COMPLAINTS DASHBOARD.

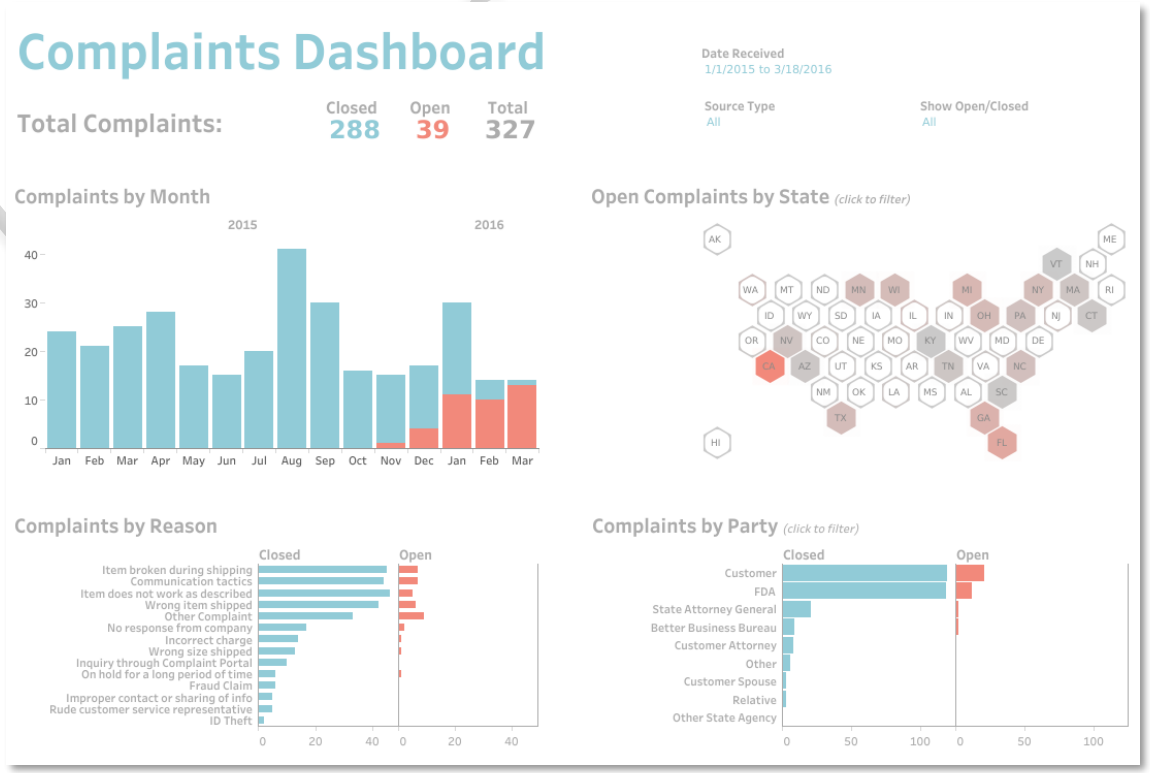
AGENDA.

- Accessing Tableau Public And The Complaints Dashboard
- Scenario – Big Picture Story
- Specifics – Interactive Question Set
- How People Use The Dashboard
- Why This Works – Simple Use Of Colour
- Why This Works – Good Charts For The Various Comparisons
- Why Does This Work – Dashboard Designed To Grid
- A Hex Map Where All States Are Equal
- Alternative
- Commentary – Steve Wexler

ACCESSING TABLEAU PUBLIC AND THE EXAMPLE COMPLAINTS DASHBOARD.

- Click below to access the public dashboard:

Complaints Dashboard



SCENARIO – BIG PICTURE STORY.

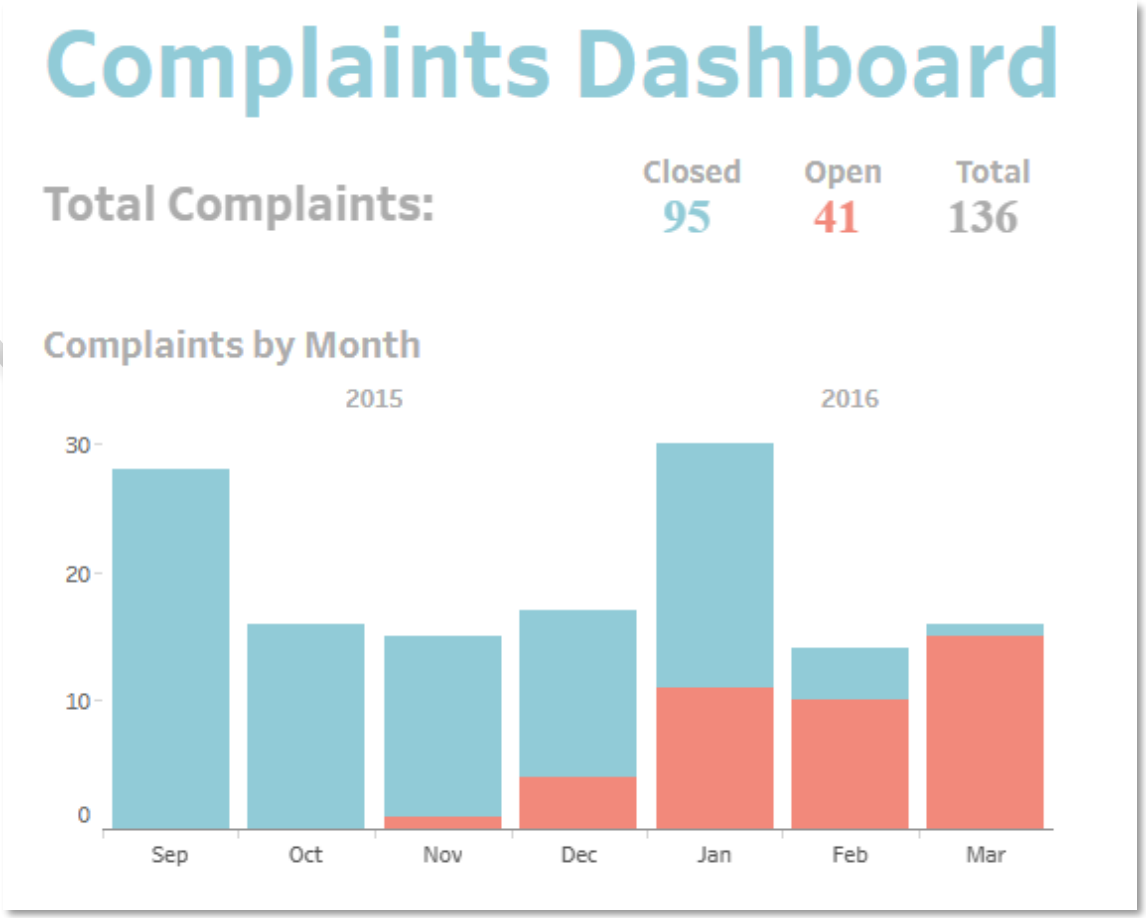
- You work for a **bank** or **credit card company**.
- You receive **complaints** on a **regular** basis.
- These complaints must be handled **appropriately** and **swiftly**.
- Complaints can come directly from **consumers**, or they can be channelled through **regulators**.
- Once the complaints are handled appropriately, they are then marked as **closed**.

SPECIFICS – INTERACTIVE QUESTION SET.

- How many complaints were **received** between **09 March 2015** and **22 March 2016** ?
- How many are **Closed** and how many are **Open** ?
- For the same time period: what was the **number one complaint by reason** ?
- For the same time period: what was the **total number of complaints for California** ?
- For the same time period: how many complaints were **made by the FDA in December 2015** ?

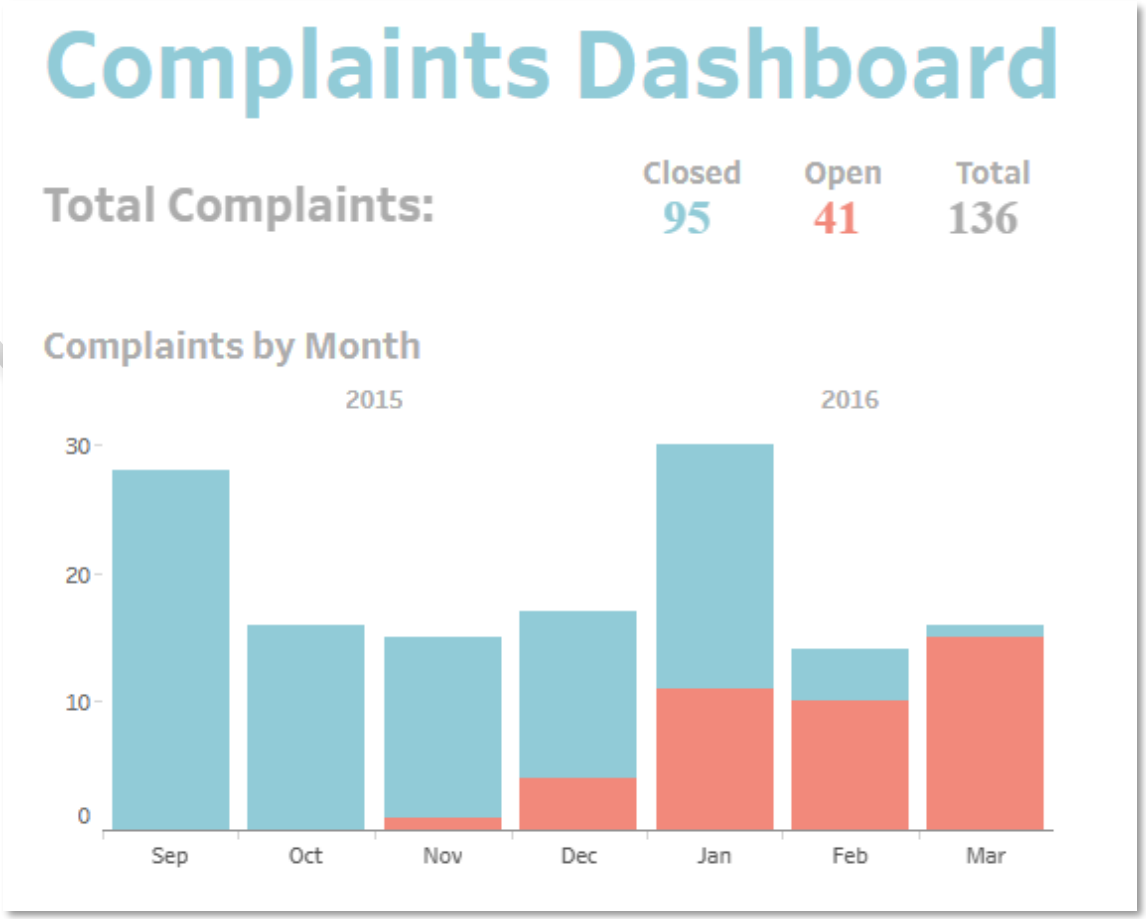
HOW PEOPLE USE THE DASHBOARD.

- Compliance is a **key issue** in many industries.
- In financial services, any company that is **regulated by the Consumer Protection Financial Bureau (CFPB)** is expected to handle consumer complaints **appropriately** and in a **timely manner**.
- Companies are also expected to have a **complaint management system**, along with **policies** and **procedures** to handle complaints, regardless of their nature or origin.



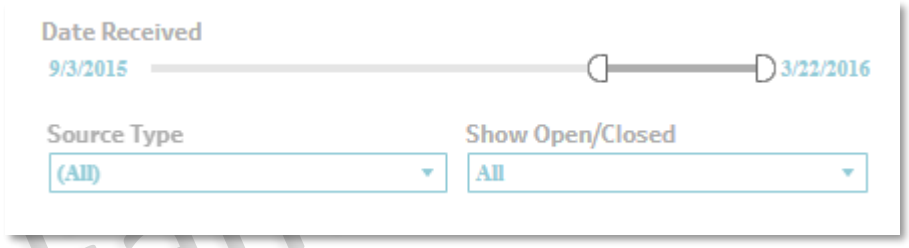
HOW PEOPLE USE THE DASHBOARD.

- Complaints are received though a number of **channels**. Some complaints are received directly from the **consumer**, while others come from the **CFPB**.
- Each complaint is **logged** with the **reason** for the complaint and the **channel** through which the complaint was received.
- The Chief Compliance Officer or members of the Compliance team use this dashboard on a regular basis to **help monitor the compliance** with the complaint management system.
- Actions can be taken as needed—for example, **following up** or **investigating** a complaint that has been open for a long period of time.



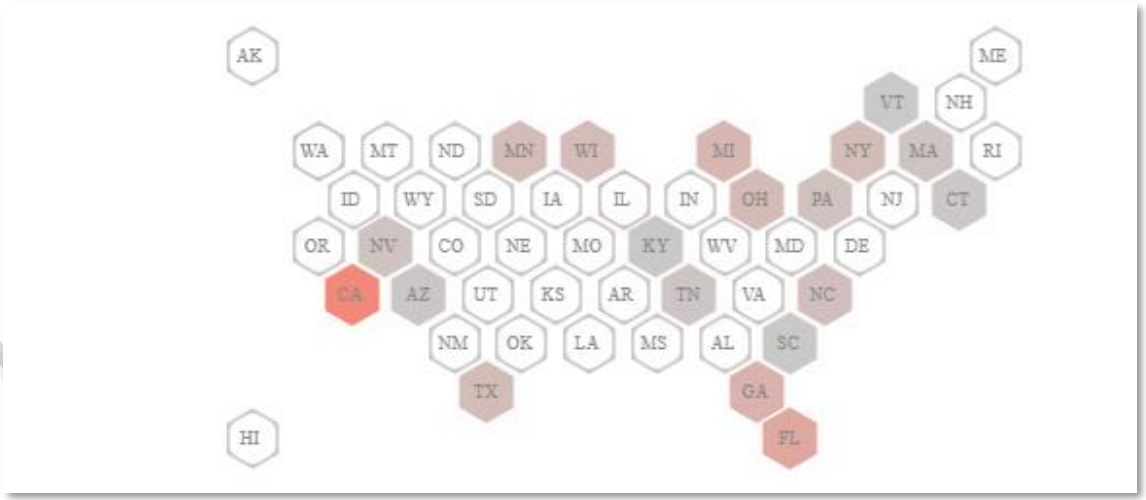
HOW PEOPLE USE THE DASHBOARD.

- The **default time** range is the past 12 months, but the user can **adjust the slider** control to change the **time period**.



HOW PEOPLE USE THE DASHBOARD.

- A state map using **hexagons** displays the **open complaints by state**.
- Open complaints, indicated by darker colouring, are especially important to monitor to make sure the **necessary action is taken** and **response is timely**.
- Clicking on a state **filters** the rest of the dashboard by state.

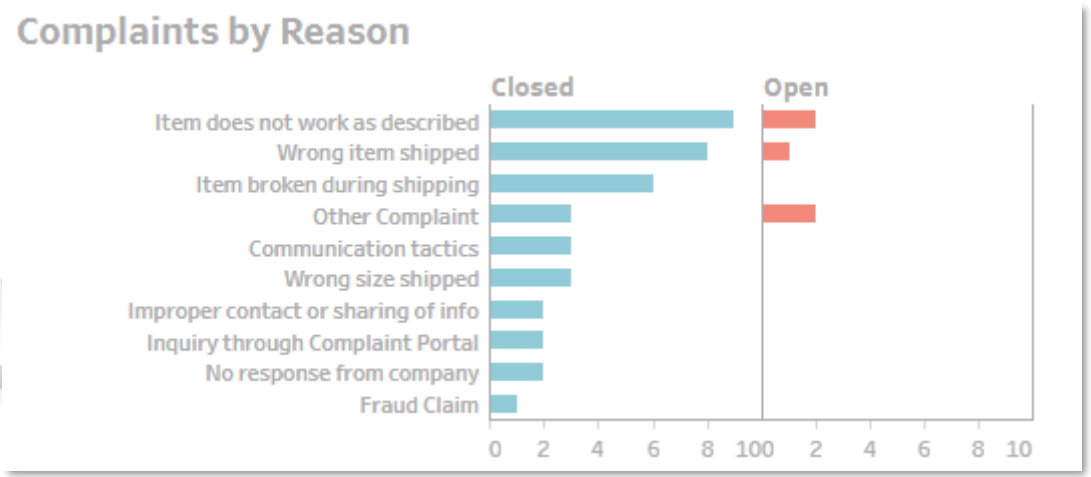


Hex map showing the open complaints by state.

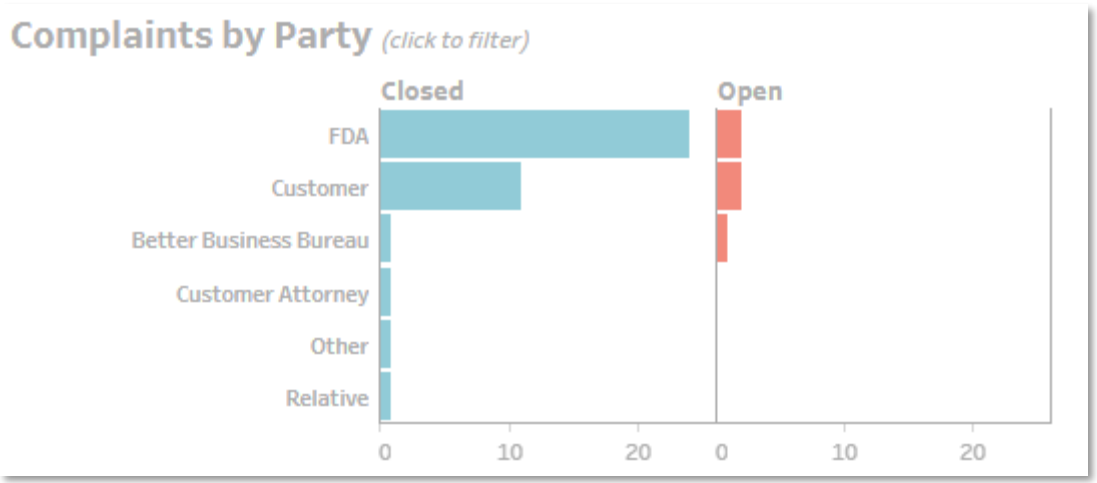
The user clicks any state to filter the dashboard.

HOW PEOPLE USE THE DASHBOARD.

- The reason for the complaint is **logged** when it is received.
- These reasons are shown on the dashboard for both **closed** and **open** complaints.

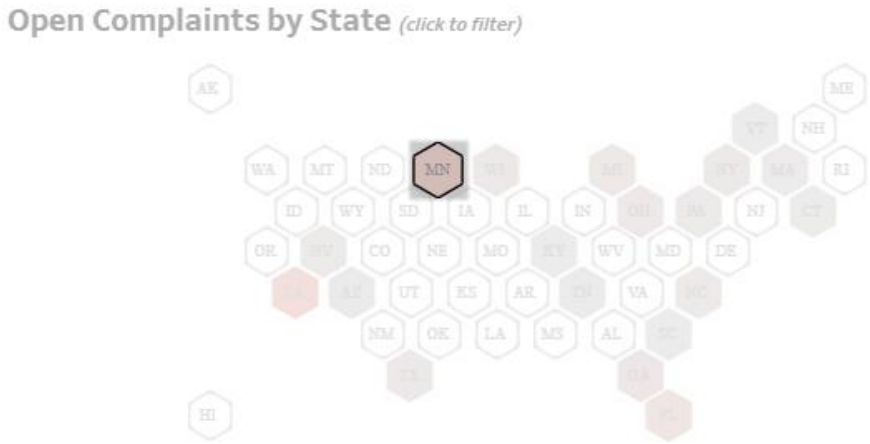


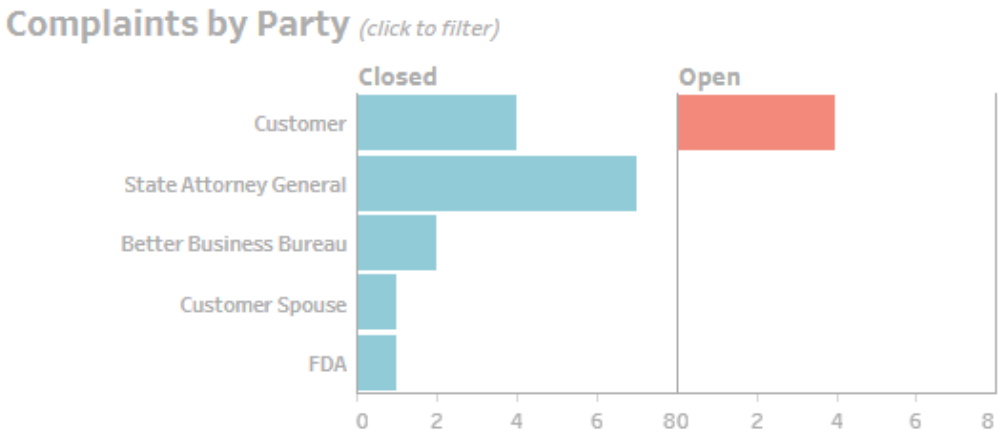
- The party filling in the complaint is shown in the bar charts.
- **Selecting** a party from this chart will **filter** the rest of the dashboard.



HOW PEOPLE USE THE DASHBOARD.

- **Combining** filters allows the user to **narrow focus** quickly.
  - For example, the user can click Minnesota on the hex map and then click State Attorney General in the Complaints by Party bar chart.
  - This will cause the **entire** dashboard to **update immediately** to show the complaint history for the Minnesota Attorney General's office.





WHY THIS WORKS – SIMPLE USE OF COLOUR.

- Two categorical colours are used in this dashboard:
  - **medium sky blue** for closed complaints and a **reddish peach colour** for open complaints.

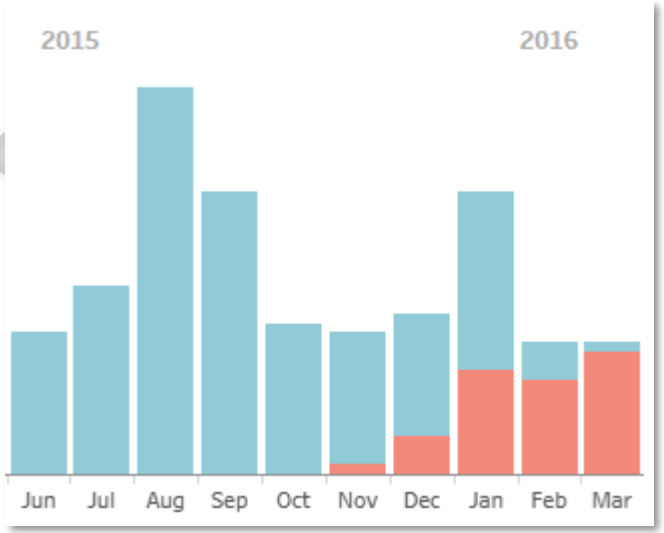
- Colour is consistent throughout the dashboard.

- For the map, the colour for open complaints is used as a sequential colour scheme:
  - shading from white to the **reddish peach colour**.

- Some states may not have any complaints for the selected period.
  - Rather than filtering them out of the view, the states with **zero** complaints are shown in white with the hexagonal border.
  - This shows a complete hex map with all of the states regardless of the time period or other filters that may be applied.

WHY THIS WORKS – GOOD CHARTS FOR THE VARIOUS COMPARISONS.

- Notice that the **open complaints** are on the **bottom** of the **stacked bar**.
- **The open complaints** are the most **important** because they represent work that **needs to be done** and **monitored** on this dashboard.
- By putting them on the **bottom** of the stacked bar, the user is able to make a very **accurate comparison** of the bar heights.
- For example, even **without providing data labels**, it's very **easy** to see in this figure that there is **one more open complaint** in January than in February.
- This is because the **bars are fixed** to a **common baseline**, the x-axis, allowing an **accurate comparison** of bar heights.
- It's also really **easy** to spot the oldest **open complaint**, the one open complaint from November 2015.



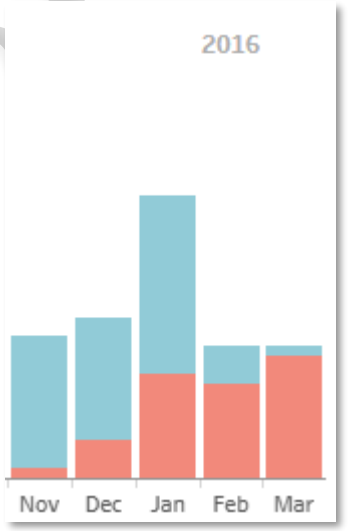
Stacked bar charts showing open and closed complaints by month.

WHY THIS WORKS – GOOD CHARTS FOR THE VARIOUS COMPARISONS.

- Try comparing the closed complaints (the blue bars) for November and December.

- Which one has **more complaints**, and **how many more** ?
- This determination is much **more difficult** because there isn't a **common baseline**.
  - The difference between open and closed complaints is actually **the same**.
  - There is exactly **one more closed complaint** in November than in December.

- Thankfully, the user doesn't need this level of precision for the closed complaints, although they have the option from the **drop-down box** to **filter** for them should the need arise.



Stacked bar charts showing open and closed complaints.

WHY DOES THIS WORK – DASHBOARD DESIGNED TO GRID.

- The dashboard is **separated** into **four quadrants**.
- There is **clear horizontal** and **vertical alignment** between all **four sections**, and there is **space** between **each section** of the dashboard.
- This **reduces clutter** on the dashboard so that it **doesn't look busy**.
- **Good organisation** of your dashboards can help users see the information clearly and quickly.

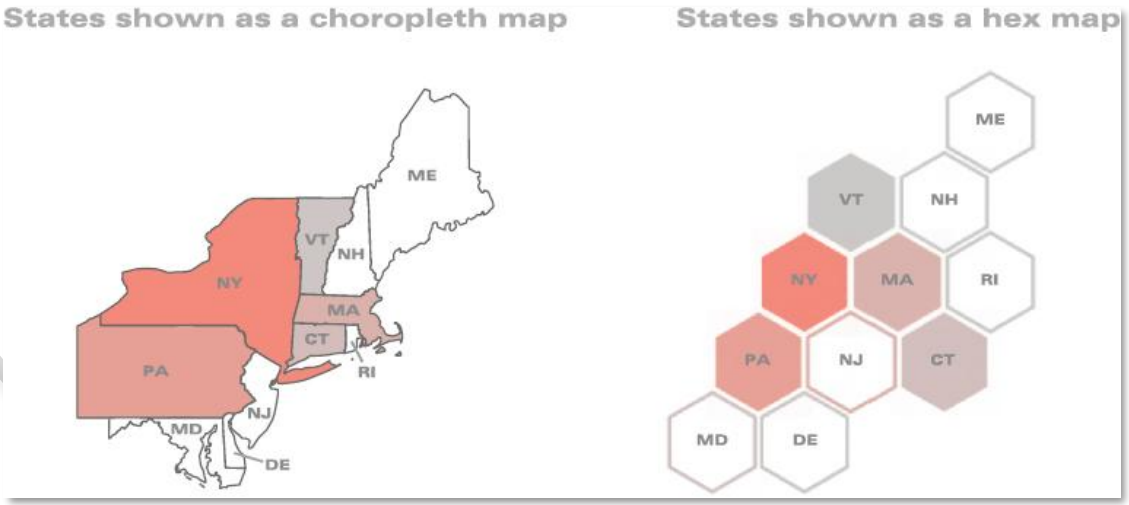
A HEX MAP WHERE ALL STATES ARE EQUAL.

- **Complaints** are considered **equally important**, regardless of **channel or volume**.

- The **hex map** allows the user to see **every state equally**. When using a traditional choropleth (or filled) map, it can be **hard to see** very small **states**.

- For example, Delaware, Maryland, Rhode Island, and Vermont can be **hard to see**, and especially **hard to click**, compared to larger states, such as California and Texas.

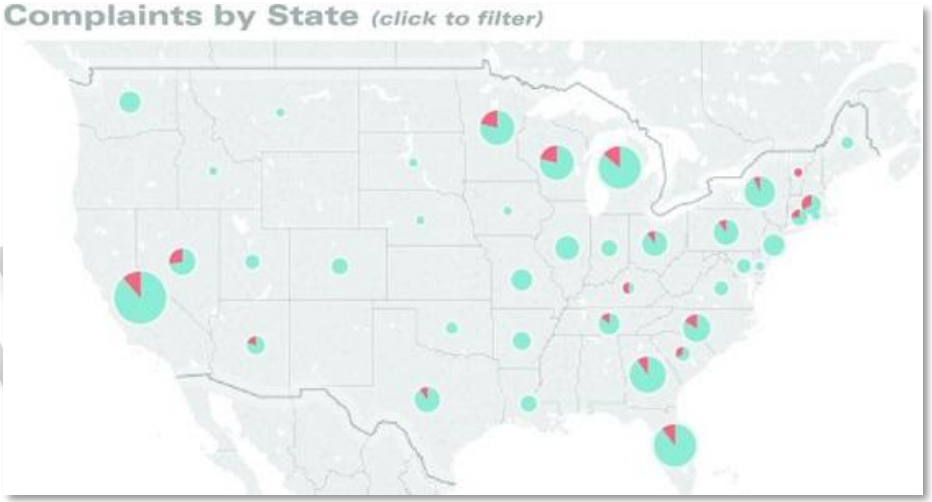
- The **hex map solves** these problem.
  - It **visualises** the states equally **regardless** of their **land size**.



A comparison of the northeastern states demonstrating how difficult it is to see smaller states on a choropleth map.

ALTERNATIVE.

- Showing **part-to-whole relationships** on a map can be **especially challenging**.
- In this case, **a filled map won't work**.
- Although **pie charts** generally **are not the best choice** for visualising data, **they can be useful** in this case to show a **part-to-whole relationship** on a map.

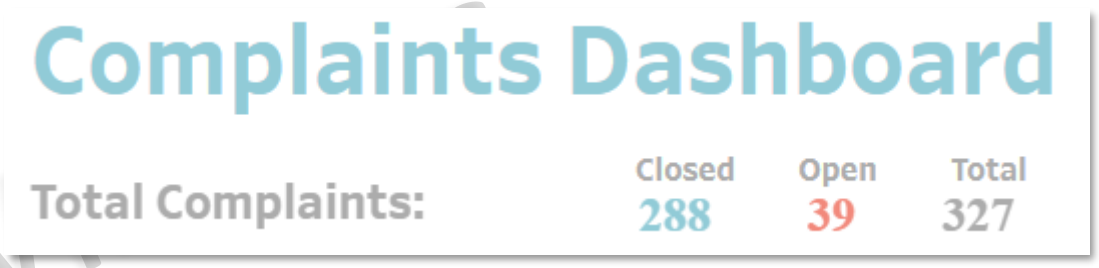


Open and closed complaints shown on a map using pie charts.

- This solution **suffers** from some of the same issues that a filled map does.
- **Smaller volumes** have smaller pie chart sizes, which makes the **comparisons very hard** to see and difficult for a user to hover over or select.

COMMENTARY – STEVE WEXLER.

- The key performance indicators are also a colour legend.
  - Notice that there isn't a **colour legend** key.
    - Instead, the summary **numbers** at the **top** of the dashboard are **colour coded**.
  - Not only do I know that there are **288 closed cases** and **39 open cases**.
    - I also know that blue means closed and red means open.



The key performance indicators also serve as the colour legend.

COMMENTARY – STEVE WEXLER

- Perfect use of a **stacked bar chart**.
  - The **stacked bar chart** in this dashboard is a great choice as we can **easily compare** both the **overall number of complaints** per month and the **number of open complaints** per month.

- The **hex map is a value-added filter**.
  - Whenever I see a hex map or tile map, I get suspicious and think that the dashboard designer may be succumbing to the temptation to add **something cool at the expense of something that is analytically sound**.
  - That is not the case here.
  - The **hex map** is in fact a **filter** that also provides **additional insight** into the data.
  - The dashboard designer knows that users need to be able to **filter by state** and could have deployed a **simple multiselect list box** from which the user could select a state or states.
  - The **hex map** provides that **same functionality** and **adds really useful insights** into the data.