

TABLEAU CONFERENCE

Welcome

#TC18

The Hartford || Creating a Brand-Friendly Dashboard Design Framework

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Commercial Lines Business
Intelligence

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Agenda

Introduction

Dashboard Framework

Approach

Challenges

Benefits

Key Findings & Helpful Tips

Conclusion

Introduction

About Us

Hannah Schoenfeld



UCONN '11
B.S. Finance



Travelers
Actuarial
3.5 years



Aetna
Data Science
1.5 years



SNHU '17
M.S. Data Analytics



The Hartford
Business Intelligence
2 years

Briana Wolff



Bentley University '14
B.S. Computer Information Systems

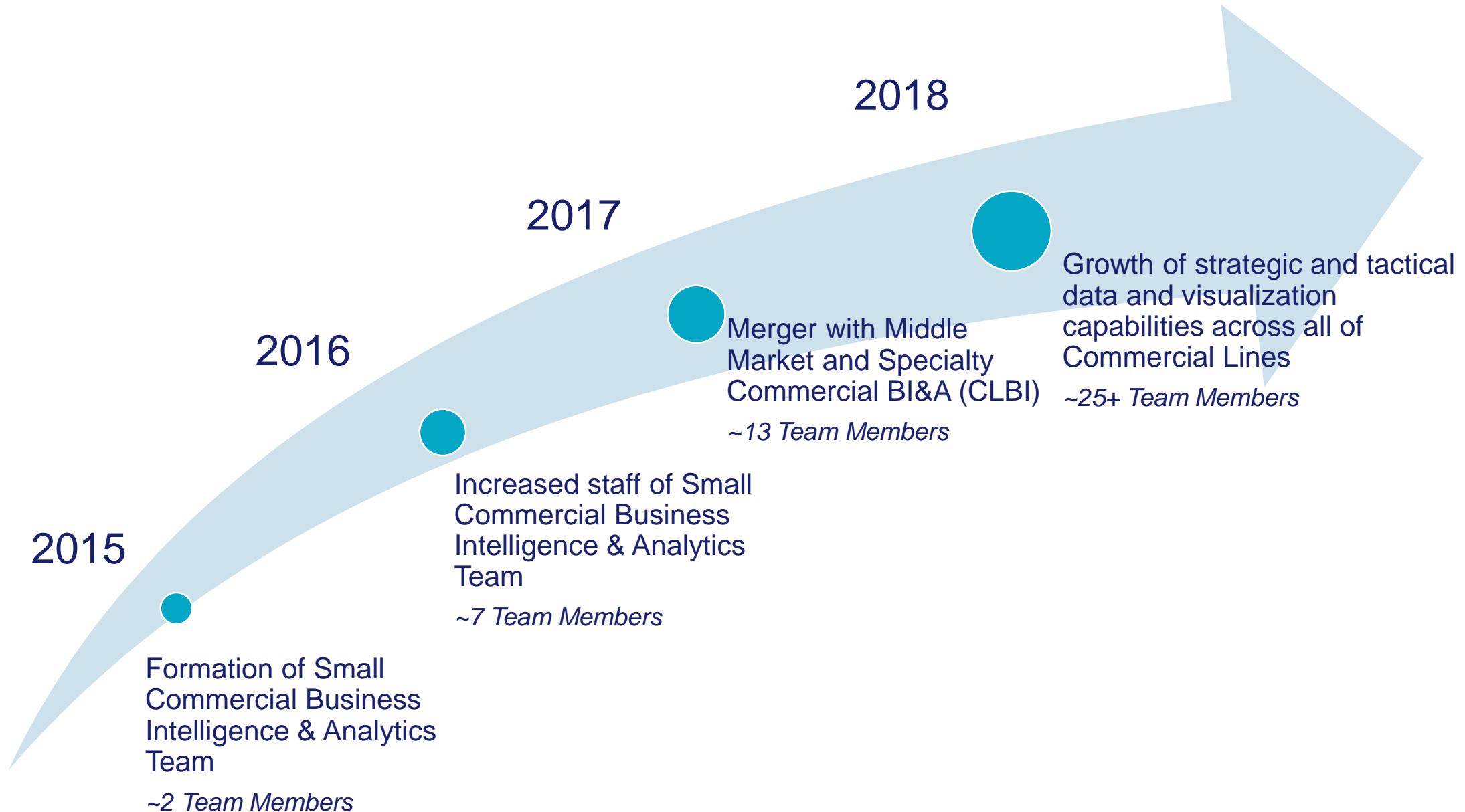


UCONN
MBA - Management of Technology



The Hartford
4 years at the company
Business Intelligence
1 ½ years

Our Team



Challenges



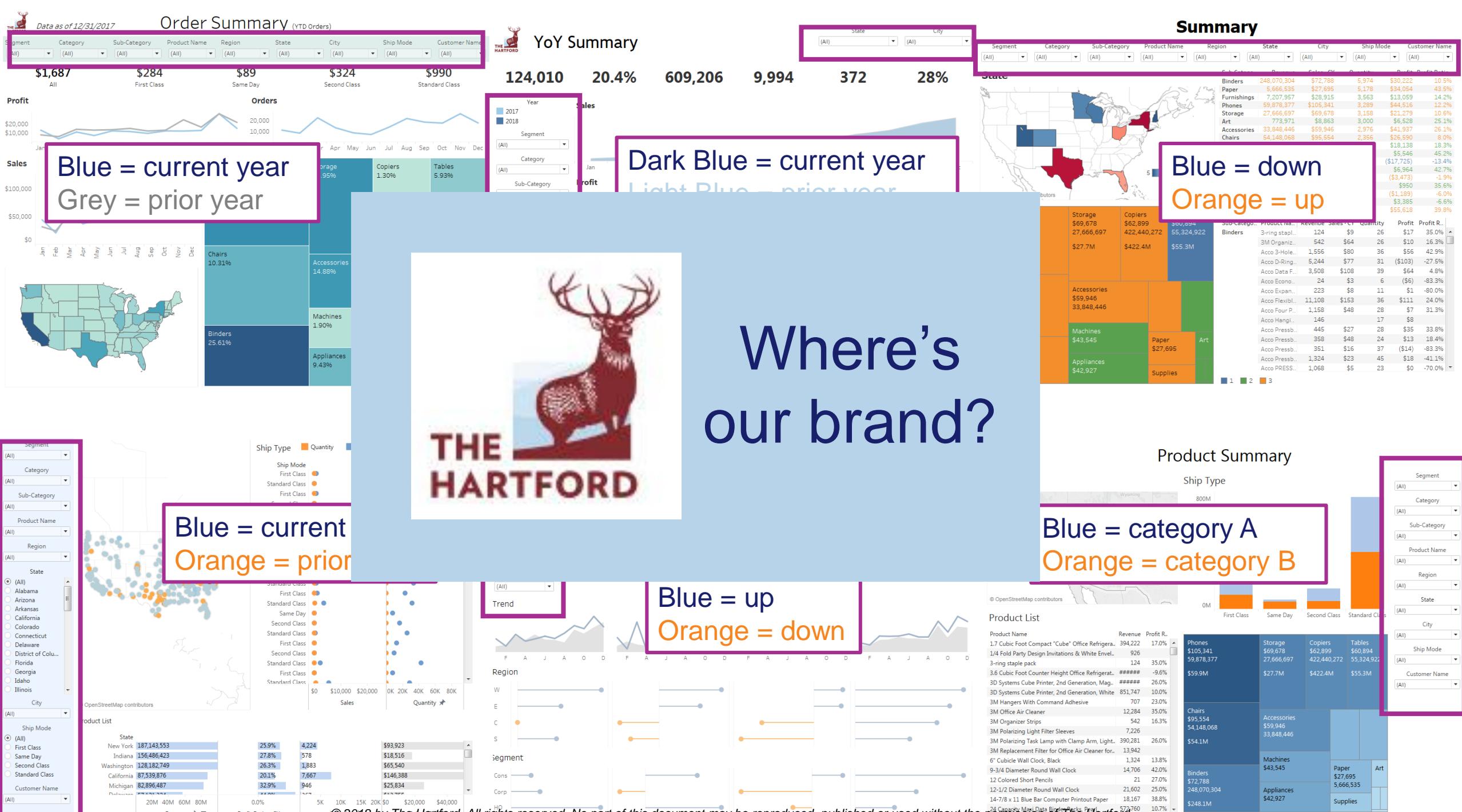
Limited BI resources
with differing levels of
Tableau proficiency



Increasing customer
demand for new
dashboards



Fast turnaround times
expected



The Solution?

Develop a
Dashboard
Framework

What is a dashboard framework?

Dashboard Framework

Documentation of dashboard design elements that incorporates The Hartford and Tableau's best practices and can be replicated for multiple subject areas.

Consistent Format	Corporate Brand	Tableau Best Practices
Colors	The Hartford's logo	Design and visual aesthetics
Layout and placement	Brand-friendly palette	Performance
Fonts	Professional polish	Color scheme
Text Size		
Images		

A dashboard framework...

...Promotes **consistency and polish** without stifling creativity

...Allows **focus on the analytical aspects** of the dashboard

...**Evolves over time** with new capabilities and designs

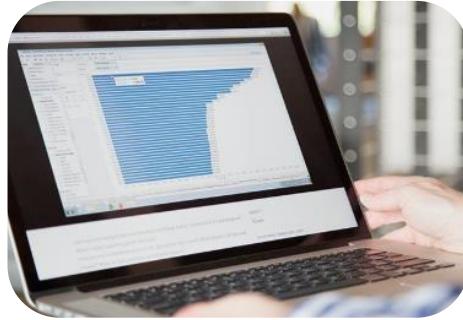
...Enables Tableau to be leveraged as a **corporate BI solution**

...Builds **brand recognition** for your team

Framework Development Approach



Review The Hartford brand & marketing materials



Research Tableau best practices



Hold Whiteboard Sessions

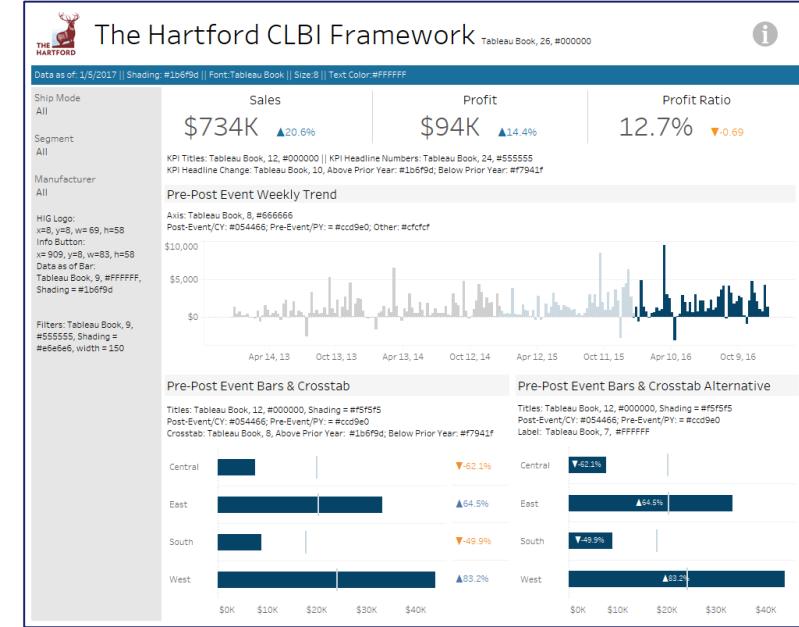
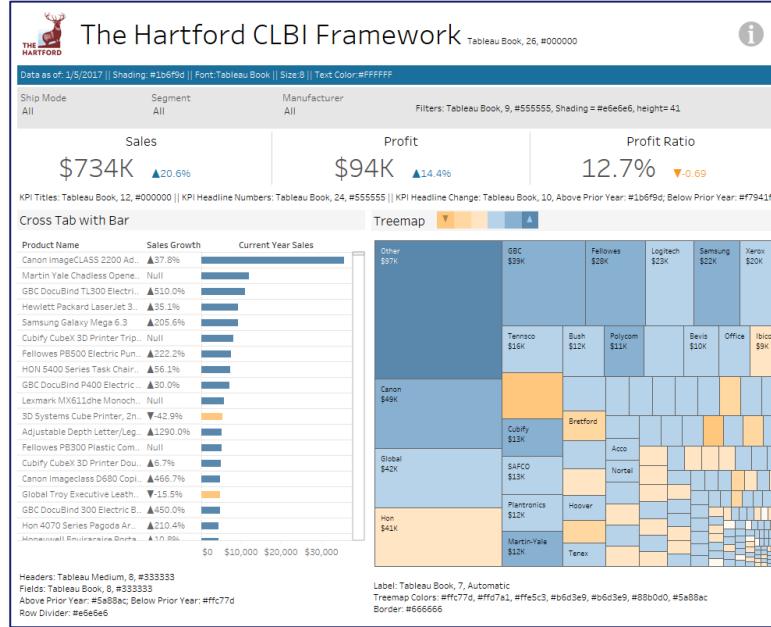
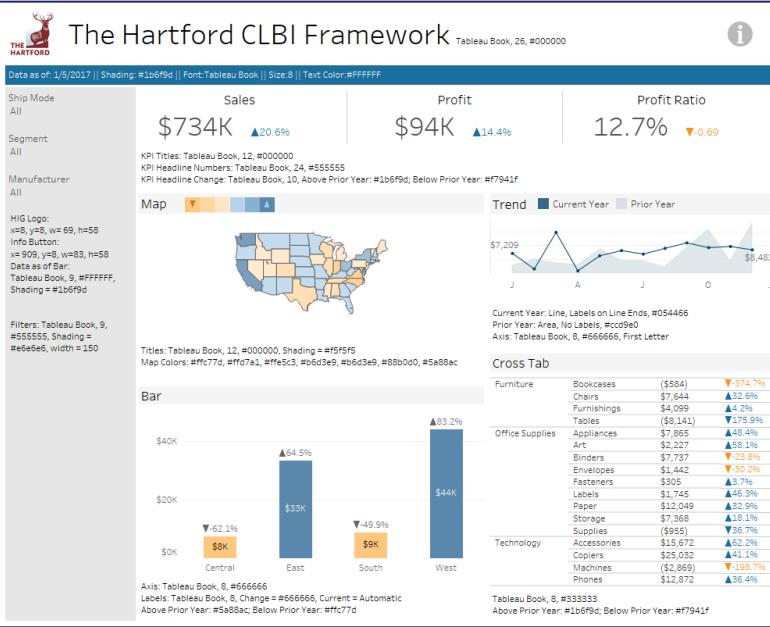


Collect feedback from stakeholders



Document design decisions

Unveiling the Framework

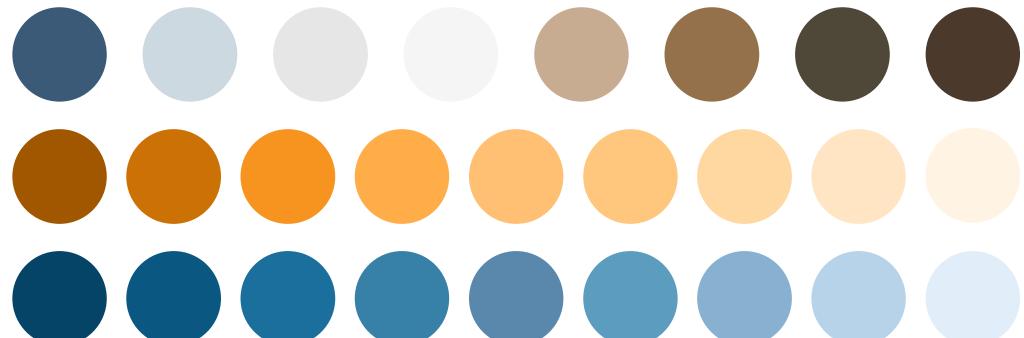


Workbook Title || Tableau Book 26 #000000

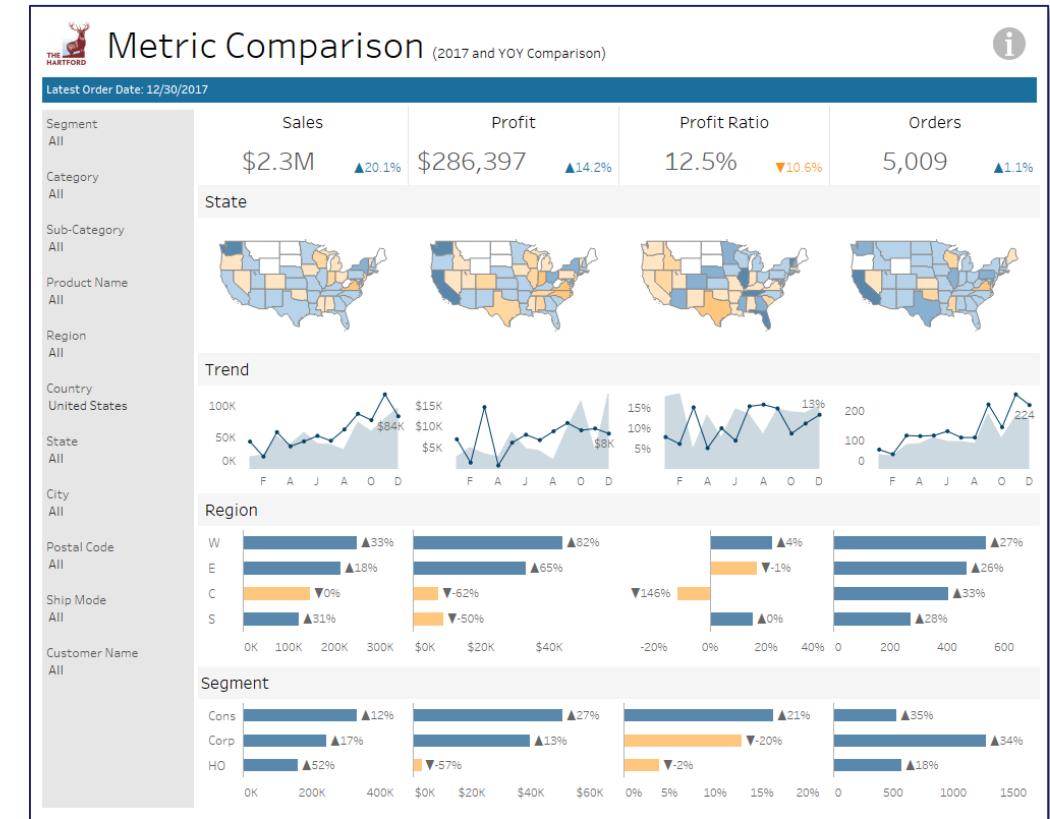
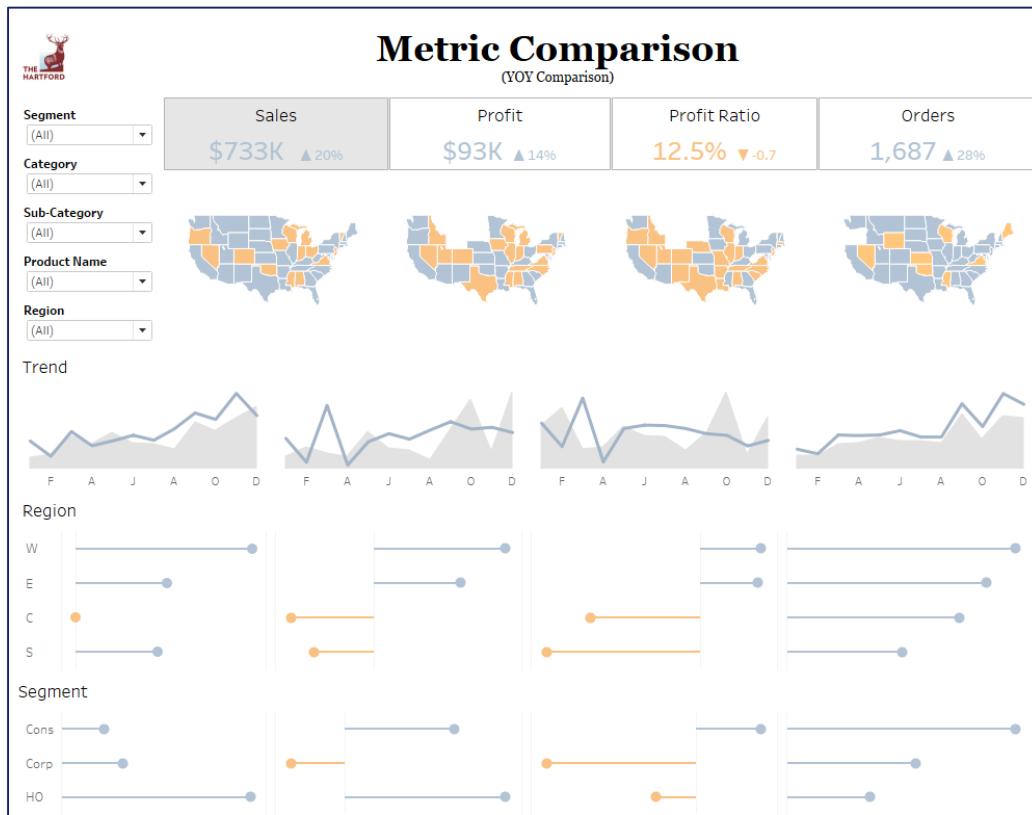
Worksheet Title || Tableau Book 12 #000000 || Shading: #f5f5f5

Filters || Tableau Book 9 #555555 || Shading: #e6e6e6

Data Refresh Date || Tableau Book 8 #FFFFFF || Shading: #1b6f9d



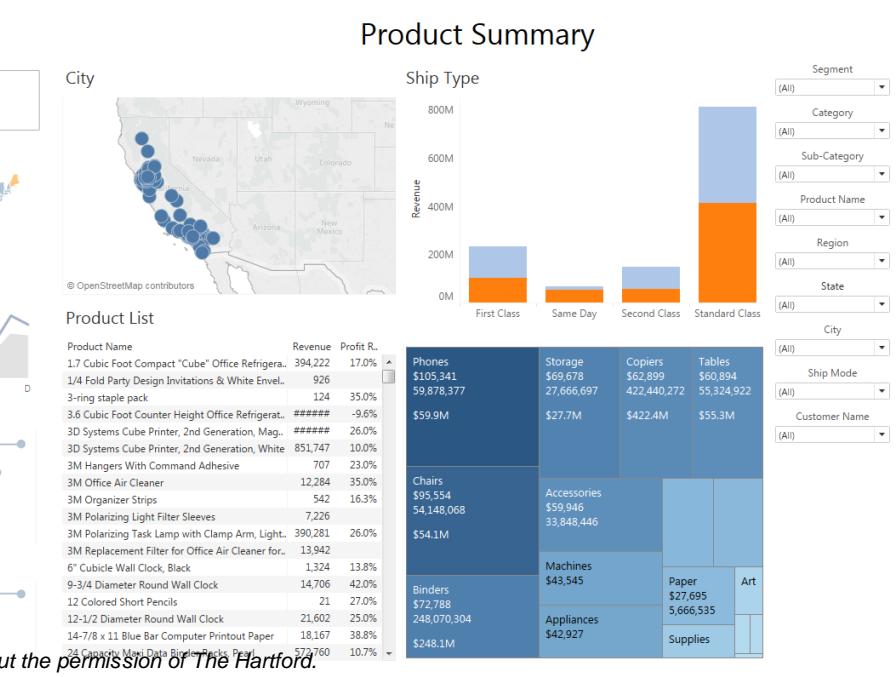
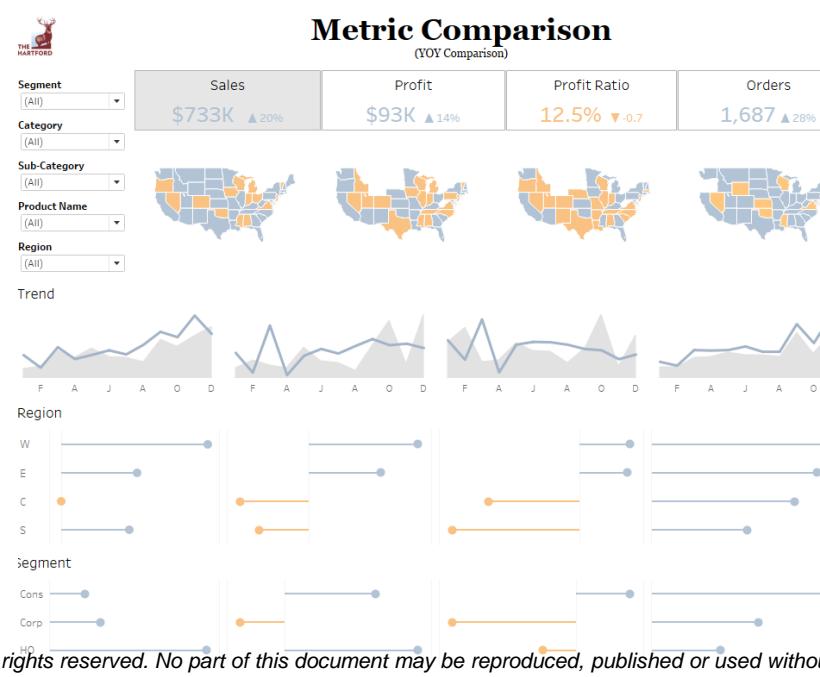
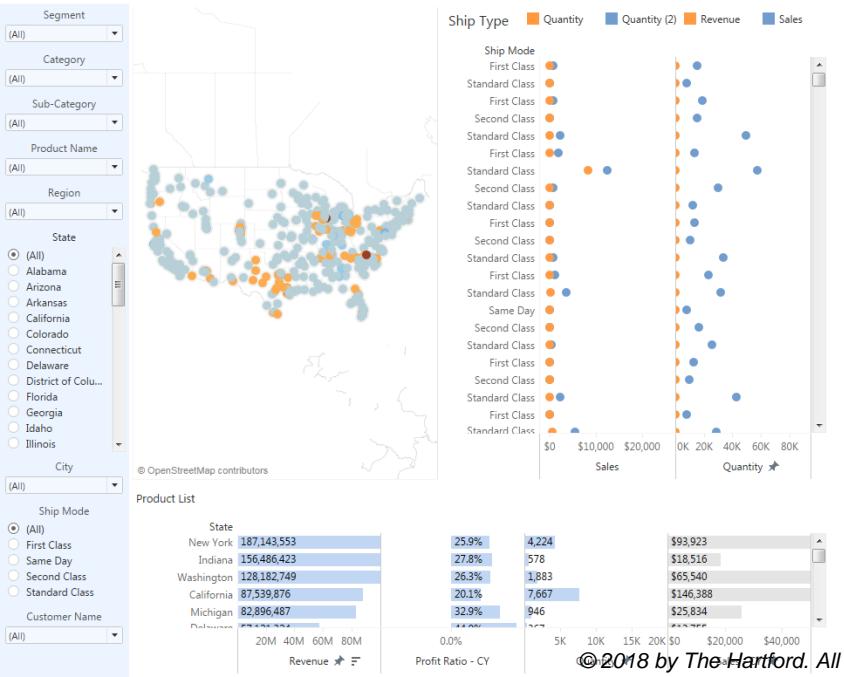
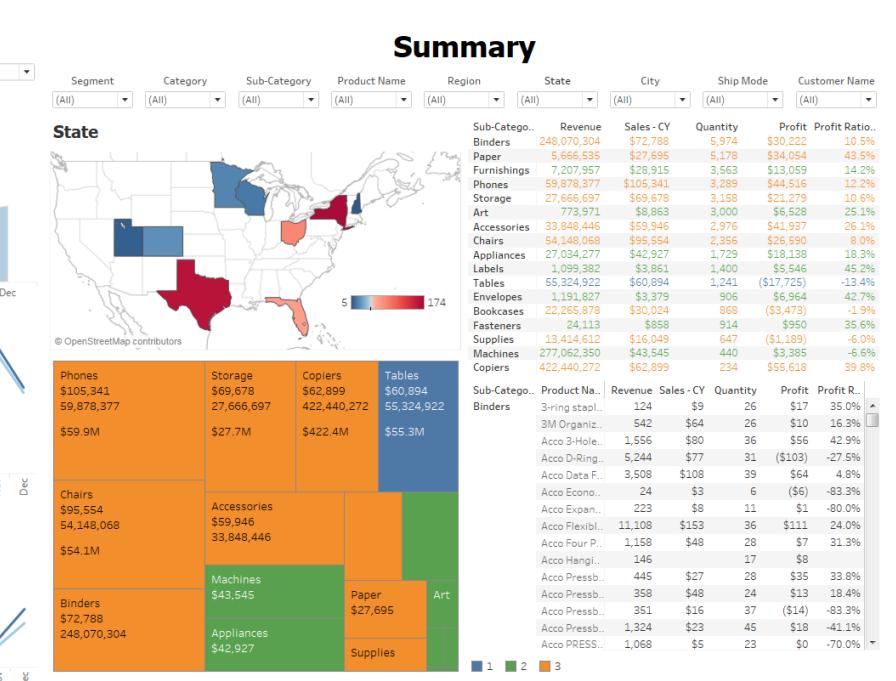
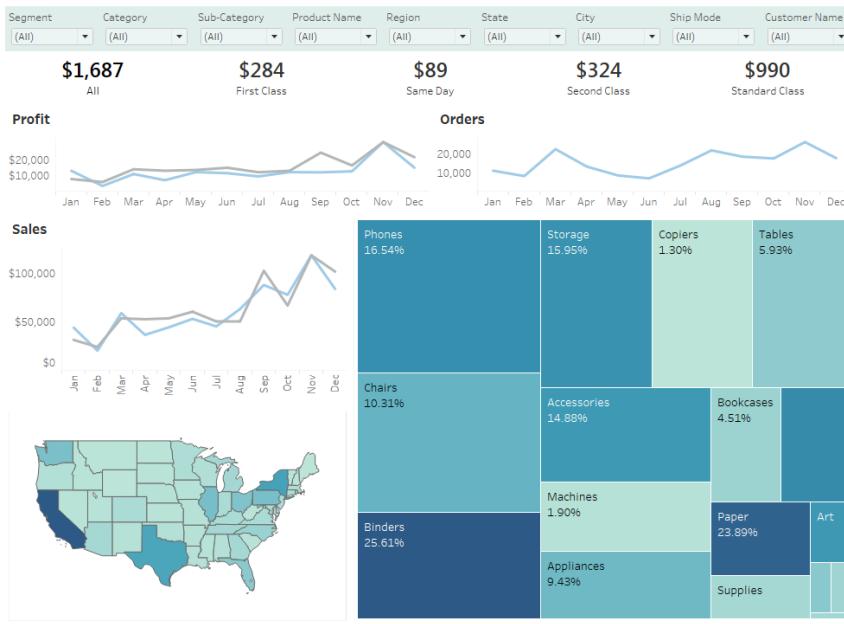
The results are transformative...





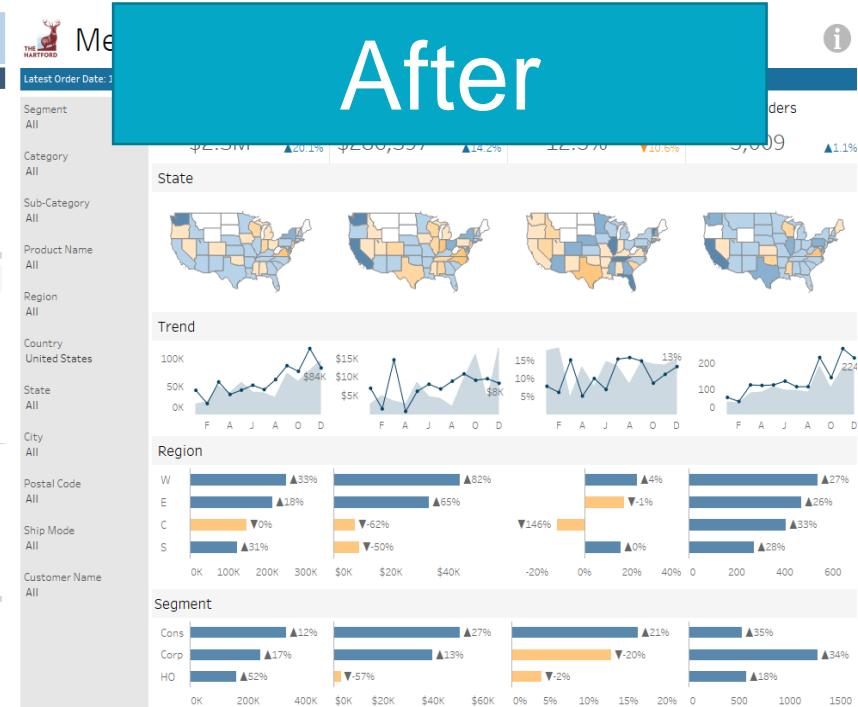
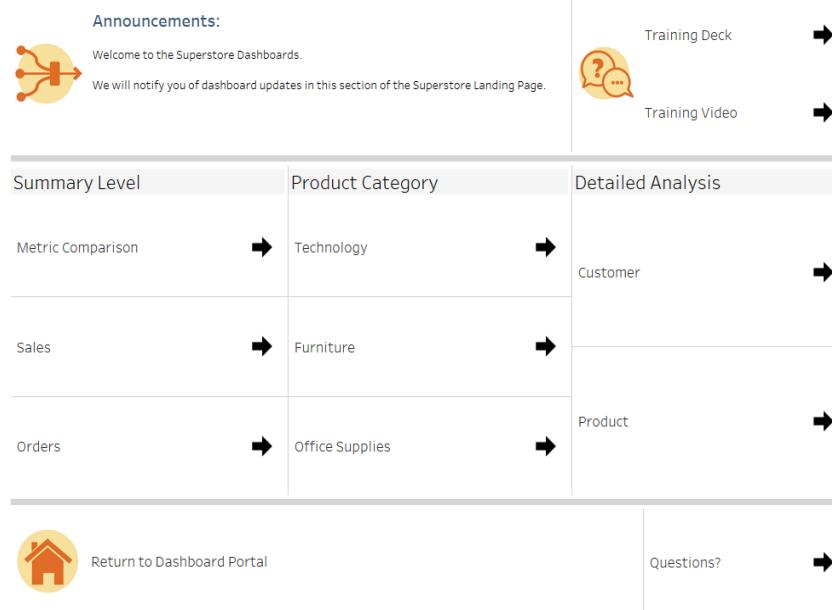
Data as of 12/31/2017

Order Summary (YTD Orders)

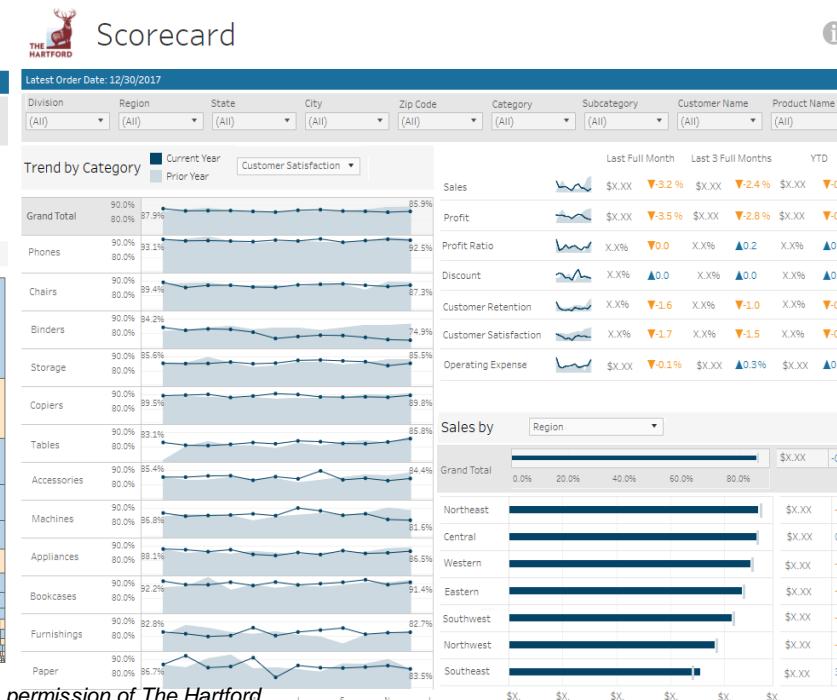
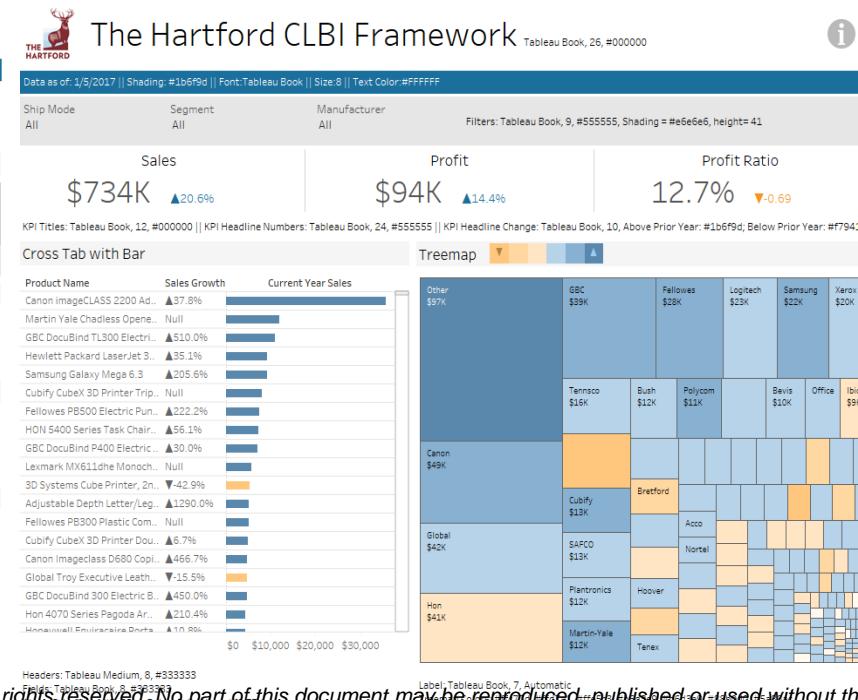
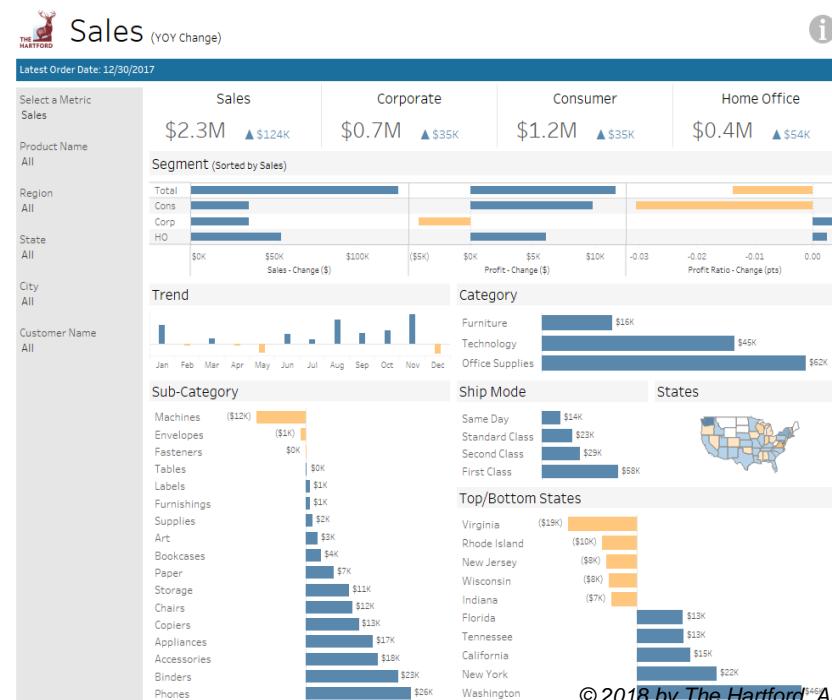
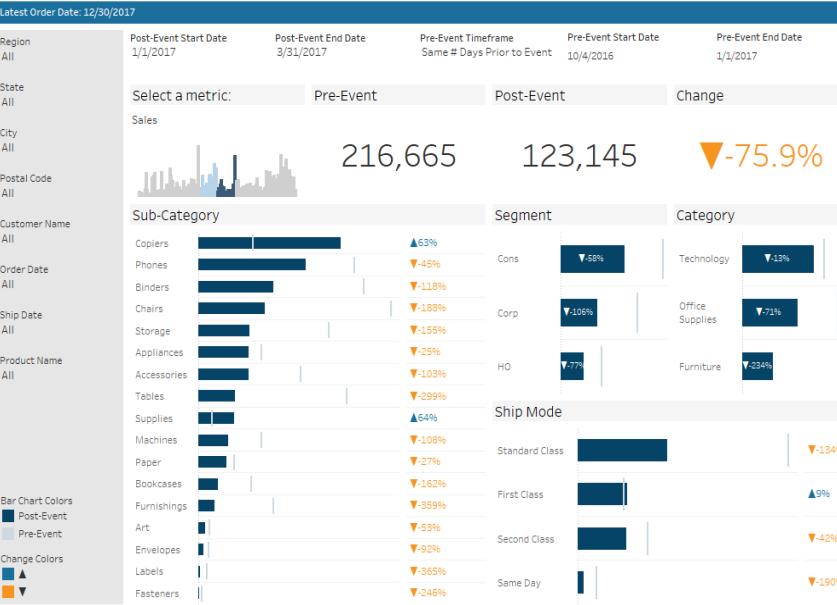




Superstore Dashboard



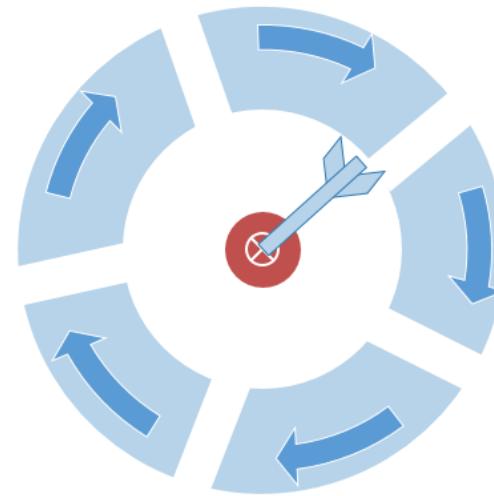
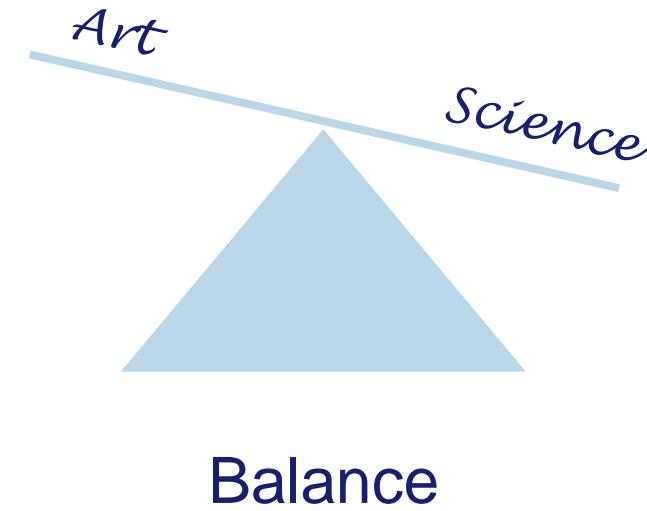
Superstore Event Analysis



Formatting isn't Always #000000 and #FFFFFF

Framework Design Process

Difference of Opinion

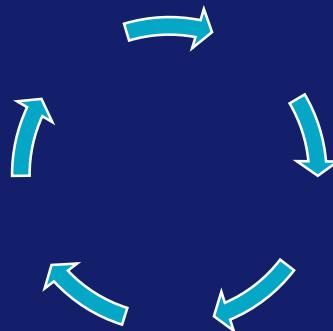


Multiple Iterations

Time / Priorities



Success Drivers



Iterate through the cycle of steps as needed



Pick one **focus** area at a time



Time box your deliverables

Framework Benefits

Dashboard Development



Speed to delivery



Flexibility across subject areas



Employee onboarding



Evolve new capabilities

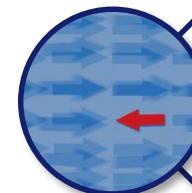
Usability



Branded team dashboards



Adoption of Tableau



Consistent user experience



Reduced user training

Don't just take our word for it...

“

This User base increased by 300%
some of the best dashboards
we've seen. The time invested to
create a dashboard clearly differentiates

“

Dashboard usage increased by
600%

- Jon, The Hartford's Tableau Center of Excellence



“

Formatting done right
the first time!

- Brandon, BI Developer

”

“

Dashboard development time
reduced from weeks to days
best practices has been



- Belma, B

”

User training reduced by 50%



“

**Continuous improvement is better
than delayed perfection.**

Mark Twain

Key Findings & Helpful Tips

Key Findings & Helpful Tips



Guided Analytics



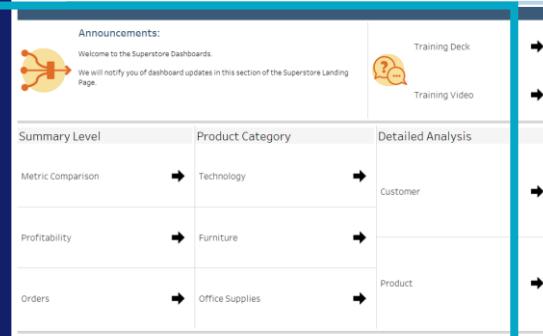
Colors

```
int - Change] = 0 THEN 0
scount - Change] <0 THEN
scount - Change] <= WINDOW_MIN([D
scount - Change] <= WINDOW_MIN([D
)
scount - Change] <= WINDOW_MAX([D
scount - Change] <= WINDOW_MAX([D
scount - Change] <= WINDOW_MAX([D
```

Format Formulas



Date Analysis



BI Portal



Documentation

Tip #1: Guided Analytics

Guided Analytics

- ✓ The **visuals tell the story**, guiding the user through the analysis
- ✓ Dashboards have **specific thematic content**
- ✓ Visuals are **not overloaded** with too much information
- ✓ Dashboards typically **start at a high level** and allow drilldowns into specific subject matter
- ✓ The user's **eye is drawn to the most important elements**

Guided Analytics

Executive Level Dashboards

Less manual effort for user

Focus on most important dimensionality

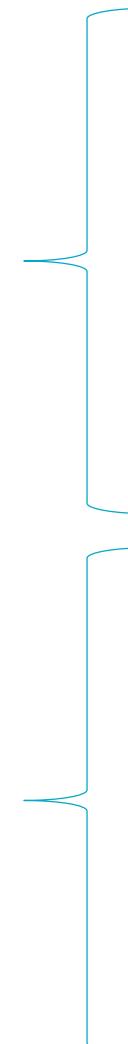
60-70% of questions answered

Detail Level Dashboards

More flexibility for user

Allows individualized customization

30-40% of remaining questions answered

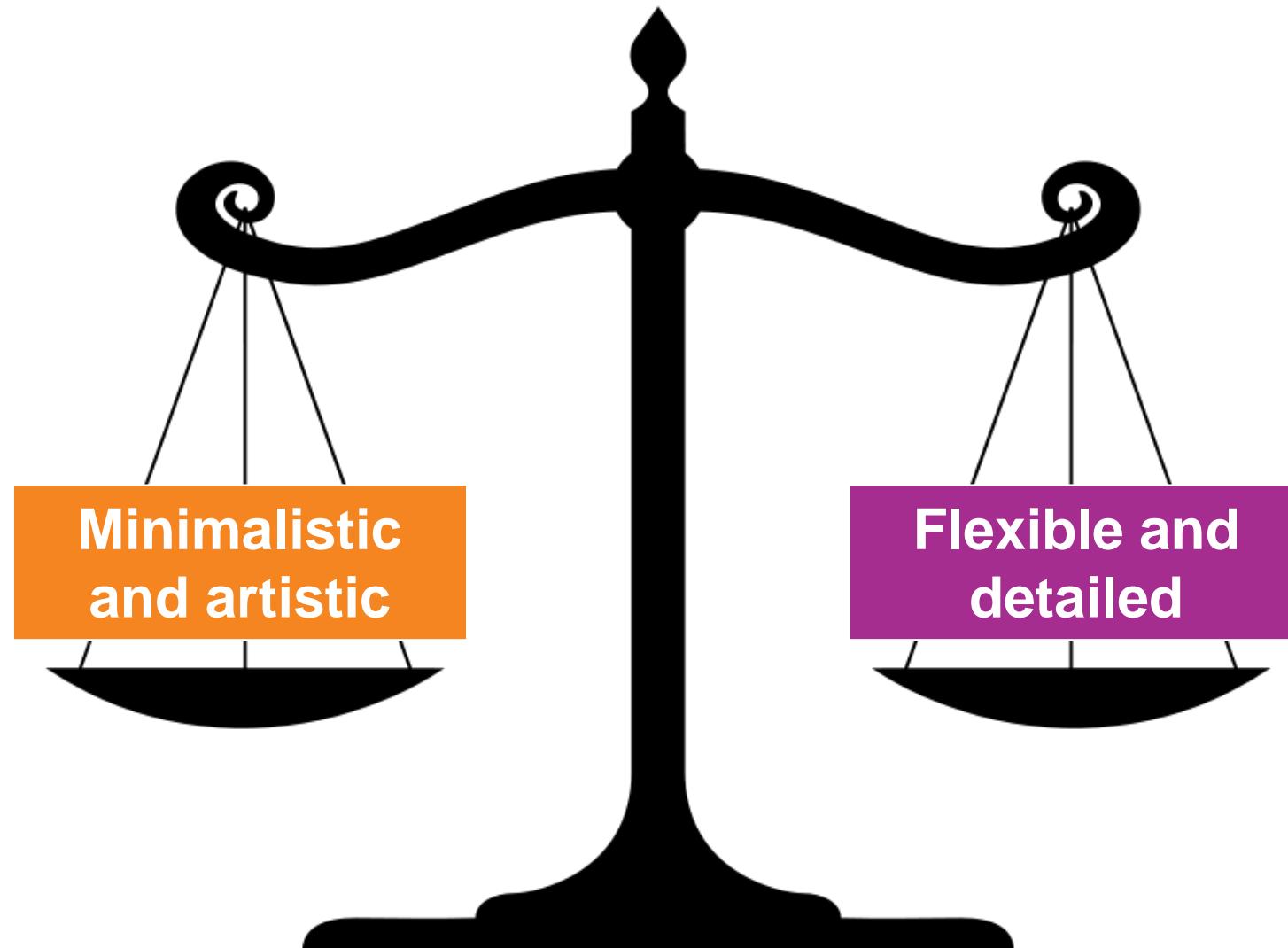


Start analysis here

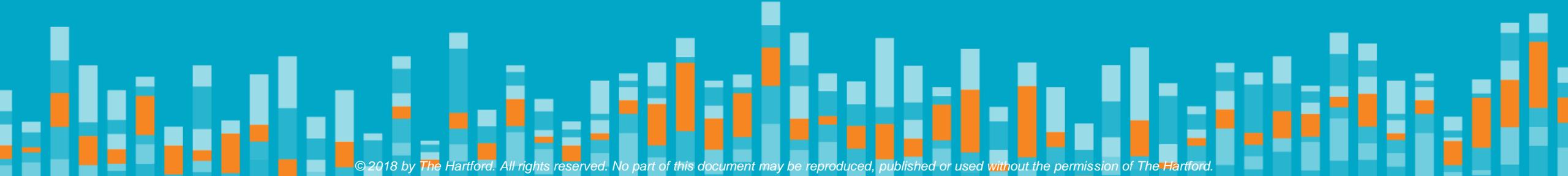


Download data if needed

A Delicate Balance



Tip #2: Colors



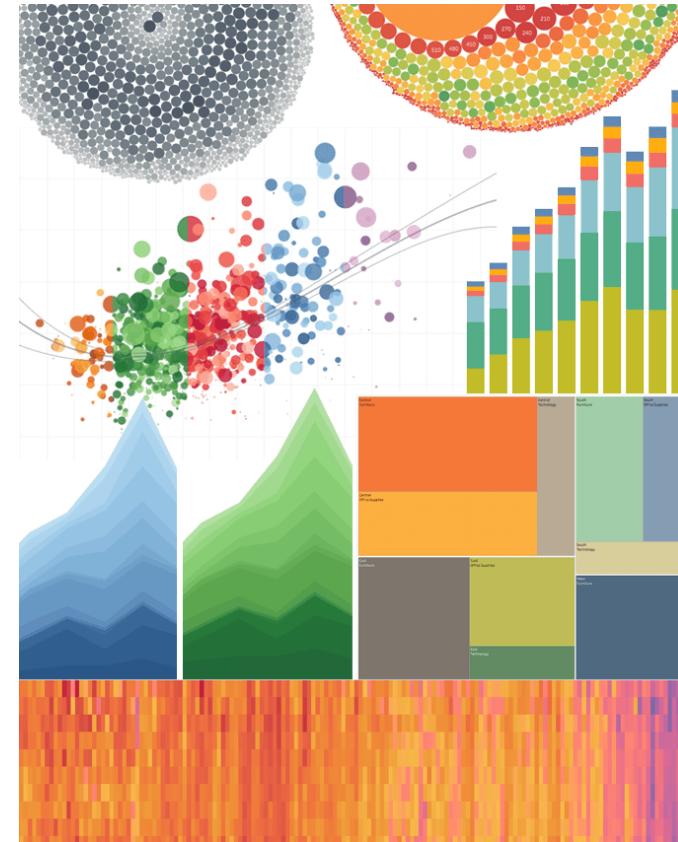
“
**Color is my day-long obsession,
joy, and torment.**

Claude Monet
French Painter

Understand Tableau's color palette



soft



sophisticated

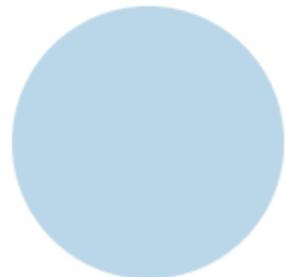


color-blind friendly

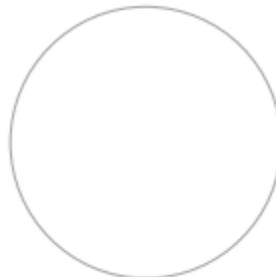


aesthetically pleasing

Understand your brand colors



The Hartford Light Blue



White



The Hartford Dark Blue



The Hartford Gray



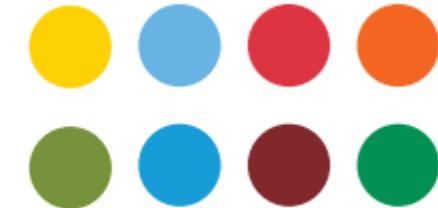
The Hartford Red



The Hartford
Subtle Accent Colors

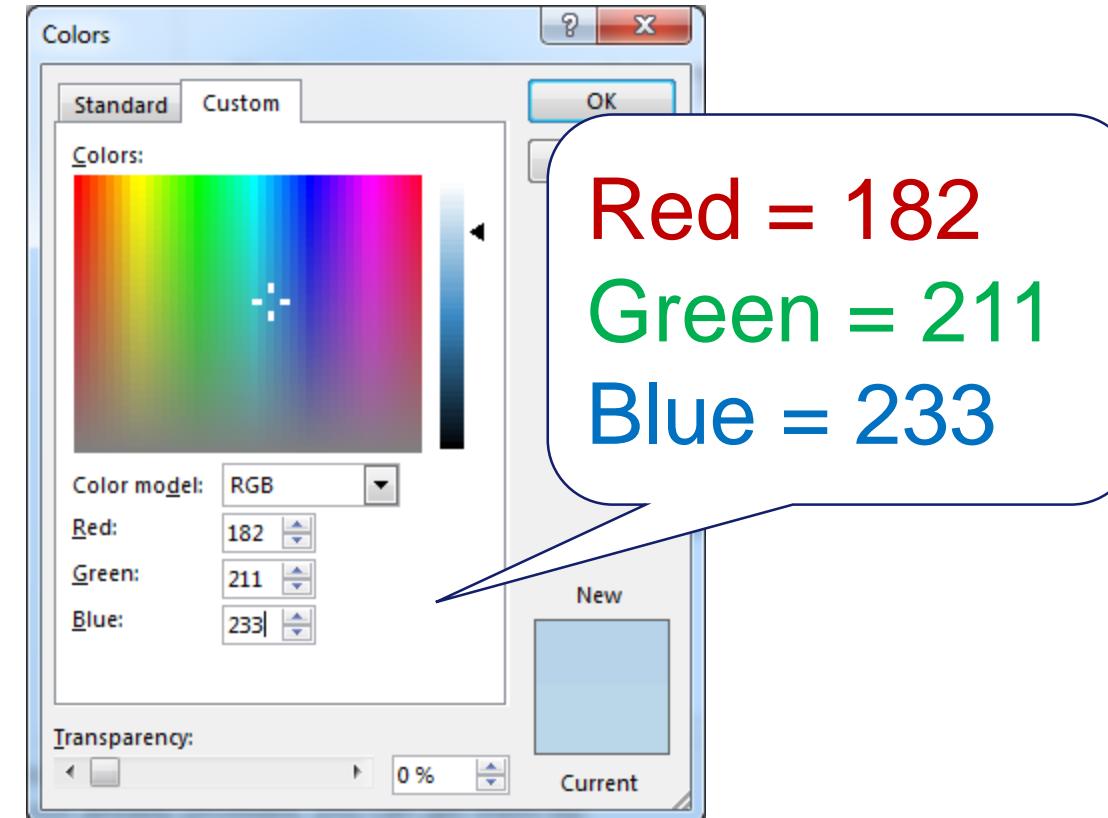
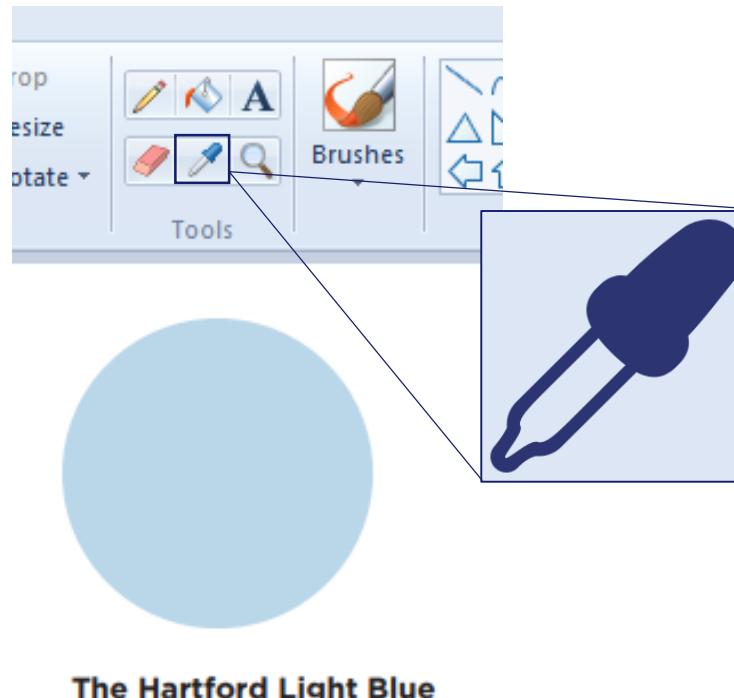


The Hartford
Standard Accent Colors



The Hartford
Bright Accent Colors

Bring your brand to Tableau



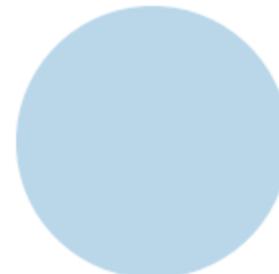
Bring your brand to Tableau

Red = 182

$$\frac{182}{16} = 11.375$$

Translate 11 into B

Multiply the remaining .375 *
16 = 6



The Hartford Light Blue

Green = 211

$$\frac{211}{16} = 13.1875$$

Translate 13 into D

Multiply the remaining
.1875*16 = 3

Blue = 233

$$\frac{233}{16} = 14.5625$$

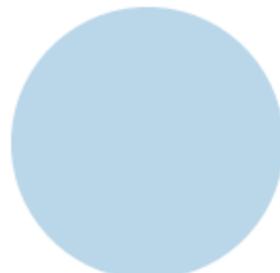
Translate 14 into E

Multiply the remaining .5625*16
= 9

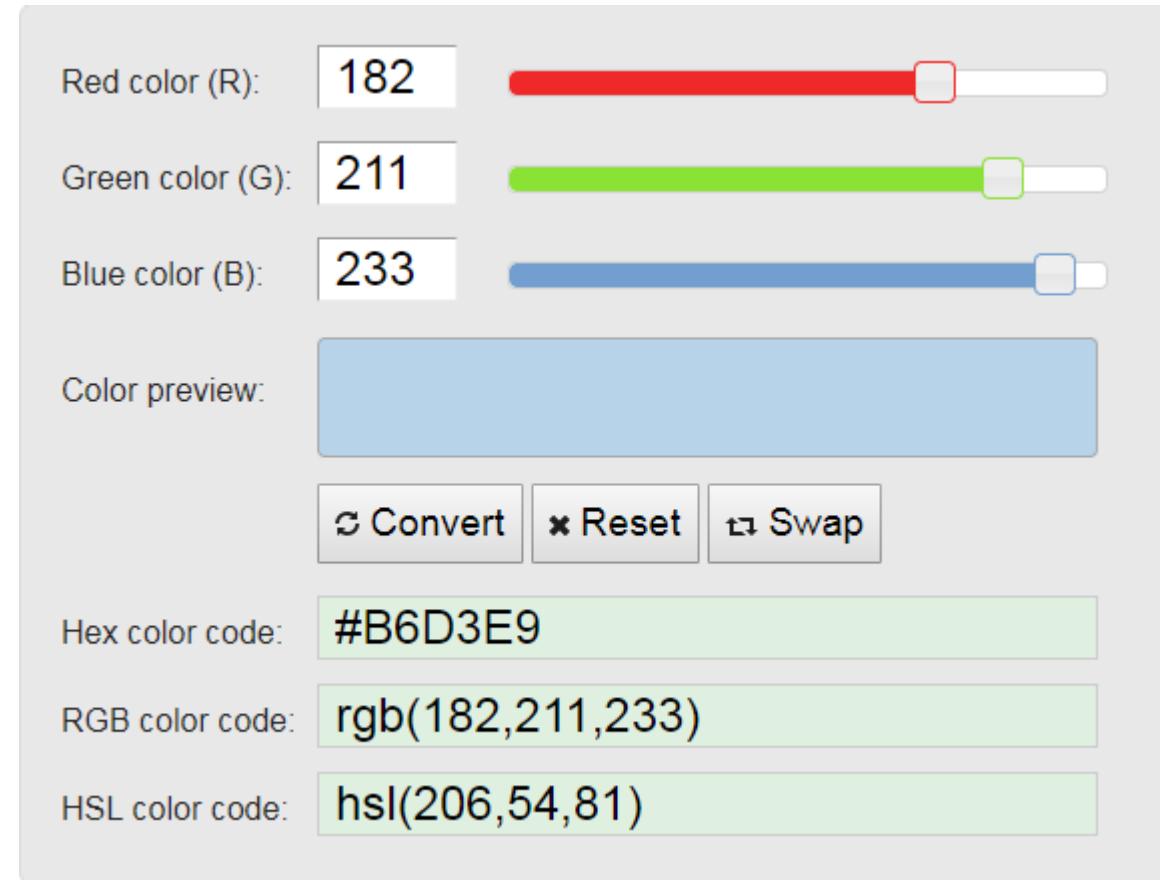
Number	Hex Letter
10	A
11	B
12	C
13	D
14	E
15	F

Hexadecimal: #B6D3E9

Bring your brand to Tableau



The Hartford Light Blue



Hexadecimal: #B6D3E9

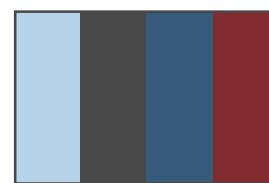
<https://www.rapidtables.com/convert/color/rgb-to-hex.html>

Bring your brand to Tableau

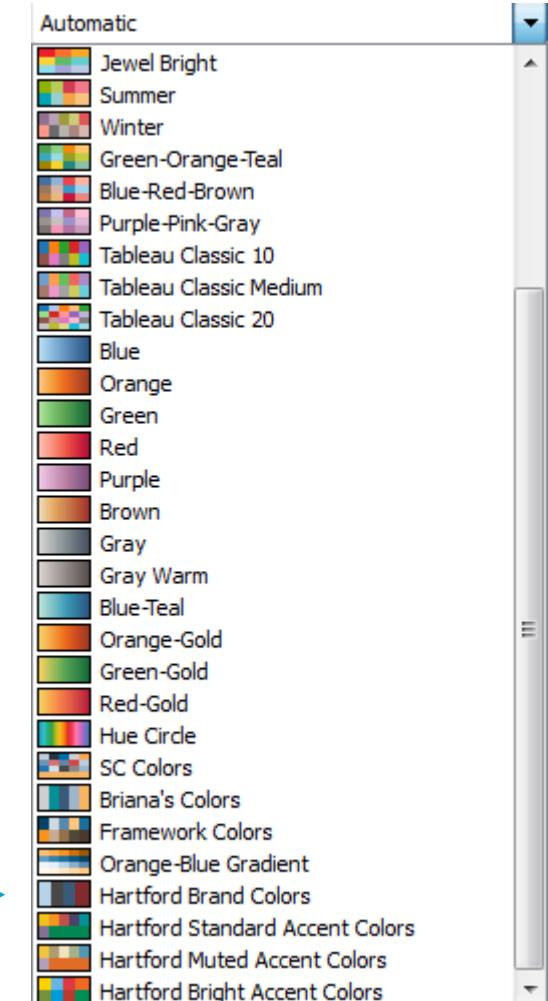
Documents → My Tableau Repository → Preferences.tps

Add your colors to the file:

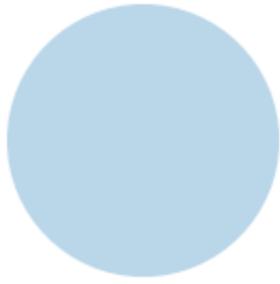
```
<workbook>
    <preferences>
        <color-palette name="Hartford Brand Colors"
type="regular" >
            <color>#B6D3E9</color> <!--The Hartford Light Blue-->
            <color>#484848</color> <!--The Hartford Gray-->
            <color>#3A5A78</color> <!--The Hartford Dark Blue-->
            <color>#822B2F</color> <!--The Hartford Red-->
        </color-palette>
    </preferences>
</workbook>
```



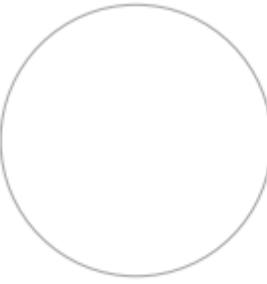
Hartford Brand Colors



Now that you have your brand colors... experiment!



The Hartford Light Blue



White



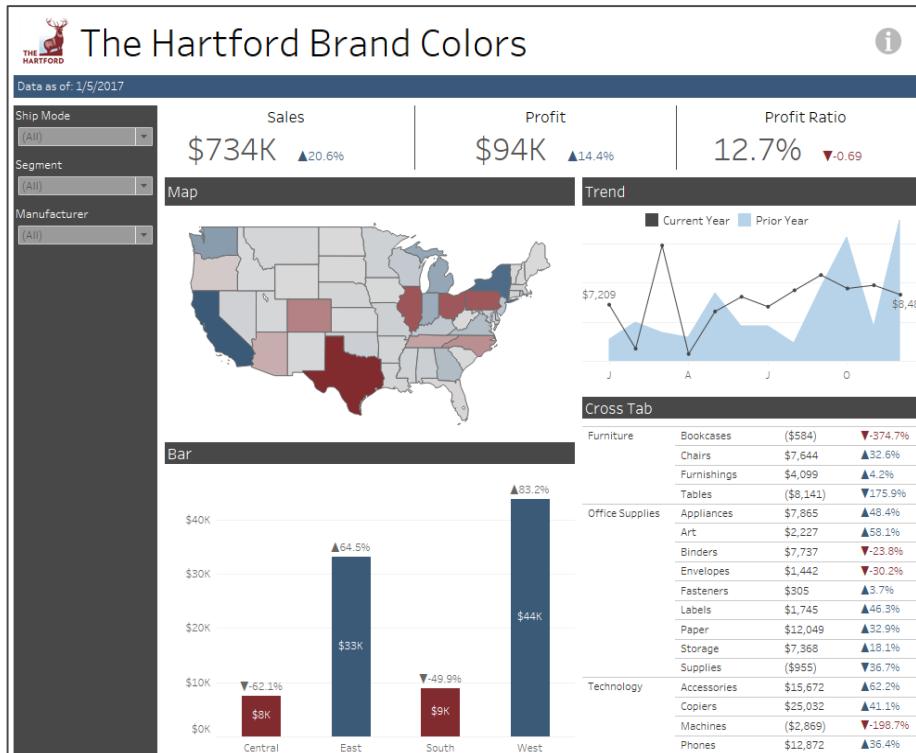
The Hartford Dark Blue



The Hartford Gray

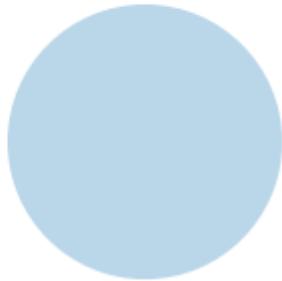


The Hartford Red

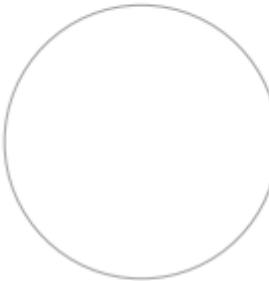


- Too bold and dark
- Difficult to focus on trends
- Not aligned with marketing best practices

Now that you have your brand colors... experiment!



The Hartford Light Blue



White



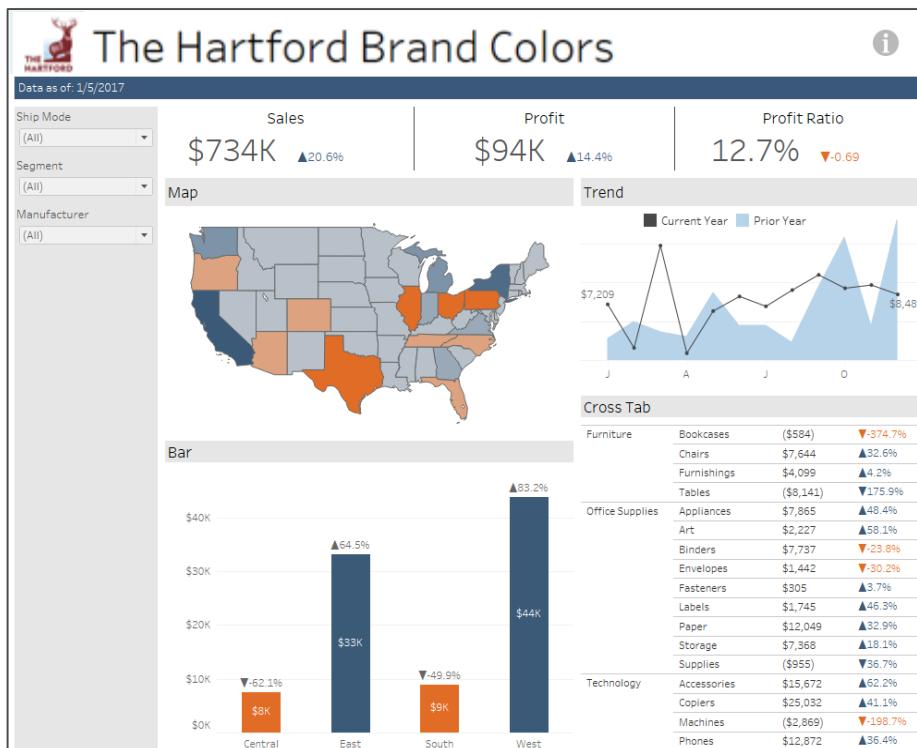
The Hartford Dark Blue



The Hartford Gray

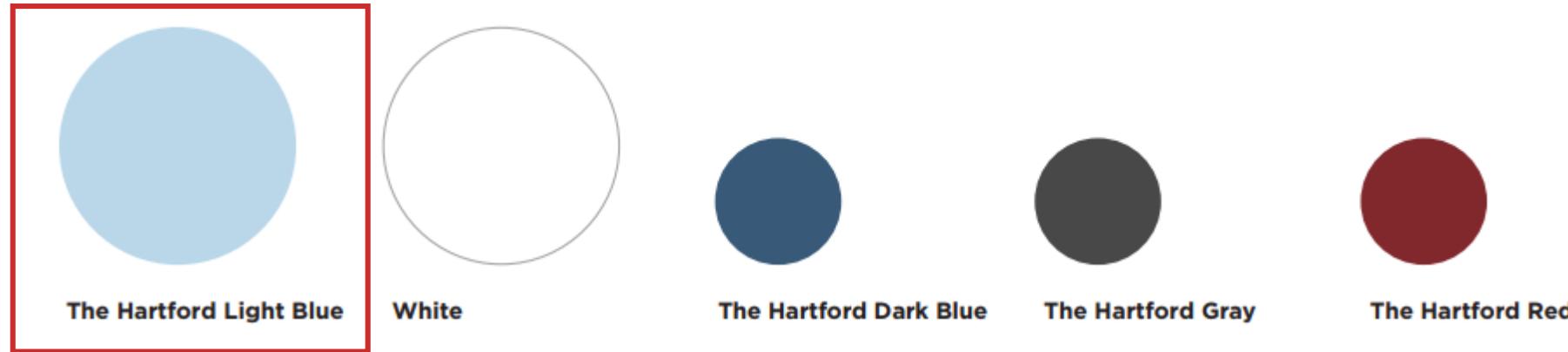


The Hartford Red

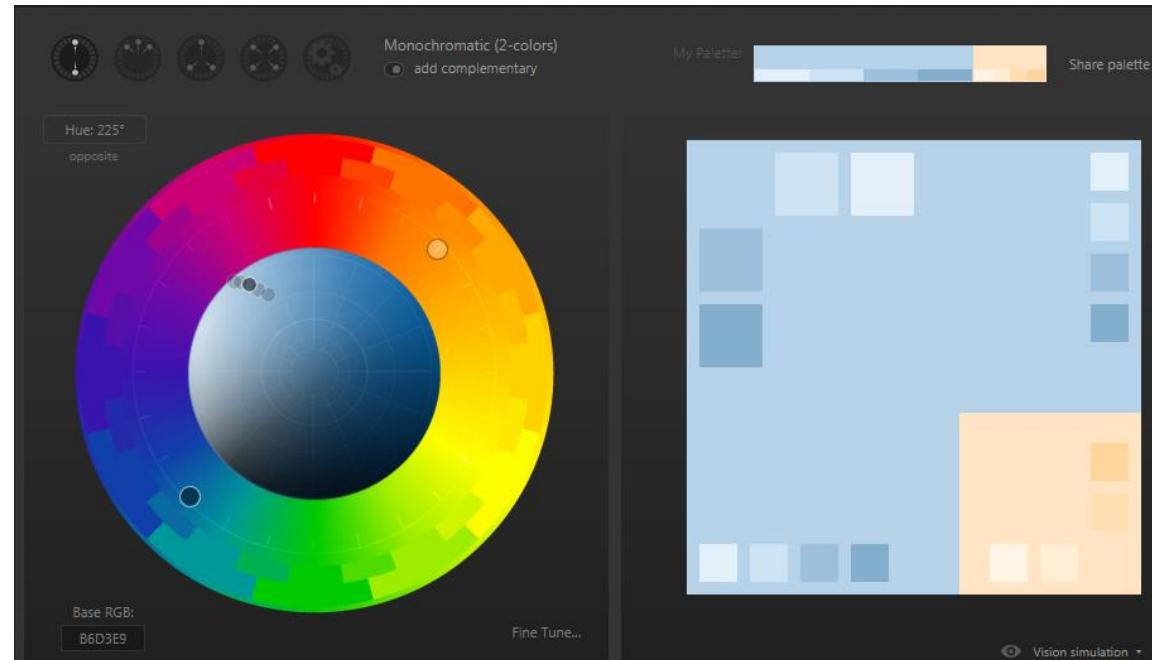
The Hartford
Subtle Accent Colors

- The Hartford's accent colors look great on marketing materials, but still too bold for the dashboard
- Map is mostly greyed out, can't tell what is up or down

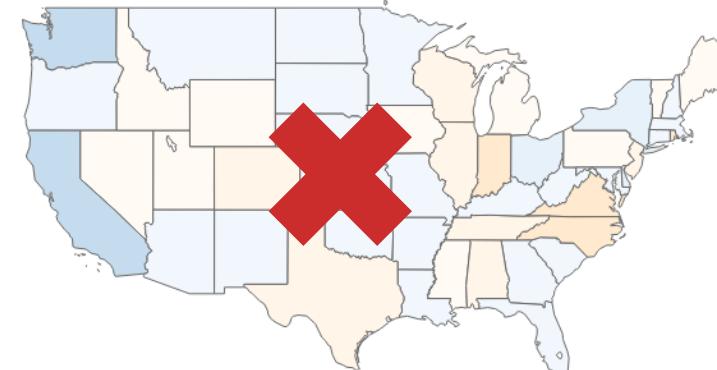
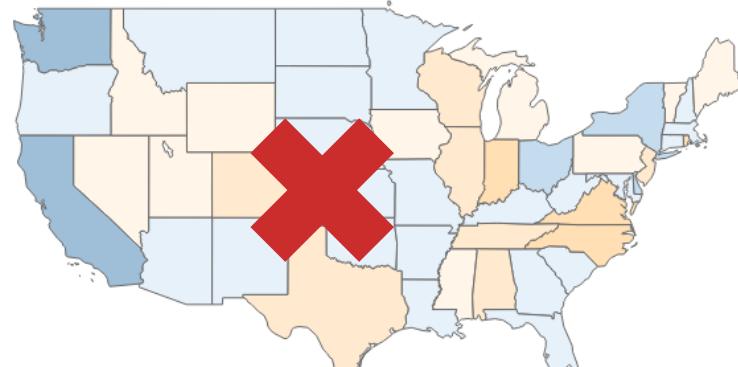
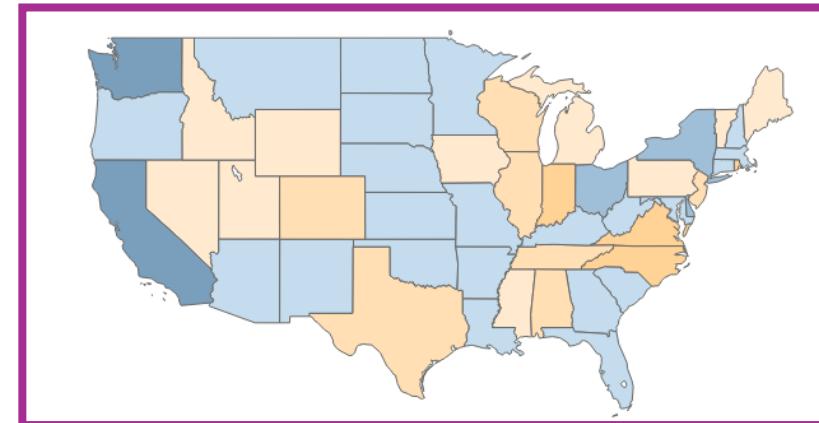
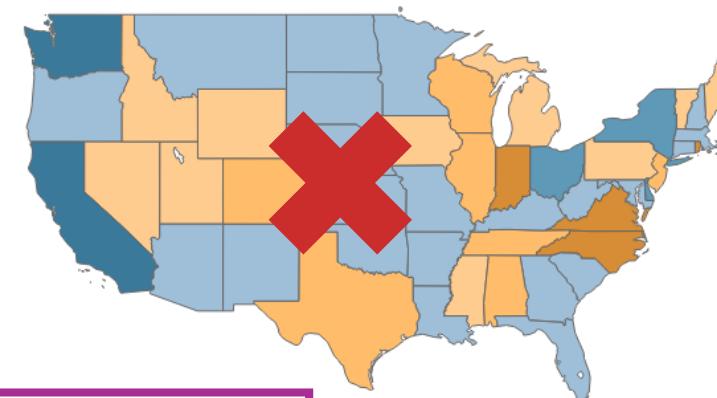
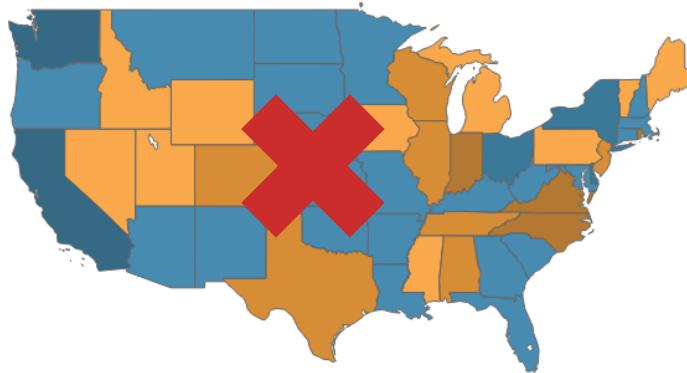
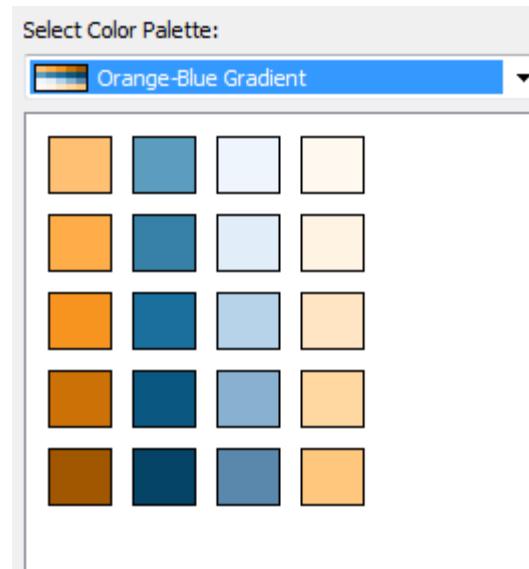
Start with one color and find a complementary palette



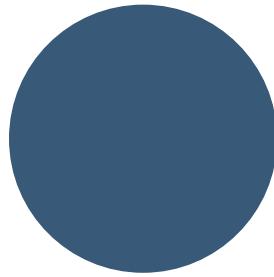
- Paletton.com
- Base RGB: Your brand hex
- Add complementary color
- Apply different shades as your base until you have a desirable palette



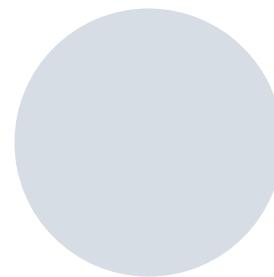
Start with one color and find a complementary palette



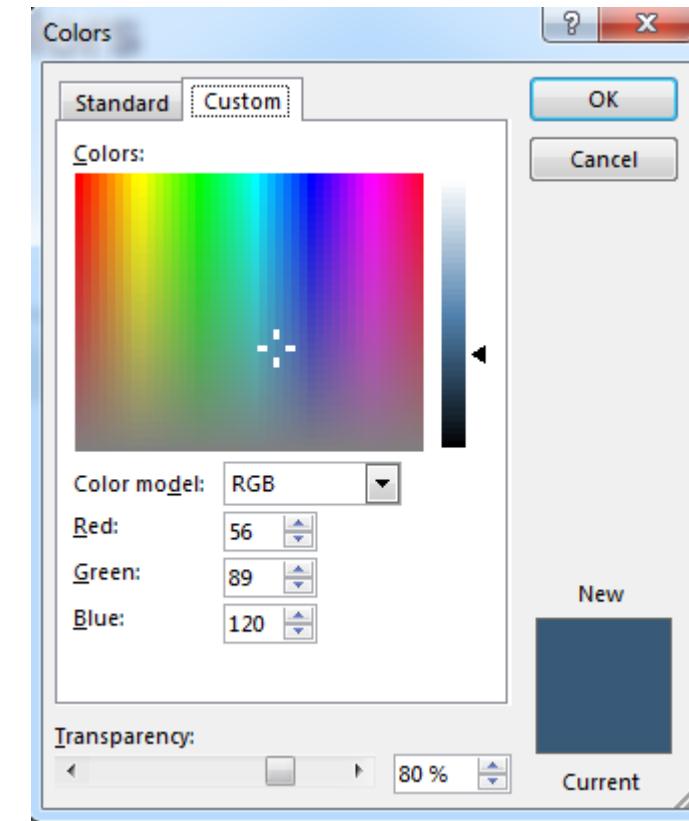
Work with transparency of colors



The Hartford Dark
Blue



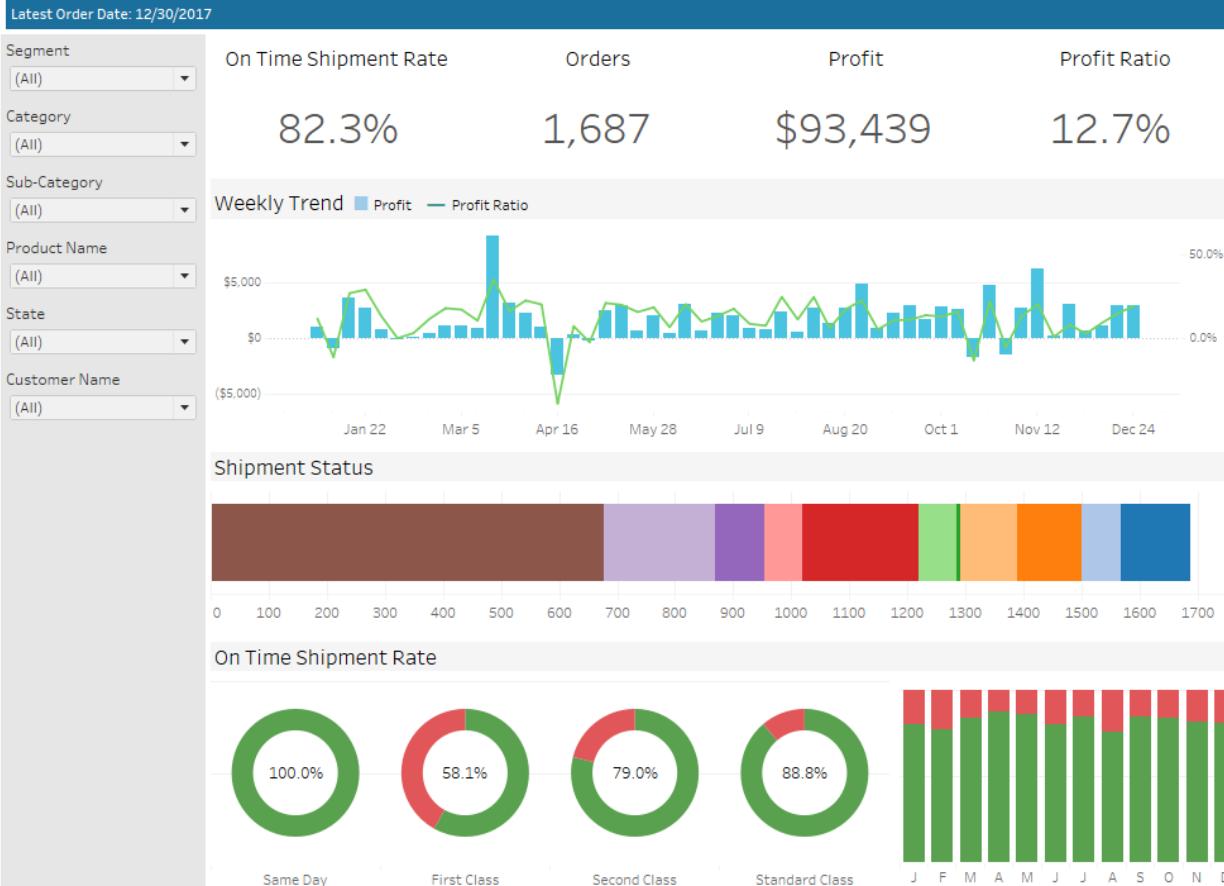
The Hartford Dark Blue
80% Transparency



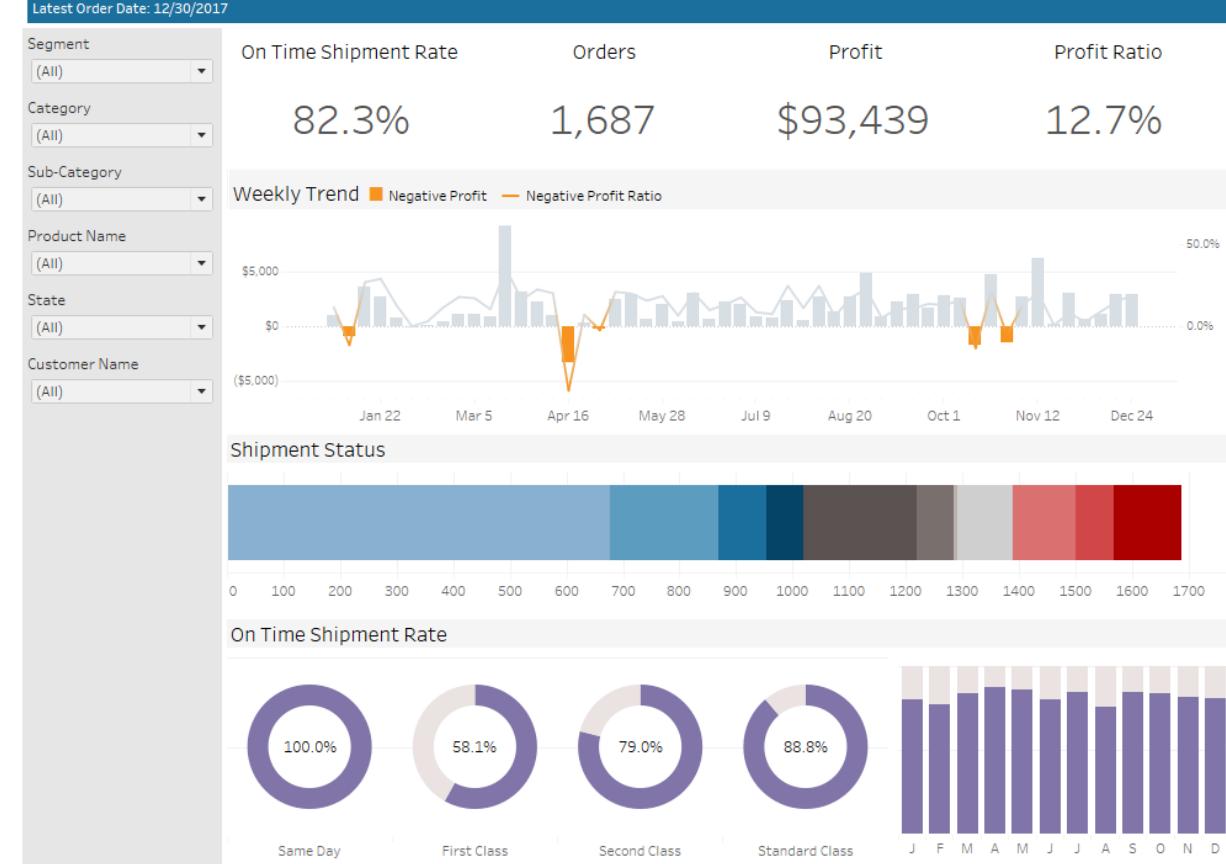
Use accent colors to draw attention, but avoid making the visuals too overwhelming



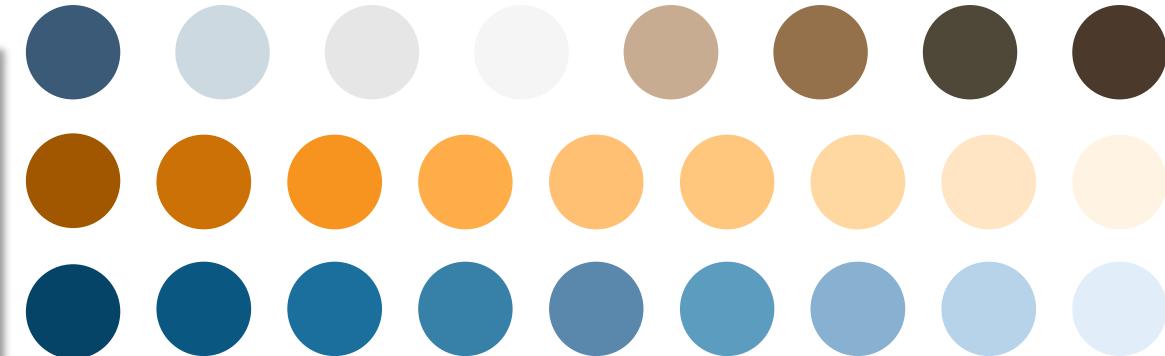
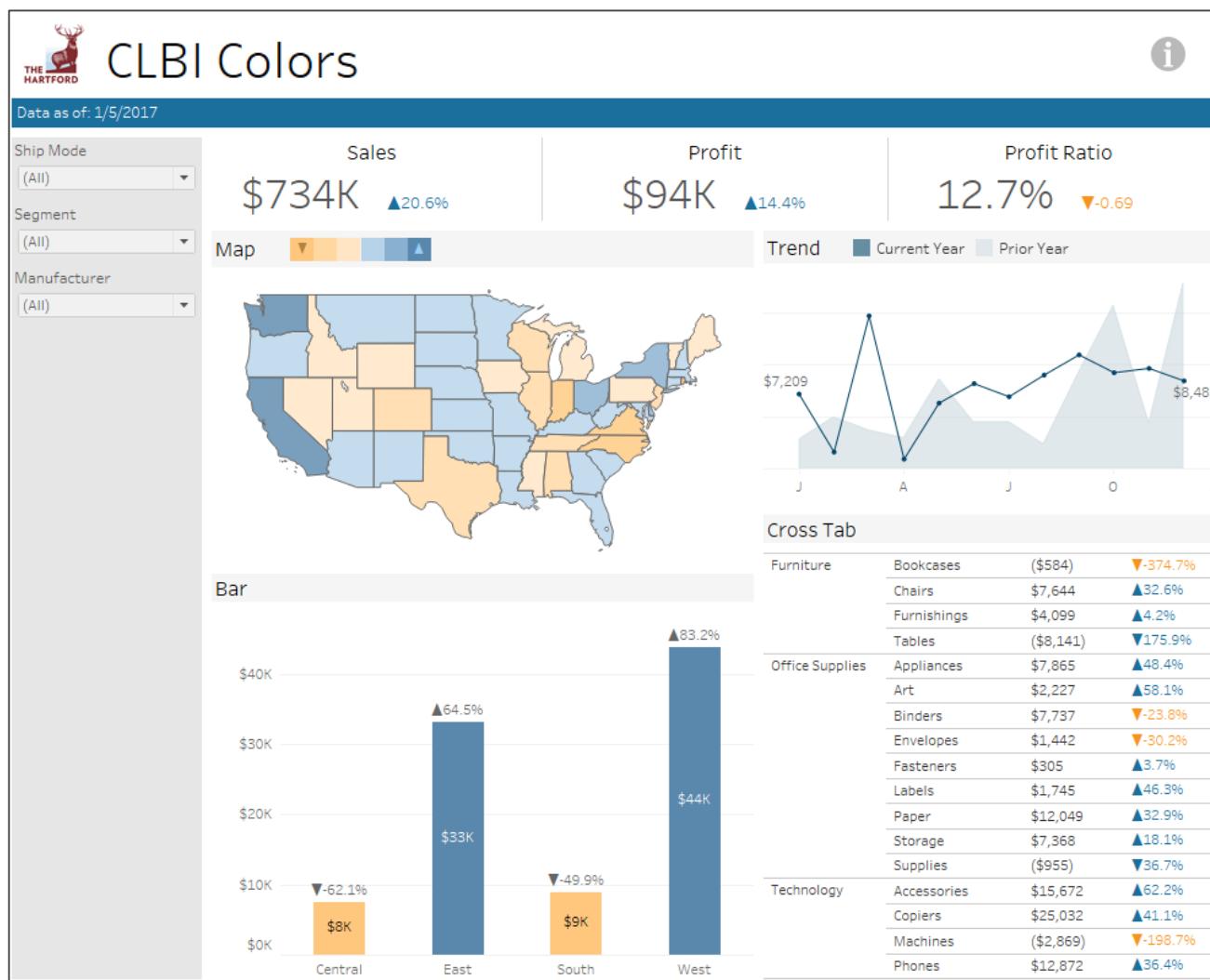
Example - Other Colors



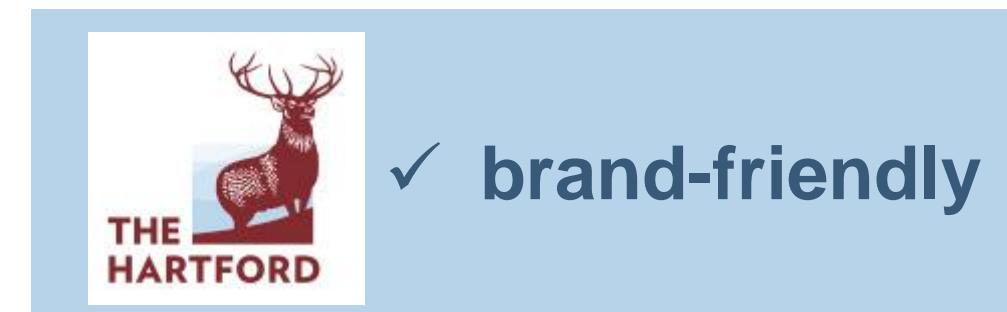
Example - Other Colors



Put it all together...

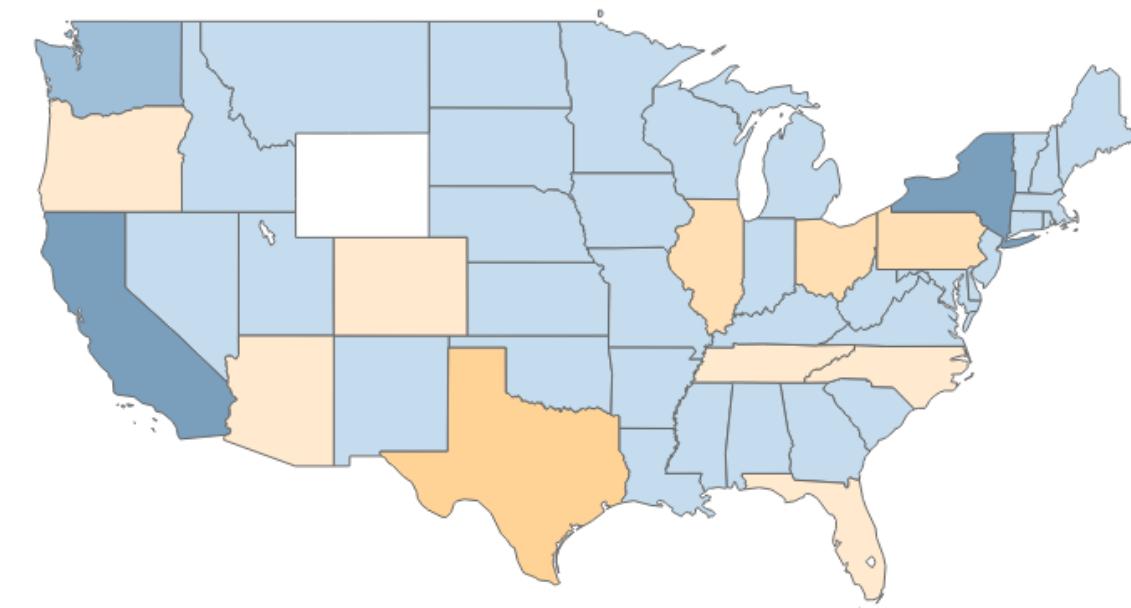
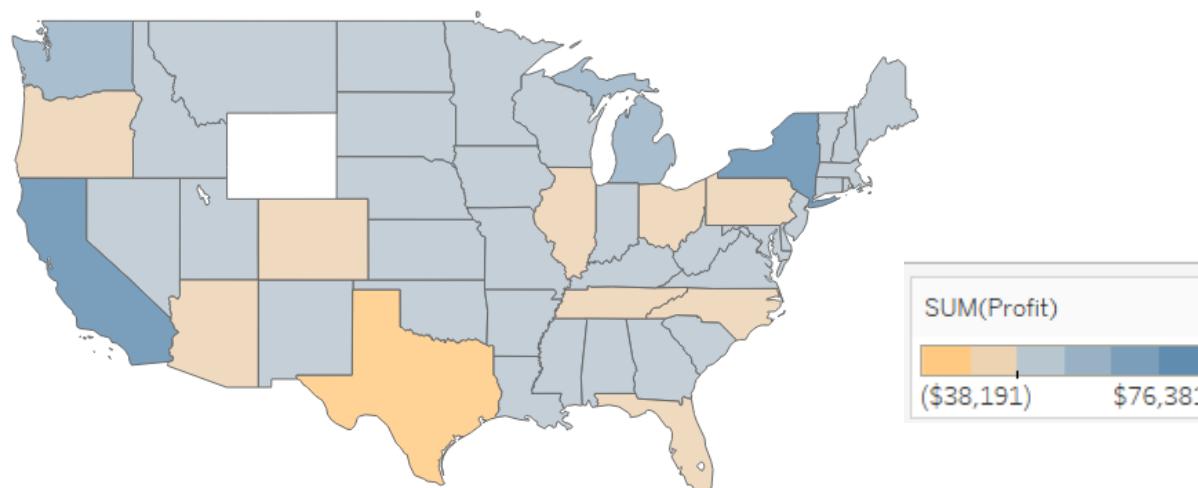
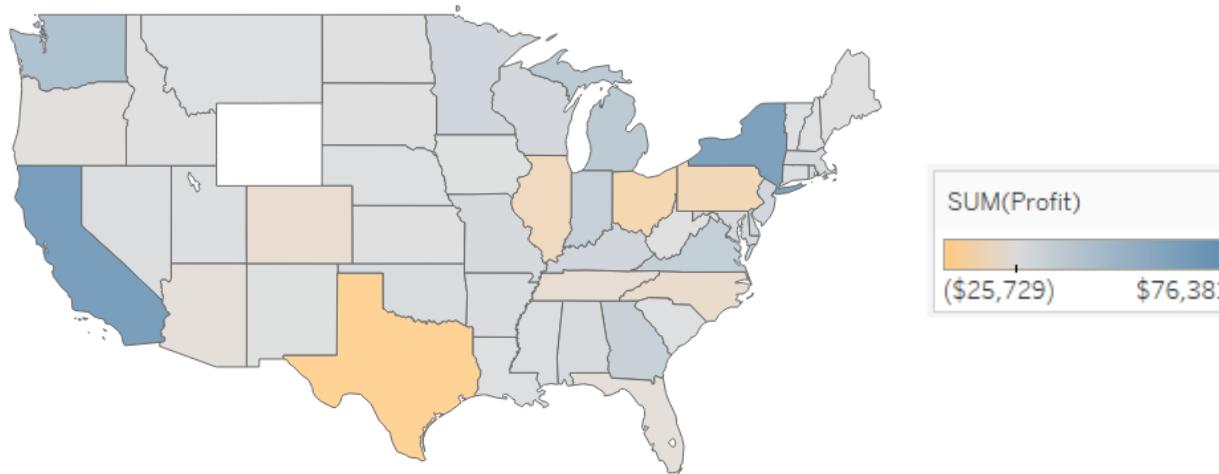


- ✓ soft
- ✓ sophisticated
- ✓ color-blind friendly
- ✓ aesthetically pleasing



Tip #3: Formatting Formulas

Make your map colors pop...



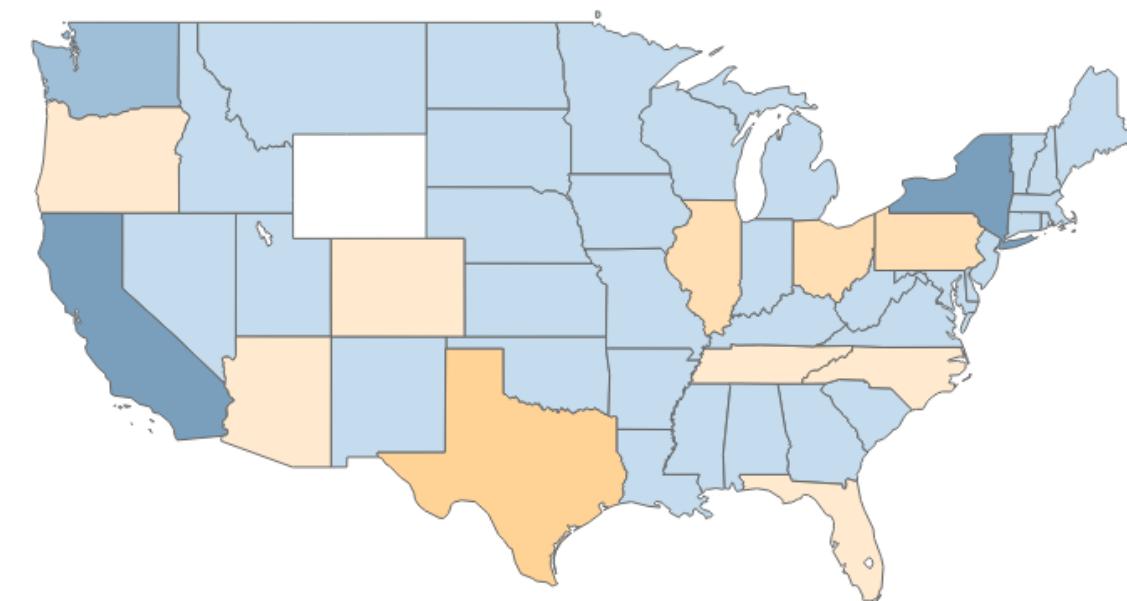
...with a calculated field!

1. Create a calculated field

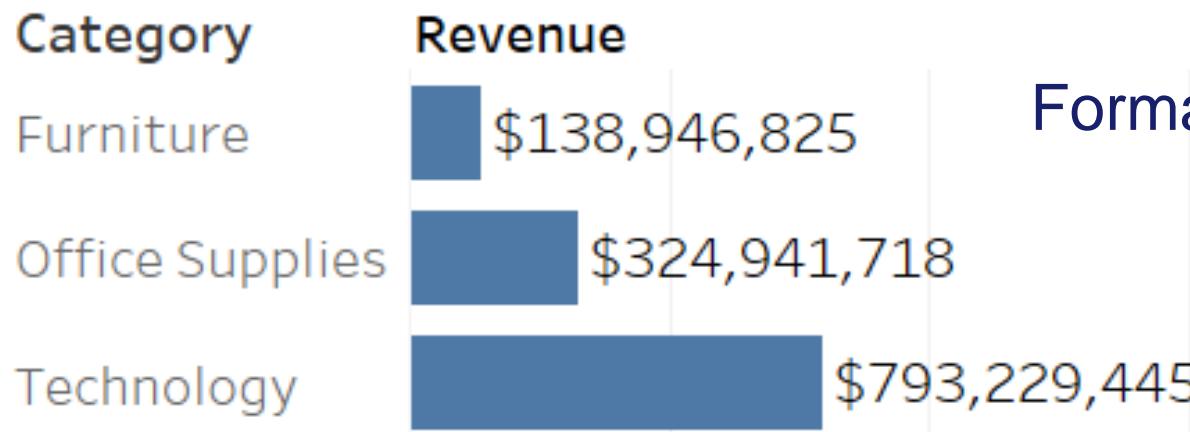
```
IF SUM([Profit]) = 0 THEN 0
ELSEIF SUM([Profit]) <0 THEN
( IF SUM([Profit]) <=
WINDOW_MIN(SUM([Profit]))*(2/3) THEN 1
ELSEIF SUM([Profit]) <=
WINDOW_MIN(SUM([Profit]))*(1/3) THEN 2
ELSE 3 END)
ELSEIF SUM([Profit]) <=
WINDOW_MAX(SUM([Profit]))*(1/3) THEN 4
ELSEIF SUM([Profit]) <=
WINDOW_MAX(SUM([Profit]))*(2/3) THEN 5
ELSEIF SUM([Profit]) <=
WINDOW_MAX(SUM([Profit])) THEN 6
END
```

2. Make it discrete

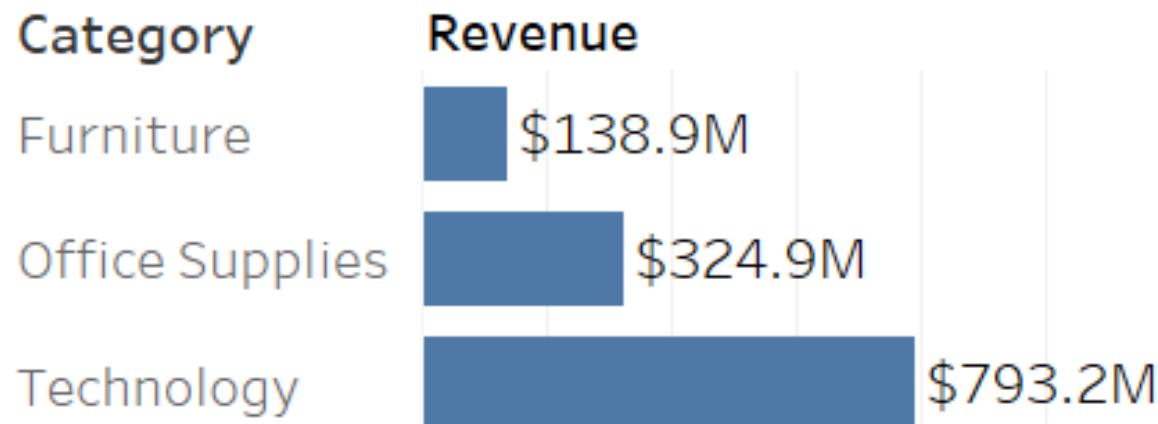
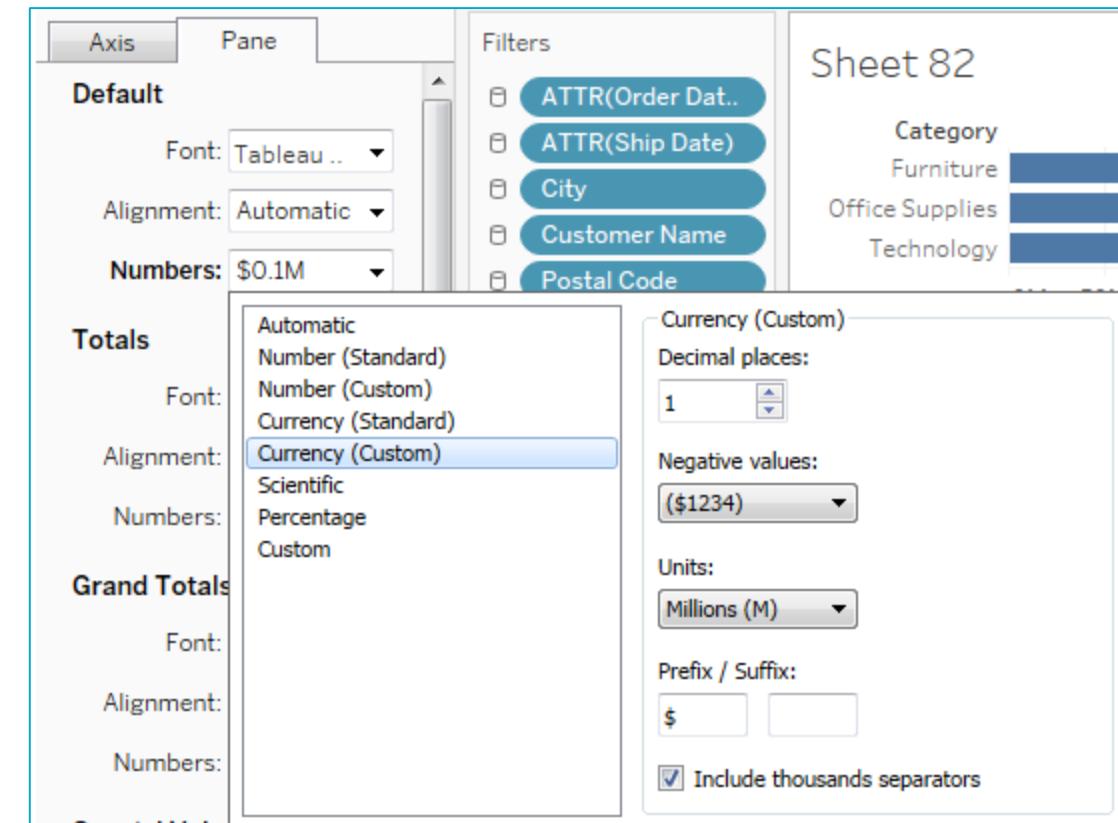
3. Drag onto Colors mark
4. Calculate using State
5. Adjust the numbers 1-6 with your framework colors



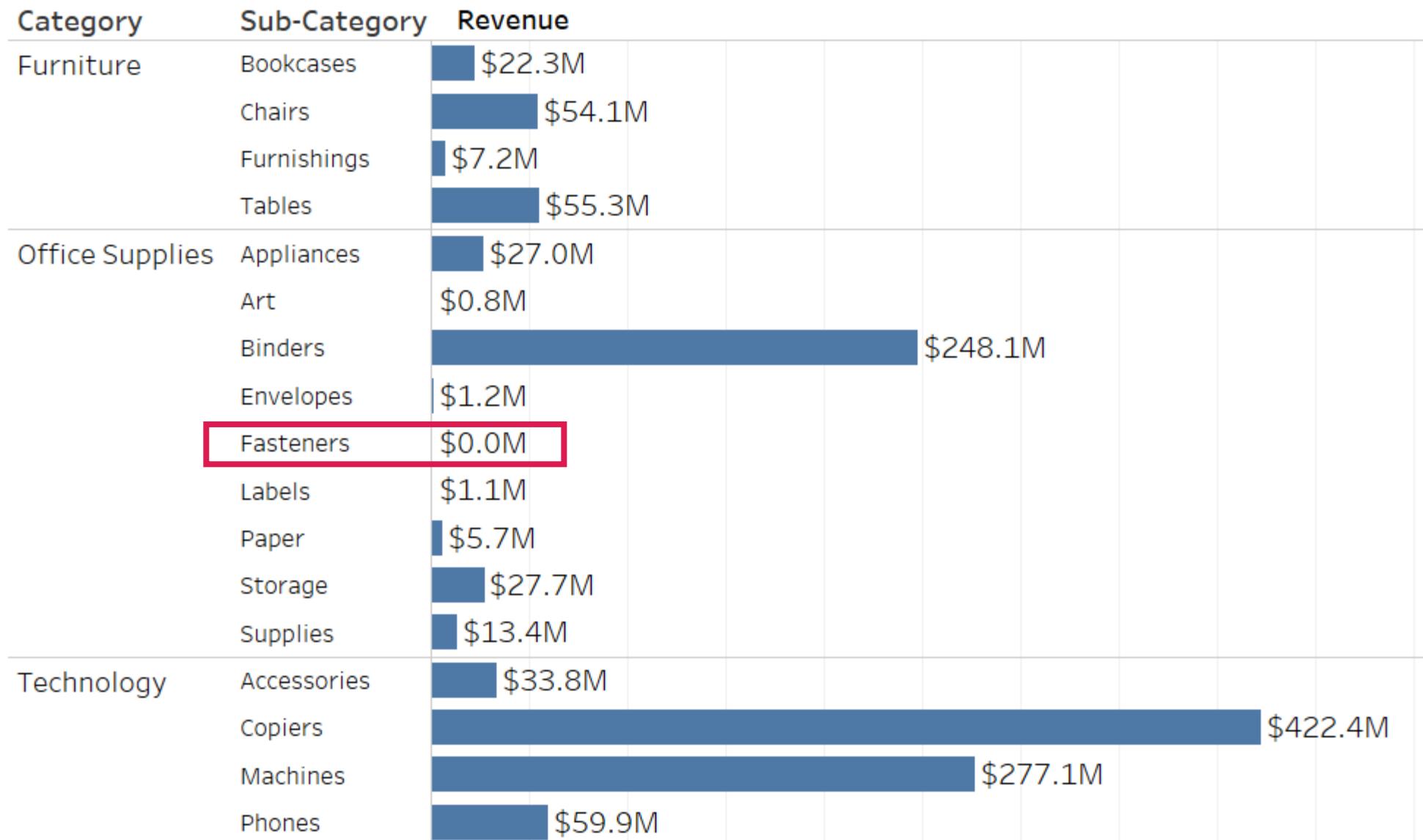
Customize your KPIs



Format → Number → Currency → Units = Millions



Customize your KPIs



Customize your KPIs

```
"$" +  
IF SUM([Revenue])<1000 THEN  
STR(ROUND(SUM([Revenue]),0))  
ELSEIF SUM([Revenue])<1000000 THEN  
STR(ROUND(SUM([Revenue])/1000,0))  
ELSEIF SUM([Revenue])<1000000000 THEN  
STR(ROUND(SUM([Revenue])/1000000,1))  
ELSE STR(ROUND(SUM([Revenue])/1000000000,1))  
END  
+  
IF SUM([Revenue])>1000000000 THEN "B"  
ELSEIF SUM([Revenue])>1000000 THEN "M"  
ELSEIF SUM([Revenue])>1000 THEN "K"  
ELSE "" END
```

Checks if billions,
millions, or thousands
and divides & formats

Checks if billions,
millions, or thousands
and applies suffix letter

Customize your KPIs

		With default format	With calculated field
Furniture	Bookcases	\$22.3M	\$22.3M
	Chairs	\$54.1M	\$54.1M
	Furnishings	\$7.2M	\$7.2M
	Tables	\$55.3M	\$55.3M
Office Supplies	Appliances	\$27.0M	\$27.0M
	Art	\$0.8M	\$774K
	Binders	\$248.1M	\$248.1M
	Envelopes	\$1.2M	\$1.2M
	Fasteners	\$0.0M	\$24K
	Labels	\$1.1M	\$1.1M
	Paper	\$5.7M	\$5.7M
	Storage	\$27.7M	\$27.7M
	Supplies	\$13.4M	\$13.4M
	Technology	\$33.8M	\$33.8M
Technology	Copiers	\$422.4M	\$422.4M
	Machines	\$277.1M	\$277.1M
	Phones	\$59.9M	\$59.9M

Get creative with unicode

CASE [Customer Rating]

```
WHEN 1 THEN "★"
WHEN 2 THEN "★★"
WHEN 3 THEN "★★★"
WHEN 4 THEN "★★★★"
WHEN 5 THEN "★★★★★"
END
```

City	Customer Satisfaction
Homestead	★★
Hoover	★★★
Hot Springs	★★
Houston	★★★★★
Huntington Beach	★★★★
Huntsville	★★★★★
Independence	★★★★
Indianapolis	★★★★★
Inglewood	★★★★★

IF [Sales - Change]>0 then "▲"
ELSEIF [Sales - Change]=0 then ""
ELSEIF [Sales - Change]<0 then "▼"
END



IF [Flagged Account Ind]
THEN "P" ELSE "" END
// Format as Wingdings

Customer Name	Flagged?
Chuck Magee	P
Chuck Sachs	
Cindy Chapman	
Cindy Schnelling	
Cindy Stewart	
Claire Gute	
Claudia Bergmann	
Clay Cheatham	P
Clay Ludtke	

Tip # 4: Dashboard Portal

Dashboard Portal

The screenshot shows the "Superstore Dashboard" portal. At the top left is the "THE HARTFORD" logo. The main title "Superstore Dashboard" is at the top center. Below it, there's a section titled "Announcements" with a yellow circular icon containing a network or gear symbol. The text says "Welcome to the Superstore Dashboards. We will notify you of dashboard updates in this section of the Superstore Landing Page." To the right of the announcements are two links: "Training Deck" with a yellow circular icon containing a question mark and three dots, and "Training Video" with a similar yellow circular icon. The main content area has a grid of four rows and three columns. The first row has "Summary Level" and "Product Category" as columns, with "Detailed Analysis" as a summary cell. The second row has "Metric Comparison" and "Technology" as columns, with "Customer" as a summary cell. The third row has "Sales" and "Furniture" as columns, with "Product" as a summary cell. The fourth row has "Orders" and "Office Supplies" as columns. Each row has a right-pointing arrow. At the bottom left is a yellow circular icon with a house symbol, labeled "Return to Dashboard Portal". At the bottom right is a yellow circular icon with a question mark, labeled "Questions?" followed by a right-pointing arrow.

A dashboard **Portal Page** leverages URL action filters to provide links to all supported dashboards

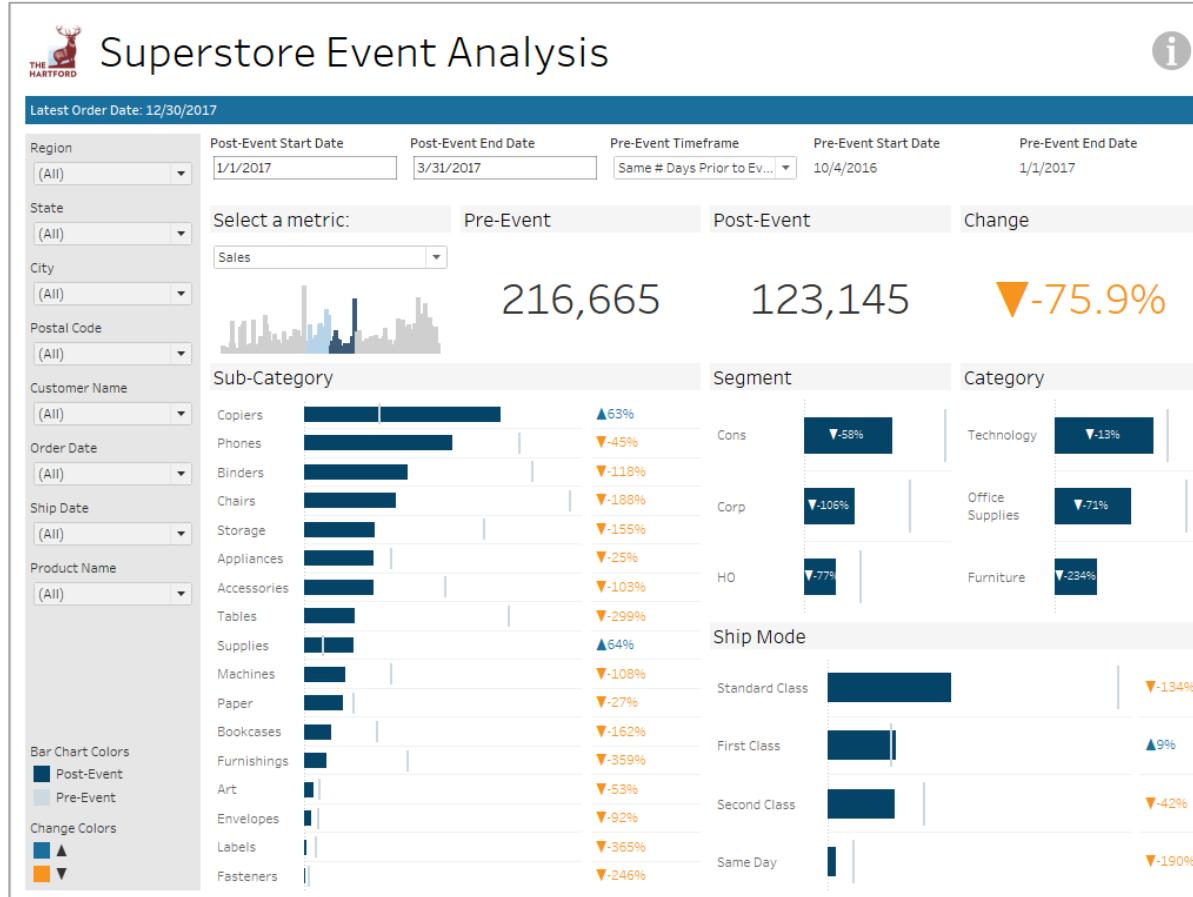
A dashboard **Landing Page** leverages Select action filters to provide links to all views within a dashboard

Benefits

- Seamless navigation
- Single entry point to dashboards
- Reinforce guided analytics
- Links to training & consultation support directly in dashboards

Tip #5: Custom Date Analysis

Custom Date Functionality



Custom Date Functionality can be added to any dashboard by leveraging a unique combination of parameters & calculations

Benefits

- Quickly evaluate the impact of a particular initiative or product change
- User analysis effort reduced as pre vs. post comparisons are automated
- Consistent evaluation periods across users
- Flexibility to accommodate mid-month events

Tip #6: Documentation

Document Your Framework

	A	B	C	D	E	F	G	H	I	J	K
1											
2											
3		Metric Comparison	(2017 and YOY Comparison)								
4											
5											
6											
7											
8	Font	Dash Title	Last Order Date								
9	Color	Tableau Book 26	Tableau Book 8								
10	Shading	Black	#ffffff								
11	Height	N/A	#1b6f9d								
12											
13											
14											
15											
16	#ffc77d										
17	#ffd7a1										
18	#ffe5c3										
19	#b6d3e9										
20	#88b0d0										
21	#5a88ac										
22											
23											
24											
25		KPI	Change								
26	Font	Tableau Book 28	Tableau Book 9								
27	Color	#555555	#1b6f9d (Up); #f7941f (Down)								
28	Alignment	Bottom Right	Bottom Left								
29											
30											

Documentation of your dashboard framework is critical to ensure all team dashboards adhere to your framework guidelines

Benefits

- Single source of truth for specific criteria included in dashboard framework
- Quick reference materials for developers
- Facilitate knowledge sharing within and across teams
- Help to on-board new developers

Conclusion



Dashboard Framework

Benefits

Faster dashboard turnaround

Flexibility for any subject area

Employee onboarding time reduced

Consistent user experience

Less intensive user training

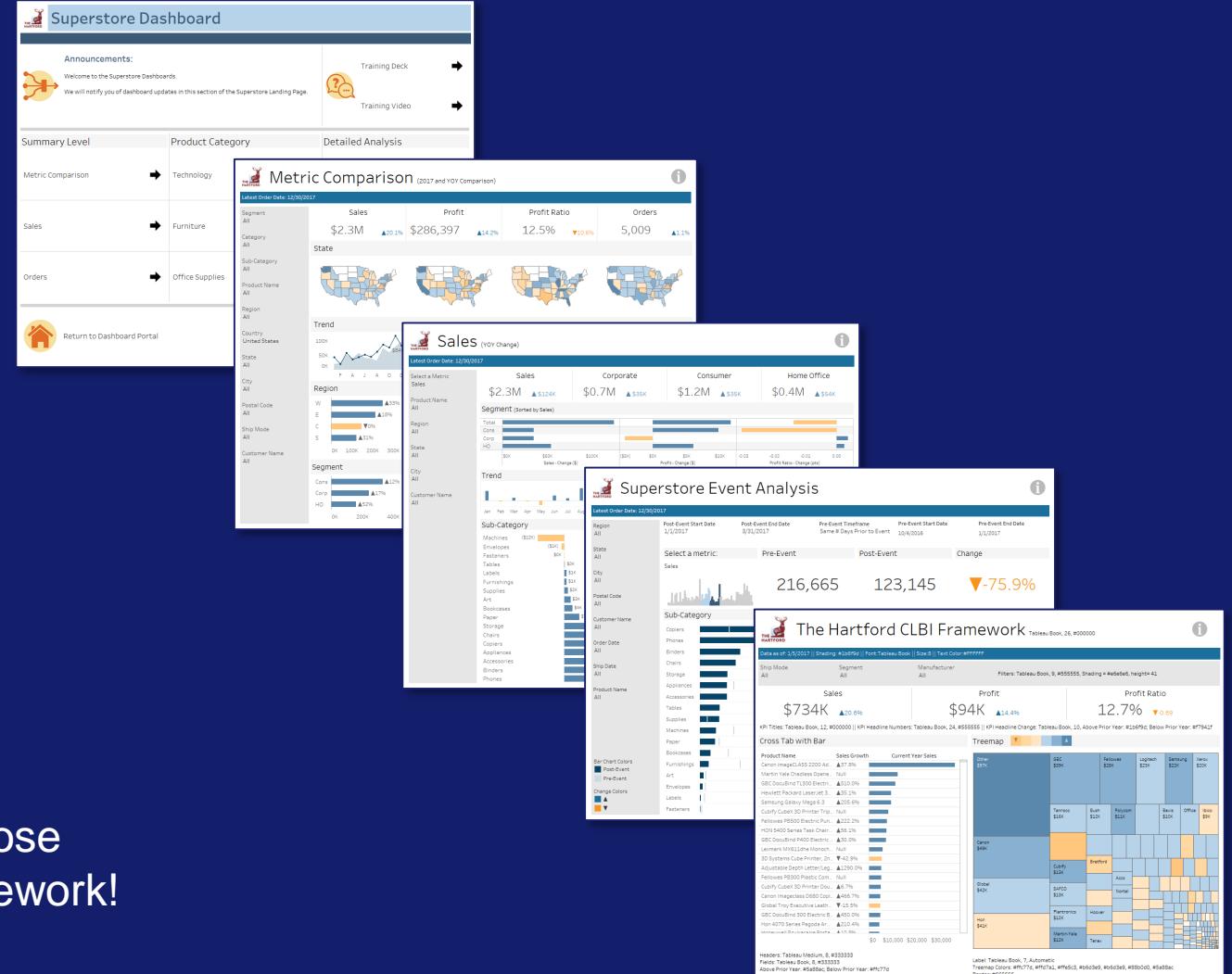
Branded team dashboards

Tips & Tricks

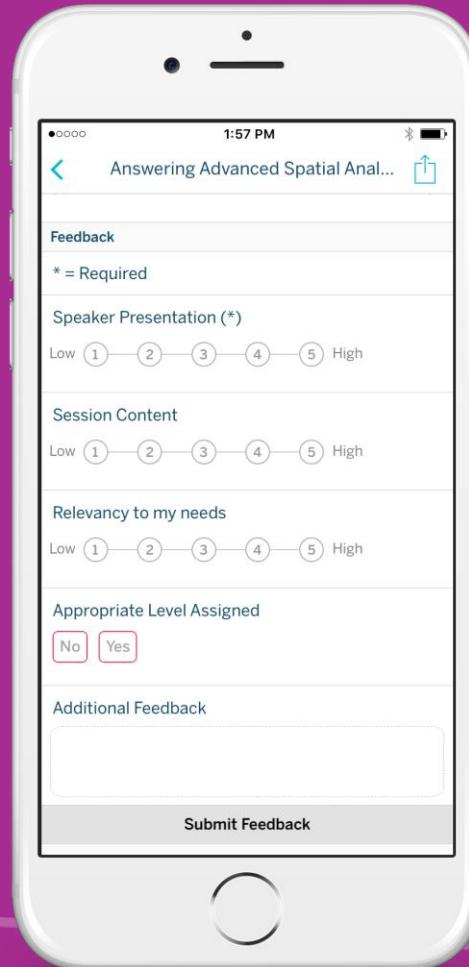
1. Guided Analytics
2. Color Selection
3. Dynamic Formatting
4. Dashboard Portal
5. Custom Date Functionality
6. Document Your Framework

Dashboard Framework

Can a **dashboard framework** help you or your team?



Materials reviewed today will be available for those interested in creating their own dashboard framework!



Please complete the
session survey from the
Session Details screen
in your TC18 app

Thank you!



Hannah Schoenfeld

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Briana Wolff

linkedin.com/in/briana-wolff/

TABLEAU CONFERENCE