



# **Desktop Certified Professional**

## Exam Guide

This document provides information on the structure of the exam, along with the knowledge and skills measured. It will also suggest resources to help you prepare for success. This document is not intended to build product knowledge.

## Awarded Credentials

Upon successful completion of this exam, you will be awarded the title of Tableau Desktop Certified Professional. This title is active for three years from the date achieved.

## Target Audience

This exam is intended for those who have advanced knowledge and skills in Tableau Desktop and the ability to apply visual analytics methodologies to help people see and understand data. We recommend at least one year of dedicated and practical experience using Tableau Desktop prior to attempting this exam.

Everyone learns differently and everyday use of Tableau varies. Recommendations for learning resources, practice activities and experience with the product are guidelines, not requirements.

To be eligible to purchase this exam, you must be an active Tableau Desktop Certified Associate or an active Tableau Desktop Certified Professional. Once you've earned a Tableau Desktop Certified Professional title, you are not required to renew your Desktop Certified Associate title when it reaches expiration. Should you not purchase and pass the Desktop Certified Professional exam before your Desktop Certified Associate title expires, you will be required to earn this title again before your next attempt to complete the Desktop Certified Professional exam.

## Learning Resources

Experience and time with the product will be your best preparation. During your exam, you will have access to public, online resources other than private websites that require a login or websites & applications that allow for communication with others. We also encourage you to complete the following training course which are available as in-person courses and live virtual courses.

- [Tableau Desktop III: Advanced](#) – Explore complex data visualization challenges and dig deeper into your data. Learn advanced uses for calculations by applying them to real world scenarios. Gain a better understanding of how to artfully prepare and organize your data and acquire advanced building techniques for creating innovative analysis and dashboards.
- [Visual Analytics](#) – Learn best practices for sharing information and insights with others. The Visual Analytics course helps you design visualizations others can easily understand and use.

Online resources can also help you to build your skill set. Some areas to explore include:

- [Visual Analytics Best Practices Guidebook](#)
- [How to Build Dashboards that Persuade, Engage and Perform](#)
- [Which chart or graph is right for you?](#)
- [Visual Best Practices](#) from Product Help
- [Top 15 LOD Expressions](#)
- [10 Best Practices for Building Effective Dashboards](#)
- [Top 10 Tableau table calculations](#)

# Exam Format

Time Limit	<p>Three hours with additional time for online exam setup.</p> <p>Completing a task effectively and efficiently is a standard that organizations have come to expect from employees. This exam is timed because we view time as a critical competency needed to for success. Timing recommendations are presented at the started of each exam section.</p> <p>Like artists, most people find that they want more time to do their best work. The time limit allows us to see what tasks and items you consider the most important for analysis and presentation.</p>
Passing Score	<p>Pass/Fail based on a detailed scoring rubric and Tableau Desktop best practices.</p> <p>Limited section-based feedback is given to those who receive a failing score. We recommend as an ongoing reference about sections marked for improvement.</p>
Grading	<p>By committee; every exam is anonymized and scored by multiple graders.</p>
Question Format	<p>Hands-on, building solutions in Tableau Desktop</p> <p>You will be given access to a set of data files and a starter workbook with pre-designated tabs for each exam question. The tabs are intended to guide you through the exam content, but aren't compulsory. Think of your workbook as your canvas to showcase your skills.</p> <p>Unlike other Desktop exams, you will submit this workbook for grading at the end of the exam.</p>
Language(s) Offered	<p>English</p>
Delivery Platform	<p>Windows virtual machine with access to the Desktop application in addition to proctor monitoring software.</p>

# Exam Process

## 1. Prepare

Read this Exam Guide in its entirety. It contains recommendations for training courses, links to helpful resources, information about the exam format, and sample questions. Preparation is not limited to the suggestions in this guide. You can build the skills needed for this exam in an infinite number of ways; this guide is a starting point.

Make sure your network connection, hardware and physical space are ready for the exam. You can find important information about setup [here](#).

## 2. Practice

Work through the sample questions included in this guide. They will help you to familiarize yourself with the types of questions presented in the exam and with the exam format.

One main skill tested in this exam is your ability to familiarize yourself and gather insights from new or unknown data. Achieving this discovery process within a time limit is a mark of a true Desktop Certified Professional. Community activities that build skills with different types of data can be good practice for your exam. You can find some examples of Tableau Community activities [here](#). Please note that these activities may include a feedback component, but these peer critiques may not be indicative of what this exam assesses.

### *Pro Tip*

*When creating vizzes, give yourself a time limit and designate an audience. Can you build an insightful dashboard tailored to your intended audience in 60 minutes?*

## 3. Take your exam

You can conquer game day nerves. Get a good night of rest and allow yourself plenty of time before and after your scheduled exam time. Consider when you create your best work – is it a certain time of day? Is it the certain day of the week? Replicating these conditions as closely as possible can help promote focus and creativity.

Be sure to read your appointment confirmation email for information about connecting to your proctor at the time of your exam.

## 4. Exam results

At the end of your exam, you will submit your workbook for grading. During normal volume times, you can expect to receive your results via email in 2–4 weeks. If you complete your exam at a Tableau Conference, results are expected in 3–6 weeks. We work to complete the grading process in a timely manner while ensuring your exam is given the attention required.

# Sample Questions

To complete these sample questions, download the [Starter Workbook](#). While the workbook used to complete the sample questions contains data connections, you should be prepared to connect to and analyze various types of file formats like Excel, .tde, .tds, .csv and spatial files during the exam.

## Module 1 - Visual Best Practices

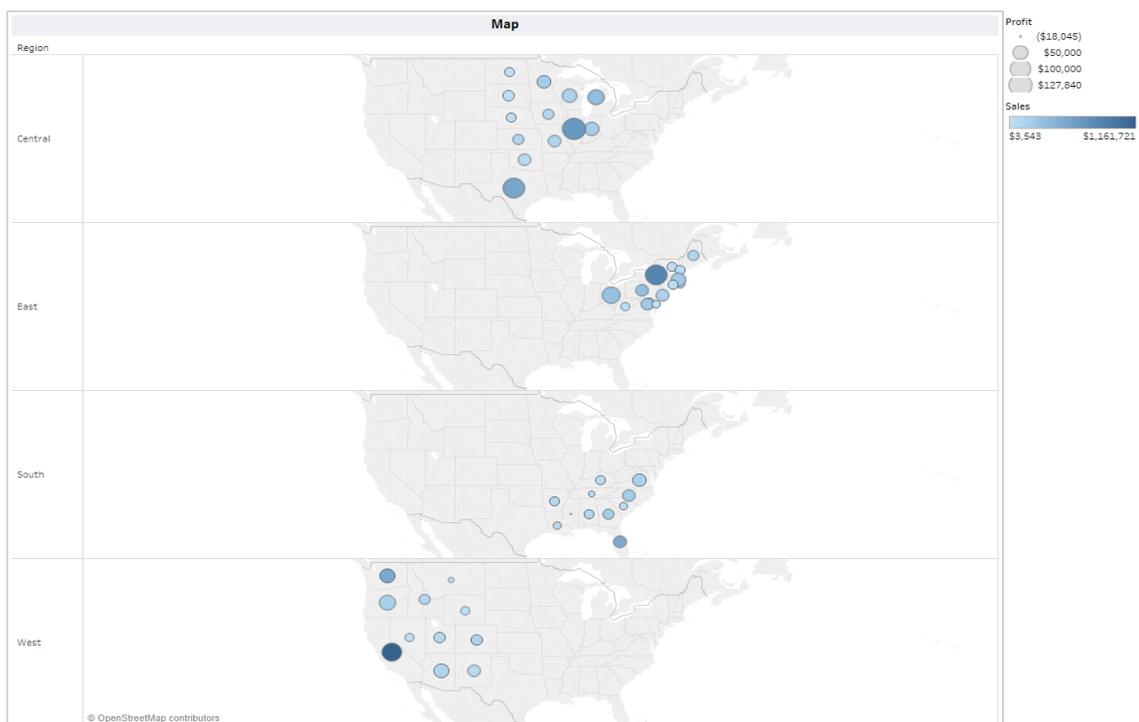
Do you understand visual best practices and how to apply them? While most data can be presented in many different formats, certain choices are more appropriate in some situations. Demonstrate your knowledge:

- Select the chart type that produces an effective outcome for a given scenario
- Avoid common pitfalls
- Use space, color and fonts appropriately
- Utilize formatted tooltips and descriptive titles
- Focus audience attention on the most important data

### Sample Question 1

The following view uses the Orders (Sample-Superstore-Subset-Excel) data connection in the Starter Workbook. Rebuild the view so the visualization best answers the question.

For each region, how do the Sales for each State compare? To better understand in each State, identify any States with high or low Profit.



*This sample question should take you no longer than 20 minutes to complete.*

# Module 2 - Advanced Technical Skills

This section includes three to five exercises testing for advanced knowledge and application of Tableau Desktop functionality. The resulting views should be accurate and adhere to visual best practices. Demonstrate your knowledge:

- Calculations, Table Calculations and Level of Detail Expressions – Including calculations across disparate sources, table calculation functions, nested level of detail expressions
- Connect Multiple Data Sources and Data Restructuring – Including joins, data blending, or unions to display data from multiple tables, as well as restructuring techniques such as pivots and the data interpreter
- Parameters – Including dynamic reference lines, Top N based on a table calculation, actions to change visualization types on a dashboard, and more

## Sample Questions 2-4

Build a view for each section to answer the questions accurately and effectively, always keeping visual best practices and polish in mind.

### Question 2 - Top N

You need to compare the species with the most strikes per month. Using the [FAA Wildlife Strikes](#) data file, create a view with the top 5-15 species (**Wildlife Name**) for each **Month**. The end user needs the ability to change how many species are showing in the view.

*This sample question should take you no longer than 15 minutes to complete.*

### Question 3 - Data Connections

The number of strikes alone does not clearly indicate the likelihood of a bird strike at certain times. Using the [FAA Wildlife Strikes](#) and [Flights](#) data files, create a view that analyzes seasonality of the strike rate between 2006 – 2012. The strike rate can be calculated by the **Number of Strikes** divided by the **Number of Flights**.

*This sample question should take you no longer than 15 minutes to complete.*

### Question 4 - LOD

You would like to better understand customers' purchasing history. Using the [Orders \(Sample Superstore-Subset-Excel\)](#) data connection in the Starter Workbook, create a view that shows how many customers (**Customer ID**) ordered 1 – x times (**Order ID**). For context, also show the breakdown of the customers' first purchase years to see whether any cohorts purchased more times than others.

Note: This view requires multiple level of detail expressions.

*This sample question should take you no longer than 15 minutes to complete.*

# Module 3 - Storytelling

Can you make discoveries with your data? Is there a trend or a risk you need to share with management? This section of the exam provides a data set with a scenario - a company profile, your role, your audience and what's important to them. You are guided through a data discovery that needs attention and it's your assignment to build a compelling and convincing story, always keeping visual best practices in mind. Demonstrate your knowledge:

- Dashboards, Actions & Presentation - Use actions to highlight, filter across disparate sources and to navigate to other dashboards; consider the flow and audience of the dashboard for ease of use; use story points to guide a user
- Visual Best Practices - Use color, fonts and sizes efficiently and consistently, minimize cognitive load, clearly communicate insights or answers through chart types and decisions
- Overall Polish - Format tooltips, remove non-data ink, include descriptive dashboard and worksheet titles and sub-titles

## Sample Question 5

You have been asked to find trends and seasonality that may impact the likelihood of a plane coming in contact with wildlife. Using the [FAA Wildlife Strikes](#) and [Flights](#) data files filtered to years 2006 to 2011, create an interactive dashboard that includes the following four views:

### Question 5 - View 1

Do some regions experience greater numbers of wildlife strikes? Show the number of strikes per Region - Alaska, Hawaii, Canada, US-West, US-Central, US-East and Caribbean. The Region field does not exist in the data set, so you must determine the boundaries and create regions from the **State** field. Show the total for each Region and which has the most strikes (**Number of Strikes**).

### Question 5 - View 2

Do any months (**Date**) have particularly high numbers of wildlife strikes (**Number of Strikes**)? Show all years for context and to determine any patterns of when wildlife strikes occur.

### Question 5 - View 3

Does the number of wildlife strikes (**Number of Strikes**) correlate over time with the number of flights (**Number of Flights**)? Create two views that show these measures over time (**Date**): one that shows them by Month and one that shows them by Year. On the dashboard, allow the user to switch between the two views, showing only one at a time.

### Question 5 - View 4

Do certain species cause the most damage? Show the top 10 species (**Wildlife Name**) by average Cost (**Cost to Repair**). For context, also show the number of strikes for each species.

*This sample question should take you no longer than 45 minutes to complete.*

# Sample Solutions

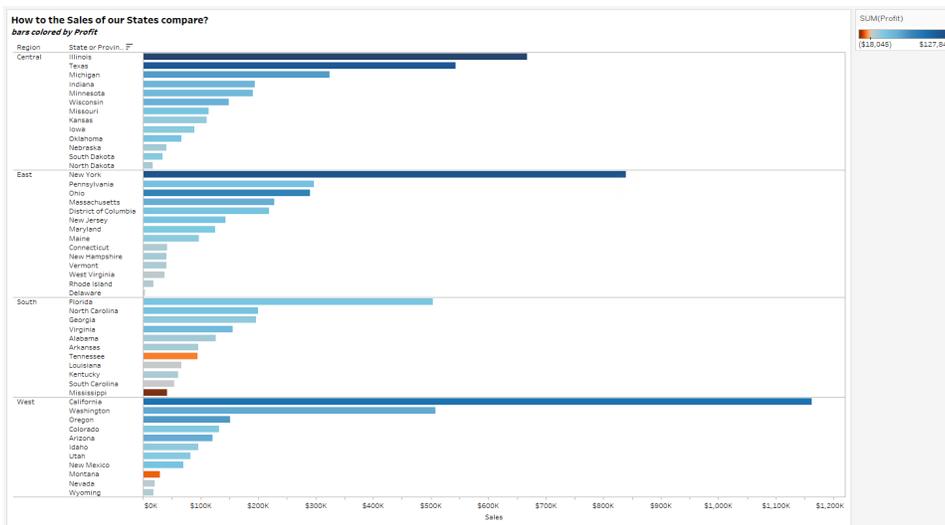
To access the sample solutions, download the [Solution Workbook](#). The following solutions provide examples of sufficiently complete and well-designed analysis for this exam. The sample questions can be answered effectively in other ways.

## Module 1 - Visual Best Practices

### Sample Question 1

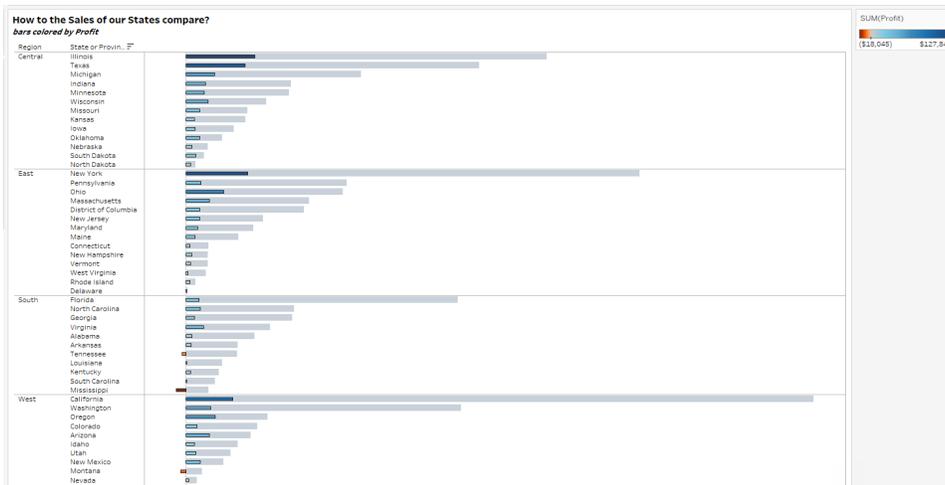
For each region, how do the Sales for each State compare? To get a better understanding of how each State is doing, identify if there are any States that have high or low Profit.

### Sample Solutions



### Pro Tip

Color deficiency may impact members of a dashboard audience, and a successful Tableau author will select color palettes accordingly. To learn more about using color effectively in visualizations, consider Tableau's [Visual Analytics](#) class.



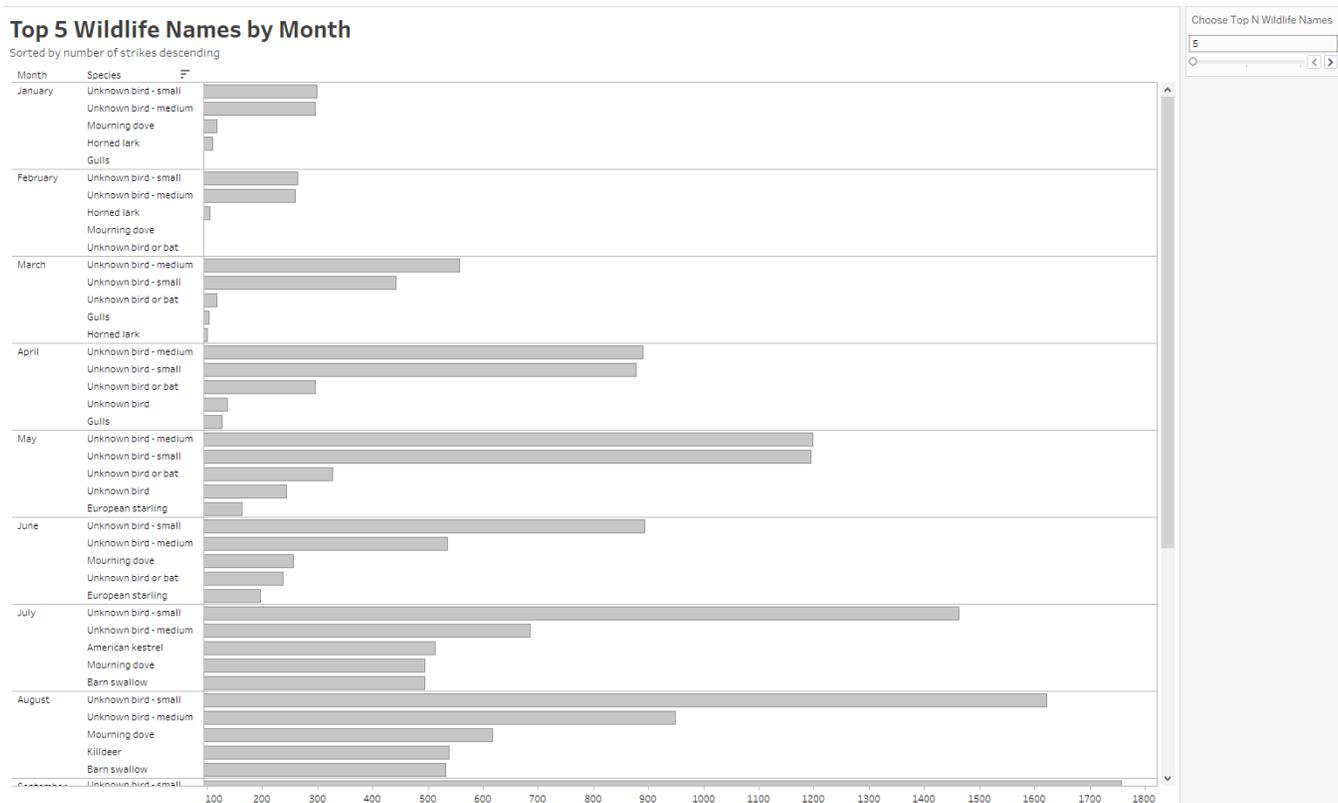
Both sample solutions use bar charts as the chart type. Bar charts allow easy comparison across categories. Profit on color draws attention to States with high/low profit. The Orange-Blue Diverging palette directs focus to the dark blue for high profit and the dark orange for negative profit. This palette also makes colors easily discernible, even for color-deficient users.

# Module 2 - Advanced Technical Skills

## Sample Question 2

You need to compare the species with the most strikes per month. Using the [FAA Wildlife Strikes](#) data file, create a view with the top 5-15 species (**Wildlife Name**) for each **Month**. The end user needs the ability to change how many species are showing in the view.

## Sample Solution



The solution uses a bar chart because the question asks for a comparison. A parameter allows the end user to select how many species are shown in the view. A calculation ties the parameter to a Rank table calculation on Number of Strikes per Month to limit results to the Top N per Month, not the Top N overall. See the calculation on the Filters shelf in the Solution Workbook.

### Pro Tip

Notice the parameter title - "Choose Top N...". This directs the end user how to interact with the view.

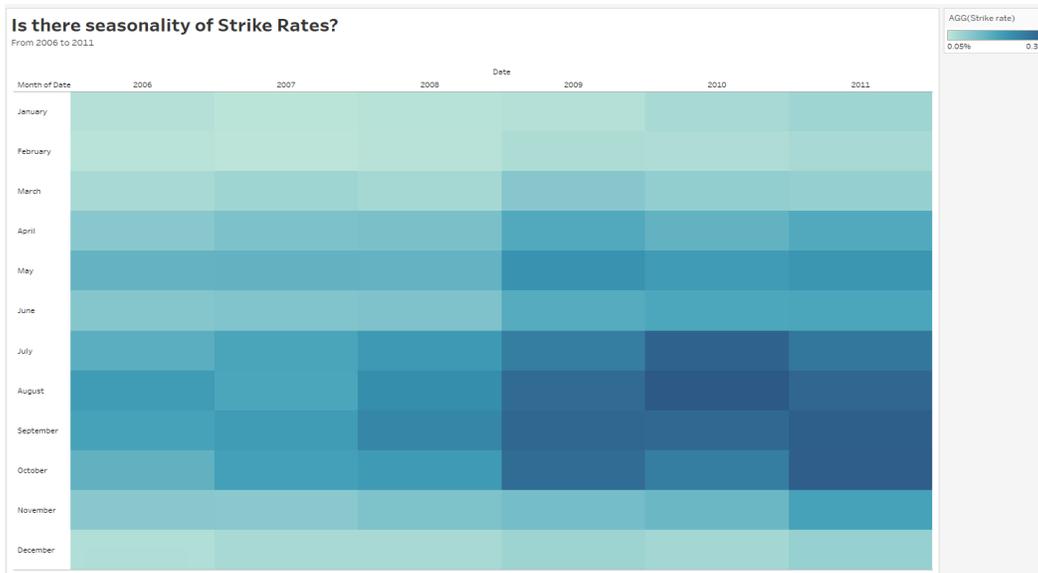
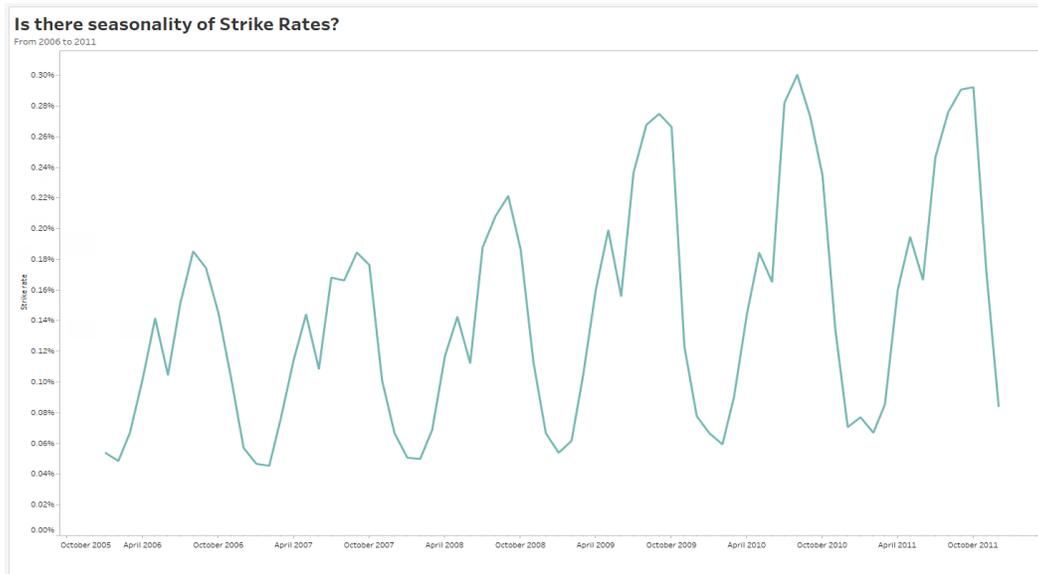
To learn more about Parameters and Table Calculations, consider Tableau's [Desktop II](#) or [Desktop III](#) courses.

# Module 2 - Advanced Technical Skills

## Sample Question 3

The number of strikes alone does not clearly indicate the likelihood of a bird strike at certain times. Using the [FAA Wildlife Strikes](#) and [Flights](#) data files, create a view that analyzes seasonality of the strike rate between 2006 and 2012. The strike rate can be calculated by the **Number of Strikes** divided by the **Number of Flights**.

## Sample Solutions

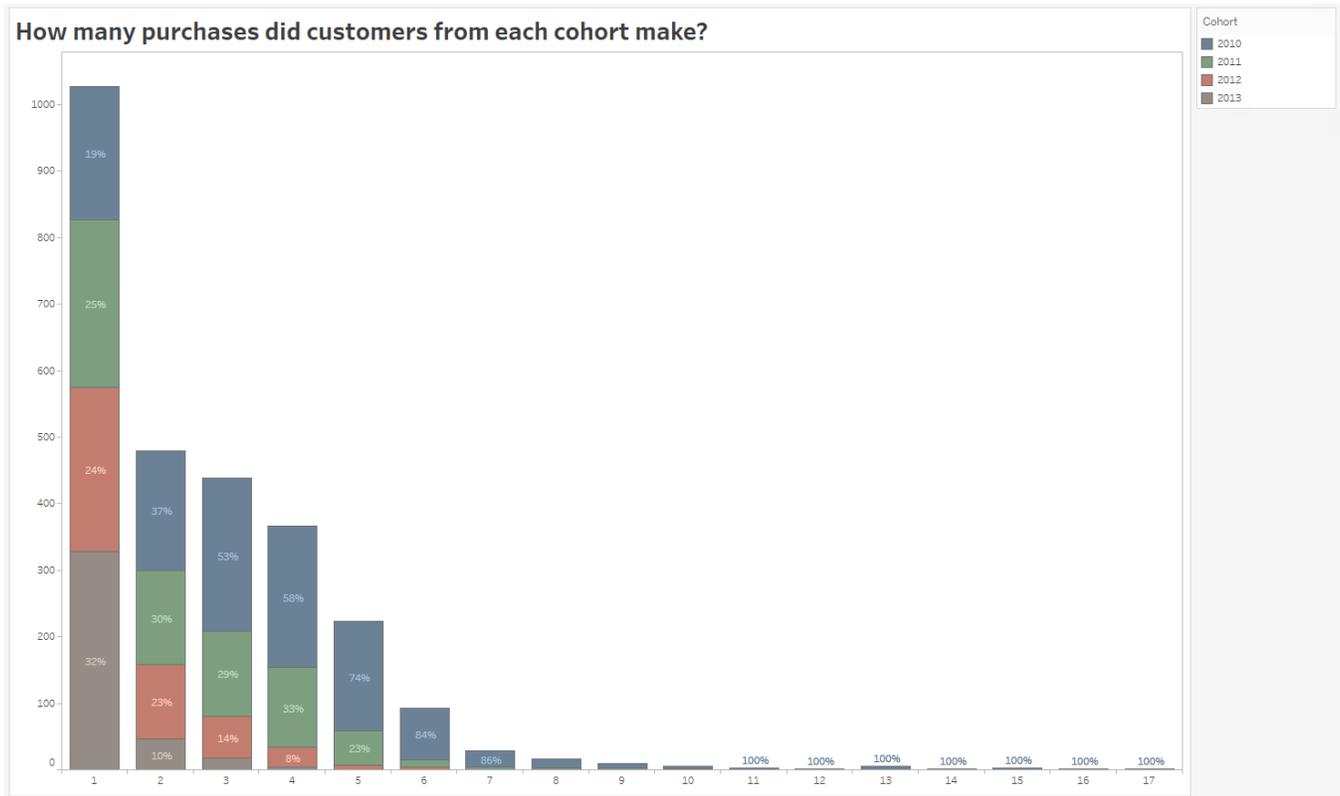


For each location and species strike, the Flights data connection has 1 row per date (Month/Year), whereas FAA bird Strikes has multiple rows per date (Month/Year). This difference in levels of detail necessitates a blend to bring the two data sets together. The FAA Bird Strikes data set has more granular information, so it is used as the primary data source. Both chart types show seasonality and patterns – the line chart shows peaks around the same time each year, and the highlight table uses color to emphasize that strikes during summer months increased in recent years.

## Sample Question 4

You would like to better understand customers' purchasing history. Using the [Orders \(Sample Superstore-Sub-set-Excel\)](#) data connection in the Starter Workbook, create a view that shows how many customers (**Customer ID**) ordered 1 - x times (**Order ID**). For context, also show the breakdown of the customers' first purchase years to see whether any cohorts purchased more times than others.

### Sample Solution



This view requires two level of detail expressions; one calculates the number of purchases made by each customer (**# of Purchases per Customer** in the solution workbook) and one calculates each customer's first purchase year (**Cohort** in the solution workbook). **# of Purchases per Customer** is converted to a dimension to show a bar per # in the view. The stacked bars display the breakdown of the Cohorts, and the labels use a % of Total table calculation to make the countdown explicit.

#### Pro Tip

*This resource provides additional examples of level of detail calculations: [Top 15 LODs](#).*

*To learn more about creating and applying LODs, consider Tableau's [Desktop III](#) course.*

# Module 3 - Storytelling

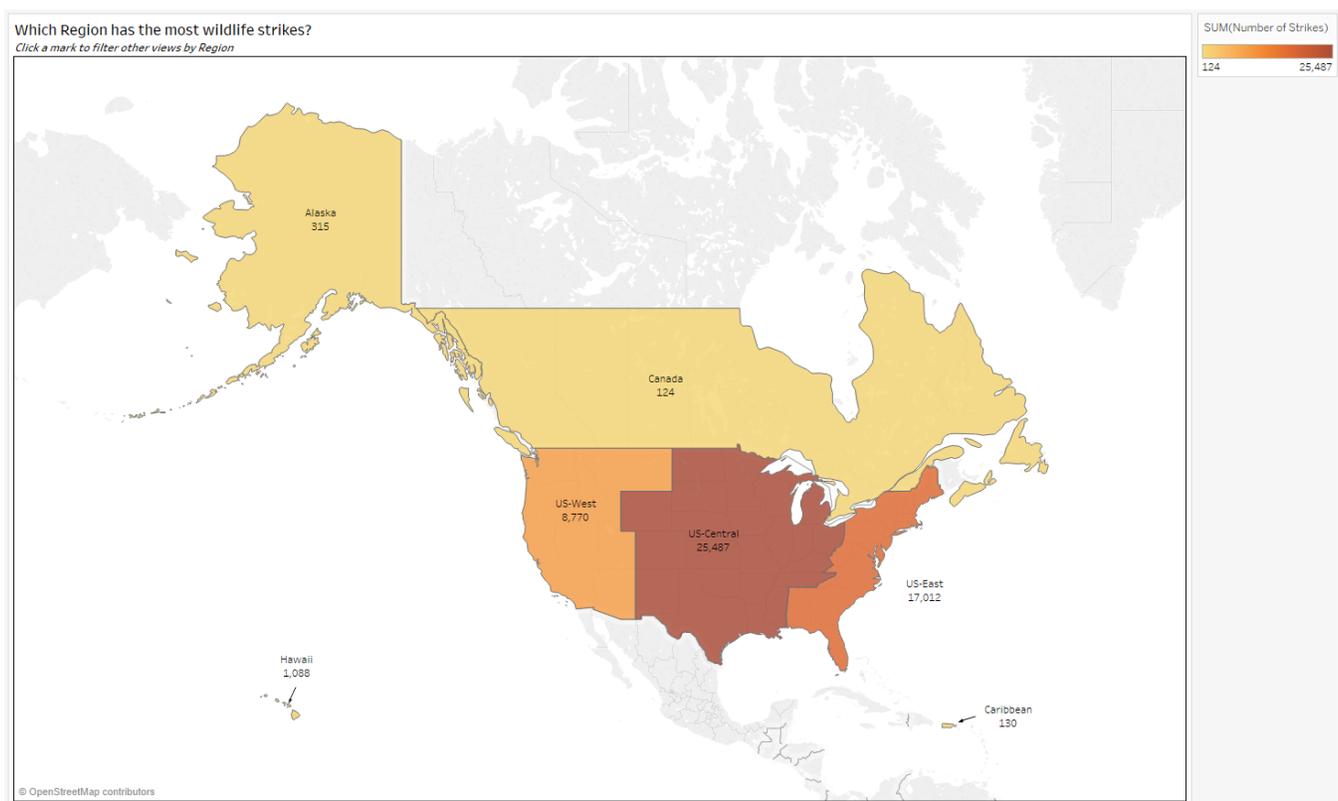
## Sample Question 5

You have been asked to find trends and seasonality that may impact the likelihood of a plane coming in contact with wildlife. Using the **FAA Wildlife Strikes** and **Flights** data files filtered to years 2006 to 2011, create an interactive dashboard that includes the following four views:

### Question 5 - View 1

Do some regions experience greater numbers of wildlife strikes? Show the number of strikes per Region - Alaska, Hawaii, Canada, US-West, US-Central, US-East and Caribbean. The Region field does not exist in the data set, so you must determine the boundaries and create regions from the **State** field. Show the total for each Region and which has the most strikes (**Number of Strikes**).

### Sample Solution

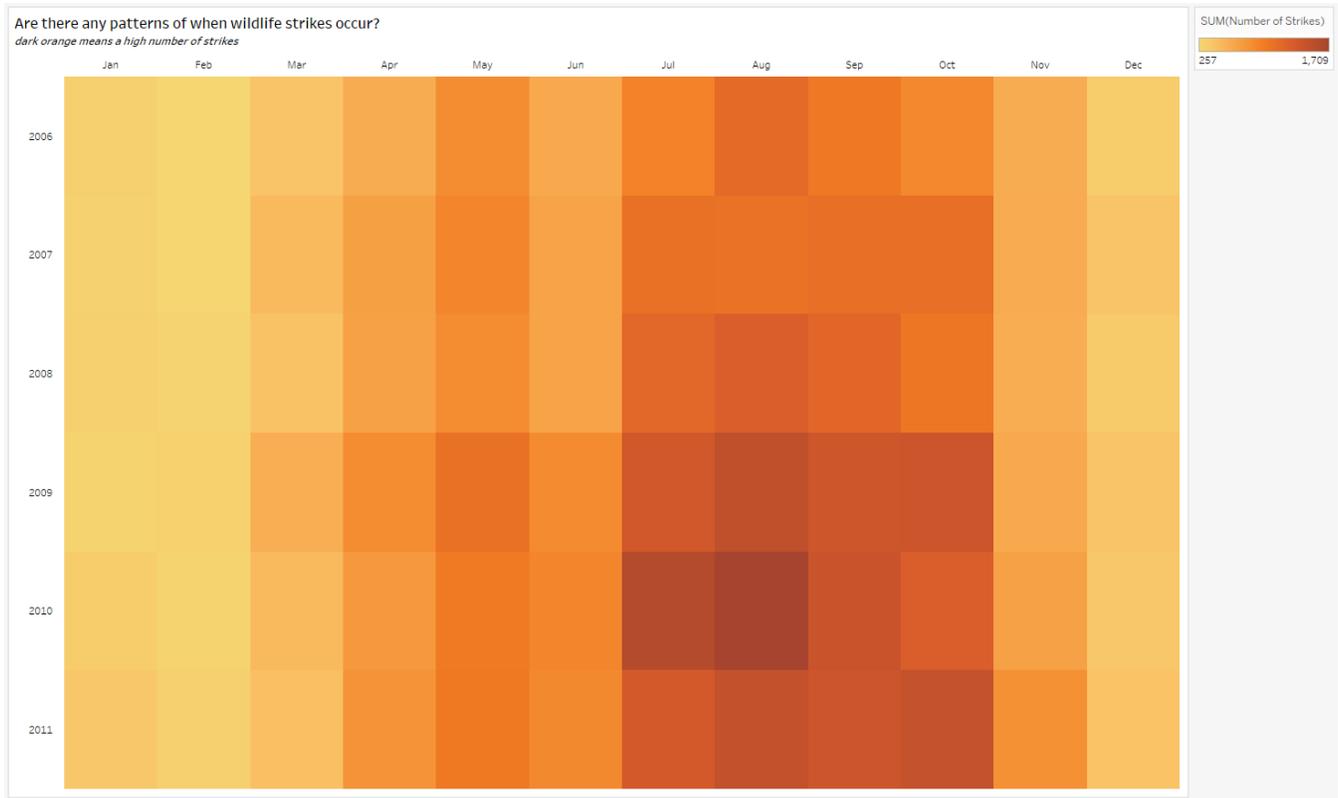


The region field needs to be created by creating a geographic group on the State field. A map clearly shows the location of each Region and the geospatial relationships among them. Using annotations as labels for smaller Regions provides greater positioning flexibility.

## Question 5 – View 2

Do any months (Date) have particularly high numbers of wildlife strikes (Number of Strikes)? Show all years for context and to determine any patterns of when wildlife strikes occur.

### Sample Solution

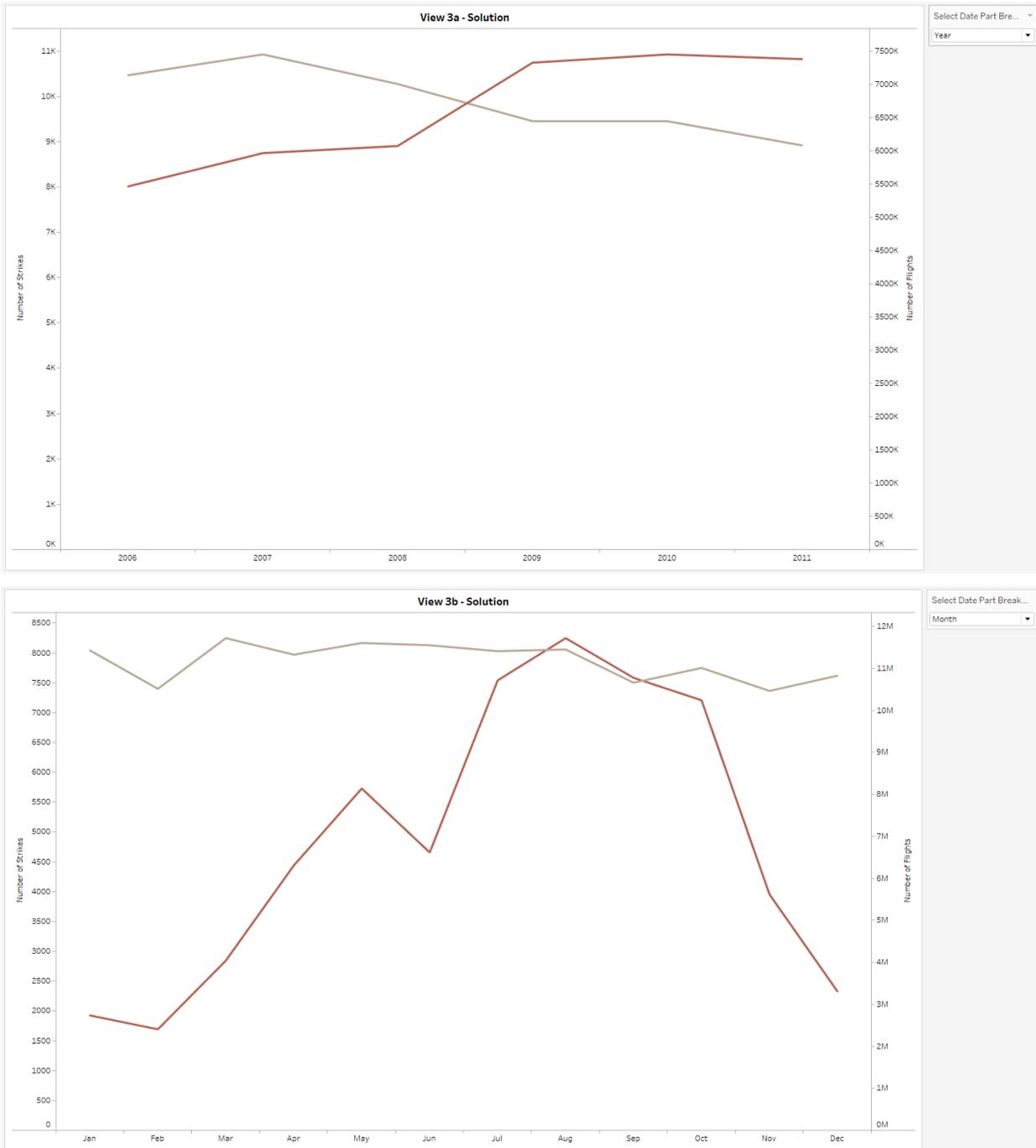


A highlight table provides quick, easy identification of highs and lows, such as Months with a high number of strikes. This chart type also reveals patterns, making it easy to see that strikes tend to increase in summer months.

## Question 5 – View 3

Does the number of wildlife strikes (**Number of Strikes**) correlate over time with the number of flights (**Number of Flights**)? Create two views that show these measures over time (**Date**): one that shows them by Month and one that shows them by Year. On the dashboard, allow the user to switch between the two views, showing only one at a time.

## Sample Solution

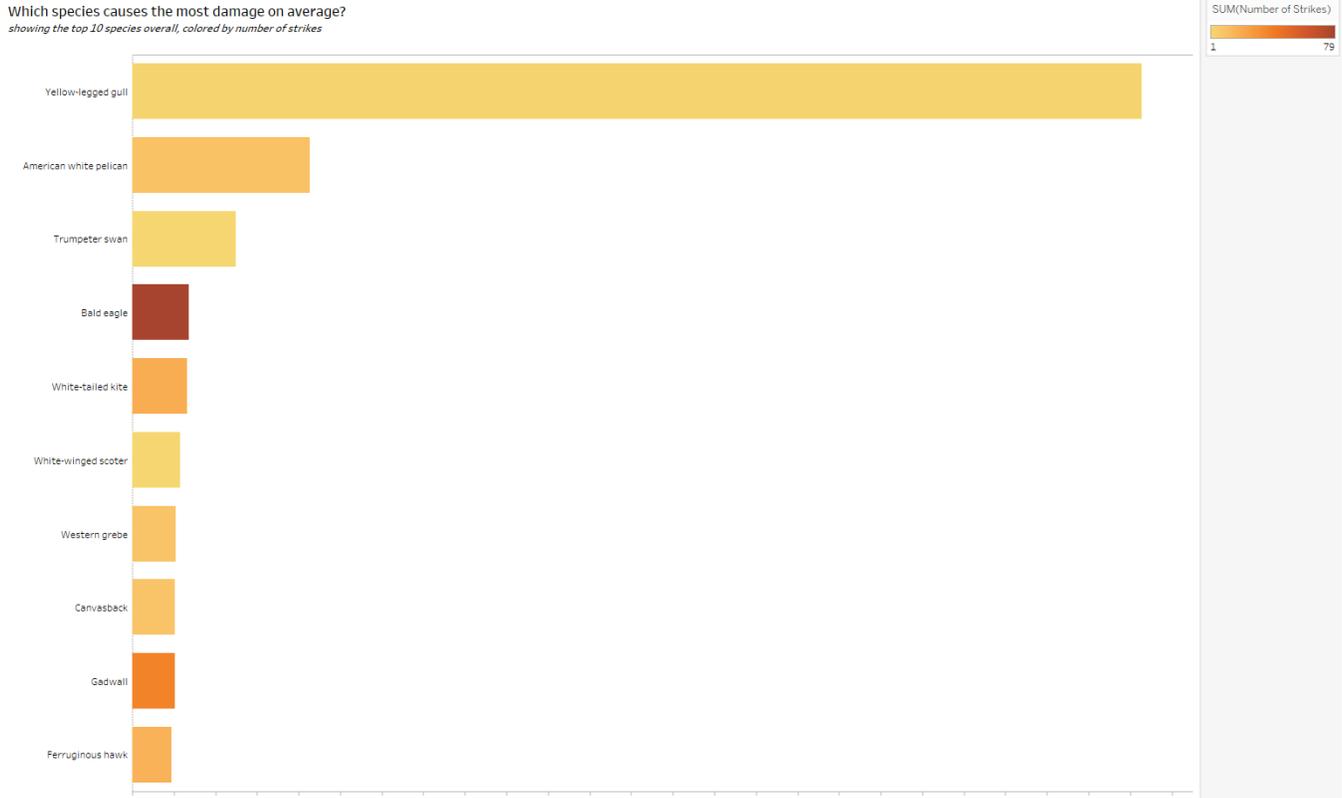


A dual axis line chart shows the trend of each measure over time. Two visualizations were created; one at the Year level and one at the Month level. A parameter and corresponding calculation allow the end user to select which sheet to view.

## Question 5 – View 4

Do certain species cause the most damage? Show the top 10 species (Wildlife Name) by average Cost (Cost to Repair). For context, also show the number of strikes for each species.

### Sample Solution

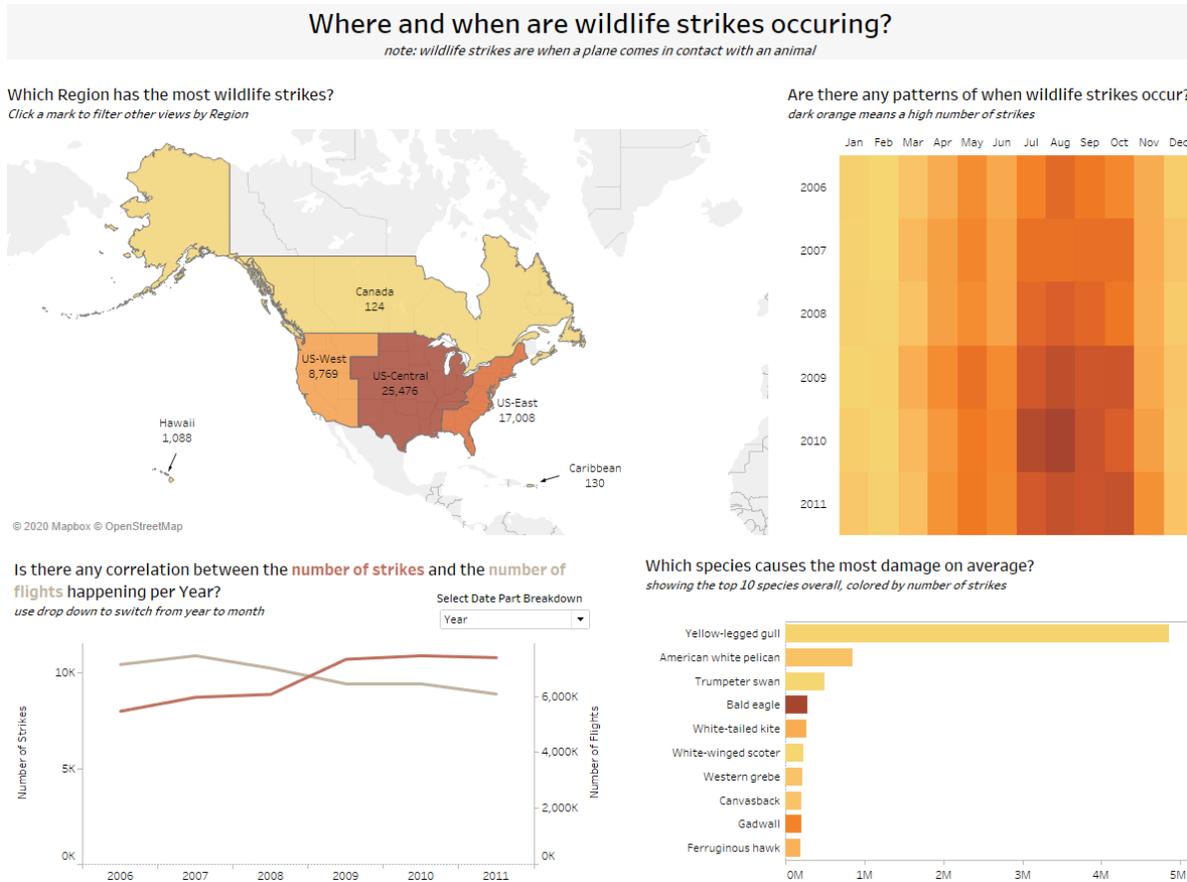


A sorted bar chart makes it easy to compare the average amount of damage across species. Number of strikes on color emphasizes species with a comparatively high number of strikes. A top 10 filter reduces scrolling by showing only the species that have caused the most damage.

## Question 5 – Dashboard

Do certain species cause the most damage? Show the top 10 species (Wildlife Name) by average Cost (Cost to Repair). For context, also show the number of strikes for each species.

### Sample Solution



The map in the top left corner filters the other dashboard views when a region is selected, and its placement ensures it is seen first. The Region filter action, set to context on the View 4 worksheet, allows the top 10 displayed to respond to the user's selection. A highlight table can take up less space without sacrificing provided insight, and its placement next to the map gives the map more room. Guided titles on the dashboard and each worksheet set context by helping end-users understand what to look for and the visualization's goal. The Orange-Gold color palette for Number of Strikes across three views creates consistency. Instead of an explicit color legend, the dashboard uses specific numbers visible in the tooltips for each view and the sub-title. In the line chart, words in the title correspond to the measures in the view as a color legend. The removal of unnecessary lines and borders limits the amount of non-data ink on the dashboard.

### Pro Tip

A shared layout container allows the two views controlled by the "Select Date Part Breakdown" parameter to collapse completely. A text box with a dynamic title based on the parameter provides a seamless exchange between the two views.