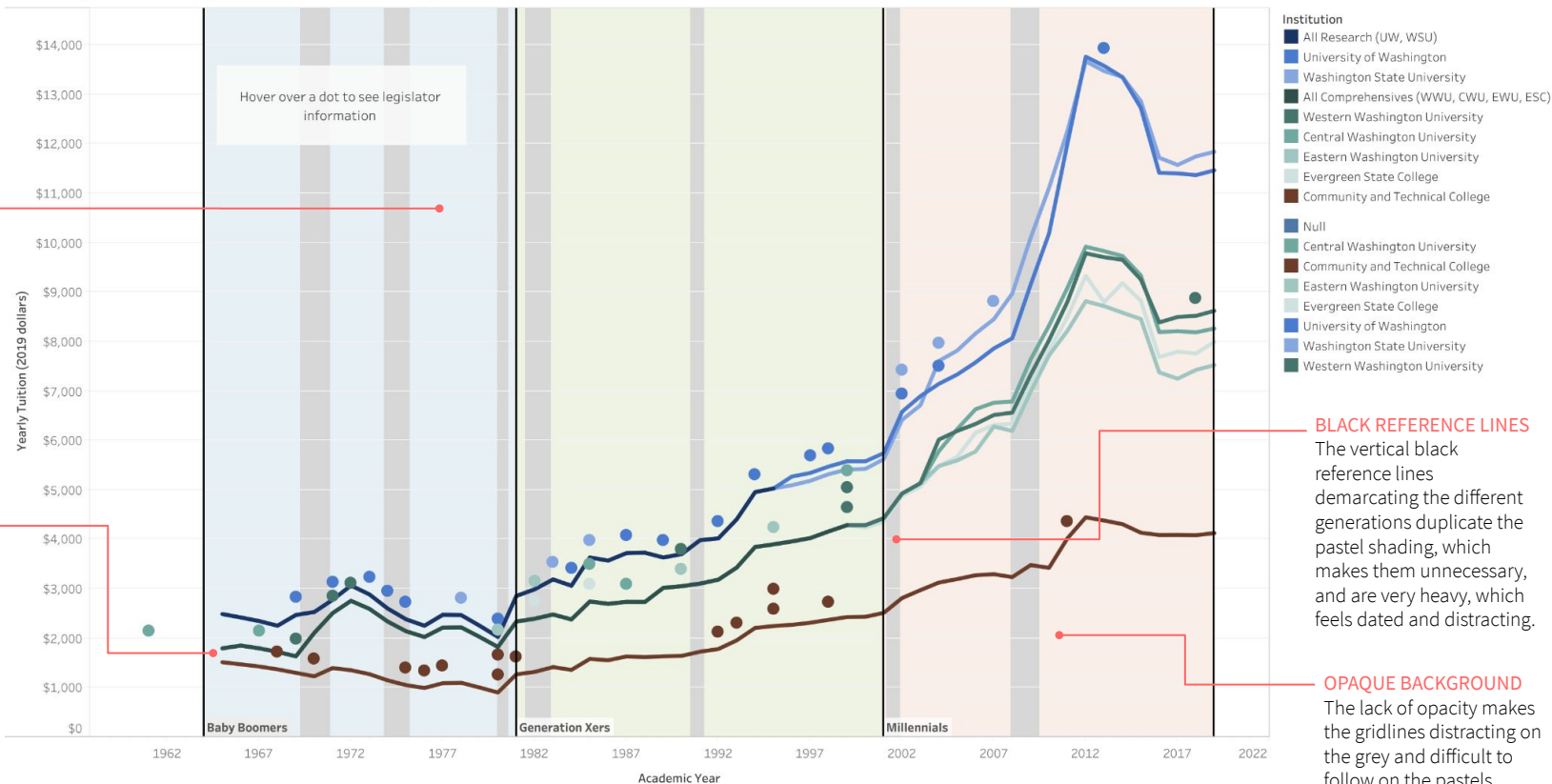
SCRUTINIZED CONTENT

- Avoid cutesy elements
- Review for tone
- Explain oddities
- Diverse reviewers

DATED → MODERN

DATED

Washington State Higher Education Tuition by Generation with Current Legislators



Based on 2019 (inflation-adjusted) dollars, calculated using CPI-U-RS. Grey bands indicate recession. Tuition data from: Washington Student Achievement Council, Washington Office of Financial Management, Washington State LEAP Committee, University of Washington, Washington State University, Western Washington University, Central Washington University, Eastern Washington University, The Evergreen State College, Washington State Board of Community and Technical Colleges. Biographical data: VoteSmart.org, other published sources.

DATED

CUTESY ICONS

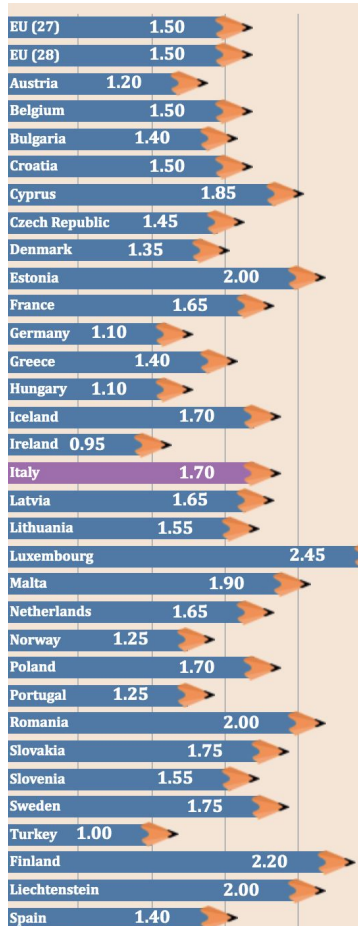
Use caution when incorporating metaphorical icons or imagery. This strategy is often associated with cartoons or misleading characterizations of data. If your audience is children, then perhaps exceptions should be made, but avoid childish themes when visualizing data for adults.

PRIMARY RAINBOW

Color palettes that could come right off the primary and secondary color wheel usually carry an immature quality into the visualization. Double check that your colors set the tone you want to convey in your work.

NO MARGIN

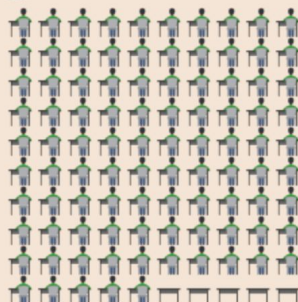
Add a bit of a margin between the edge of your dashboard and the beginning of your visualization. Note how this was done successfully on the right.



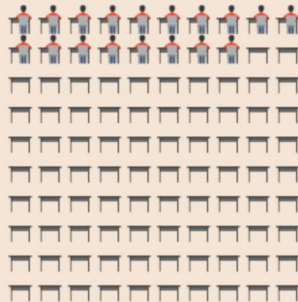
DO PEOPLE IN YOUR COUNTRY LEARN FOREIGN LANGUAGES?



96% English Classroom



18% French Classroom



8% German Classroom

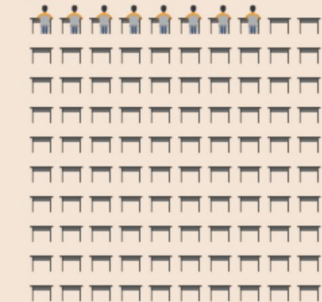
Education and Foreign Languages

The pencils represent the average number of foreign languages learned per pupil in secondary education (ISCED 2 and 3).

The classrooms present the percentages of all pupils in upper secondary education (ISCED level 3) who are learning English, French or German. It only covers general and not vocational education in countries where English, French or German are described as foreign languages in the curriculum or other official document.



8% German Classroom



DATA: Eurostat @FilMastroianni

CREAM BACKGROUND

Background shading in the brown tones usually comes off as more dated than backgrounds in the greys.

SERIF FONTS

All of the fonts are serif fonts. Swapping out the smaller text and labels for a sans-serif font would update that dashboard.

TONE DEAF ILLUSTRATIONS

While almost certainly unintentional, the illustrations here are tone deaf at best, offensive at worst. The implication seems to be that students should learn these three languages in order to communicate with white men from these dominate countries. Further, given the short haircut, the student icons read as all boy students, furthering the sexist tone.

DATED

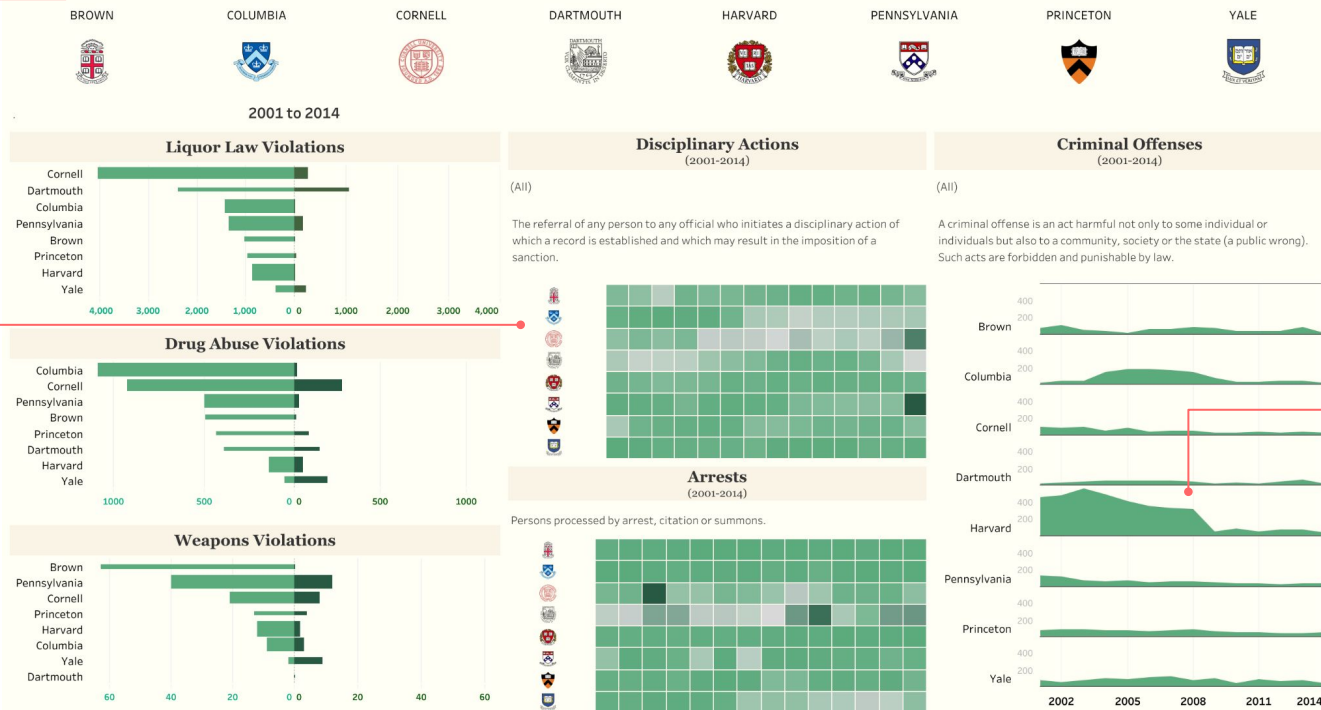
EVERGREEN & CREAM

Forest green and cream are a dated color palette. If you're veering into browns, try grey neutrals instead.

ICONS

Icons often create busy visualizations. On this dashboard in particular, replacing the school names with the icons on the heatmap comes off as elitist. Few will immediately recognize the corresponding schools.

How Safe Are Ivy League Schools?



Source: U.S. Department of Education

ope.ed.gov/campusafety

#HackingOpenData . #VizzingEd . tabsoft.co/2m7vy6H

@ealexidixon + @tarannum.in

ACCUSATORY TITLE

While question titles are often very engaging, the title here feels like it's setting up a gotcha moment rooted in privilege or fear. The serif, italic font plays into that.

UNEXPLAINED DATA

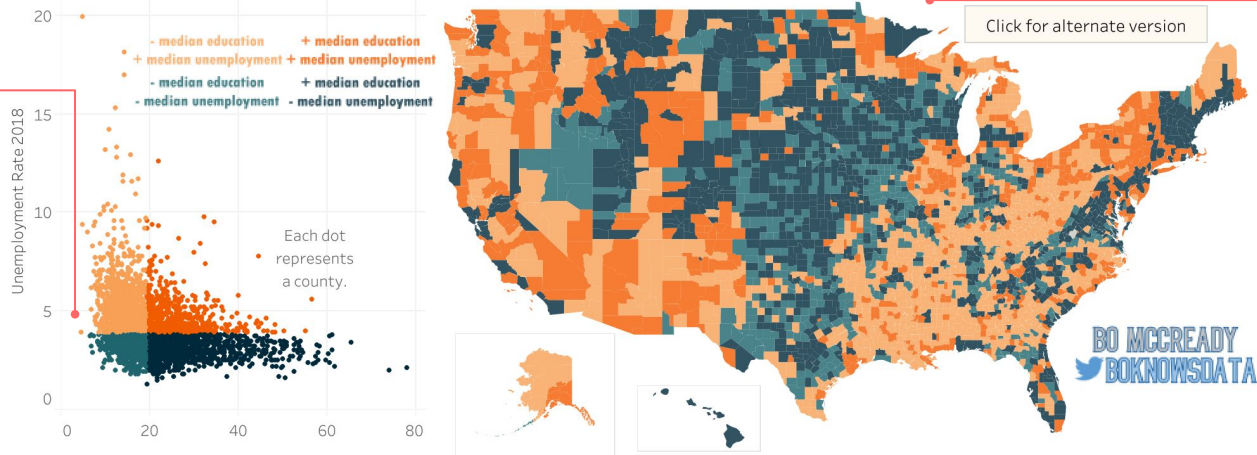
This outlier looks like a policy shift, but because it goes unexplained the audience's trust in the analysis is jeopardized.

MISLEADING AXES

The way that these diverging bar charts are stacked leads the eye to equate liquor violations with weapon violations, creating a fear mongering effect.

EDUCATION AND UNEMPLOYMENT

This map shows counties in the US colored into four categories based on educational attainment (as measured by the percent of adults 25+ with a bachelor's degree or higher 2013-2017) and unemployment rate (based on 2018 unemployment) relative to the median for all counties. Data comes from the USDA Economic Research Service.

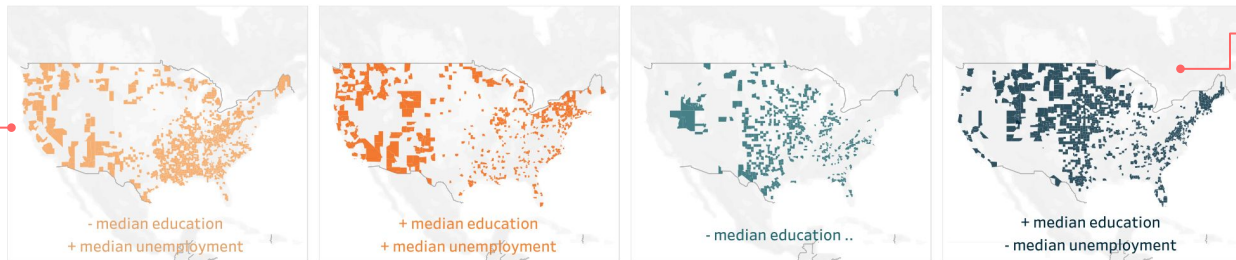


MODERN PALETTE

This high contrast palette is very modern and easy to read, with a clear positive connotation with the blue and worrisome connotation with the orange tones. With the county map as the central element, the color decision here sets the entire tone for the dashboard.

SMALL MULTIPLES

These additional four maps below are a fantastic use of small multiples, a very modern way to ensure easy legibility and audience comprehension. They are also very mobile-friendly.



RECOMMENDATION: MORE NEGATIVE SPACE

This dashboard could still use more negative space separating the elements on the dashboard. This additional breathing room would make the dashboard feel even more polished.

RECOMMENDATION: POLYGON MAPS

The floating polygon map of the US at the top is very clean. That strategy should be replicated with these disaggregated maps below.

WORKSHOP 2

Today we'll work through one checklist and three common problems.

DASHBOARD DESIGN CHECKLIST

BUSY → STREAMLINED

1

DATED → MODERN

2

BORING → ENGAGING

3



HOOK

- Dynamic visual
- Skimmable headlines
- Annotate highlights
- Find yourself in data



BUILD

- Substantive content
- Bitesize pieces
- Accumulating meaning
- Increasing confidence



PAYOFF

- Explicit point
- Active interpretations
- Call to action/next steps
- Rewarding ROI

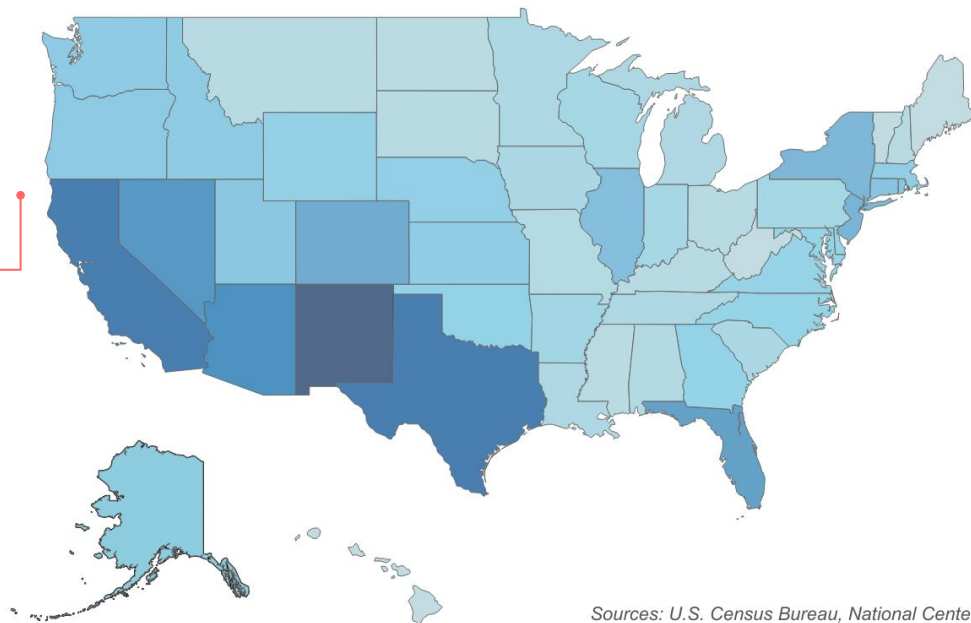
BORING → ENGAGING

A More Hispanic America

In most states, the Hispanic share of births exceeds the Hispanic share of the overall population. Hispanic adults are less likely to earn a bachelor's degree than the overall population, especially near the Mexican border.

Hispanic population 2013

1.4%  47.3%



Sources: U.S. Census Bureau, National Center for Health Statistics, Stateline analysis

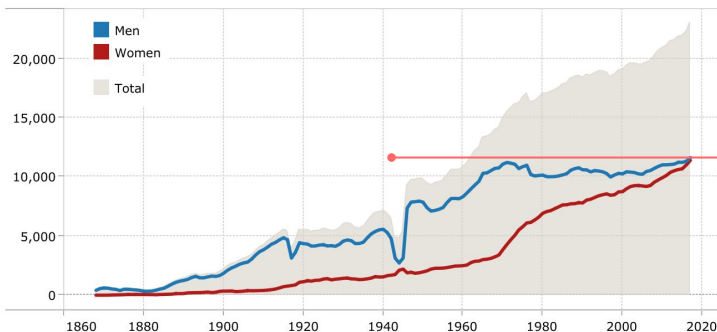
OFFENSIVE SUBTEXT

Intended or not, there's a very offensive implied connection to the two sentences in the description: a more Hispanic America equals a less educated America. The one dimensional nature of the analysis here primes the audience to reject the dashboard and walk away.

SIMPLISTIC CHOROPLETHS

In general, choropleths by state are often overly simplistic, if not downright misleading. When that is the only representation of the data, it often raises a red flag. This data set also includes the hispanic birth rate, but doesn't visualize that data in anyway even though that seems to be the point of the visualization according to the title and description.

Enrollment at Cornell University Ithaca, 1868 to present

Program:
AllDate range:
1868 to 2017

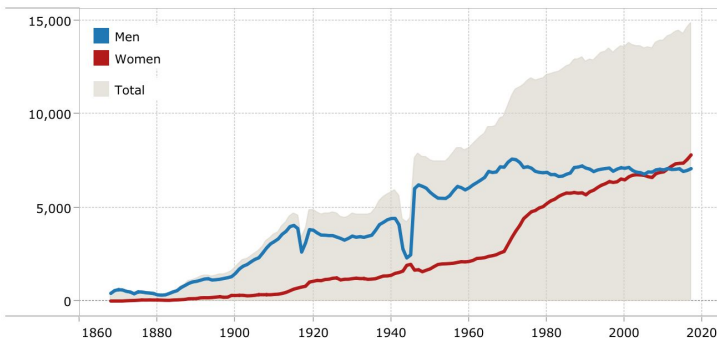
ANNOTATE THE STORY

An enrollment chart that says overtime more students enrolled is not interesting. But an enrollment timeline that annotates the outliers and points of interest, as well as provides the institutional context noted in the footnotes--now that could be really engaging.

CONFUSING DUPLICATE

The presentation of two nearly identical charts rattles the audience's confidence that they understand the visualizations. A single chart with the ability to toggle between undergraduate, graduate, and all enrollment, would immediately relieve that anxiety.

Undergraduate Enrollment

College:
All

*Other: 'Optional' prior to 1900 and 'Internal Transfer Division' used between 1950 and 2009 for undergraduate students transferring between colleges.

2013 - Cornell Tech begins in New York City

2017 - SC Johnson College of Business begins; combines Dyson School of Economics, Hotel Administration and Johnson Grad School of Management

BORING

ROAMING EYES

There's no obvious visual hook on this dashboard. The eye bops around from element to element but never gets pulled into any visualization or title. There's no meaning accumulating from the sections.

Class Performance

Instructor:

Carroll, Pete

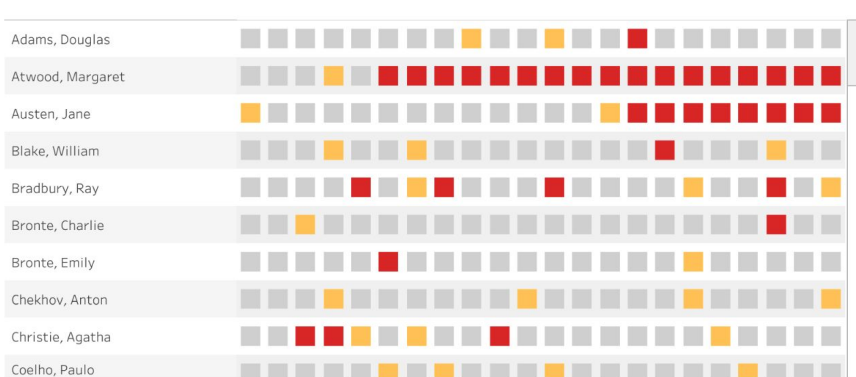
Advanced Literary Theory

How are my students doing overall?

Miller, Henry	A	95.94
Faulkner, William	A	95.83
Kafka, Franz	A	94.90
Coelho, Paulo	A	94.90
Adams, Douglas	A	94.06
Pratchett, Terry	A	94.06
Joyce, James	A	93.96
Dr. Seuss	A	93.96
Chekhov, Anton	A	93.54
Dickens, Charles	A	93.23
Wilde, Oscar	A	93.13

How are my students doing with assignments?

Missing Late Complete



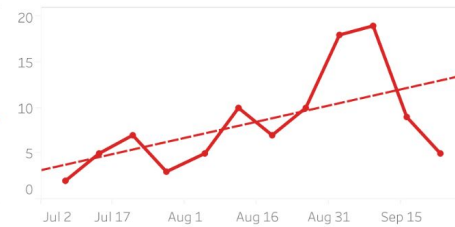
What is my course grade distribution?



What is my course late assignment trend?



What is my course missing assignment trend?



© DECISIVE DATA - data has been altered

ENGAGING

Educating girls can change the world

But over 130 million girls didn't go to school today. Millions more braved long distances, often in dangerous conditions, to get there. Other girls arrived at school to sit in a classroom where a teacher never arrived, or where there were no textbooks or other materials that help students learn. Because of this, in 2017, nearly half a billion women worldwide still cannot read.

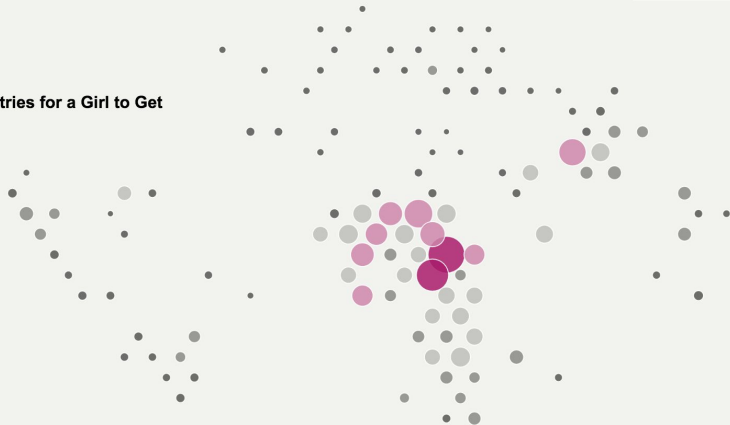
To make sure every girl has the chance of getting a good education, we need to understand where girls are being left behind. That's why ONE has created the Toughest Places for a Girl to Get an Education index.

Key

10 Toughest Places for a Girl to Get an Education

The rest of the world

The Toughest Countries for a Girl to Get an Education



A global opportunity

Ensuring all girls get the education they deserve will take a global effort. ONE is calling for increased financing and policy reforms. These include:

- For governments to allocate 20% of national budgets to education.
- For donors to increase education financing.
- For national governments to implement an education policy agenda that will
 - Break every barrier to girls' education
 - Invest in every teacher
 - Monitor every outcome
 - Connect every classroom

IMMEDIATE HOOK

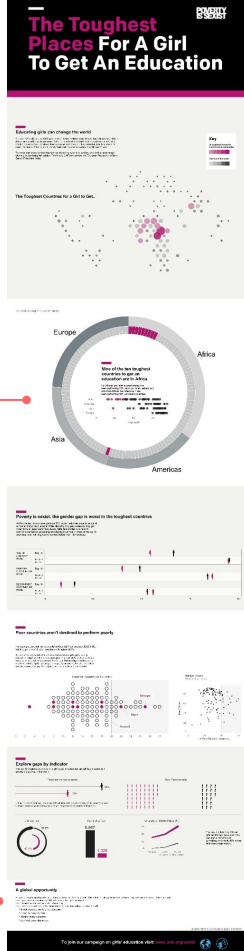
The bold title immediately grabs your attention and states exactly what this dashboard is all about. The first visualization engages the brain with its deconstructed world map.

SUBSTANTIVE BUILD

With each section, the narrative deepens along with the analysis. Now that the dashboard has the audience's attention, it proves that it deserves it.

CLEAR CALL TO ACTION

Lofty as they might be, there is no question at the end of the dashboard what the authors want. They state their goals in a clear, bulleted list and link to their organization in hopes that the audience will engage further.





BUSY → STREAMLINED

- Eraser First
- Obvious Zones
- Familiar Patterns
- Meaningful Color



DATED → MODERN

- Modern Colors
- Updated Fonts
- Negative Space
- Scrutinized Content



BORING → ENGAGING

- Hook
- Build
- Payoff

Q1

Which of these common problems is most present in your project? Why?

Q2

Which of these tools do you feel might offer the most help?

BREAKOUT SESSION #2

BEFORE

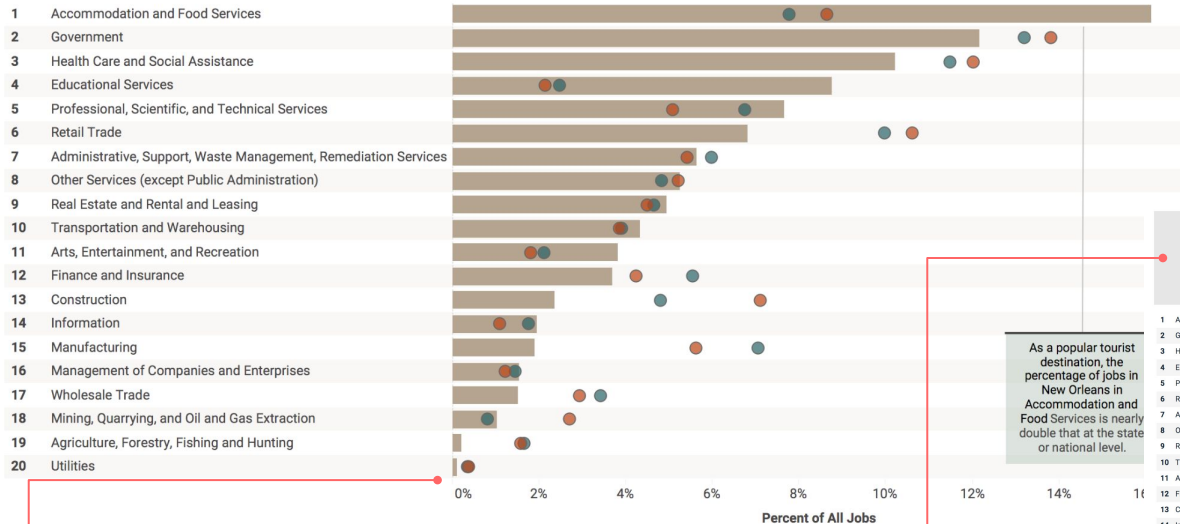
How do the major industries in New Orleans compare with Louisiana and the United States?

HOW TO READ THIS CHART
hover over chart to learn more

The tan bars represent 100% of the jobs in New Orleans in 2017, and how these jobs are distributed by industry. The orange and blue dots provide the same percentage split for the broader state economy in Louisiana and the United States' economy as a whole.



THE COWEN INSTITUTE
hover over chart to learn more



OPTED FOR MODERN COLORS

Revisited the organization's style guide and selected the more modern colors, replacing the dated brown bars with the logo's soft green and replacing the grey text with a crisp navy blue.

ANCHORED THE FLOW AROUND THE LOGO

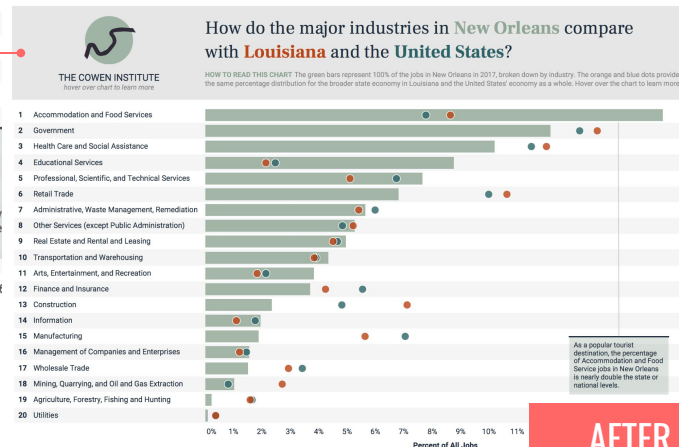
Positioned the logo in the top left corner so that the blue ribbon would lead the eye towards the right into the title or down into the x axis labels; carried the logo's green into the bars and annotation to lock the eye into the frame.

REBALANCED THE HEADER

Rearranged the elements in the header to mirror the balance of the chart's natural layout with the axis labels and horizontal bars.

SHIFTED TO GRAYSSCALE

Swapped out heavy background color for grey and saved the color for the data itself.



AFTER

SCHOOL DISTRICT PROFILES

- [Atlanta Public Schools Office of Research and Evaluation](#) (38 vizzes)
- [Albuquerque Public Schools](#) (79)
- [Des Moines Public Schools Assessment, Data, and Evaluation](#) (14)
- [Maine Department of Education](#) (16)
- [Saint Paul Public Schools](#) (14)
- [Los Angeles USD](#) (18)
- [Anchorage School District](#) (16)
- [Kent School District](#) (7)
- [Charleston County School District](#) (31)
- [Columbia Public Schools](#) (13)
- [San Lorenzo Unified School District](#) (53)
- [Palo Alto USD](#) (4)

UNIVERSITY INSTITUTIONAL RESEARCH PROFILES

- [Cornell](#) (13)
- [Rice University](#) (70)
- [University of Kansas](#) (27)
- [Virginia Commonwealth University](#) (144)
- [University of Georgia](#) (120)
- [University of Buffalo](#) (53)
- [Duke University](#) (4)

Q1

What do you want to emulate from these profiles in your own work?

Q2

What do you want to avoid after reviewing these profiles?

BONUS: TABLEAU PUBLIC PROFILES

ONE QUICK REMINDER: TO GET THE MOST OUT OF OUR FINAL WORK ON NOVEMBER 30...

BRING A DRAFT

WWW.DATADOZEN.COM/HARVARD-SDP-2021



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THANK YOU!

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