

UTAH DATA
RESEARCH CENTER

DESIGN STYLE GUIDE

Updated December 2019

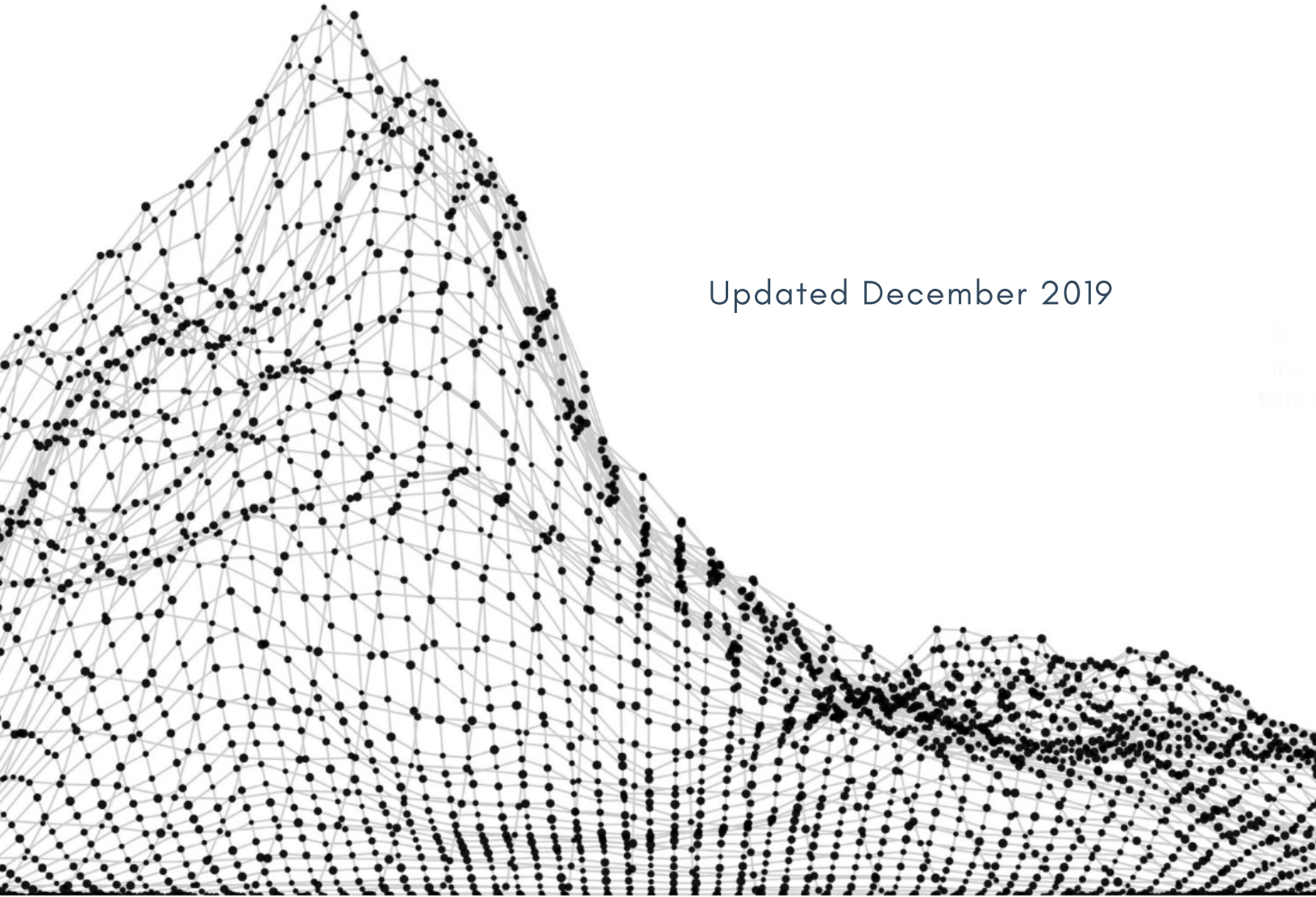


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INTRODUCTION

At the Utah Data Research Center, our design philosophy aims to create an interactive and meaningful experience for our users. To do this, we objectively design data-informed narratives that provide value to those seeking to understand Utah and its citizens.

By utilizing innovative technologies, our narratives guide users in an intuitive and seamless way regardless of the device they are using to access the information. At the same time, our modern visuals maintain simplicity through a minimal and clean approach. Each product is designed with purpose while adhering to the principles of efficiency, transparency, and accessibility.

This style guide presents our design philosophy through the execution of fonts, typography, imagery, color, web layout, animations and editorial style. It also sets a standard for the advanced technologies we use to achieve our design. This includes D3 Javascript as our data visualization solution and CSS Grids as our responsive tool.

With each release of a style guide version, our previously designed products will be updated to the new style standard as necessary.

LOGO USAGE



LOGO GUIDE

Do not use the icon logo without the "Utah Data Research Center" text.

Do not stretch the logo.

Use the grayscale logo for high-quality application needs.

Include the logo on all Utah Data Research Center publication documents and data narratives.

PARTNER LOGO USAGE

Include partner logos on research documents and data narratives. Logos used for any other purpose must receive the partner's permission.

LOGO TYPEFACE

"Utah"
Helvetica Medium

"Data Research"
Helvetica Heavy

"Center"
Helvetica Extended

LOGO COLORS

Dark Blue
#062d94
rgb (6, 45, 148)
cmyk (97, 79, 31, 16)

Medium Blue
#5996ff
rgb (89, 150, 255)
cmyk (65, 41, 0, 0)

Light Blue
#91d9ff
rgb (145, 217, 255)
cmyk (43, 15, 0, 0)

COLOR REFERENCE



PRIMARY FONTS

The official fonts are **Raleway** and **Lora**.

Use Raleway for headlines, graph titles, call-out numbers and labels. Use Lora for paragraph copy.

Section Header

Raleway bold
54px White (All Caps)

Primary Headline

Raleway regular
36px Charcoal

Secondary Headline I

Raleway regular
28px Gray (All Caps)

Secondary Headline II

Raleway extrabold
24-26px Charcoal

Paragraph Copy

Lora regular
18px Gray

Graph Title

Raleway bold
15px Charcoal

Call-Out Number

Raleway bold
88px Charcoal

Call-Out Label

Lora regular
15px Charcoal

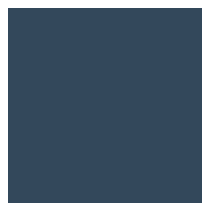
Raleway

ABCDEFGHIJKLM
NOPQRSTUVWXYZ
abcdefghijklmnopqr
stuvwxyz0123456789

Lora

ABCDEFGHIJKLM
NOPQRSTUVWXYZ
abcdefghijklmnopqr
stuvwxyz0123456789

FONT COLORS



Charcoal

#34495e
rgb (52, 73, 94)
cmyk (45, 22, 0, 63)



Gray

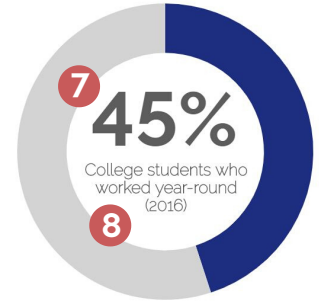
#535c68
rgb (83, 92, 104)
cmyk (20, 12, 0, 59)

TYPOGRAPHY EXAMPLES

- 1 Section Header
- 2 Primary Headline
- 3 Secondary Headline I
- 4 Secondary Headline II
- 5 Paragraph Copy
- 6 Graph Title
- 7 Call-Out Number
- 8 Call-Out Label

Definition of a Working Student 2

In this data narrative, a working student was defined as a student who worked in all four quarters in a year, while a non-working student was defined as a student who did not work in any quarter of a given year. Overall, the sample comprised of students ages 17-54 who were seeking a bachelor's degree at a Utah System of Higher Education (USHE) institution between 2012 and 2016. In addition, the majority of outcomes for age was separated into two subgroups: ages 17-29 (younger) and ages 30-54 (older). This was to reflect the different decisions these groups make since younger students tend to attend college for the first time, while older students tend to be returning students and already established in the workforce. Pell status was also separated by those who were not eligible for Pell grants (non-Pell-eligible) and those who were eligible/received Pell grants (Pell-eligible). 5



1 AVERAGE GPA

OVERVIEW 3

This study used GPA averaged across populations for the entire year of attendance to capture the effect of working on academic performance. Working students had an average GPA of 2.92 compared to 3.03 for non-working students in 2016. Working decreased the average GPA by 0.121 points. Out of all the demographics, 75% of non-working female students had GPAs in the 3.00-4.00 range, higher than any other group. 5

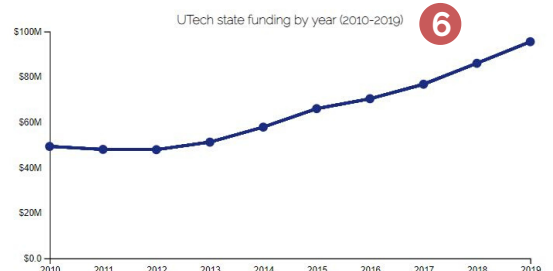
2.92 7

Average GPA of working students in 2016 8

4 Technical colleges have seen significant growth in funding and certificates awarded since 2011...

4 Growth in appropriations

In order to fund the new programs, the budget for UTech programs has increased. Since 2011, the funding for these programs have gone up from \$49.32 million to \$95.46 million in tax appropriated funds in 2019. This is a real dollar increase of 40.97%.



GRAPH FRAMEWORK

- 1 Write in sentence case for titles**
Capitalize only the first word and any proper nouns in a graph title and lowercase the remaining words.
- 2 Consider the order of data in charts**
In most cases, sort the data from highest to lowest. There may be times when alphabetical order is better.
- 3 Do not use borders around graphs**
Use white space around the borders for a clean and seamless style.
- 4 Do not use gridlines**
Remove all major or minor lines to adhere to a modern style.
- 5 Include a color key with each graph**
Unless each part of the graph is labeled, a legend key is needed.
- 6 Use no more than 7 categories**
If necessary, separate the categories into two smaller charts.

GRAPH / TOOLTIP NUMBERS

Round to one decimal point in graph labels, including numbers showing in the hover tooltips.

EXAMPLE

72.5%

14.3%

CALL-OUT NUMBERS

Rounded to the nearest whole number. Only use one decimal point if necessary to show close differences.

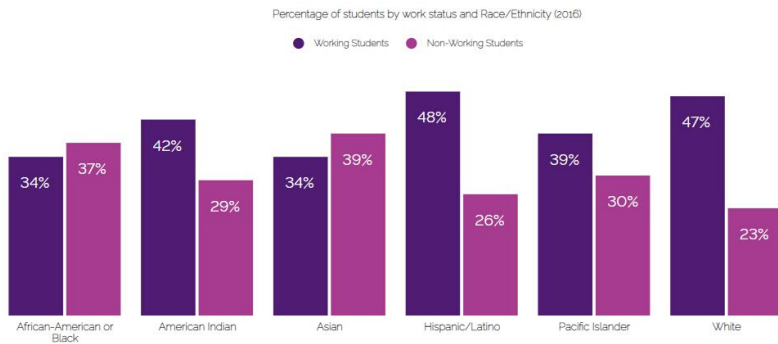
EXAMPLES

54%

20%

GRAPH FRAMEWORK

BAR CHART



Axis Labels: Use horizontal labels for the x- and y-axis.

Category Labels: Use word wrap on labels to fit on x-axis.

Bar Width: Horizontal bars have thin widths. Vertical bars have wider widths.

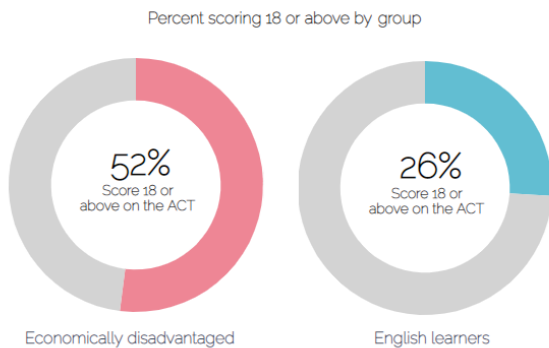
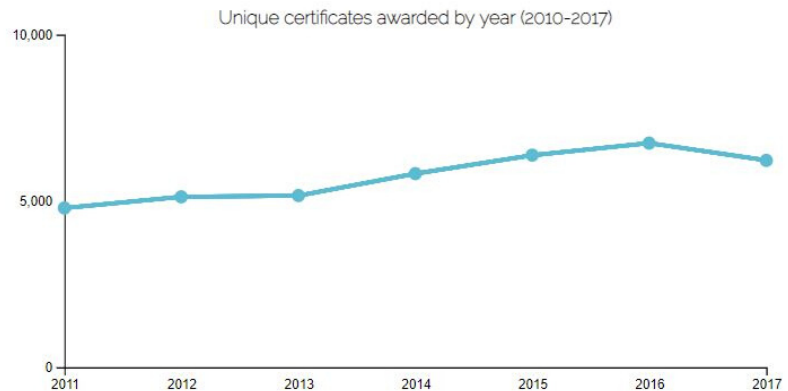
Numbers: Place inside at the end of the bars.

LINE GRAPH

Axis Labels: Use horizontal labels for the x- and y-axis.

Line Quantity: Use no more than two lines in a chart for mobile responsiveness.

Tool Tips: Use tool tips to display more information.



DONUT RING

Label Space: Use the space inside and under the donut ring.

Color Ring: The color representing the data number starts at the 12 o'clock position and moves clockwise.

GRAPH FRAMEWORK

Average GPA by age and work status (2016)



BALLOON GRAPH

Display Lines:

Show lines extending from each category across the graph.

Dots:

Use dots to mark the data numbers on each corresponding line and use a different colored dot if comparing time frames.

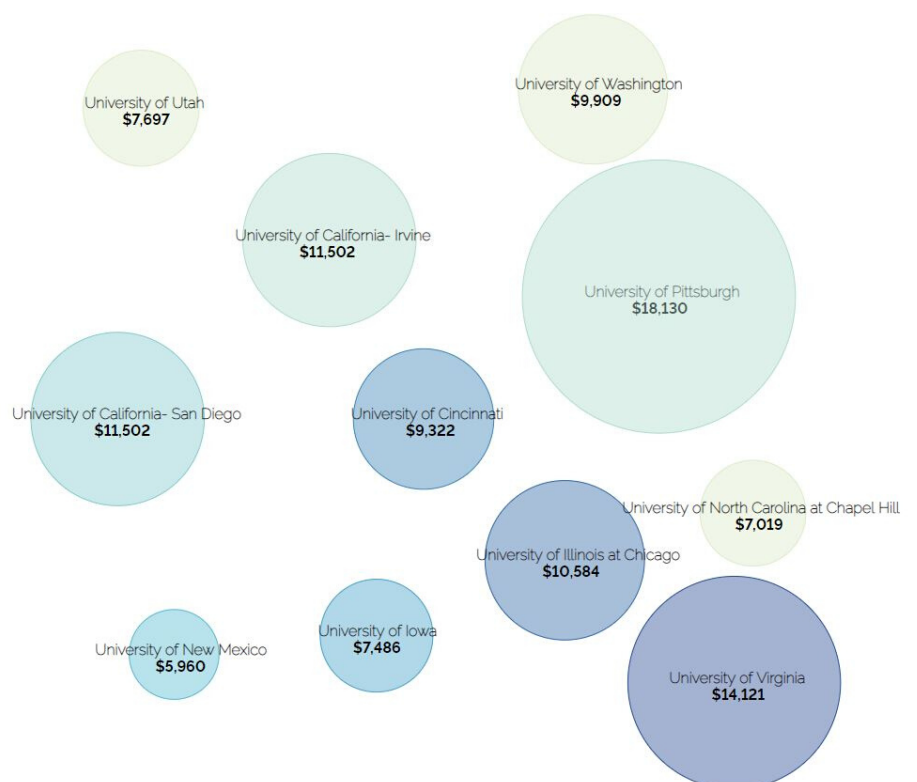
BUBBLE CHART

One data variable:

Use quantity to determine the size and position of bubbles.

Two or more data variables:

Use all the data variables to process the size and positioning of bubbles.



EDITORIAL STYLE

Write in a consistent style and voice

Follow the below main grammar rules when writing. For other grammar rules not listed here, refer to the APA style guidebook.

INCLUDE THE OXFORD COMMA

Use the oxford comma in a list of items.

FOLLOW APA STYLE FOR CITATIONS

This is the most frequently used style within social sciences for citing sources.

USE CONSISTENT GROUPS

All
African American/Black
American Indian
Asian
Hispanic/Latino
Pacific Islander
White

USE PARTNER ACRONYMS

In the first paragraph, spell it out followed by the acronym or preferred shortened name in parentheses.

Utah State Board of Education (USBE)
Utah System of Higher Education (USHE)
Utah System of Technical Colleges (UTech)
Utah Department of Workforce Services
(Workforce Services)

ADD HYPHENS OR REWRITE IT

Use hyphens for compound words or rewrite the sentence so a hyphenated word is not needed.

DO NOT USE CONTRACTIONS

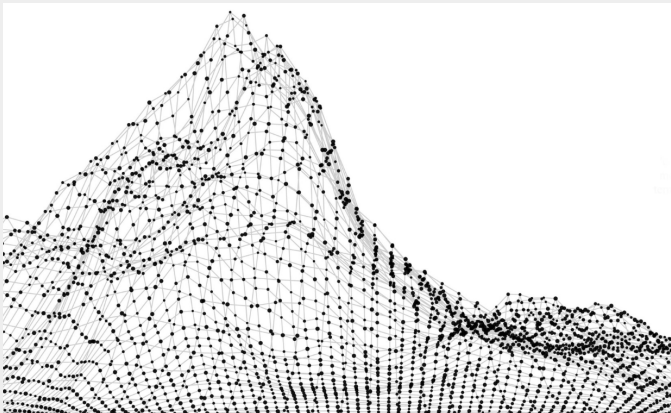
Avoid writing contractions in order to present a formal business voice.

PHOTOS & GRAPHICS

Visuals convey a modern and clean look

Subjects in images should look believable as if they were taken in Utah, while graphics should reflect our data-driven approach.

EXAMPLES



ICONS

Flat design
Grayscale
Circle border



OTHER GRAPHICS

Minimalist design
Monochromatic



COLOR THEORY

Color is a valuable tool to represent information in a transparent and credible manner. Our primary palette features midnight blue, violet and fuchsia to reflect the reliability and quality of our work—along with coral, turquoise, and pale green to represent the balance and objectivity of our research. The harmonious combination of bold and soft colors make our products approachable to users.

INFLUENCERS OF COLOR CHOICES

1 | PURPOSE & MEANING

When selecting colors for research documents and data narratives, ask what purpose will this color serve and will it do it effectively? Avoid the overuse of colors if it does not serve a meaningful communication goal. Oftentimes, just one or two colors will meet the purpose.

2 | DATA TYPES

The type of palette to use depends on how the data values are related or distinguished—whether the data is ordered or categorical. The number of colors to use depends on the type of graph and how many different categories are in the variable.

3 | BRAND IDENTITY

Color is the most recognizable aspect of a Utah Data Research Center product. With designated color palettes, we have developed a brand identity as a reputable source and continue to build recognition with consistent use of the same colors.

COLOR PALETTE GUIDE



Follow **natural color patterns** for a familiar and pleasing look.

Provide a **gradient palette option** instead of only a static palette to provide enough color variation in special cases.

Use a wide range of **differing hues and brightness** to make sure the colors are easy to distinguish.

Avoid the red-green combo since people with colorblindness cannot distinguish them. UDRC tested its primary color palette for colorblindness at [colors.co](https://www.colors.co).

COLOR PALETTES

PRIMARY PALETTE

Using a combination of hues from two secondary palettes, the primary color palette features natural colors that can each stand alone or be paired together for a pleasing cohesive visual.



Midnight Blue

#1d2e81
rgb (29,46,129)
cmyk (100, 95, 18, 5)

Violet

#501b73
rgb (80,27,115)
cmyk (83, 100, 21, 11)

Fuchsia

#a73b8f
rgb (167, 59, 143)
cmyk (37, 91, 5, 0)

Coral

#ee8695
rgb (238,134,149)
cmyk (2, 59, 25, 0)

Turquoise

#5ebcd2
rgb (94,188,210)
cmyk (59, 6, 14, 0)

Light Green

#94d6ba
rgb (148,214,186)
cmyk (31, 0, 13, 16)

COLOR QUANTITY GUIDE

This palette allow for flexibility in various communications with its variety of dark and light colors. Follow these color applications:

1 category chart = 1 color

2 category chart = 2 colors

3+ category line graph = 3+ colors

3+ category bar chart = 1 color

GRAPH USAGE RULES

Do not use multiple colors in a bar chart unless the colors signify different time frames (e.g. one year vs. five years) or has only two categories (e.g. female vs. male).

An additional color may be included in a 3+ category bar chart to highlight the significance of one of the data values such as the highest, lowest, or average.

Gray may be used to signify non-data areas such as in a donut chart.

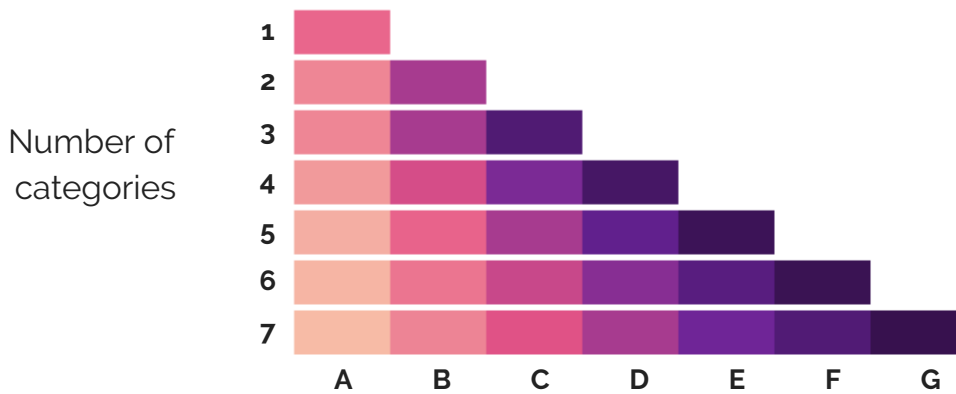
COLOR PALETTES

SECONDARY PALETTE USAGE

Use these gradient palettes for ordinal variables or to show patterns. The lighter colors correspond to low data values and darker colors to high data values.

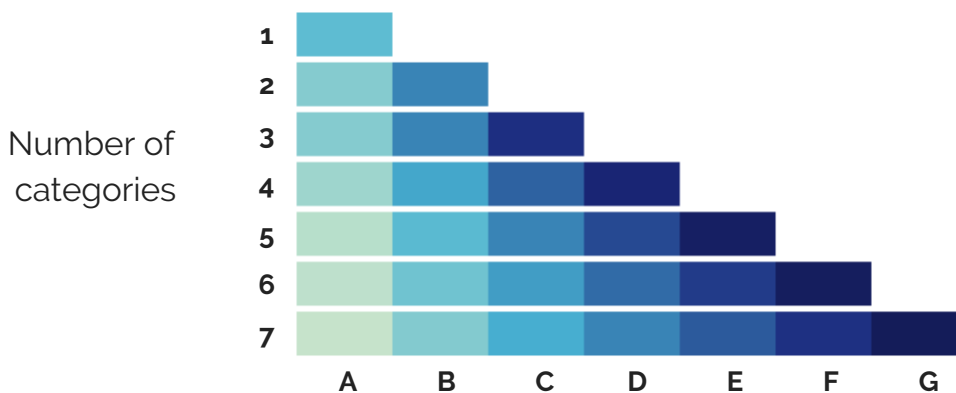
Examples of use: Stacked bars, choropleth maps, and bubble charts.

SECONDARY PALETTE 1



Color codes available in Appendix I.

SECONDARY PALETTE 2



Color codes available in Appendix I.

D3.JS LIBRARY

Create interactive and dynamic graphics

Use the D3 Javascript library for visualizing data narratives along with HTML, CSS and SVG.

LAYOUTS MUST BE RESPONSIVE

CSS Grids: Use this layout code to create responsive layouts combined with the "@media screen" CSS code.

Multiple Layouts: Design multiple layouts to ensure responsiveness using the following widths:

Desktop:

min-width 1650px

Laptop:

max-width 1650px

Tablet Landscape:

max-width 1200px

Tablet Portrait:

max-width 960px

Mobile:

max-width 760 px

OTHER RULES

API is not allowed in the code for security reasons.

Use the D3 minify version for faster load time.

Percentage of students retained by work status (2015)



ANIMATIONS (3 seconds)

Animations begin when a user scrolls to them through a data narrative.

Copy: Fade-ins

Use to fade-in introductory paragraph copy, secondary headlines and call-out numbers.

Bars or Dots: Extension

Show the bars growing to full length or dots sliding into position.

Bars: Rearranging

Slide the full-length bars randomly along the axis into position.

Lines: Thick to thin

Show lines as twice the normal width for emphasis and transition to normal width.

Lines: Gradual dots display

Display dots in quick intervals.

Donut: Looping ring

Loop the main color around the ring.

Circles: Move Outward

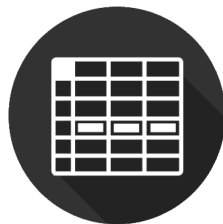
Move a group of circles from inward to outward into their positions.

DATA UTILITY

PROVIDING VALUE TO THE USER

To ensure users find value in our data, we make data easily accessible and shareable with others. We do this through special downloadable features on our online products. This includes the capability of downloading the excel dataset that was used in our data narratives and a quick way to share the narrative on Twitter.

These icons are found at the end of the data narrative.



**Download Dataset
Excel File**



**Share on
Social Media**

REPORT DOCUMENTS

Refer to the "Report Document Style Guide" and "Report Template" for in-depth descriptions and examples of the report content and layout.

- 1** | **Follow the font, typography, colors and graphs rules in this style guide.**
- 2** | **Use two columns for the report's body copy.**
- 3** | **Left-justify the margins for copy and headlines.**
- 4** | **Label and number each graph (e.g. Figure 1.0, Table 2.5).**
- 5** | **Include logos for the Utah Data Research Center and partners.**
- 6** | **Insert references at the end of the report instead of footnotes.**

DESIGN CHECKLIST

- STEP 1: Design graphs into draft webpage layouts**

Wireframe multiple screen-size layout versions. Determine how the text and visuals will fit into grids (columns and rows) and where transitions will happen on the page. Consider making a different graph if the desktop version will shrink too much.

 - Desktop and laptop layouts (multiple columns)
 - Mobile and tablet layouts (one column)

- STEP 2: Receive approvals**

Receive layout approvals from the researcher and manager and make changes as necessary.

- STEP 3: Assign a class or id to each item**

Assign a CSS class or id in the HTML to each item within the grid areas. For example, a SVG graph, a div of text, or a div of a graph legend will be assigned a class or id.

- STEP 4: Design layout inside draft HTML pages**

Use the classes and ids in the CSS stylesheet to place items with CSS Grids as approved from the layouts. Use @media for screen responsiveness for each device.

- STEP 5: Continue working and testing designs in HTML**

With the layouts now set inside CSS grids, continue the design work of each item in HTML as needed until final approval from the researcher and manager.

APPENDIX I

COLOR CODES

Refer to the color palette charts on page 13.

PALETTE 1 COLORS

1A: #e9668c, rgb (233, 102, 140), cmyk (3, 75, 21, 0)
2A: #ee8695, rgb (238, 134, 149), cmyk (2, 59, 25, 0)
2B: #a73b8f, rgb (167, 59, 143), cmyk (37, 91, 5, 0)
3A: #ee8695, rgb (238, 134, 149), cmyk (2, 59, 25, 0)
3B: #a73b8f, rgb (167, 59, 143), cmyk (37, 91, 5, 0)
3C: #501b73, rgb (80,27,115), cmyk (83, 100, 21, 11)
4A: #f19a9b, rgb (241, 154, 155), cmyk (2, 48, 27, 0)
4B: #d54d88, rgb (213, 77, 136), cmyk (13, 84, 16, 0)
4C: #7b2a95, rgb (123, 42, 149), cmyk (64, 98, 0, 0)
4D: #461765, rgb (70, 23, 101), cmyk (86, 100, 26, 20)
5A: #f4aea3, rgb (244, 174, 163), cmyk (2, 38, 28, 0)
5B: #e8638b, rgb (232, 99, 139), cmyk (4, 76, 21, 0)
5C: #a73b8f, rgb (167, 59, 143), cmyk (37, 91, 5, 0)
5D: #61208d, rgb (97, 32, 141), cmyk (78, 100, 4, 1)
5E: #3c1357, rgb (60, 19, 87), cmyk (87, 100, 30, 31)
6A: #f6b5a4, rgb (246, 181, 164), cmyk (1, 34, 30, 0)
6B: #eb7590, rgb (235, 117, 144), cmyk (3, 68, 23, 0)
6C: #c8488a, rgb (200, 72, 138), cmyk (20, 86, 13, 0)
6D: #872e93, rgb (135, 46, 147), cmyk (56, 97, 0, 0)
6E: #581d7f, rgb (88, 29, 127), cmyk (81, 100, 13, 5)
6F: #3a1353, rgb (58, 19, 83), cmyk (87, 100, 32, 34)
7A: #f7bba6, rgb (247, 187, 166), cmyk (1, 31, 30, 0)
7B: #ed8495, rgb (237, 132, 149), cmyk (3, 60, 24, 0)
7C: #e05286, rgb (224, 82, 134), cmyk (7, 83, 20, 0)
7D: #a73b8f, rgb (167, 59, 143), cmyk (37, 91, 5, 0)
7E: #6f2597, rgb (111, 37, 151), cmyk (70, 99, 0, 0)
7F: #511b75, rgb (81, 27, 117), cmyk (83, 100, 20, 9)
7G: #37114e, rgb (55, 17, 78), cmyk (87, 100, 33, 38)

PALETTE 2 COLORS

1A: #5ebcd2, rgb (94,188,210), cmyk (59, 6, 14, 0)
2A: #85cbcf, rgb (133, 203, 207), cmyk (46, 2, 19, 0)
2B: #3984b6, rgb (57, 132, 182), cmyk (78, 40, 10, 0)
3A: #85cbcf, rgb (133, 203, 207), cmyk (46, 2, 19, 0)
3B: #3984b6, rgb (57, 132, 182), cmyk (78, 40, 10, 0)
3C: #1d2e81, rgb (29, 46, 129), cmyk (100, 95, 18, 5)
4A: #9ed5cd, rgb (158, 213, 205), cmyk (37, 1, 22, 0)
4B: #44a7cb, rgb (68, 167, 203), cmyk (69, 18, 12, 0)
4C: #2e62a1, rgb (46, 98, 161), cmyk (88, 64, 9, 1)
4D: #192574, rgb (25, 37, 116), cmyk (100, 97, 24, 12)
5A: #b7dfcb, rgb (183, 223, 203), cmyk (28, 0, 24, 0)
5B: #5abad1, rgb (90, 186, 209), cmyk (60, 7, 14, 0)
5C: #3984b6, rgb (57, 132, 182), cmyk (78, 40, 10, 0)
5D: #264992, rgb (38, 73, 146), cmyk (97, 83, 9, 1)
5E: #161f63, rgb (22, 31, 99), cmyk (100, 98, 30, 24)
6A: #bee0cc, rgb (190, 224, 204), cmyk (25, 1, 23, 0)
6B: #70c3d0, rgb (112, 195, 208), cmyk (53, 2, 17, 0)
6C: #47aed0, rgb (71, 174, 208), cmyk (66, 13, 11, 0)
6D: #316ba7, rgb (49, 107, 167), cmyk (85, 57, 9, 1)
6E: #223b89, rgb (34, 59, 137), cmyk (100, 91, 13, 2)
6F: #151e5e, rgb (21, 30, 94), cmyk (100, 98, 32, 26)
7A: #c6e3cb, rgb (198, 227, 203), cmyk (22, 1, 24, 0)
7B: #83cacf, rgb (131, 202, 207), cmyk (47, 3, 19, 0)
7C: #47aed0, rgb (71, 174, 208), cmyk (66, 13, 11, 0)
7D: #3984b6, rgb (57, 132, 182), cmyk (78, 40, 10, 0)
7E: #2c5a9c, rgb (44, 90, 156), cmyk (91, 70, 9, 1)
7F: #1e3082, rgb (30, 48, 130), cmyk (100, 95, 18, 4)
7G: #141c59, rgb (20, 28, 89), cmyk (100, 99, 34, 29)

