

# The do's and don'ts of dashboards

You've got data and you've got insights—now you're ready to share your findings with the world.

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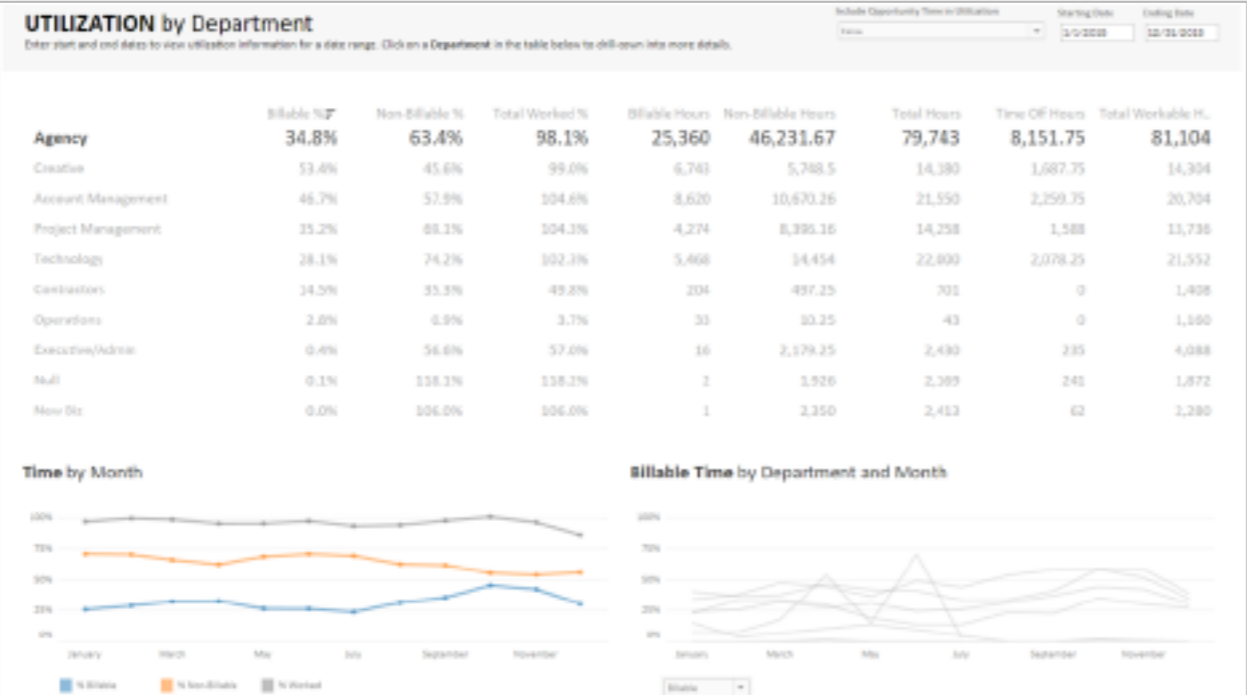
You're ready to create a dashboard.

A dashboard is your go-to tool for communicating insights about a particular set of data. But, to build a great dashboard—a truly informative and actionable dashboard—it takes more than just putting all of your “aha moments” onto a canvas. There are planning and design elements that must be deliberately accounted for in order to give a dashboard the most bang for your buck.



# Here's where to start, what to include, and what to avoid:

Before:

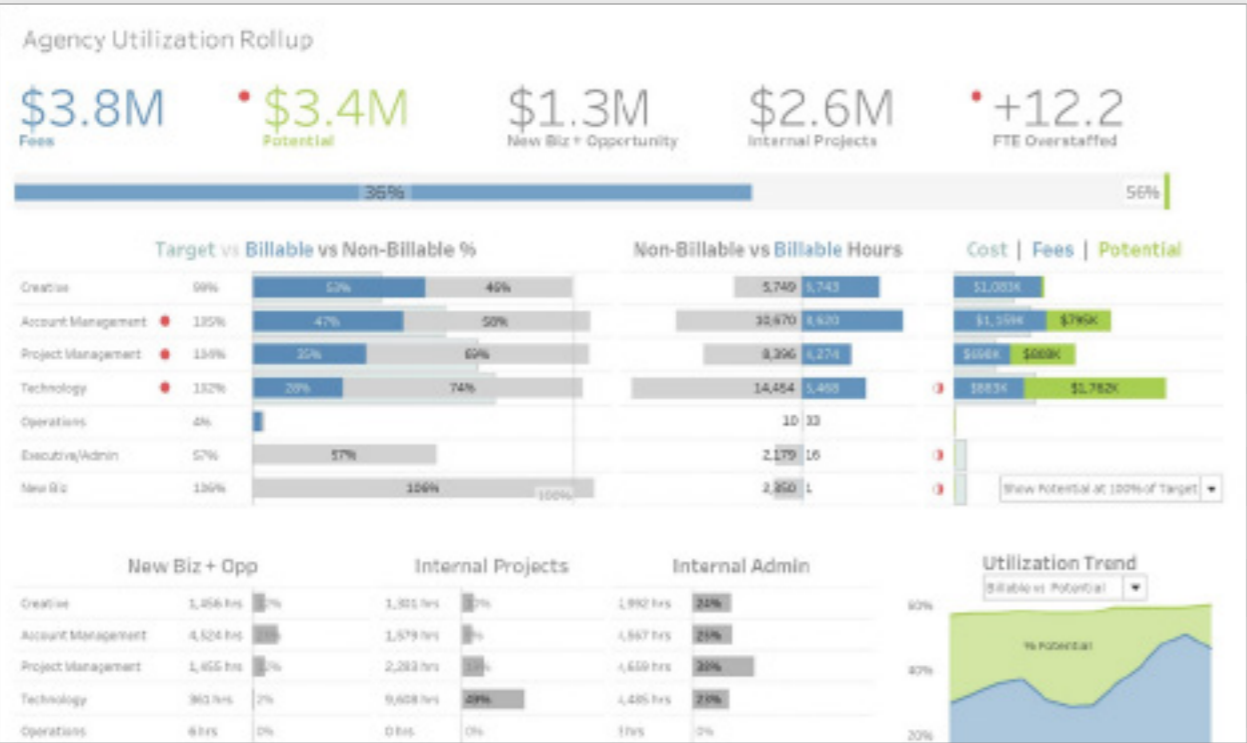


1 ☒ Do

DO experiment, iterate, and, most importantly, get feedback.

Have you ever worked intently on a dashboard, but when you showed it to someone, she asked what the data was for—or didn't interact with the dashboard the way you intended?

After:



As someone who built the dashboard, it seems obvious how the viewer should use the tool and what she should take away from it. But others don't have your context.

Dashboards can take time to get just right, it's often not a one-and-done process. Besides iterating to make it work for your needs, e.g. changing a color for emphasis, you also need to make sure your dashboard is useful to other users. Therefore, it is very important to get feedback from multiple people. Each person will have a different perspective that can help you develop that perfect dashboard.

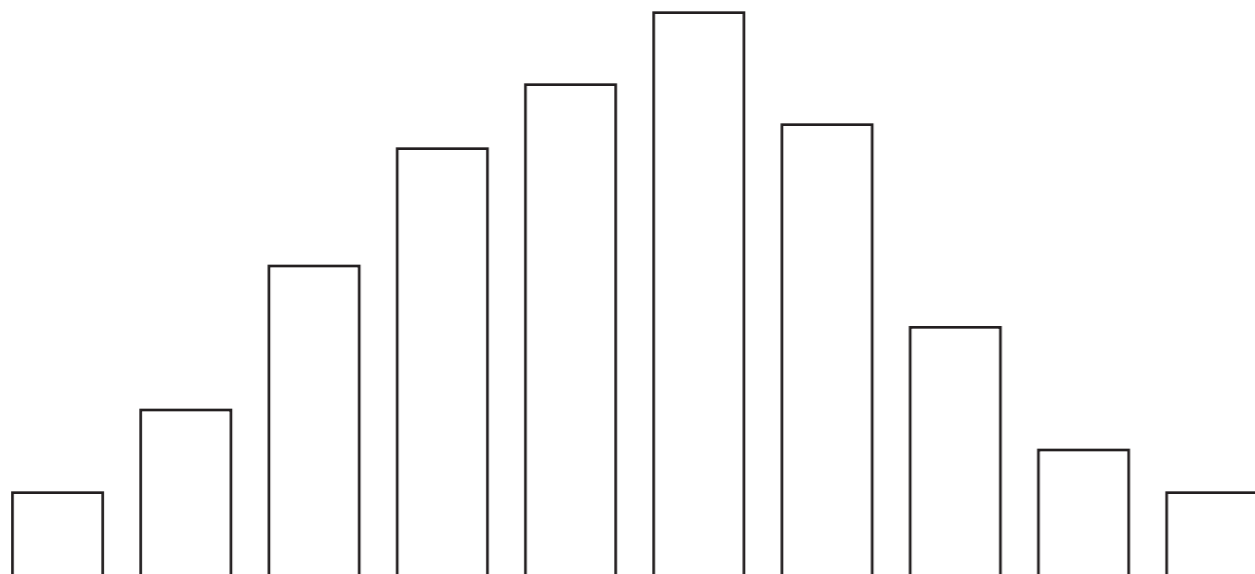
After several rounds of iteration, the original dashboard was transformed to focus on KPIs and create a visual interface to replace the table.

2  Don't!

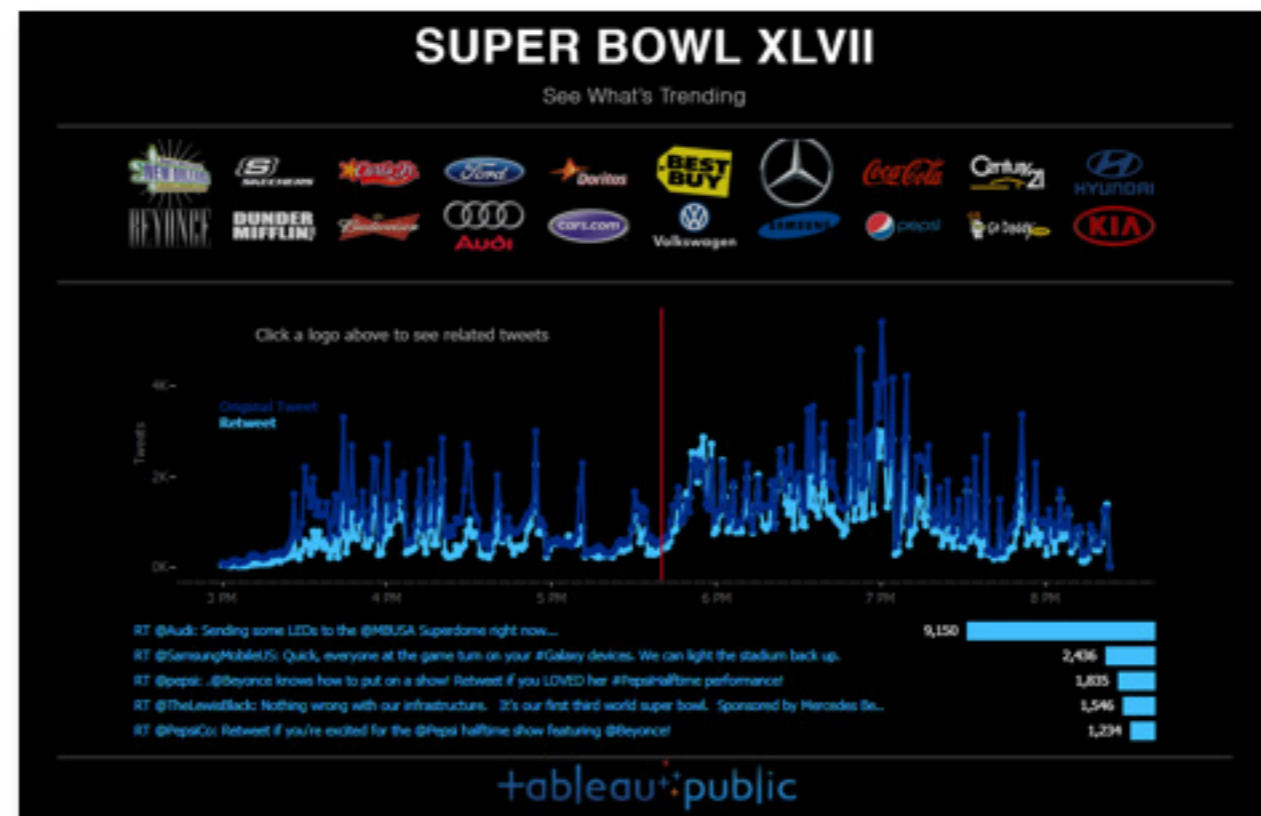
## DON'T overdesign.

It's tempting to mimic an infographic seen in a magazine or website. However, think about the end goal of your dashboard. Are you trying to attract a large audience or quickly relay your latest finding to your CEO, manager, or colleague?

In business environments, your goal is to prioritize functionality over beauty: Simplicity is your friend. Straight-forward charts and basic color schemes can tell a poignant story. A dashboard that is easy to understand will get the message across quickly and help showcase your expertise. To ensure your audience can understand the data, adhere to visual best practices in your dashboards.

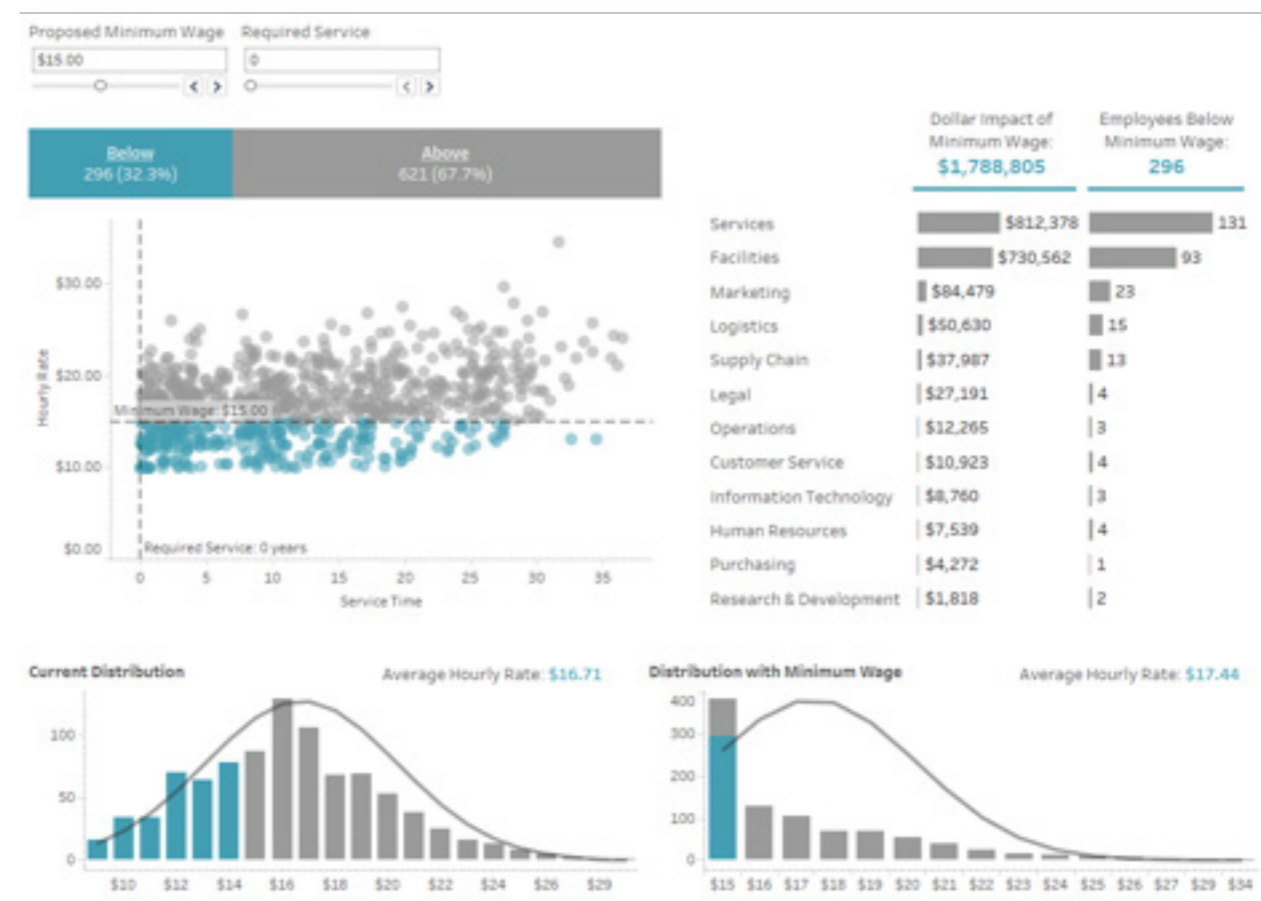


Before:



While this dashboard is great for sharing with football enthusiasts, using it as a template for business scenarios isn't effective.

After:



An infographic-influenced dashboard is eye-catching, but clean color palettes and a grid layout convey business data better.

# 3 ☒ Do

Before:



After:



By using bright colors and fonts that resemble old school video games, this dashboard became more interesting to its audience and helped motivate them to start closing more support cases.

DO consider the audience and make it personal.

You want to create dashboards that are meaningful to users so they can relate to and internalize key information. This can be done a number of ways.

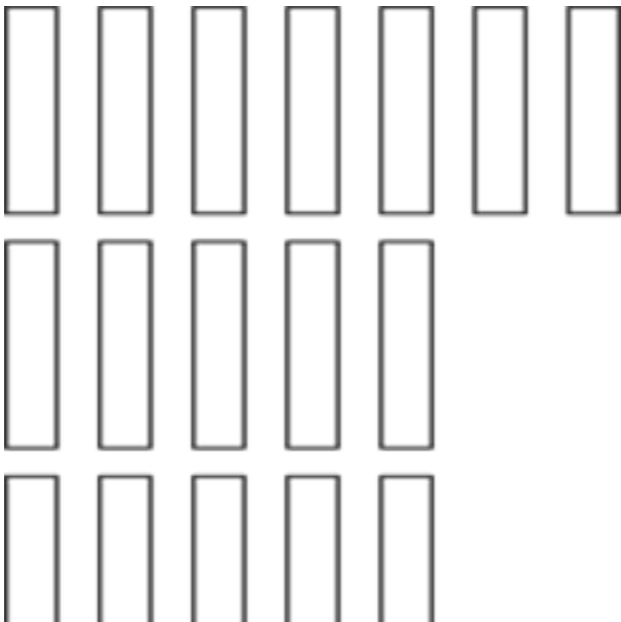
One of the best ways to personalize your dashboard is to include the viewer in the visualization. Try creating dashboards that make it easy for viewers to compare themselves (or their department, product, region, etc.) to others across their organization or industry. By emphasizing their own experience in the dashboard, viewers begin to understand how the rest of the data relates to them, and encourages them to ask the next question.

In this example, Tableau's Technical Support had a specific purpose for their dashboard: to engage and motivate a close-knit team to work towards climbing the ranks of a leaderboard. So, not only does the dashboard tie in a person's name, but, by using video game elements, the dashboard also speaks to the audience directly and keeps them focused. Again, it's really about knowing your audience and what's appropriate.

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Each industry has its own metrics, and you will most commonly see dashboards about your own data. However, you'll be missing great ideas if you don't look beyond your industry.

This technique is highly effective for sports data, so you might be tempted to think it's not for you. However, ultimately, the approach is just one way to compare an event or category against others, and can be applied in other contexts. The same approach works, for example, when comparing vehicle fuel efficiency.



[PLAYER NAME]		[MATCH INFO]				
	PREVIOUS 5	REST OF SEASON	MATCH TOTAL 95 mins	PLAYER RANK Month 17	TEAM RANK Month 21	
Total Distance	< BELOW AVERAGE		ABOVE AVERAGE >	10,967m	14	3
HI Run Distance				1,308m	8	7
Num HI Runs				151	9	6
HS Run Distance				924m	8	5
Num HS Runs				168	10	6
Sprint Distance				385m	8	7

## Vehicle Fuel Efficiency

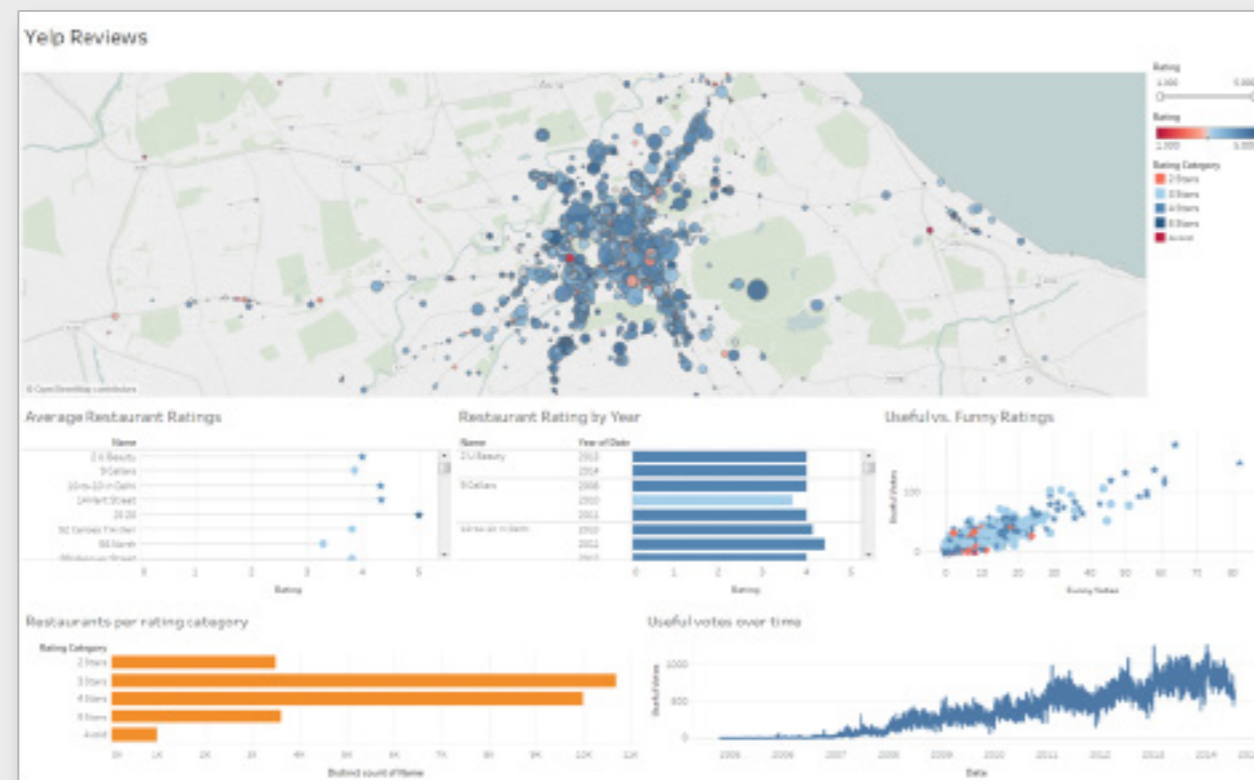
The visualization is divided into two main parts: a dot plot on the left and a horizontal bar chart on the right.

**Dot Plot (Left):** This chart displays the average CO2/EI MPG for various vehicle classes. The x-axis ranges from 0 to 34. A color scale at the top indicates the average CO2/EI MPG, ranging from 20.96 (orange) to 25.59 (blue). The vehicle classes listed on the y-axis are: Small Station Wagons, Compact Cars, Subcompact Cars, Midsize Cars, Minicompact Cars, Midsize Station Wagons, Large Cars, Midsize-4WD, Small Pickup Trucks-4WD, Full-Size-4WD, Two-Seaters, Standard Pickup Trucks-4WD, Vans, Cargo Type, and Heavy Passenger Type. A vertical line at approximately 20.96 represents the average.

**Horizontal Bar Chart (Right):** This chart displays the fuel economy (City/Highway) for various makes and models. The x-axis ranges from 0 to 40. The y-axis lists the makes and models. The bars are color-coded by fuel economy, with orange representing lower values and blue representing higher values. The makes listed on the y-axis are: Acura, Audi, BMW, Buick, Cadillac, Chevrolet, Chrysler, Dodge, Ferrari, Ford, GMC, Honda, Hyundai, Infiniti, Isuzu, Jaguar, Jeep, Kia, Land Rover, Lexus, Lincoln, Mercedes-Benz, Mini, Mitsubishi, Nissan, Oldsmobile, Pontiac, Saab, Saturn, Subaru, Suzuki, Toyota, Volkswagen, and Volvo.

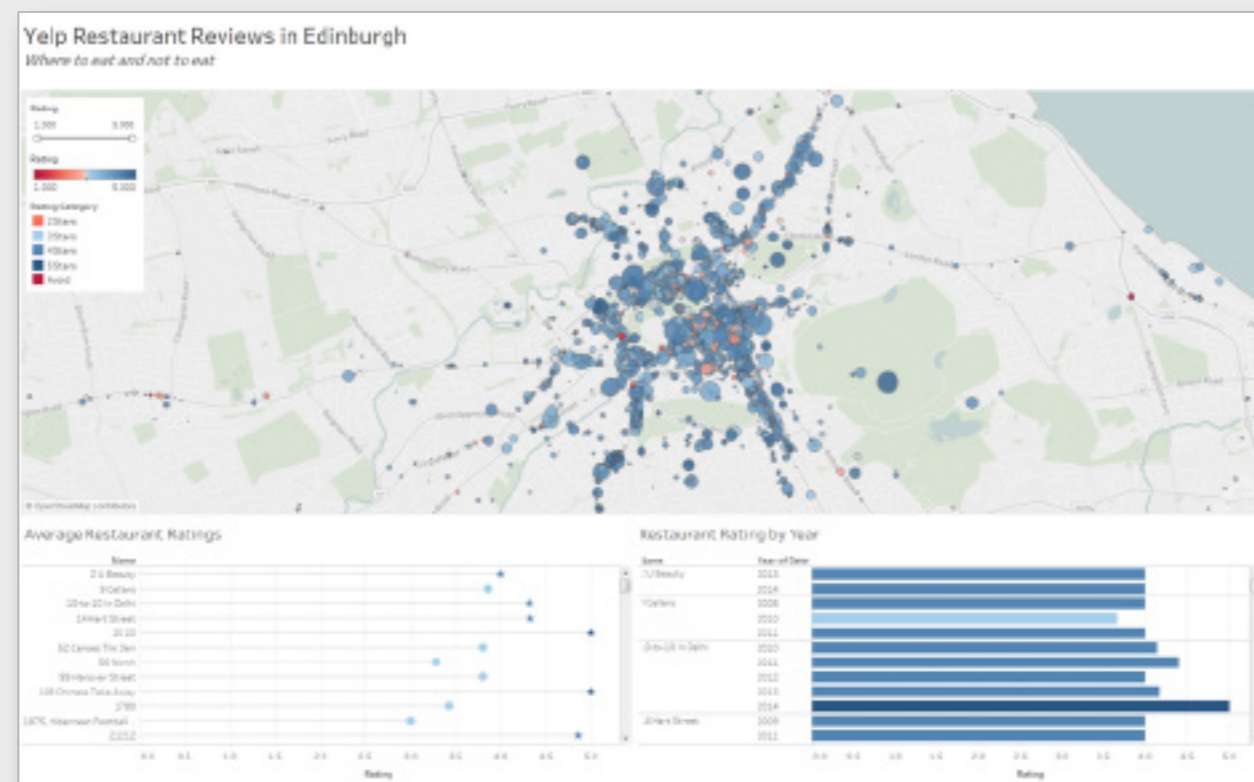
Here, the average fuel efficiency is shown using an approach in which color defines whether values are above or below average.

Before:



This dashboard displays a lot of information that tries to answer too much at once.

After:



By limiting the dashboard to three views, viewers answer only relevant questions to make a decision on where to eat.

5 ☒ Don't

DON'T try to answer every question at once.

A dashboard is meant to deliver a couple of key messages—not necessarily all of the insights you've discovered at once. Putting too much content on one dashboard can result in information-overload for the viewer. She may not be sure what conclusions she's supposed to be making, or she might start going down a path that leads her to asking questions unrelated to the topic at hand.

Instead, pare down the information to provide answers to a couple of key questions, and to ask more as they relate. This encourages individuals to explore data on their own, discover new insights, and save iterated, catered versions of your dashboards.

Think about the hierarchy of information for that viewer. What are the one or two questions that they need to answer first? Are those easily discoverable or do they need to dig in deeper? A good rule of thumb is to make sure each chart on your dashboard answers just one question at a time.

## 6 Do!

DO design with mobile devices in mind.

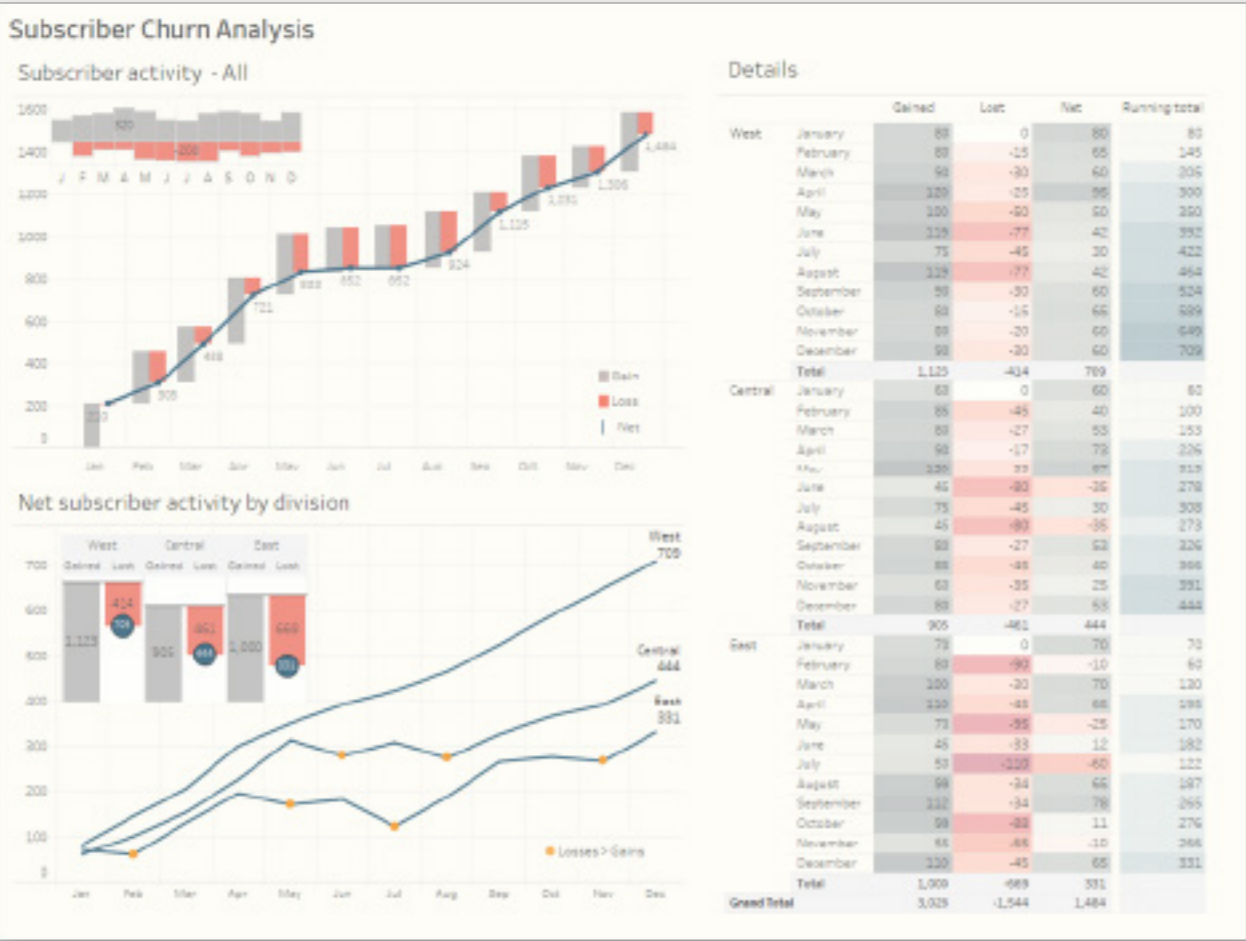
You want to make it as easy as possible for people to explore the information they need, when they need it. That means creating dashboards that are mobile-friendly.

Think about the executive on the go. What are the one or two key pieces of information she needs access to on her phone? If she's unable to access that sales dashboard in front of the board, she doesn't look prepared. But if she can pull numbers and drill down, she looks beyond credible, and it makes you look good, too.

Think about the mobile device from both a landscape and portrait perspective so that your viewer can get the most out of the dashboard on the go.



Before:



7 ☒ Do

DO use BANs (Big-Ass Numbers).

These large, key performance indicators are anchor points for users to explore your dashboard—they practically scream, “Start here!” They can serve as conversation-starters, -finishers, and provide context to adjacent charts. They can even serve as universal color legends.

After:



In fact, there is evidence that the eye is drawn to bigger numbers. (Keep in mind that getting your viewer’s attention doesn’t mean that the information is processed, but at least you’ll get them looking in the right direction!)

The eye is immediately drawn to gains, losses, and the worst and best months, giving the viewer some quick insights and key takeaways.

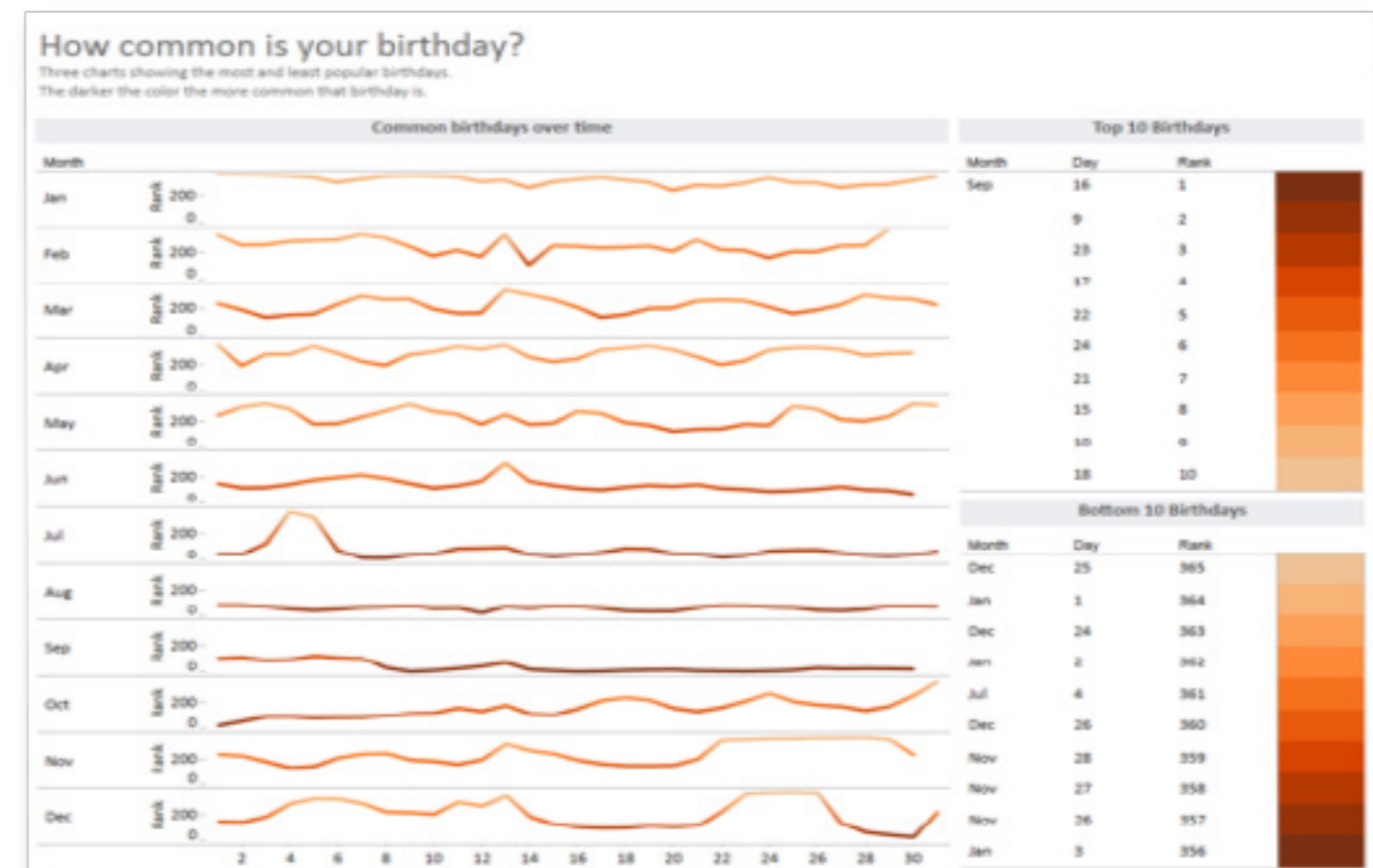
# 8 ☒ Don't

DON'T use the same old chart for your data.

To communicate the right story with your dashboard, explore different chart types, instead of settling for the first visualization you can think of. There are certain data types, such as date and time, where the most obvious visualization choice is a line chart. However, don't assume a line chart will always be your best choice.

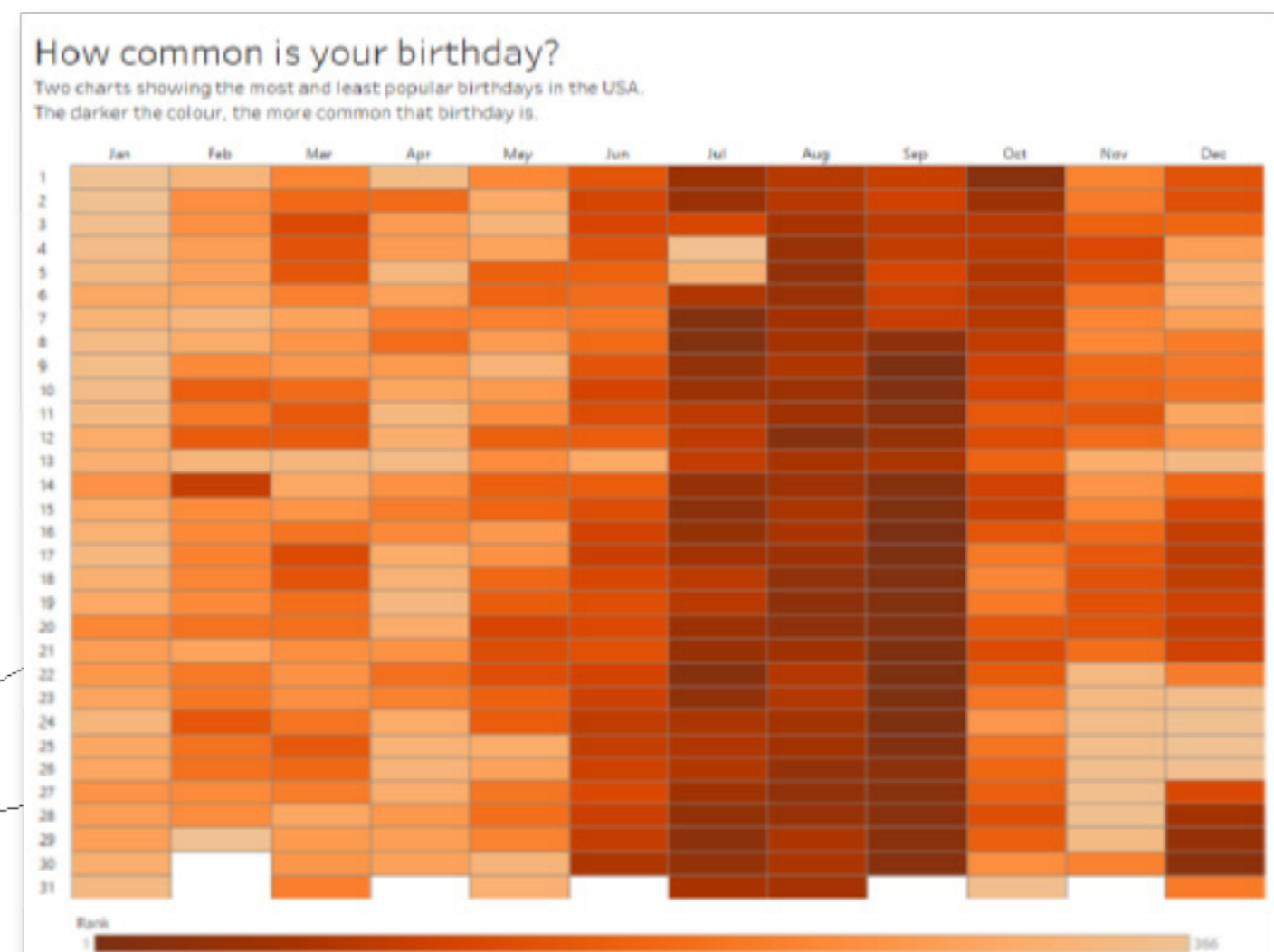
There are many ways of visualizing time. Some alternative charts will reveal insights that a standard timeline cannot show. If you're looking at seasonality, changes in rank, or part-to-whole changes over time, for instance, the timeline is sometimes your worst choice. Consider the question being asked of your data, then iterate through different charts and graphs to find the most appropriate visualization of your data.

Before:



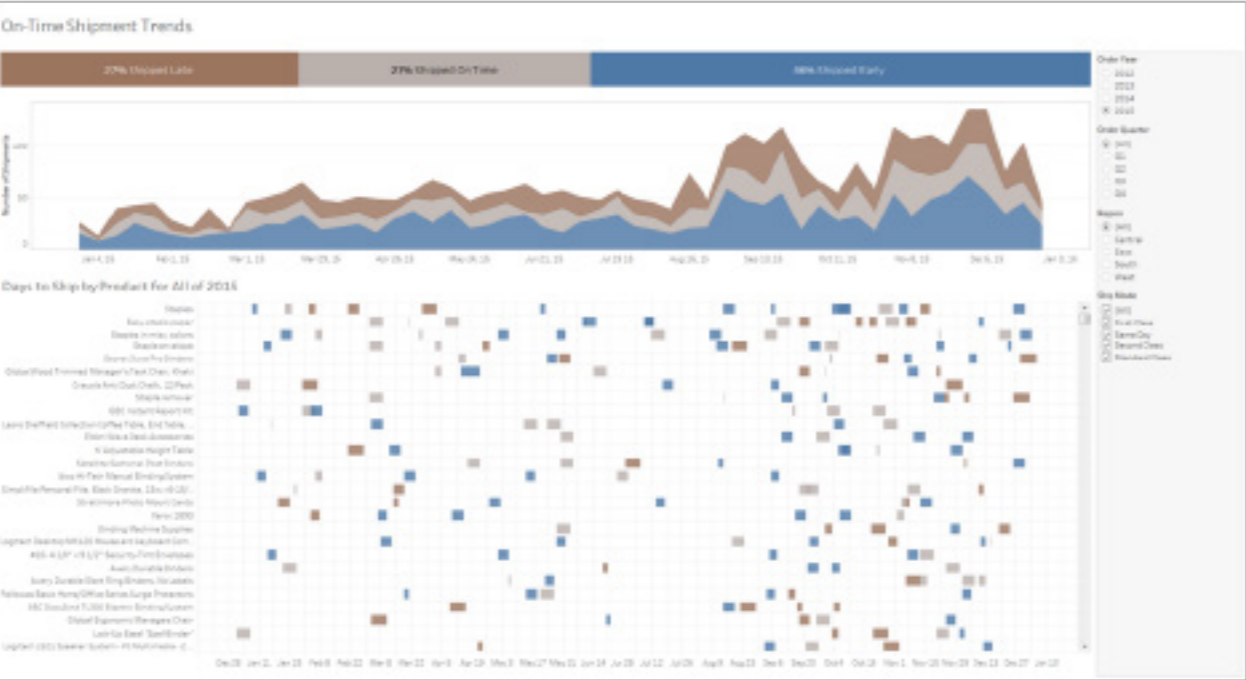
In this example, the line chart makes it difficult to see which birthday is the most popular.

After:



With a heat map, it is easy to see that most birthdays are in September.

Before:

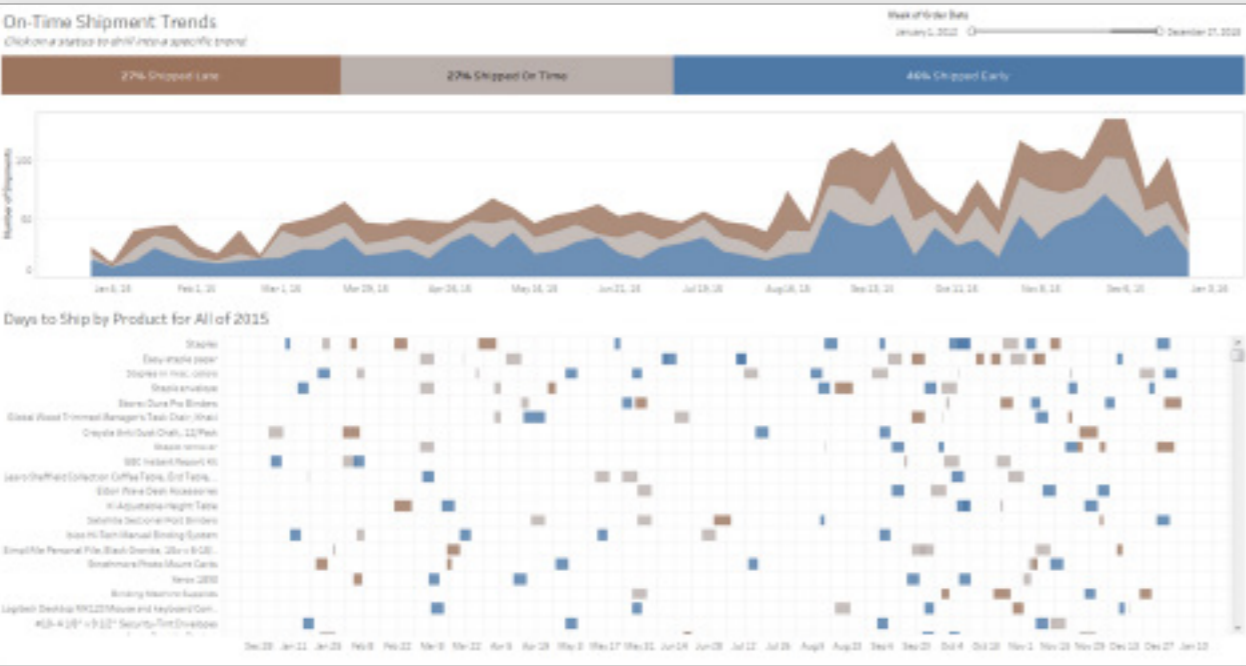


9 ☒ Don't

DON'T forget to consider dashboard real estate.

Each dashboard only has so much space, so every element should tell a piece of your intended data story. Using fewer objects can help the viewer understand what that message is meant to be.

After:



The stacked bar graph provides the viewer with holistic information for each on-time segment, while also acting as a color legend for the rest of the dashboard. By giving these KPIs a dual purpose, you save valuable real estate on your dashboard for the details displayed in other charts.

For instance, use only one color legend if dimensions in various charts on your dashboard are equivalent. If your dashboard requires a filter, place it somewhere that quickly lets the viewer know how to interact with your data. Try grouping filters or calling them out visually to indicate that they help the viewer explore your dashboard.

10 ☒ Don't

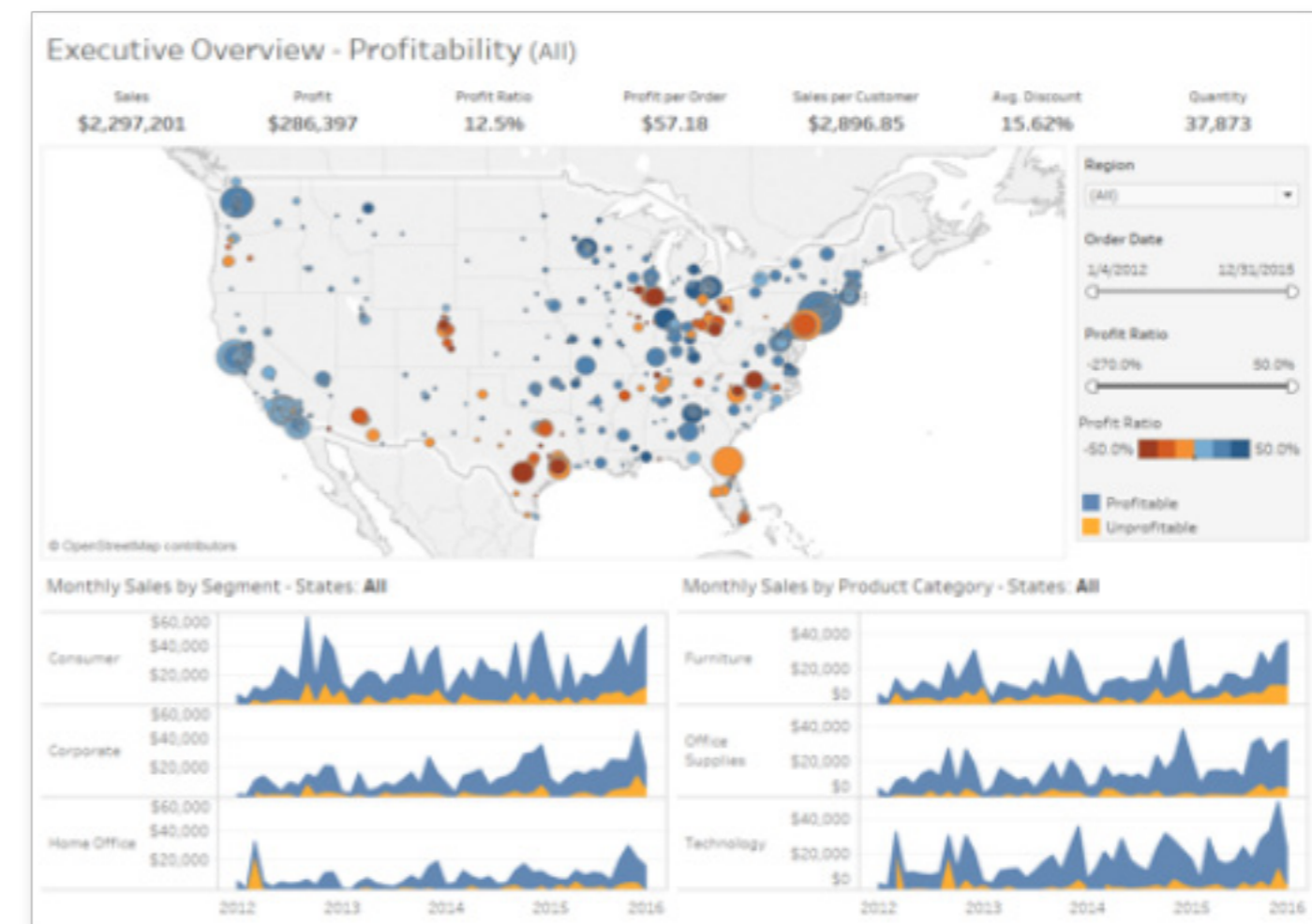
DON'T assume your audience knows where to start.

If this is the first time someone has seen your dashboard, she might not know how to interact with it best, e.g. an action you added filters your data in a certain way or brings them to another relevant dashboard.

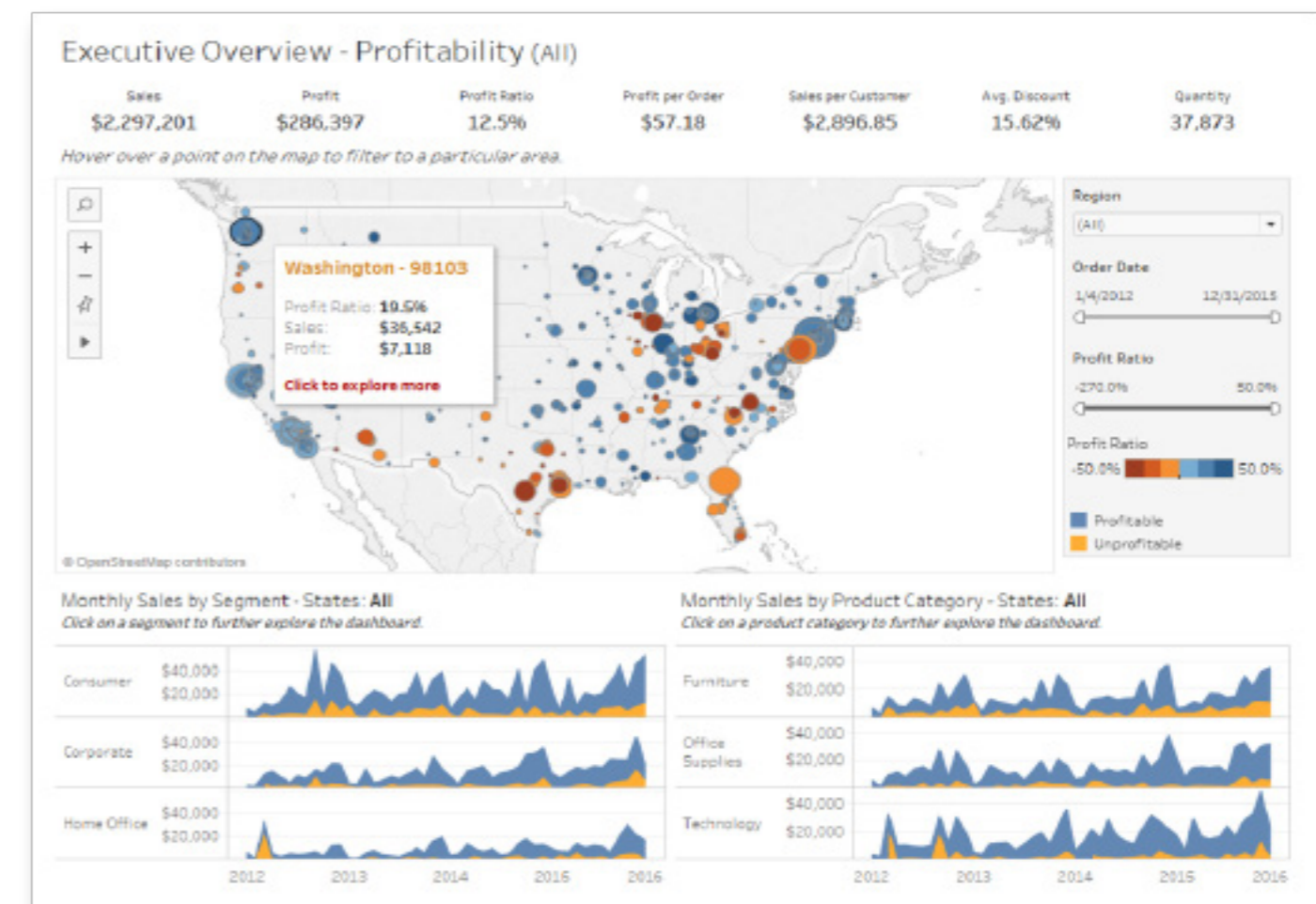
Provide directions in the worksheet or filter titles so the viewer knows how to better use your dashboard. This helps them understand how to consume information you're trying to present, and encourages them to ask follow-up questions.

By adding simple instructions, your audience will better understand how better to interact with the dashboard.

Before:



After:



## Put these tips to use!

Dashboarding is a craft, incorporating science, art, communication, storytelling, and much more.

Everyone can do it, but really effective dashboards take time, collaboration, and iteration.

Remember: Even a great dashboard can continue to evolve and improve!

## About Tableau

Tableau helps people transform data into actionable insights that make an impact. Easily connect to data stored anywhere, in any format. Quickly perform ad-hoc analyses that reveal hidden opportunities. Drag and drop to create interactive dashboards with advanced visual analytics. Then share across your organization and empower teammates to explore their perspective on data. From global enterprises to early-stage startups and small businesses, people everywhere use Tableau's analytics platform to see and understand their data.

## Related resources

[Building Effective Dashboards](#) | [How to develop a designer instinct: A study on eye tracking](#) | [Tableau Viz Gallery](#)

