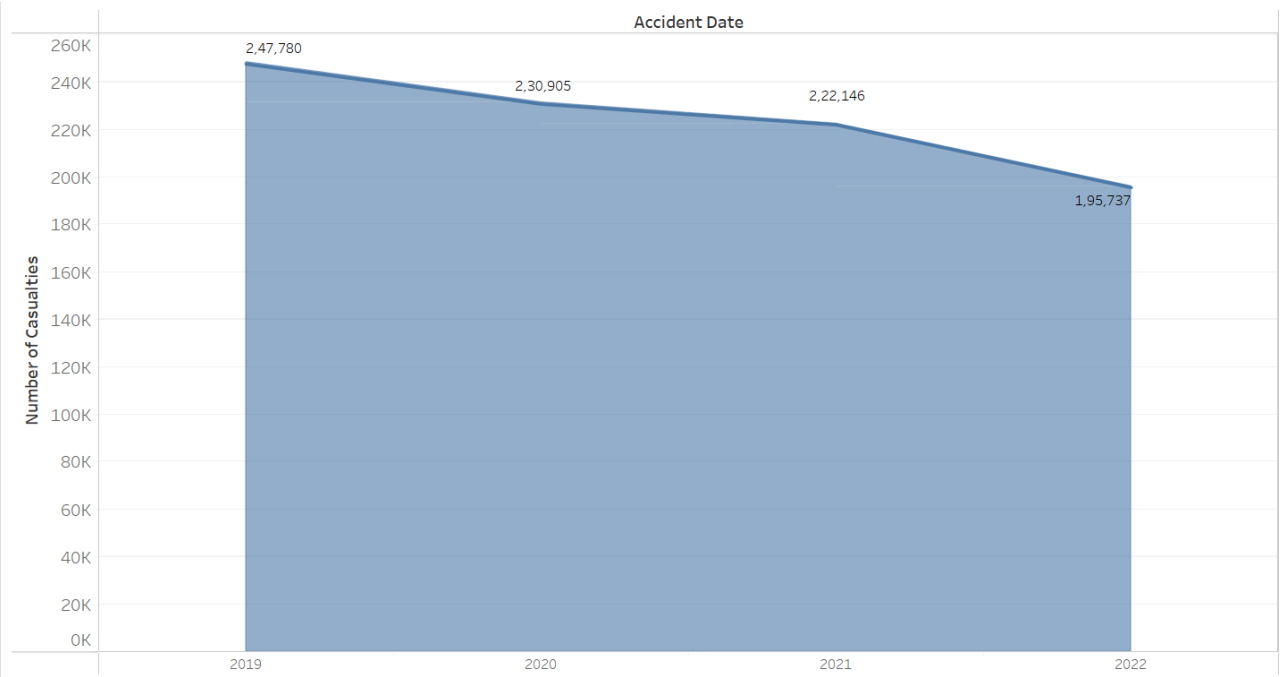
DASHBOARD: Road Accident Dashboard

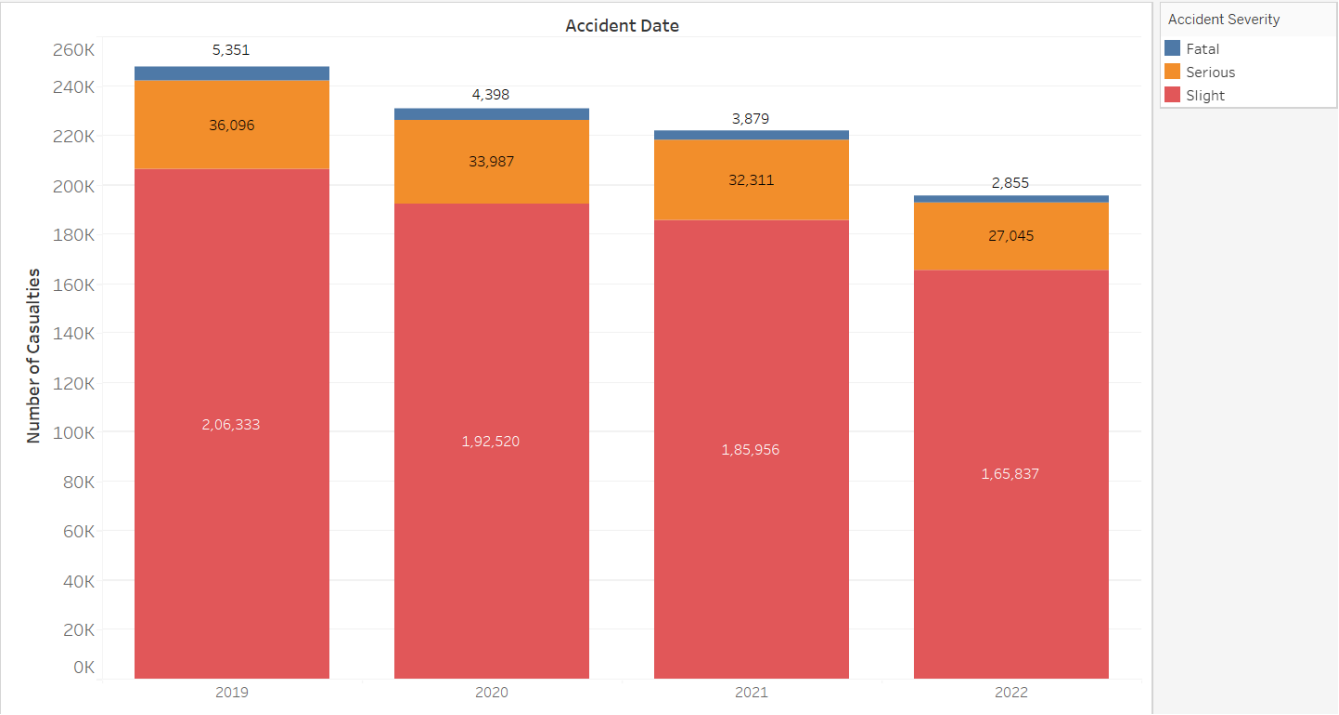
Graph 1: Year wise Casualties



Observation: There is a downward trend in the casualties from 2019 to 2022. Where number decreased at decreasing rate from 2019 to 2021 and then decreased in increasing rate from 2021.

Conclusion: It is a positive sign towards decreased road casualties however, this number can be reduced more with increased road safety measures and imposing speed limit regulations.

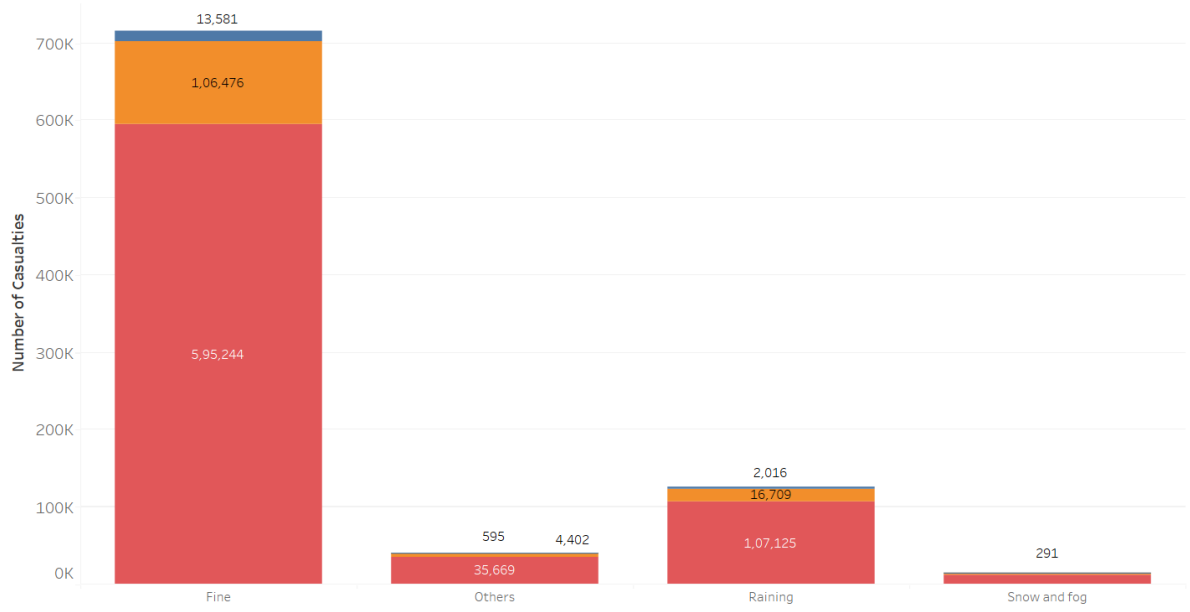
Graph 2: Casualties based on Accident Severity



Observation: For all the years from 2019 to 2022, Fatal casualties have been the least which seemed to be reduced year by year, whereas Slight casualties were the maximum.

Conclusion: There are more efforts required to reduce the serious and fatal casualties to at least half of the current figures.

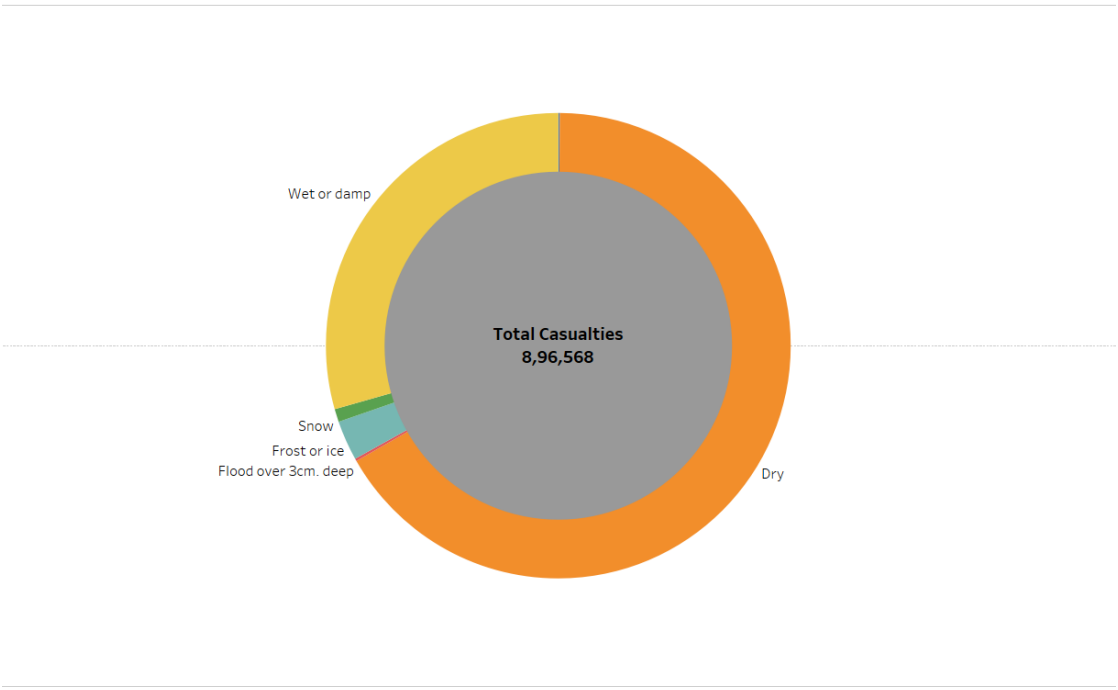
Graph 3: Casualties by Weather Conditions



Observation: Surprisingly, maximum number of all types of casualties i.e., Slight, serious, and fatal have taken place in the fine weather and minimum in case of snow and fog.

Conclusions: We can conclude that people drive much faster in fine weather conditions as compared to other climate hence more chances of accidents.

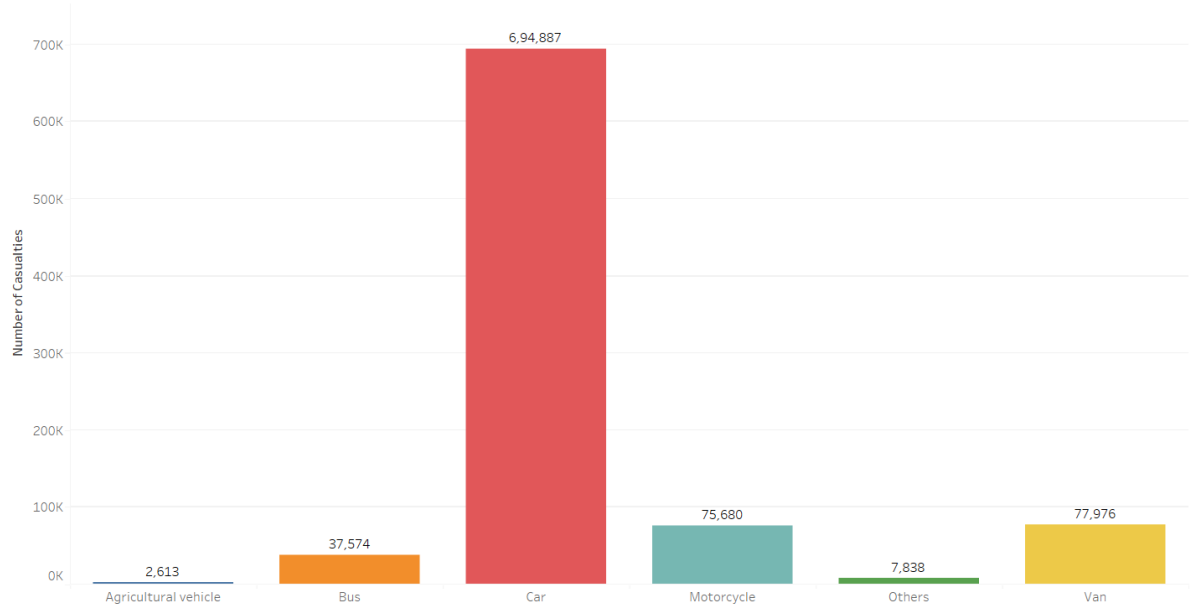
Graph 4: Casualties by Road Surface*:*



Observation: Highest number of casualties took place on Dry Road that is 597.72K followed by casualties on Wet or Damp roads i.e., 263.46K and least on snowy surface that is 8.01K.

Conclusion: There is a need to focus on road construction and maintenance and building of speed breakers on smooth busy roads to keep a check on road accidents.

Graph 5: Casualties by Vehicle Type



Observation: Maximum accidents took place in car followed by motorcycle whereas minimum in Agricultural vehicle.

Conclusion: Out of all the vehicles, cars are the one with maximum speed capacity hence can be linked with major cause of accidents.

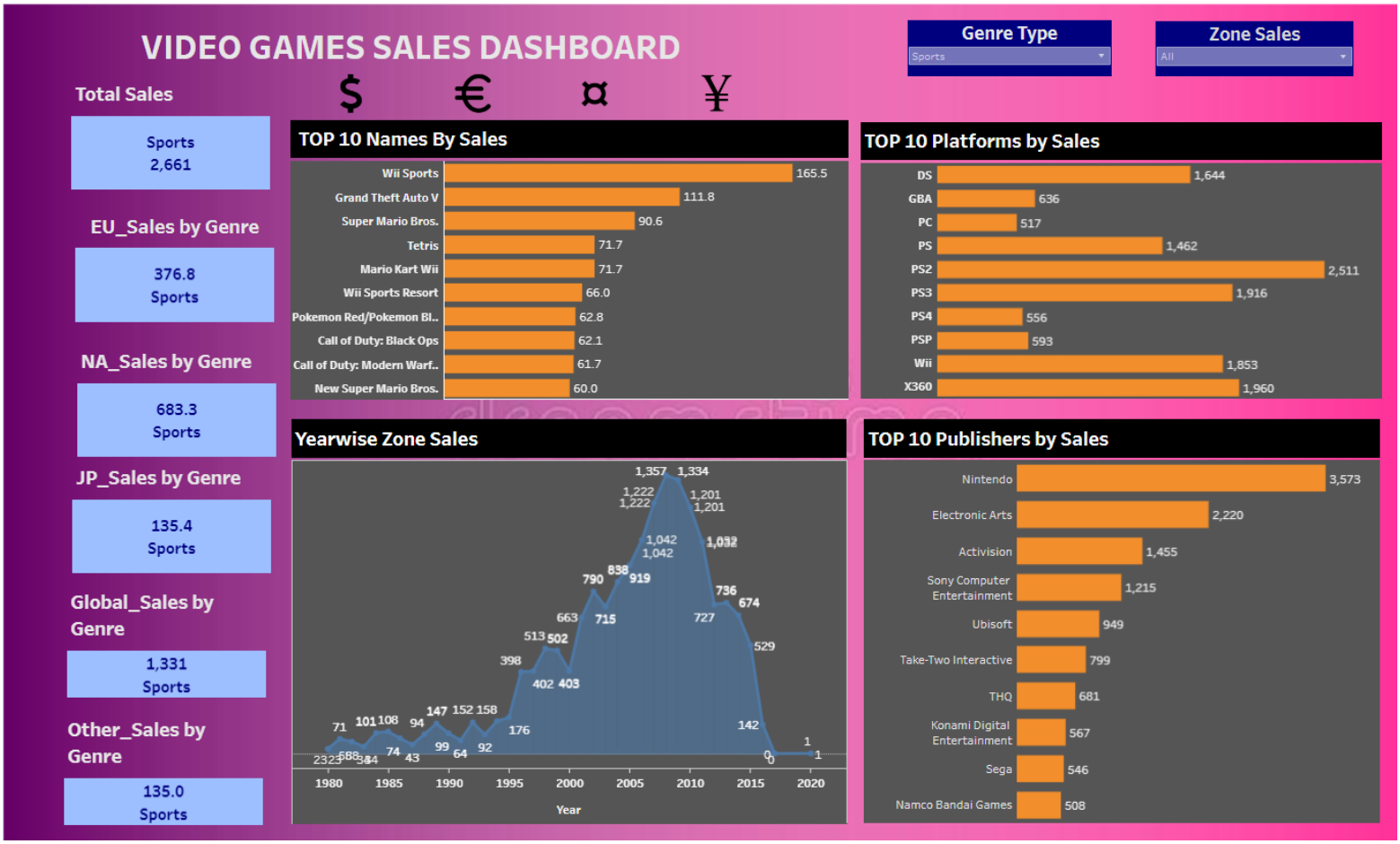
Dataset 2: Video Games Sales

https://public.tableau.com/views/VideoGamesSales_16820080977760/Dashboard1?:language=en-US&:display_count=n&:origin=viz_share_link

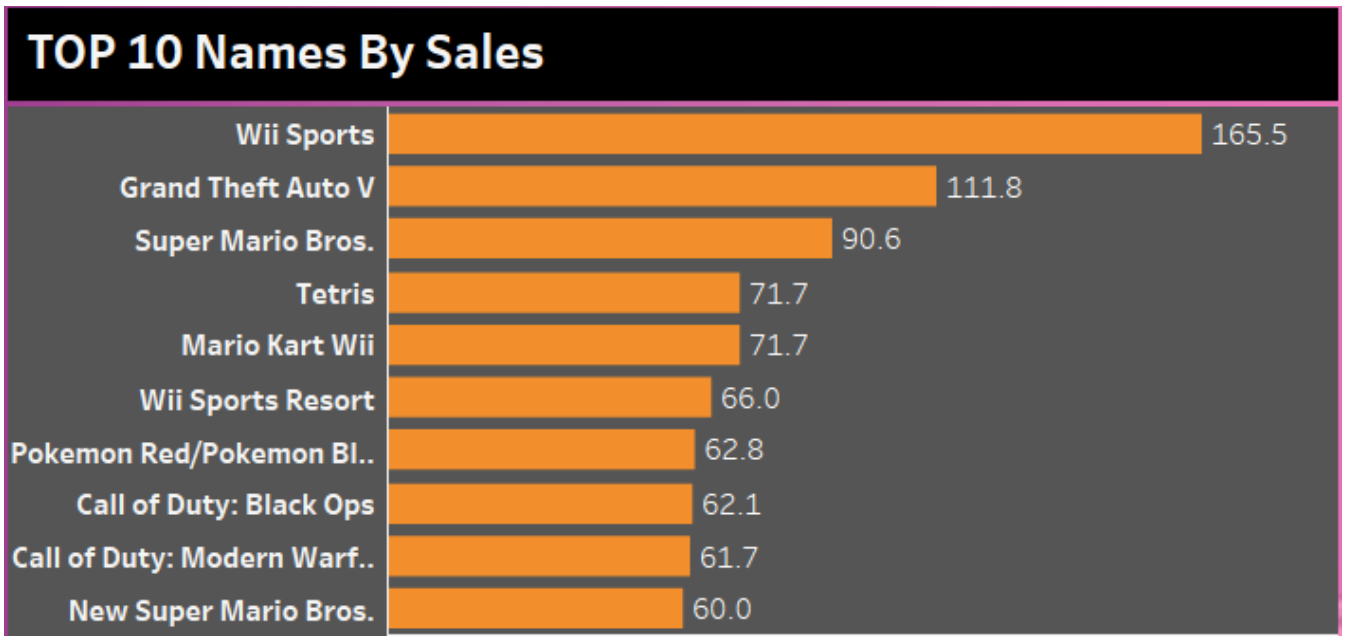
This dashboard showcases the sales data of the Video games created and published on different platforms. Data captures the sales information of different zones that is North America, European Union, Japan, Global.

This dashboard consists of two parameters: Genre Type and Zone Sales. Data card is showing the total sales as per Genre as well as Zone sales as per Genre.

There are various genre categories such as Action, Adventure, Sports, Racing, Role-playing, Simulation, Shooter etc.



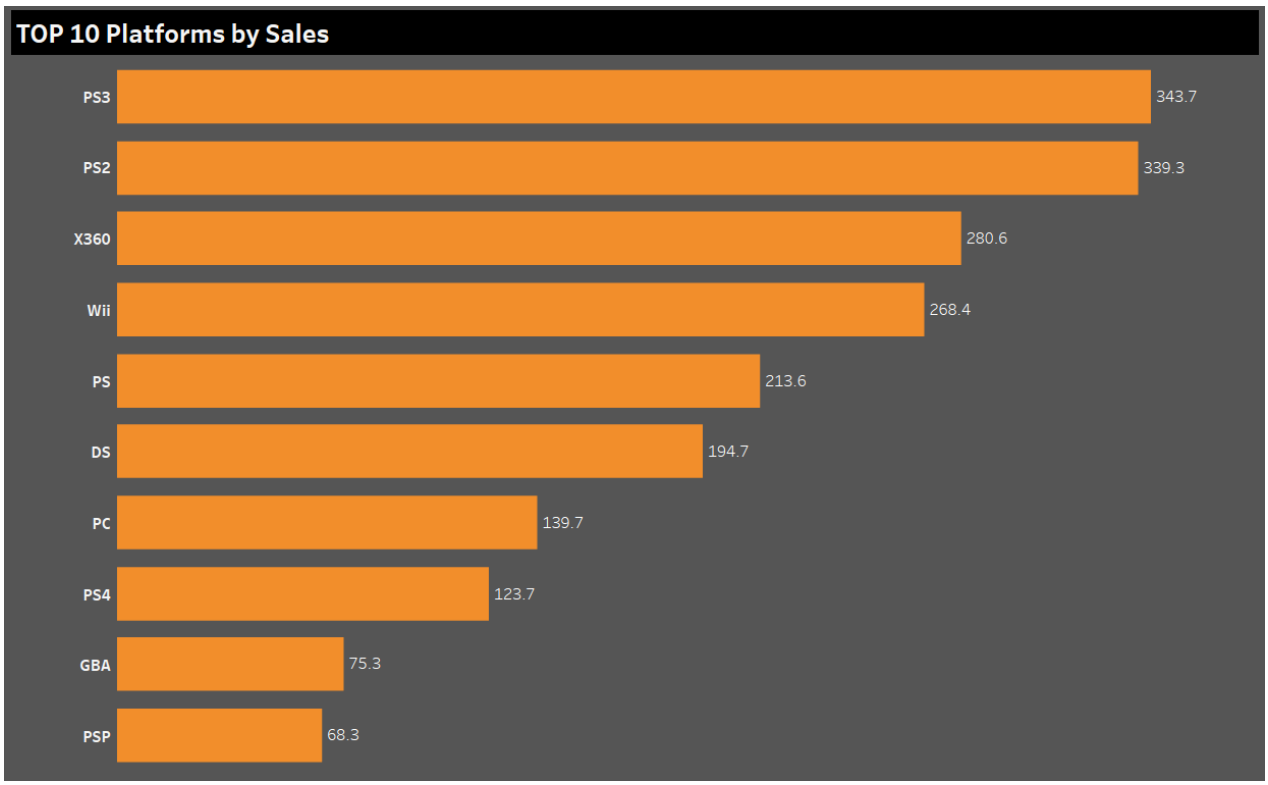
Graph 1: Top 10 Names by Sales in different zones



Observation: The above graphs show the top 10 video games in terms of sales in different regions. On comparing the given graphs, it is found that Wii Sports has been on top in North America, Europe, and Global Sales.

Conclusion: There can be more levels introduced in the top games and focus on introducing more such games for increased sales.

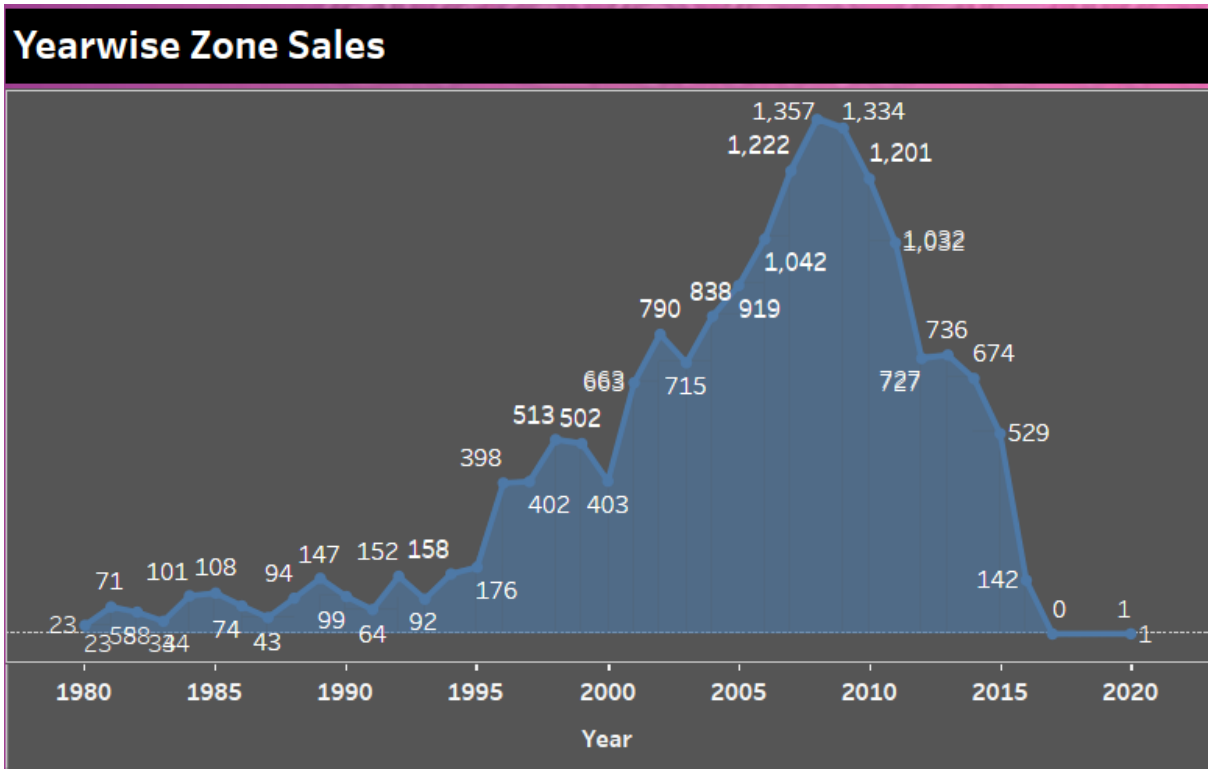
Graph 2: **Top 10 Platforms by Sales**



Observation: The above graph shows the platforms on which maximum sales took place in different zones.

Conclusion: Considering the sales on platforms of all the five zones, PS3, PS2, X360, DS are the highest earning platforms hence there can be more focus on publishing the games on these platforms.

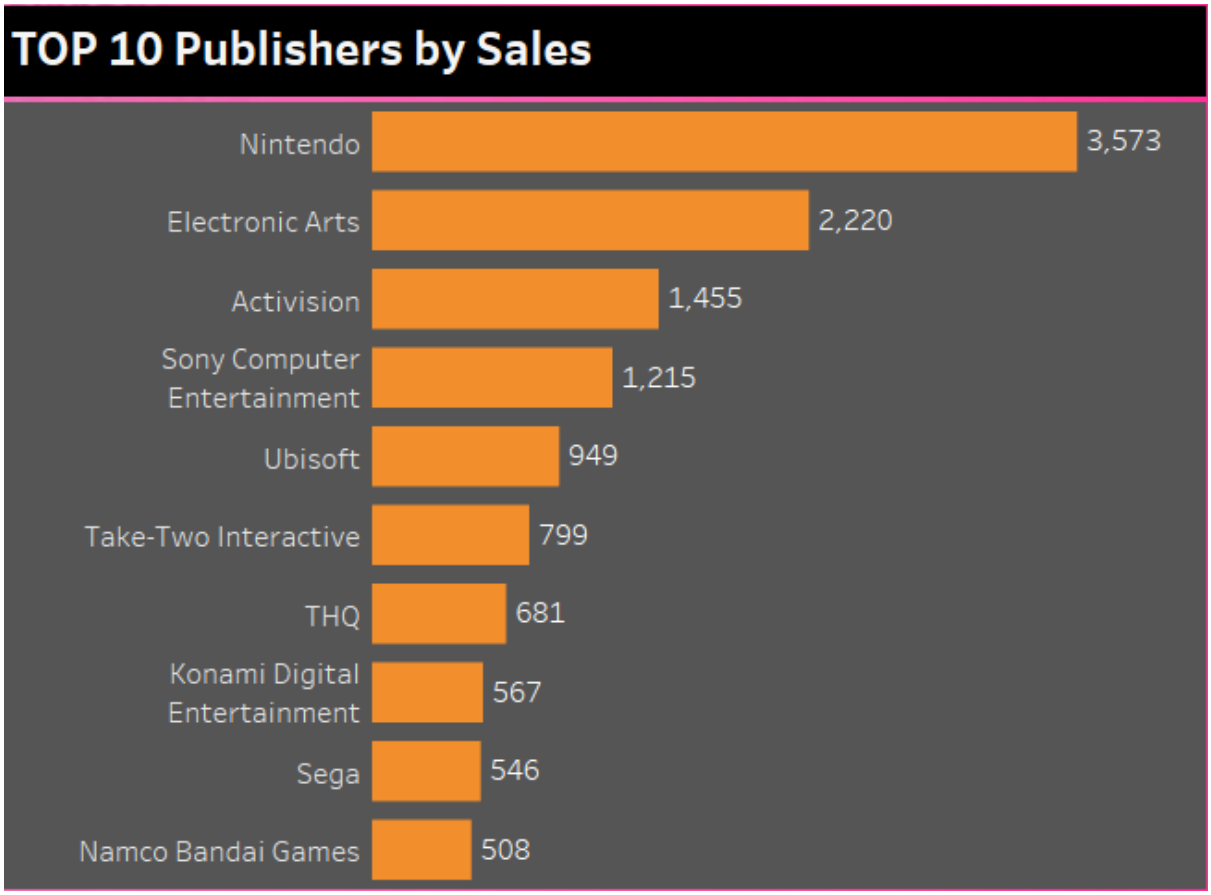
Graph 3: Year Wise Zone Sales



Observation: Highest sales took place in the year 2008 followed by 2009 that is 1357 and 1334 respectively. Maximum sales were in the JP zone from the year 1985 till 1995 with some ups and downs in between the period. Overall highest sales took place globally in the period 2008-09 of approx. 678 million. There is a downward trend seen from 2010 onwards in each zone.

Conclusion: This shows that there was more demand of games during the period 2010 and more craze in the youth for the same. However, now this has been reduced to a significant number.

Graph 4: Top 10 Publisher by Sales

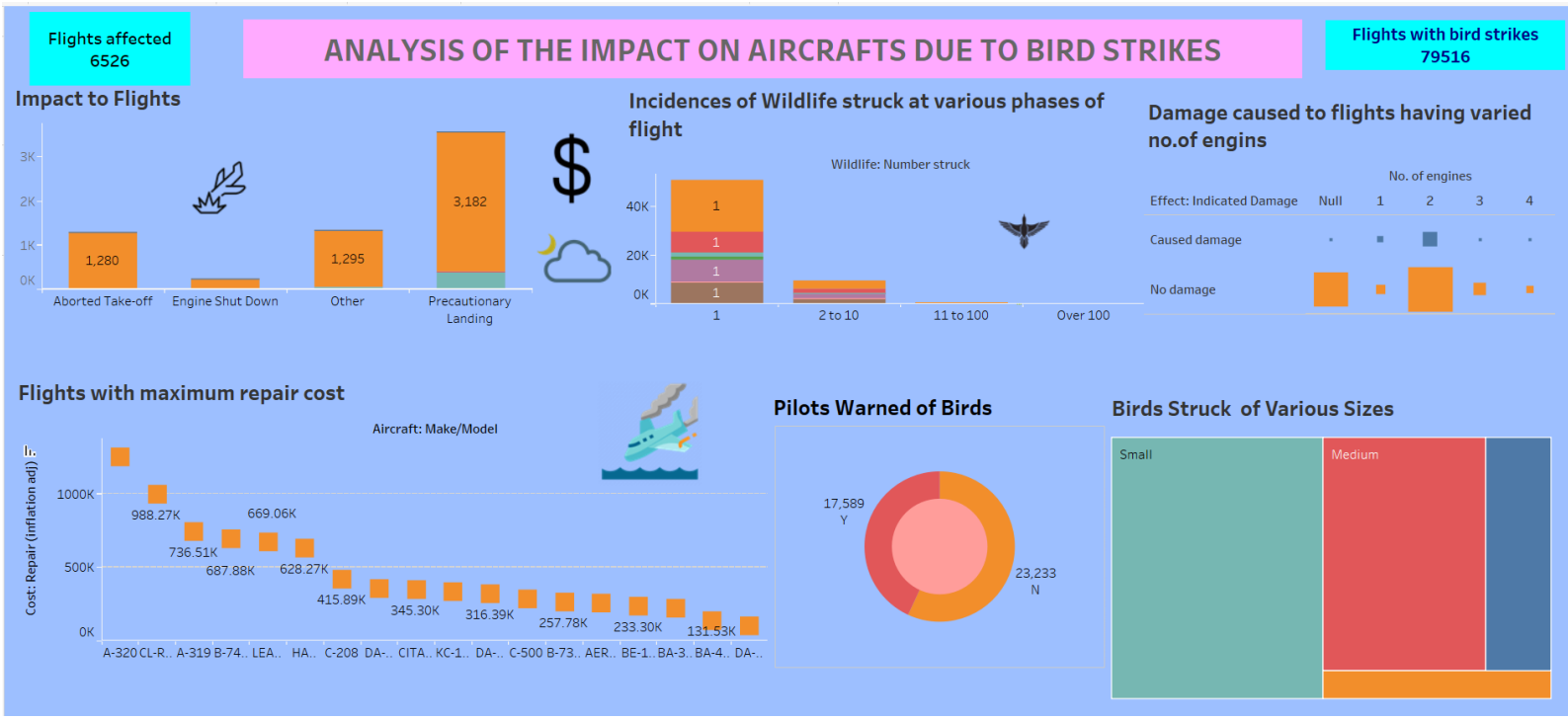


Observation: Nintendo, Electronic Arts, Take-Two Interactive, Sony Computer Entertainment, Ubisoft, Activism are the top publishers in terms of sales in all the zones. Out of which Nintendo is the publisher with highest sales.

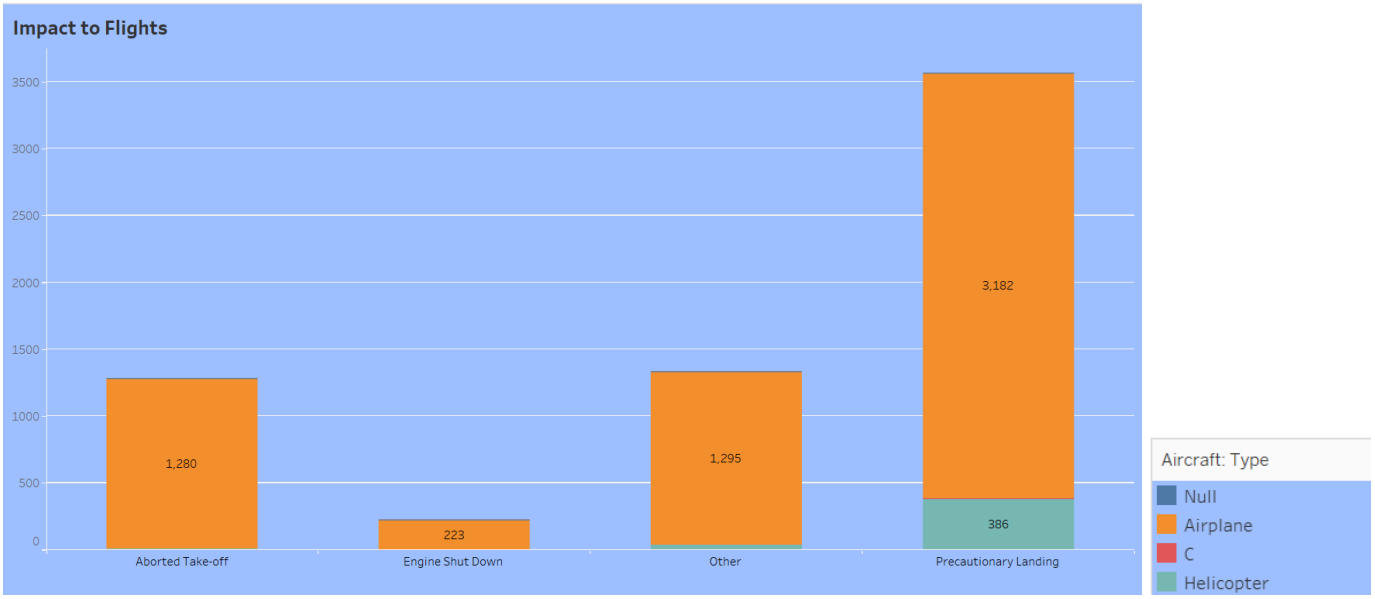
Conclusion: These are the most lucrative publishers among others.

Dataset 3: Dashboard on Impacts on Aircrafts due to Bird Strikes

https://public.tableau.com/views/MajorProject_16814580950130/Dashboard1?:language=en-US&:display_count=n&:origin=viz_share_link



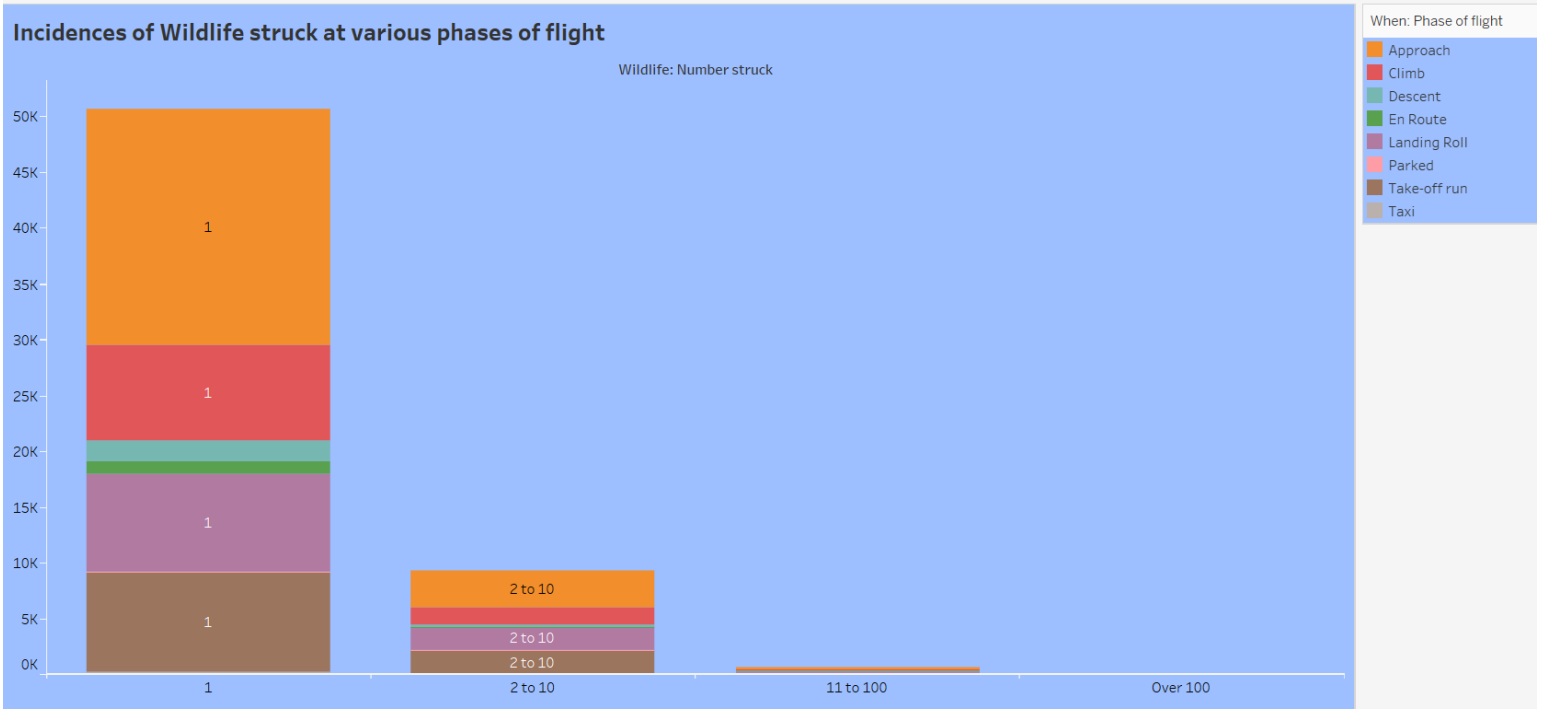
Graph 1: Impact to flights due to bird strikes



Observation: In maximum cases, bird strikes lead to the precautionary landings of Airplane and helicopters followed by aborted take-offs and there were least cases of Engine shut down that is 223 airplanes experienced the same.

Conclusion: Precautionary landing is the most prevalent action taken during bird strike. Engine shut down is one of the critical impacts which needs to be considered for safety purposes.

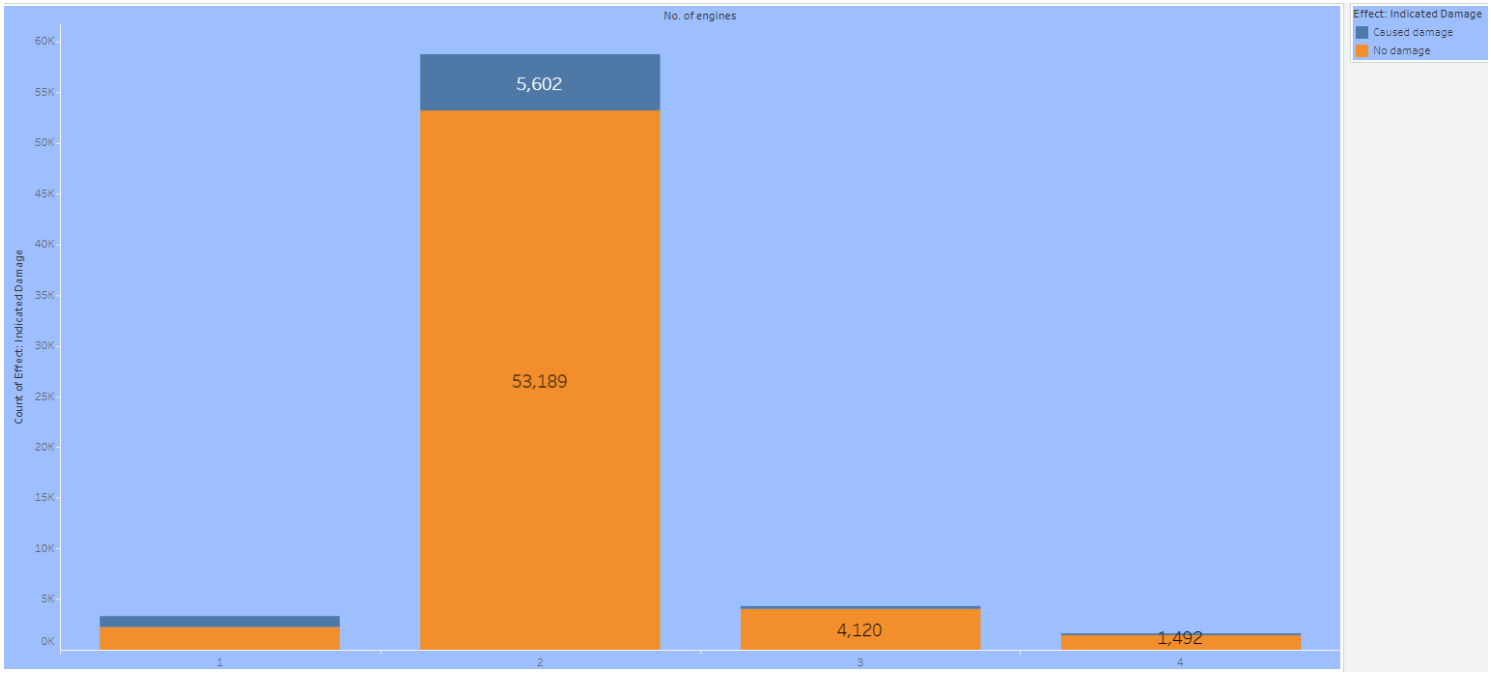
Graph 2: No. of times wildlife struck at different phases



Observation: In maximum cases, wildlife strike cases happened only once and among that most of them occurred at the time of approaching towards the airport followed by climbing phase.

Conclusion: Wildlife strikes can be reduced with better Air Traffic Control commands hence reducing any possible damages to the airplane and ensuring safety of the passengers.

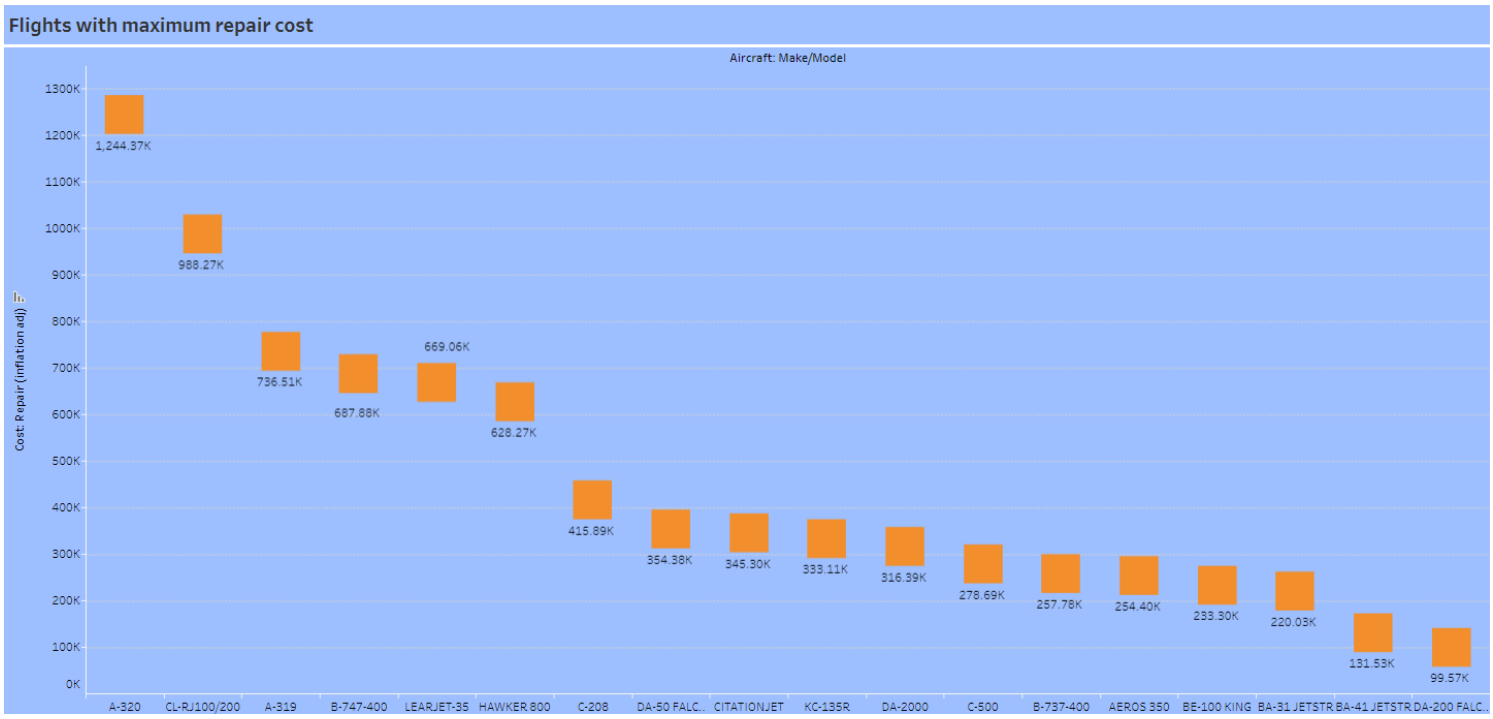
Graph 3: Damage caused to flights of different no. of engines



Observation: As compared to the number of cases of bird strikes, least damage has been caused to the planes with 2 engines. Whereas airplanes with only 1 engine operating have a little less than half times the damage caused as compared to no damage.

Conclusion: For safety purposes, it seems to acquire airplanes operating with more than one engine so that even if one of them gets affected due to wildlife strikes then another engine can be put to operation.

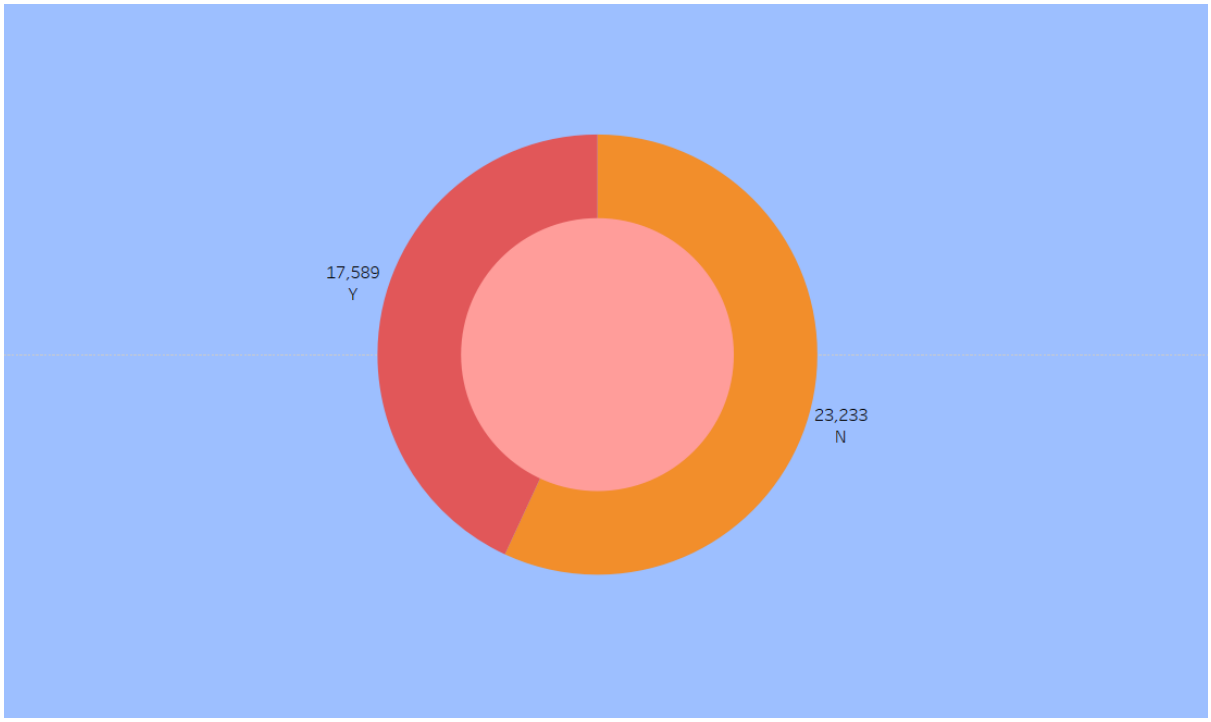
Graph 4: Flights which involved Maximum Repair Cost



Observation: The following graph shows out of all flights included in the data, these are the ones which demanded very expensive repair cost due to bird strike cases. A-320 involved a cost of around 1.2 million followed by CL-RJ100/200 with repair cost of around 988K.

Conclusion: Apart from the safety purposes, bird strikes also leads to expensive repairs hence affecting the yearly profits due to such contingency situations.

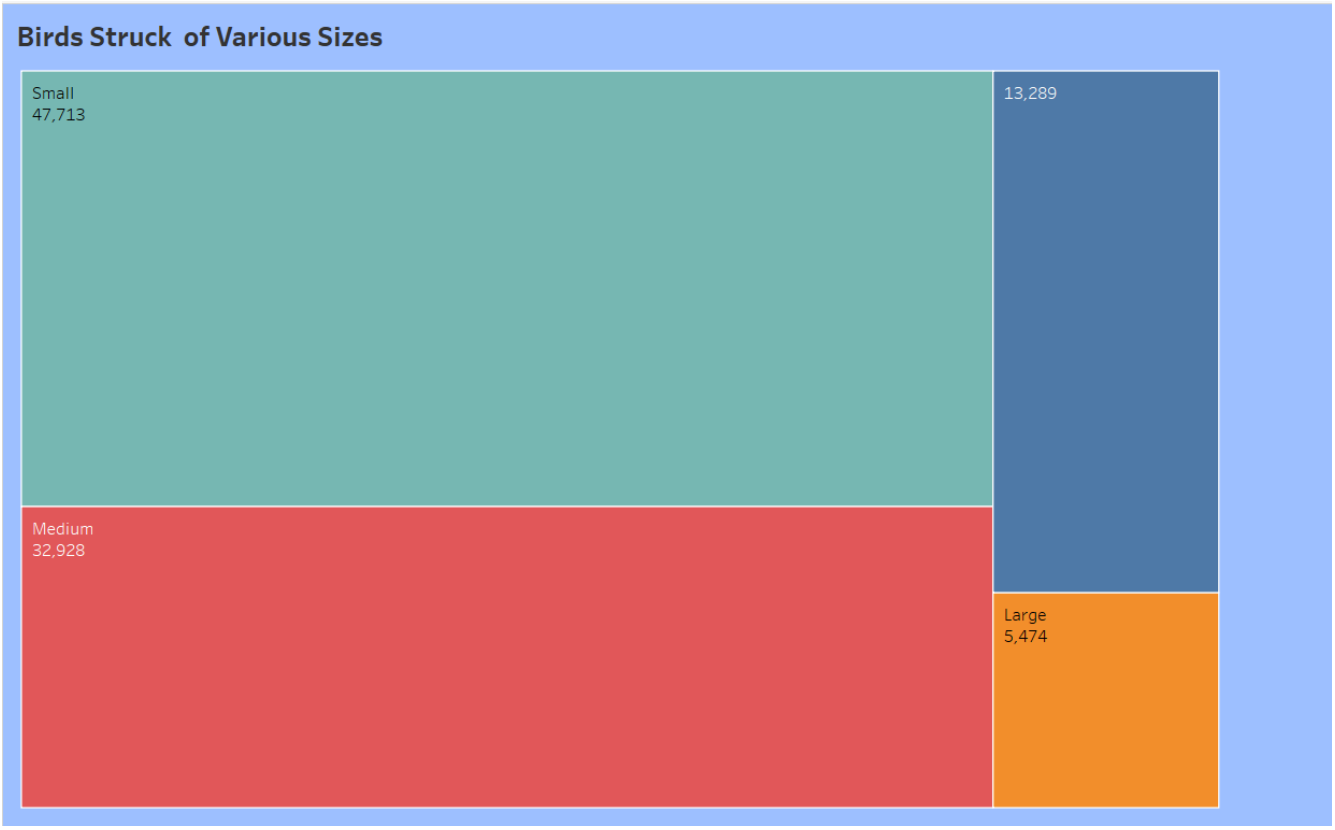
Graph 5: Pilots warned of Birds



Observation: In more than half of the cases pilots were not informed about the possibilities of the bird strikes.

Conclusion: There is a need of more precise networking and sharing the information with pilots to avoid such situations in future.

Graph 6: Birds Struck of Various Sizes



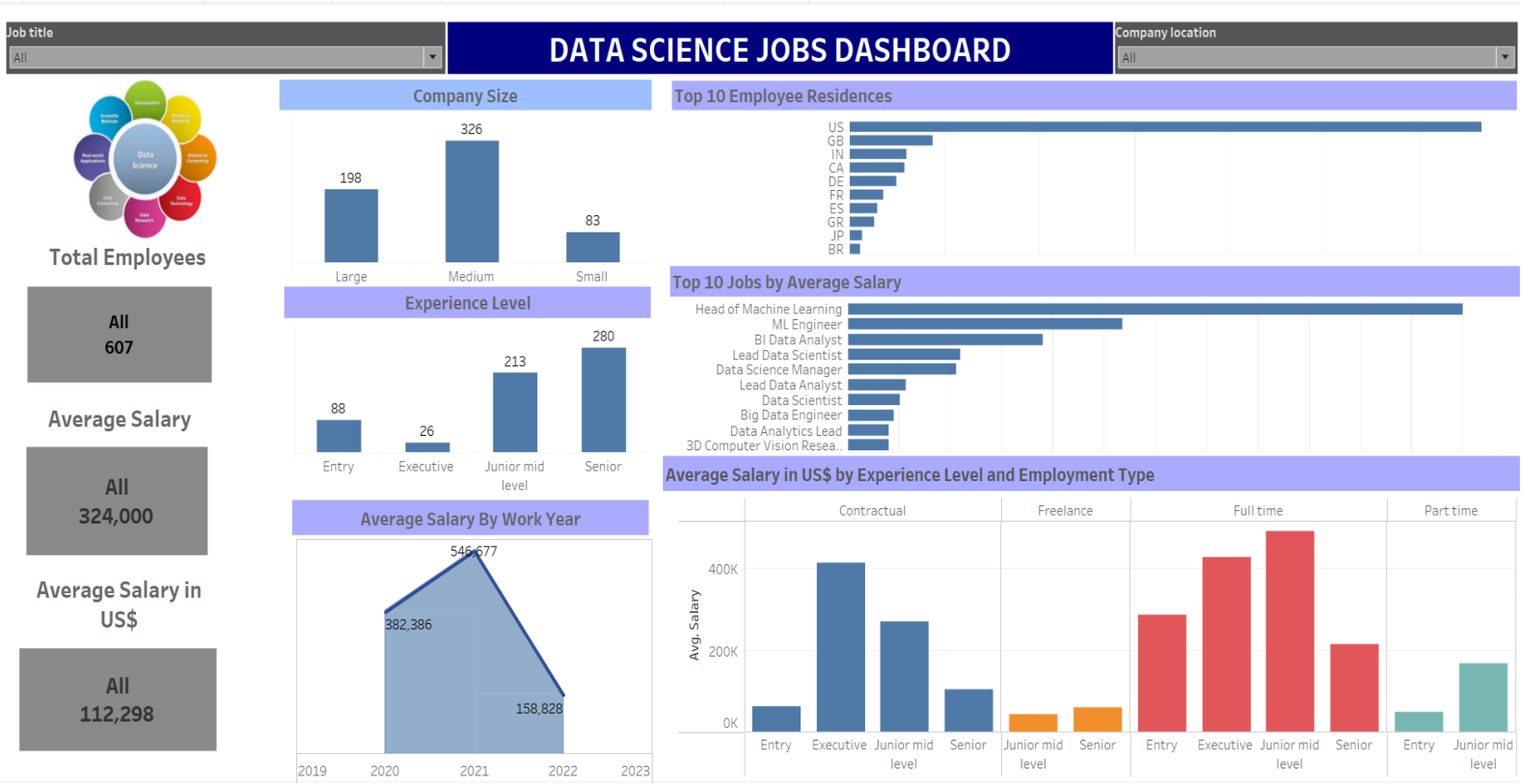
Observation: In maximum cases, birds of small sizes get hit by the airplanes. However, medium sized birds are also near to the small birds in cases of numbers.

Conclusion: Since medium sized birds are almost same in cases of hitting the aircrafts hence there are more chances of damages which can be expensive as well.

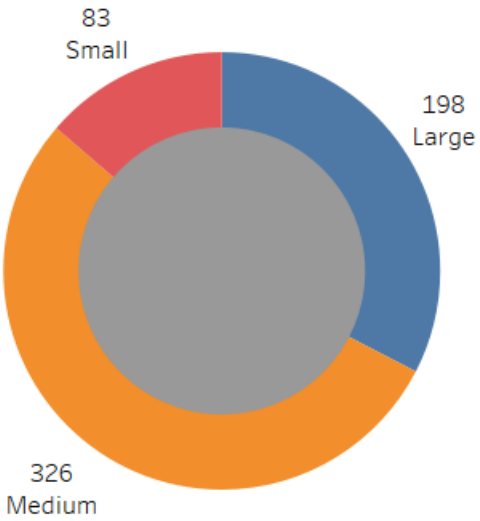
Dataset 4: Data Science Jobs

https://www.kaggle.com/datasets/ruchi798/data-science-job-salaries

Data Science Jobs Dashboard



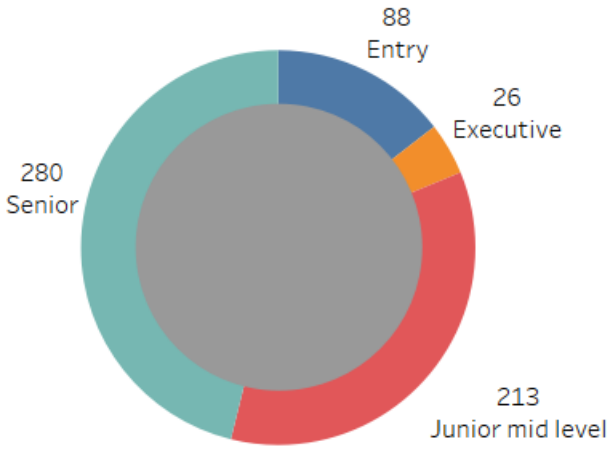
Graph 1: Data Science jobs by Company Size



Observation: The average number of people that worked for the company during the year: Small sized means less than 50 employees, Medium sized is 50 to 250 employees, Large sized means more than 250 employees. Based on company sizes, Maximum number of companies are the medium sized companies that is 326 involved in data science jobs.

Conclusion: There is an increasing demand of data science jobs in companies for aiding in taking decisions based on analytical results hence leading to reduced risks.

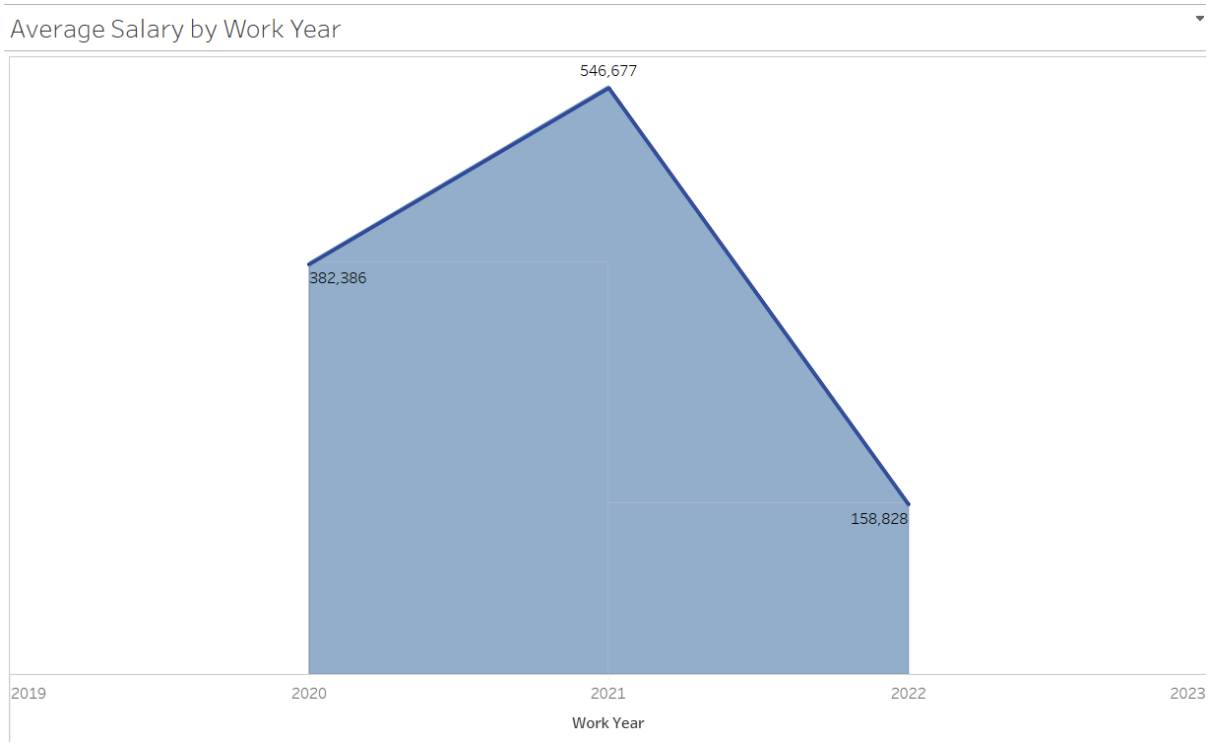
Graph 2: Data Science Jobs by Experience Level



Observation: Based on the experiences employees are holding, maximum hiring is at the senior level considering all the job titles like Business Analyst, AI Scientist, Big Data Analyst etc.

Conclusion: Data Science is a critical field which involves finding out useful insights that can be helpful for the company's growth. Hence, it seems employers prefer having maximum hiring at senior level positions with employees having more practical experience.

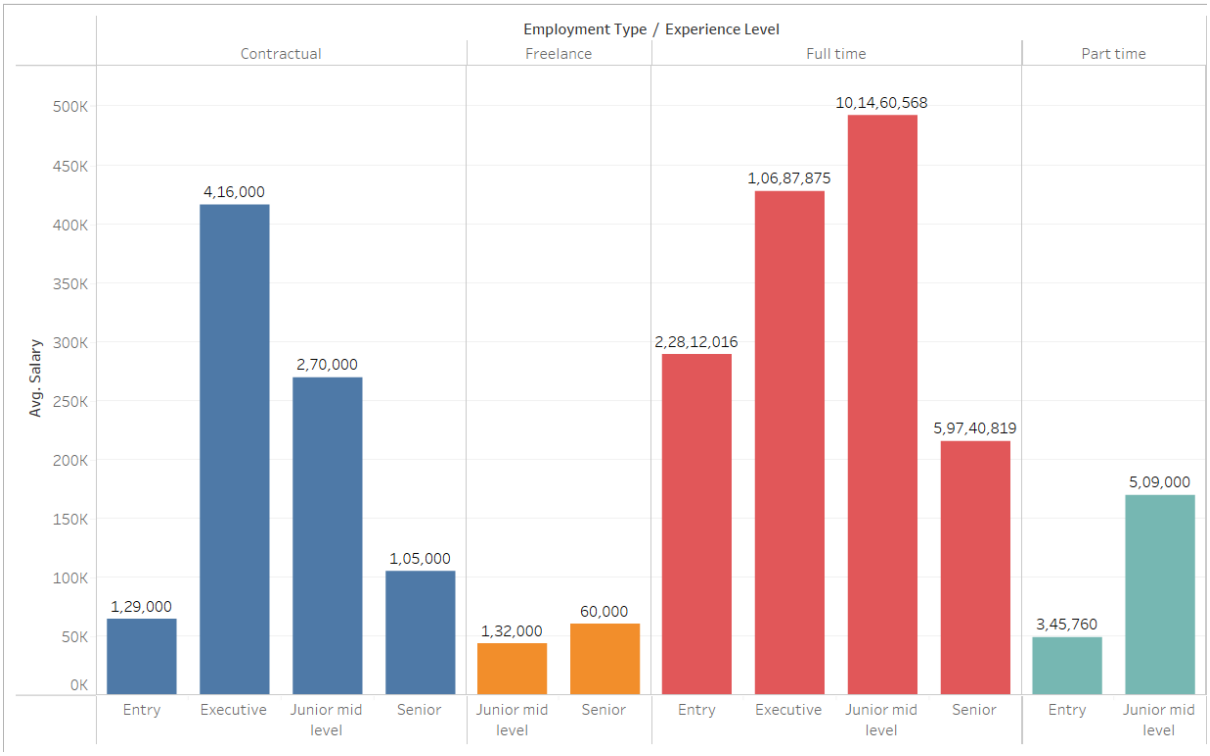
Graph 3: Average Salary by Work Year



Observation: It is observed that while considering all the job titles, the average salary shows the increasing trend from 2020 to 2021 that is 382K to 546K. However, there is a significant downfall seen from 2021 to 2022 that is to 158K.

Conclusion: The significant reduction in the average salary is might be due to the covid effects when business was affected because of reduced demand and government regulations.

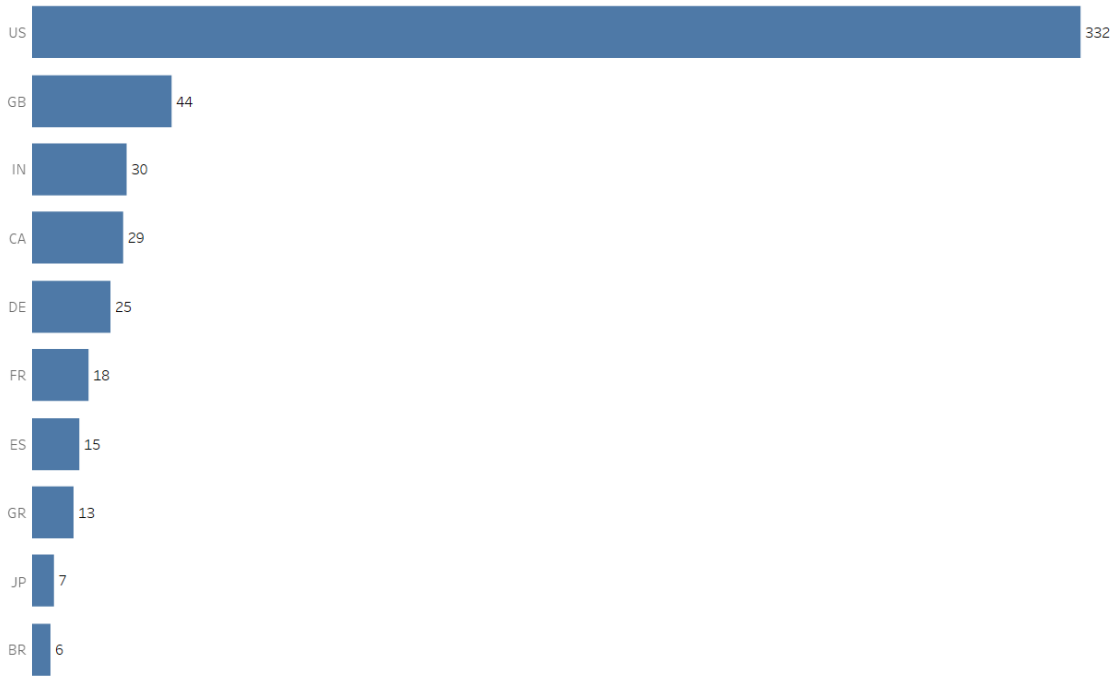
Graph 4: Average Salary in US$ by Experience Level and Employment Type



Observation: While going through the graph, Highest average salary in US$ is paid to the full-time employees followed by Contractual employees. Freelancers are paid the least.

Conclusion: Junior mid-level employees are seemed to paid more than other level employees in order retain them in the organisations. Senior most are comparatively paid less might be because hey get more into managerial role rather than technical line.

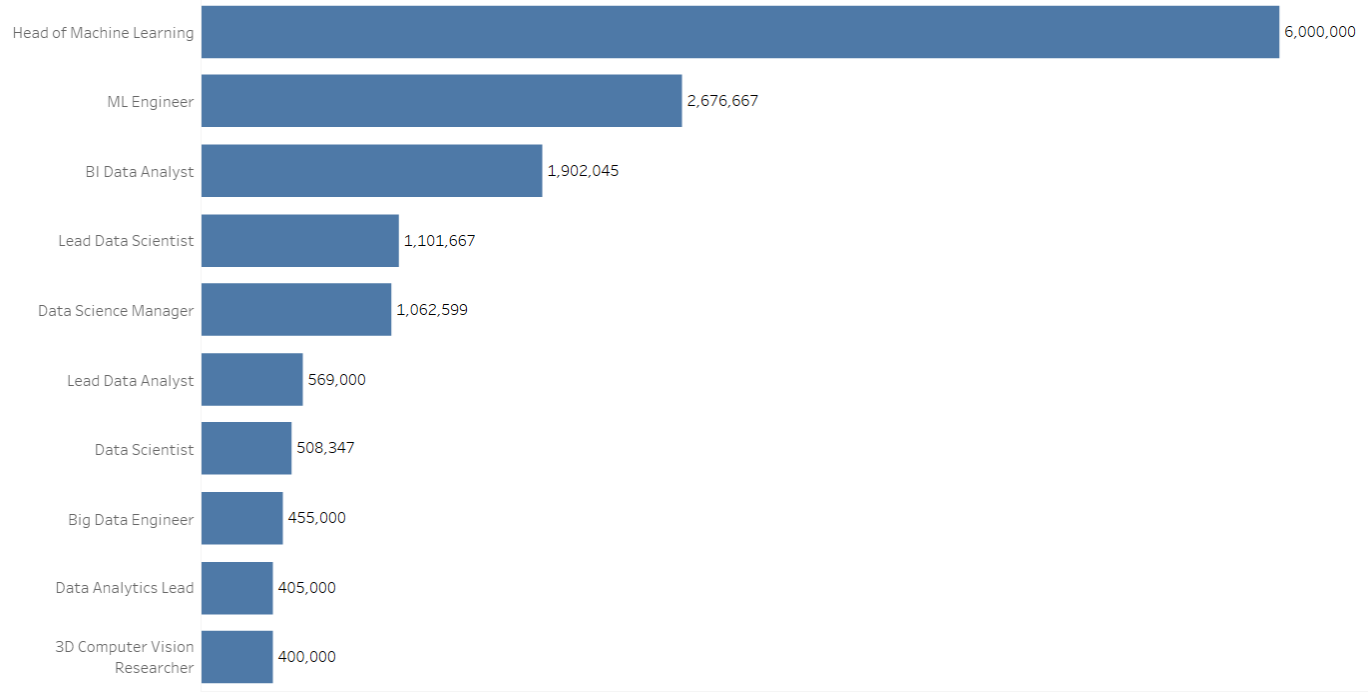
Graph 5: Top 10 Employee Residences



Observation: These are the regions from where maximum employees belongs to or get hired. US tops the list with having 332 employees hired from here followed by United Kingdom of Great Britain where 44 employees were hired.

Conclusion: In the coming future, companies might consider these regions for ease in hiring and getting skilled workforce.

Graph 6: Top 10 Jobs by Average Salary

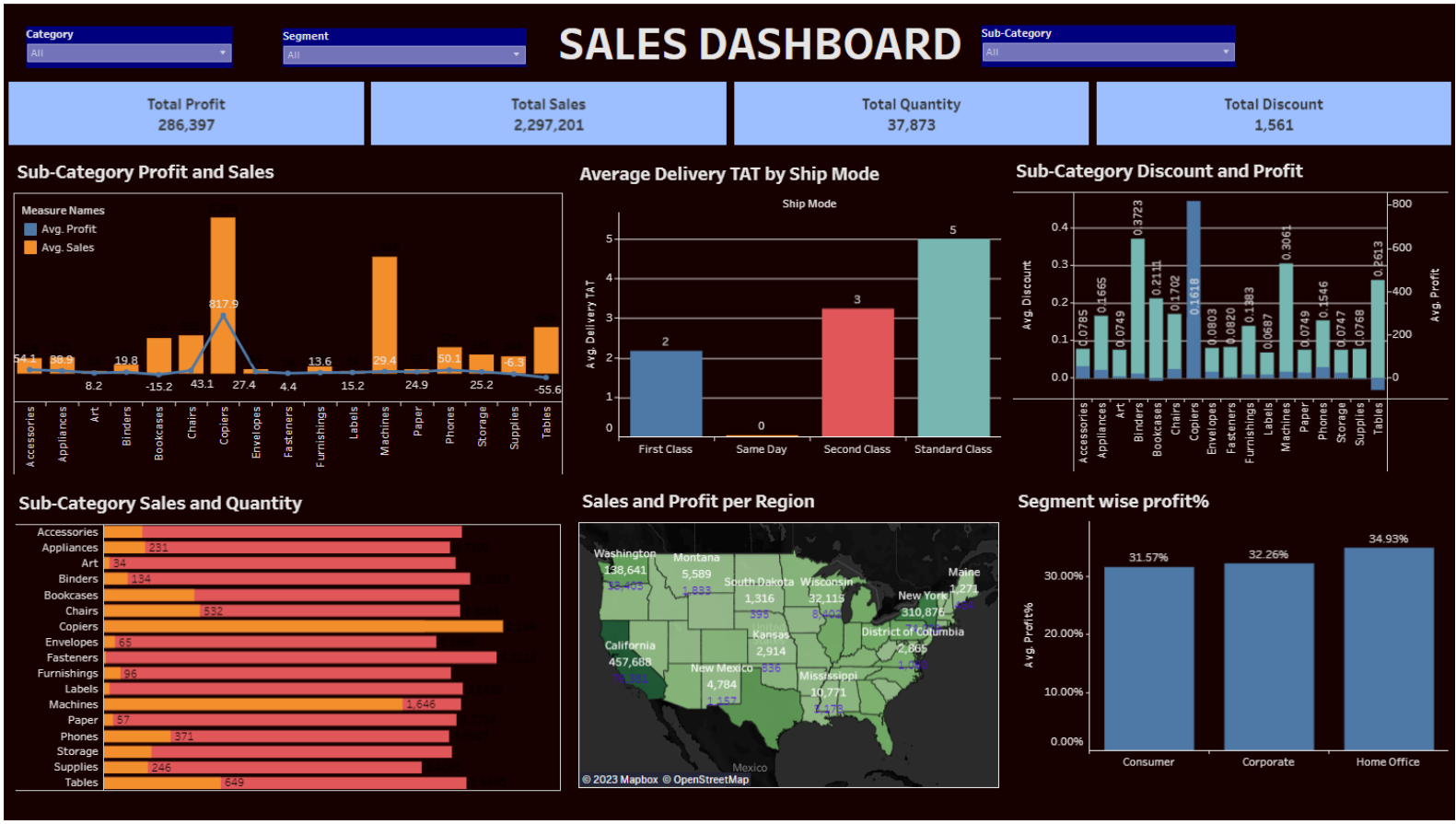


Observation: This graph shows the highest paying jobs in Data science. Head of Machine learning paid the highest average salary that is around 6 million followed by Machine leaning engineer and BI Data Analyst.

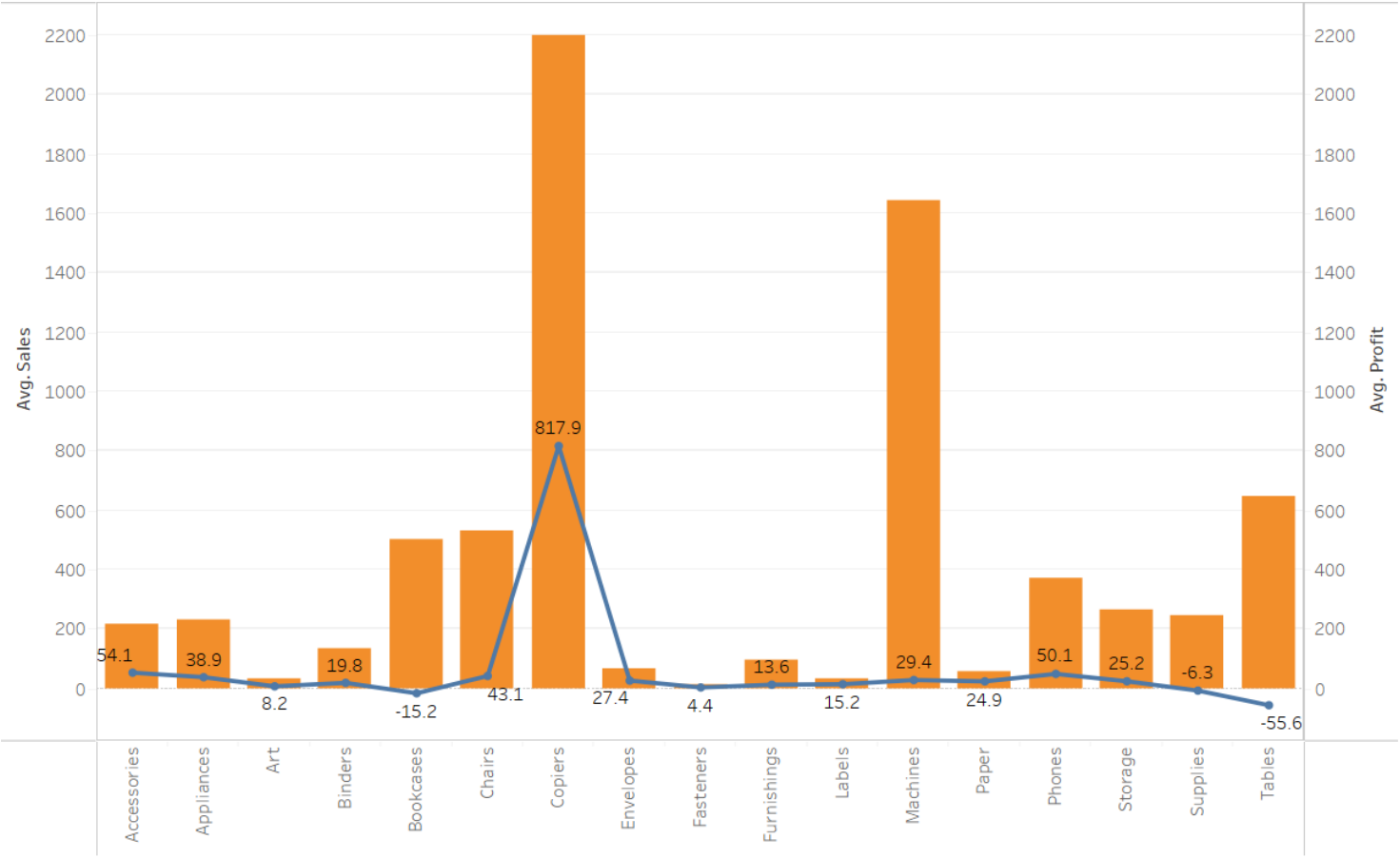
Conclusion: The above graph indicates the following job titles with the maximum salaries offered hence are getting more demanded among the youth for better career.

Dataset 5: Sales Dashboard

https://public.tableau.com/views/SalesDashboard_16829244262700/Dashboard1?:language=en-US&publish=yes&:display_count=n&:origin=viz_share_link



Graph 1: Sub-Category Profit and Sales

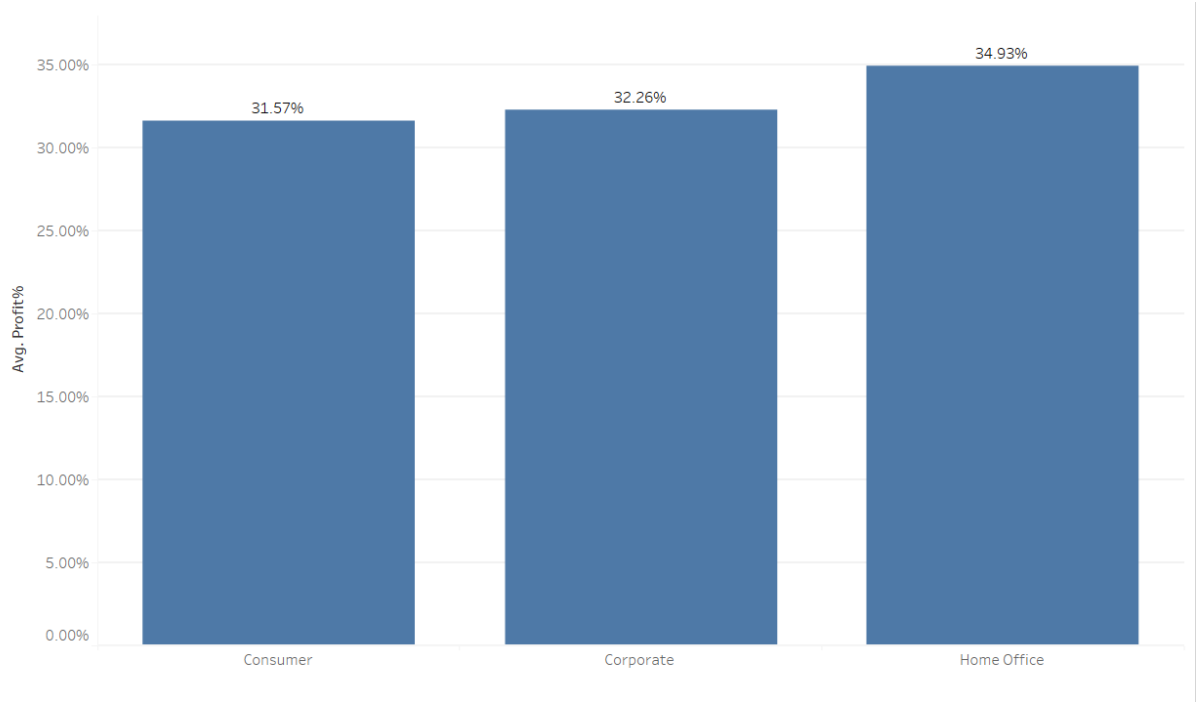


Observation: This graph shows that maximum profit and sales were in the Copiers category followed by Machines. However, the average profit was very low in the Machines category i.e., 29.4 as compared to sales of 1.6k.

Bookcases and Tables category incurred average losses of 15.2 and 55.6 respectively despite of decent sales.

Conclusion: There should be increased availability of Copiers, Accessories and Phones. There is a need to bring profits in Tables and Bookcases by either revising sales price or introducing discounts.

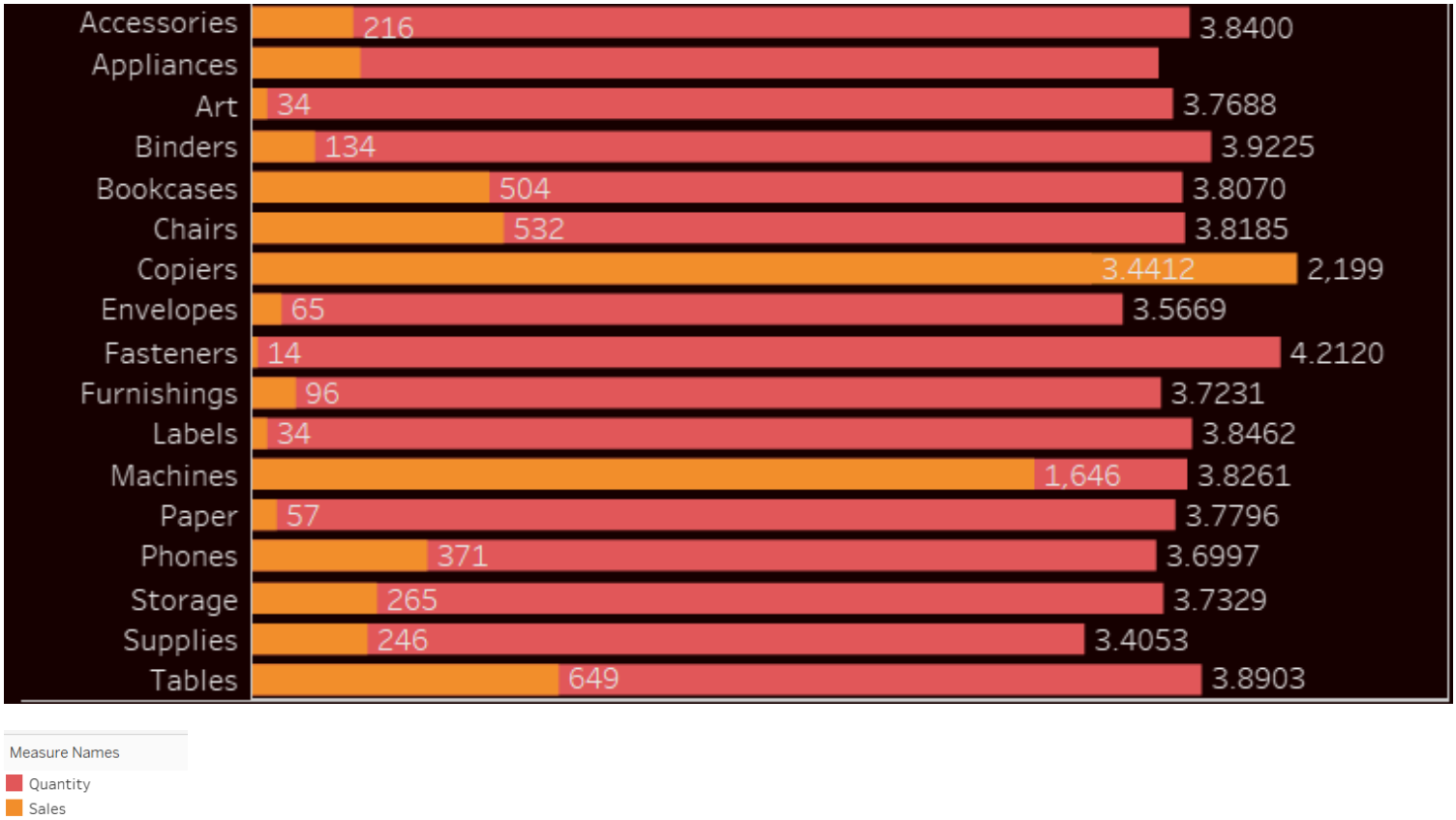
Graph 2: Segment wise Profit Percentage



Observation: Home Office segment seems to be the most profitable as per the given data followed by the Corporate.

Conclusion: Based on the values, sub-categories in the Home office segment should be given priority to meet the increasing demand and hence capture maximum profit.

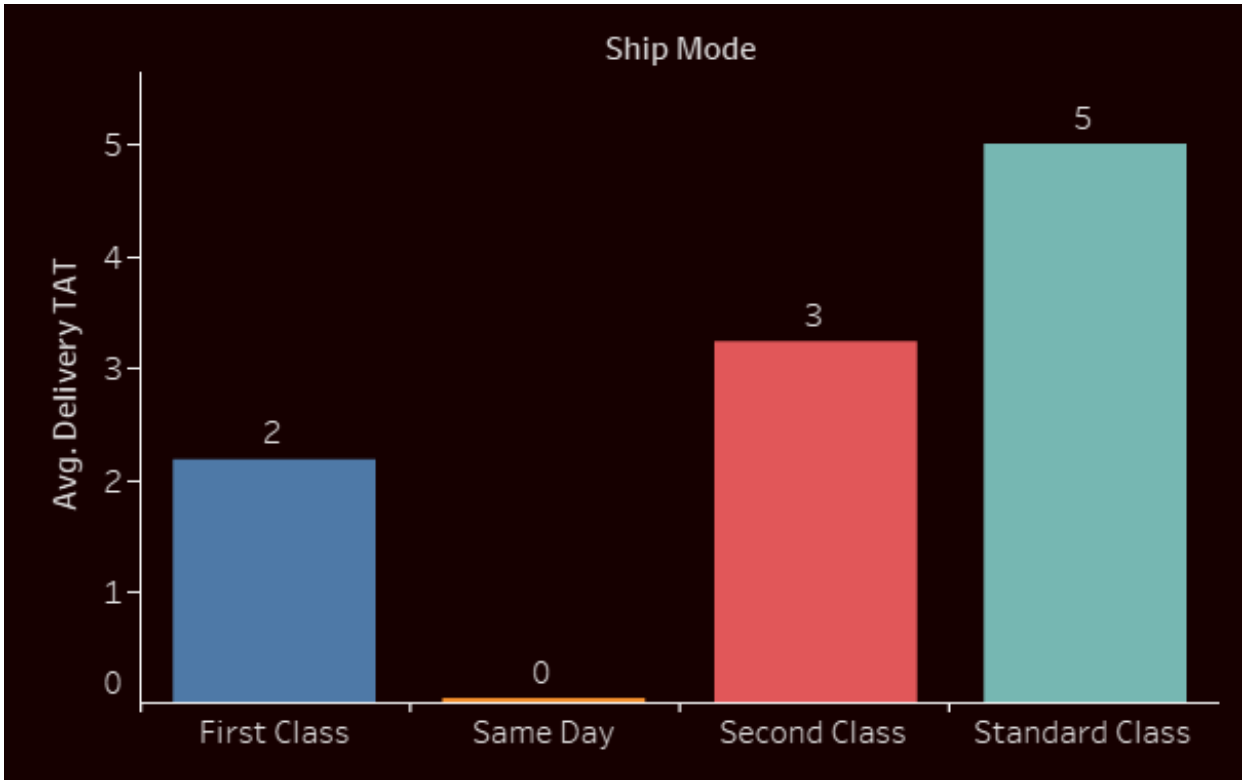
Graph 3: Sub-Category Sales and Quantity



Observation: This graph shows the sales and quantity of all the sub category products. On comparing sales and quantity also, Copier products had the maximum average sales value that is 2,199 with very less quantity followed by Machines with average quantity sold approx. 4 and average sales made of 1.6k

Conclusion: Dealing with increased production of Copiers and Machine can be lucrative to the company seeing the high sale value.

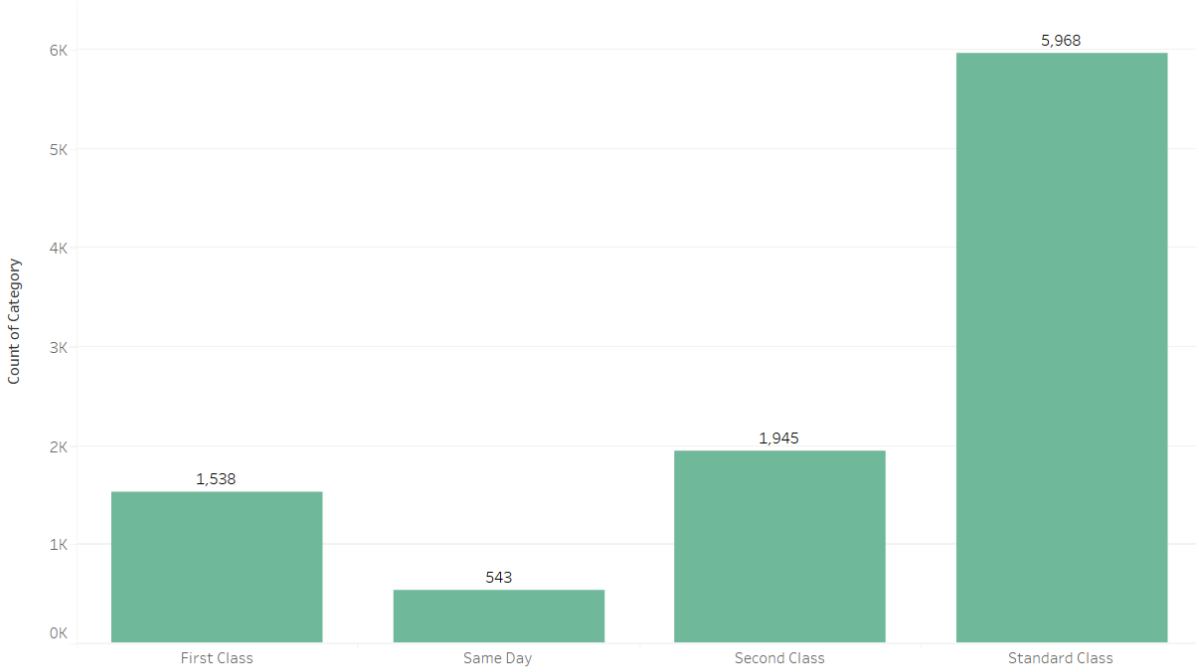
Graph 4: Average Delivery TAT by Ship Mode



Observation: This graph shows the average days taken by various ship modes to deliver the products. Average of 5 days are taken to deliver products through Standard Class.

Conclusion: Company can focus on reducing the TAT for delivery through Standard class in order to increase the customer satisfaction and ensure fast deliveries.

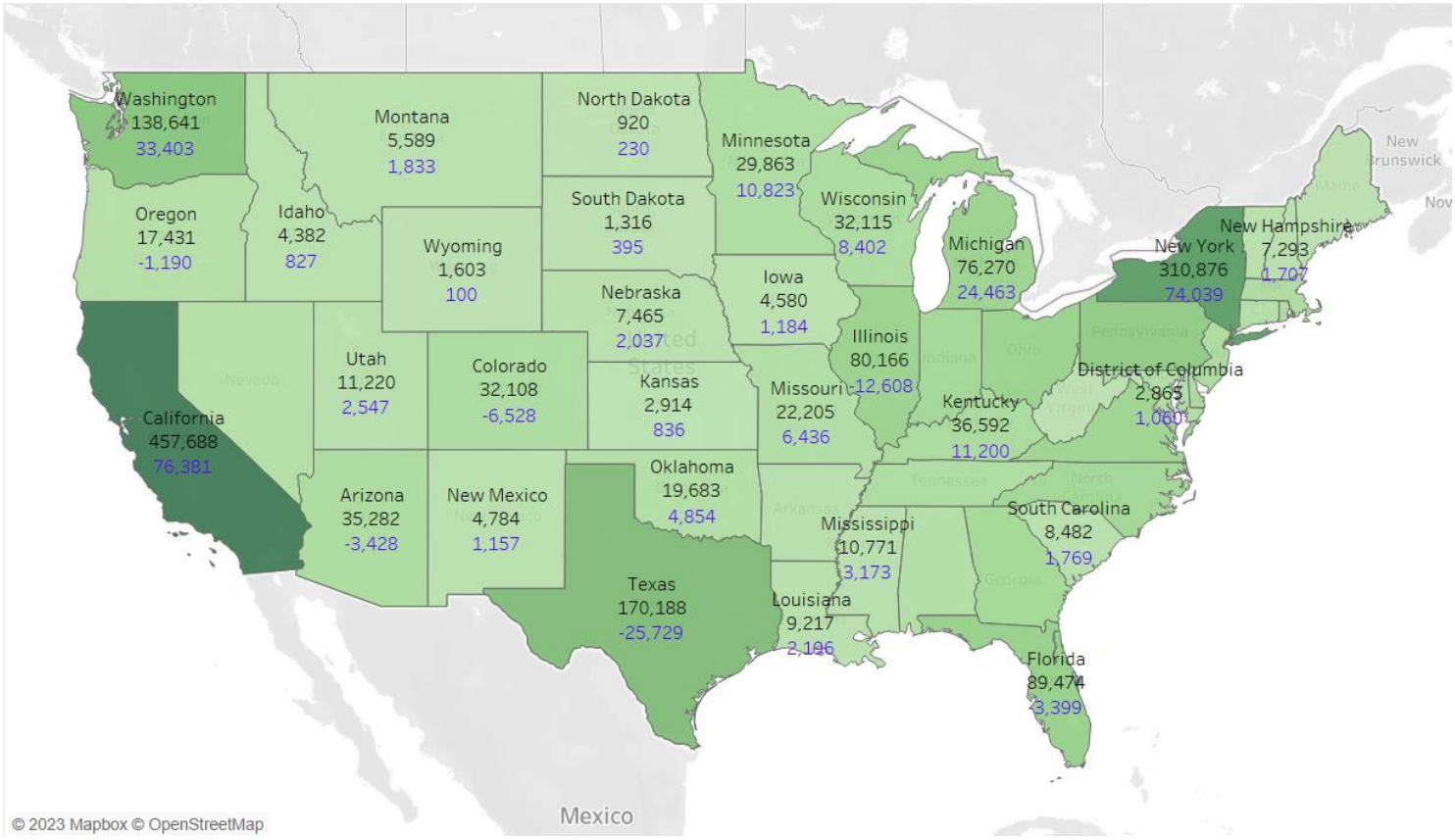
Graph 5: Ship Mode Preferred for all Categories



Observation: From this graph, it is observed that maximum deliveries are done through Standard class and minimum through Same Day mode.

Conclusion: Profitable products such as Copiers, Phones can be made available through First or Second class to increase the early Cash Flow.

Graph 6: Sales and Profit per Region

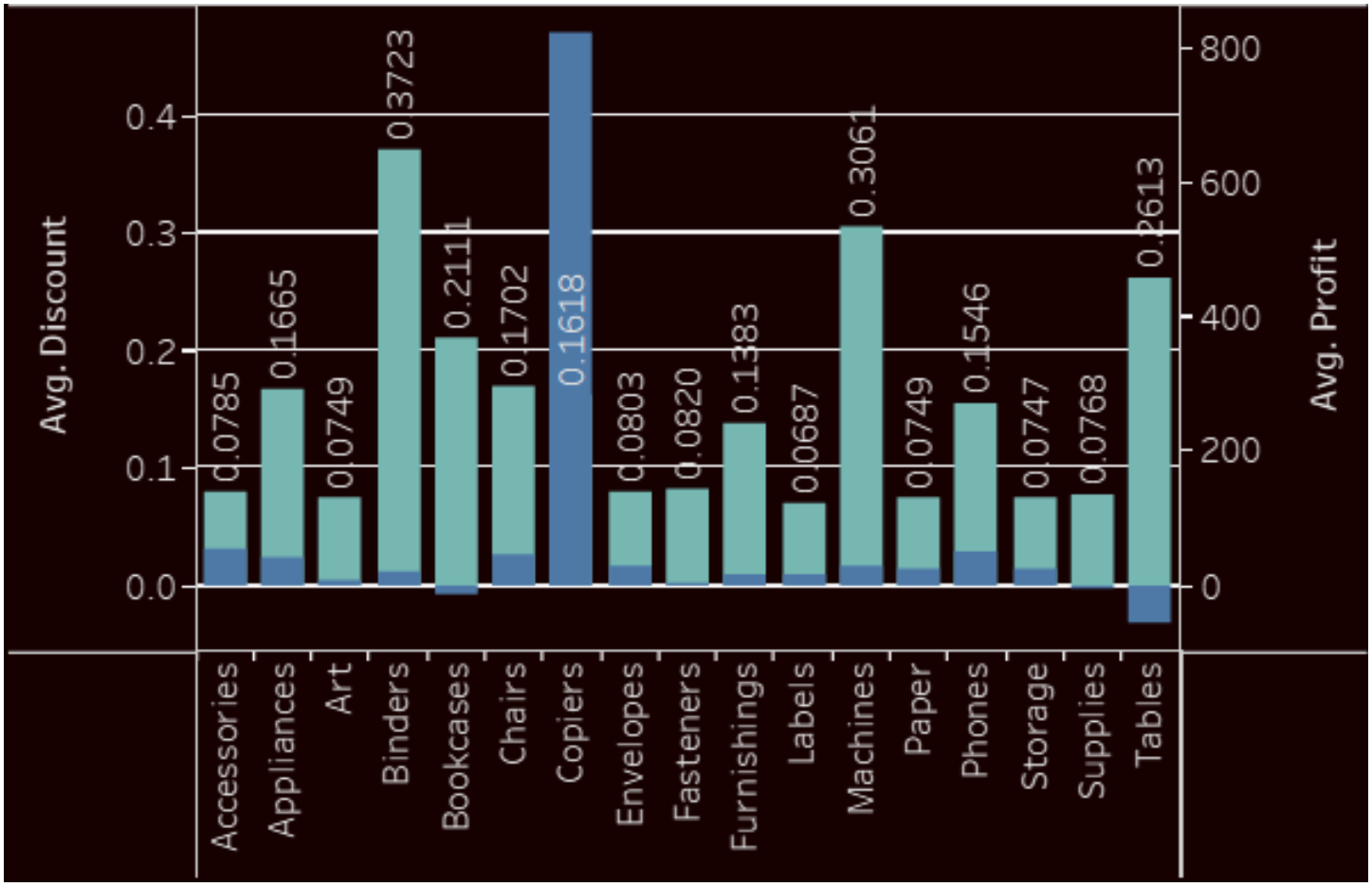


Observation: Maximum sales and profit took place in California that is 456K and 76K respectively. Followed by New York with sales of 310K and profit 74K.

Whereas Texas region experienced a loss of approx. 26K despite of decent sales of 170K.

Conclusion: California and New York can be the regions where we can have increased outlets and delivery services to increase the availability of products.

Graph 7: Sub-Category Discount and Profit

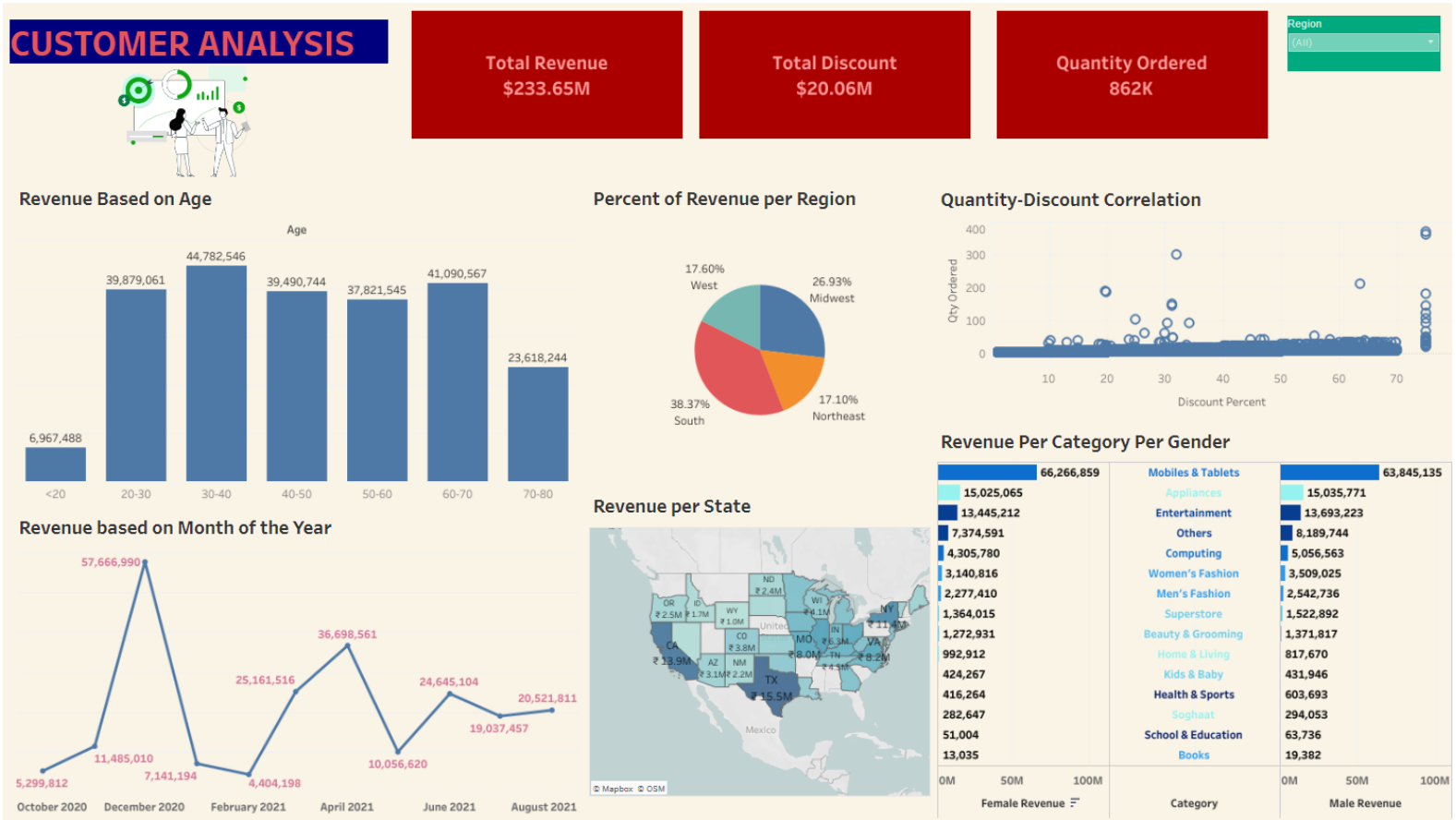


Observation: With comparatively high value average discounts, Tables and Bookcases incurred loss of 55.6 and 15.2 respectively.

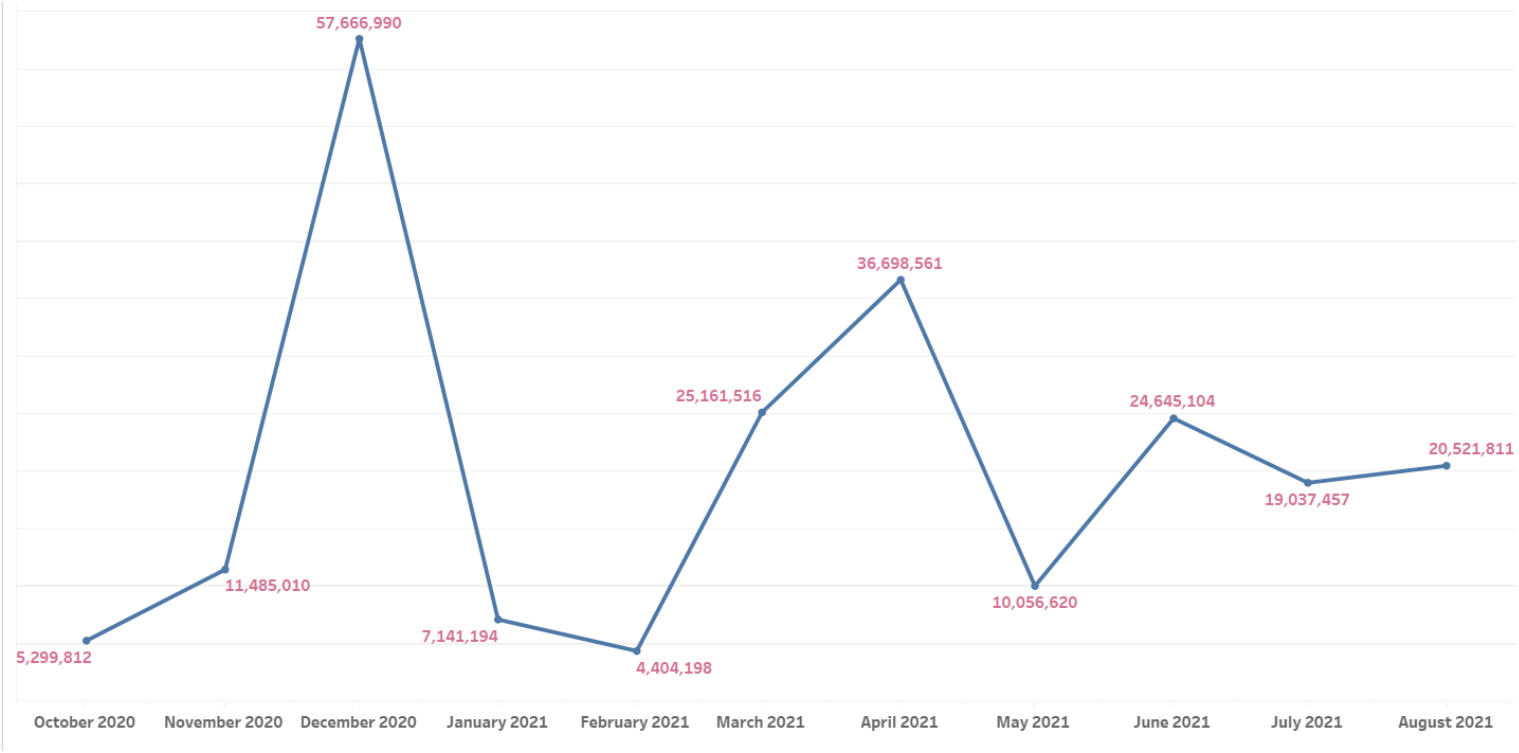
Conclusion: Increased discount is no more a solution to reduce loss for categories like Tables and Bookcases. Hence, there is a need to incorporate other ways such as reducing their production and working on reducing the production cost as well.

Dataset 6: Customer Analysis

https://public.tableau.com/views/CustomerAnalysis_16830112258140/Dashboard1?:language=en-US&:display_count=n&:origin=viz_share_link



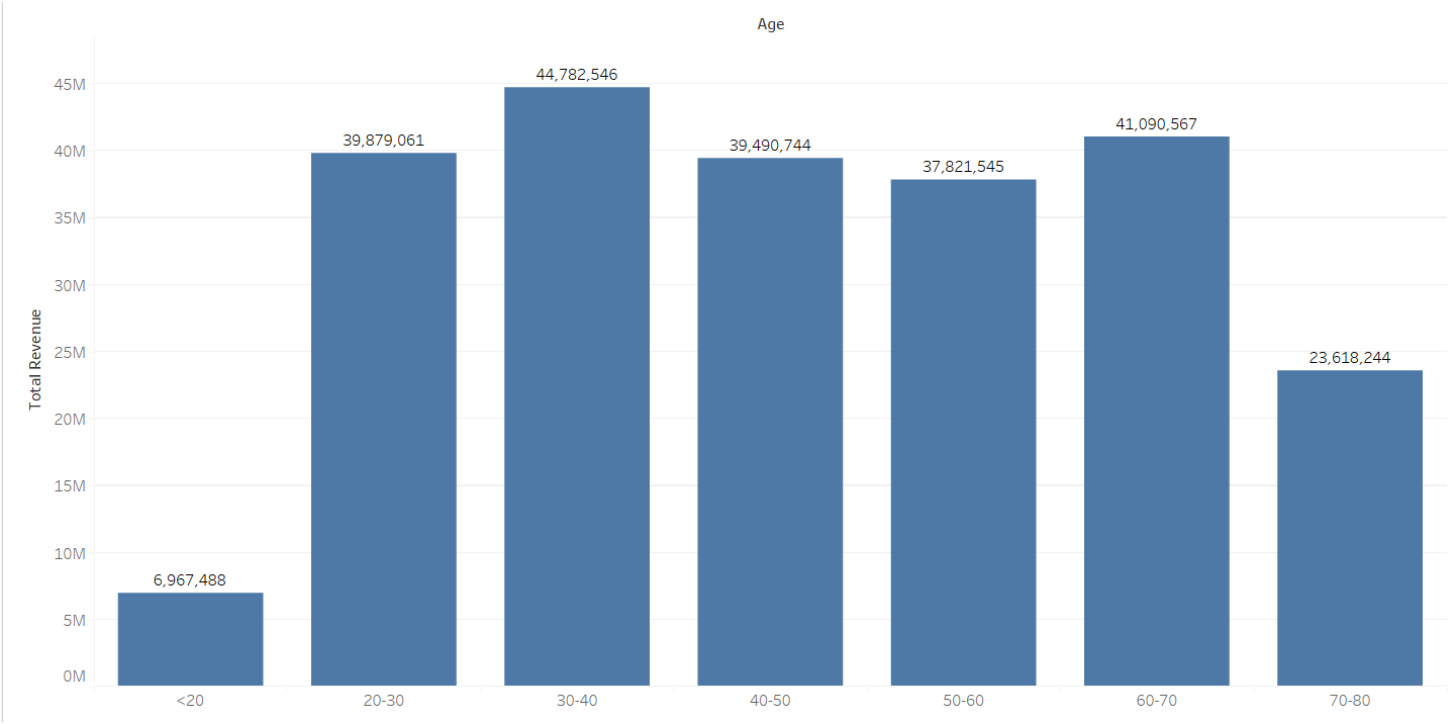
Graph 1: Revenue based on the Month of the Year



Observation: This graph shows the non-monotonic relation as the line is going up and down. Maximum revenue is generated in the month of December,2020, which then experienced a steep fall in January.

Conclusion: There is a periodic change seen over months. Might be because of Christmas festival, revenue likely to get increased to 57 million.

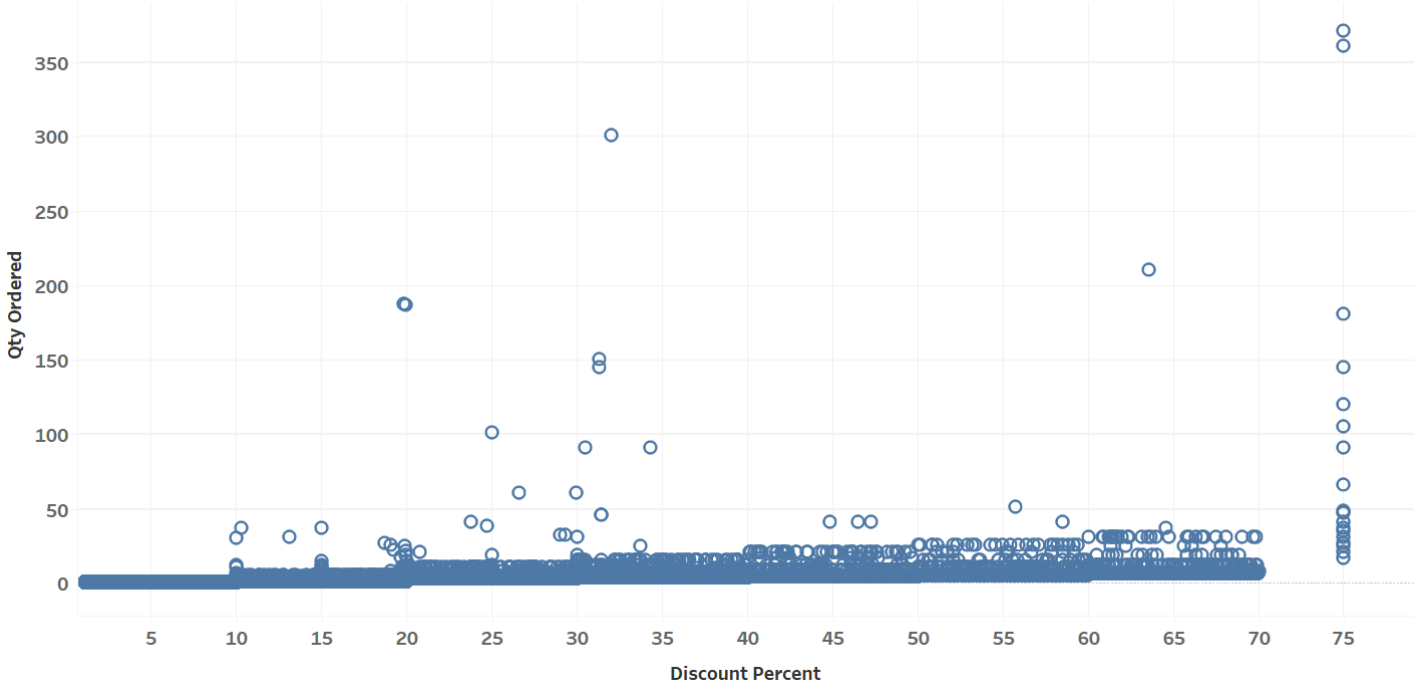
Graph 2: Revenue Based on Age



Observation: This graph shows the age wise revenue generated. People of the age group 30-40 generated the maximum revenue of approx. 45 million and the least revenue was generated from those of age group less than 20 that is approx. 7 million.

Conclusion: Seeing the figures, people of age-group 20-50 and 60-70 are more likely to raise the revenue hence they can be our target customers.

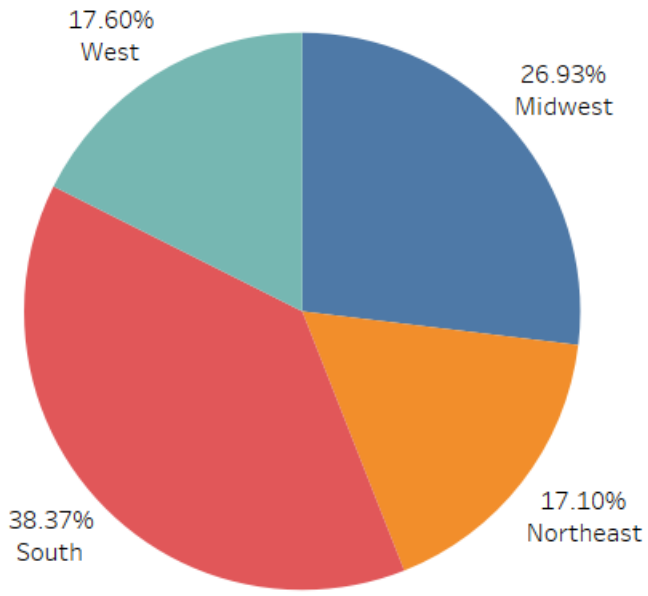
Graph 3: Quantity-Discount Correlation



Observation: This graph shows the positive correlation between discount percentage and the quantity ordered by the customers.

Conclusion: With the increase in discount percentage, quantity ordered by the customer will more likely to increase.

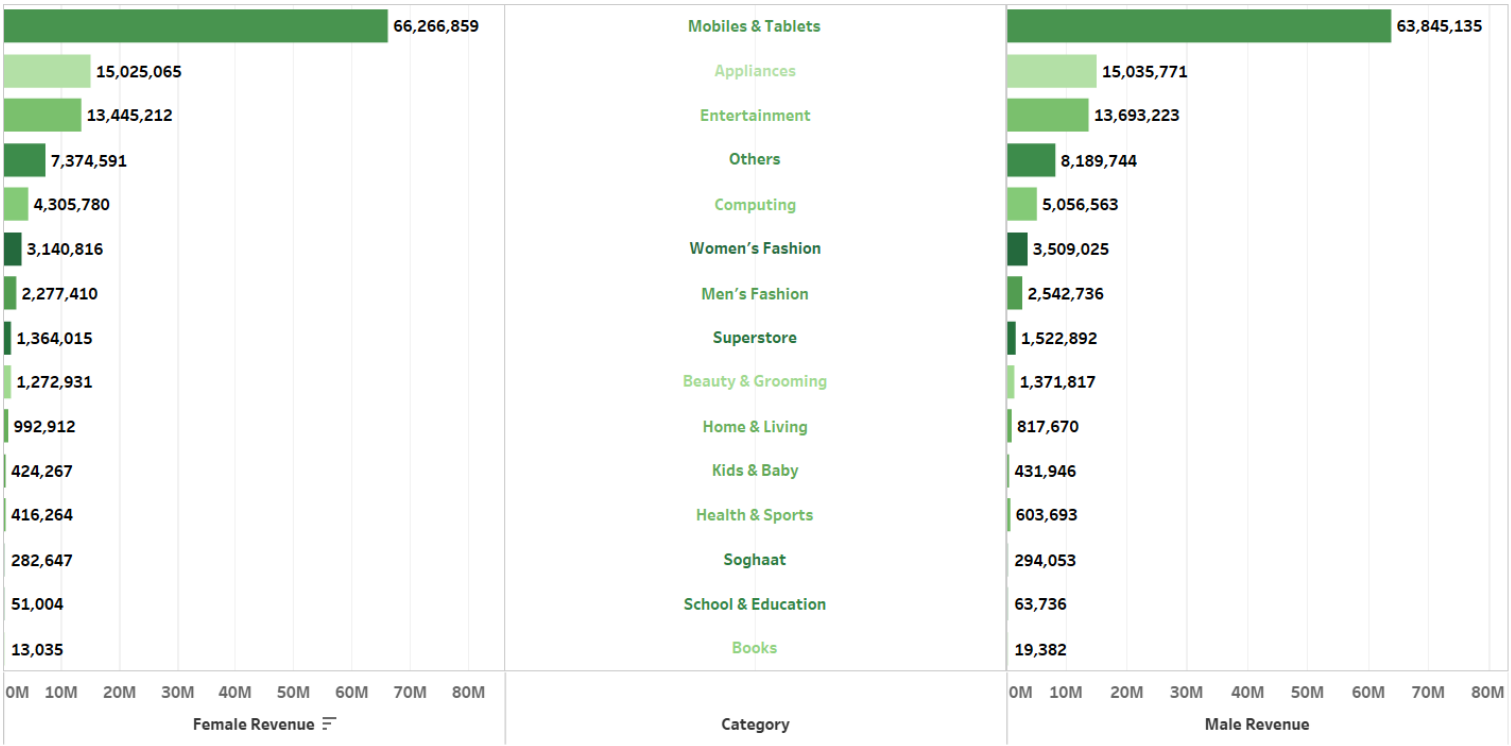
Graph 4: Percent of Revenue Per Region



Observation: Based on the regions, maximum revenue is generated from the South that is 38.37% of the total revenue and least in Northeast region that is 17.10%

Conclusion: Increased availability of products in the South region for meeting the customers demand is more likely to generate higher revenue

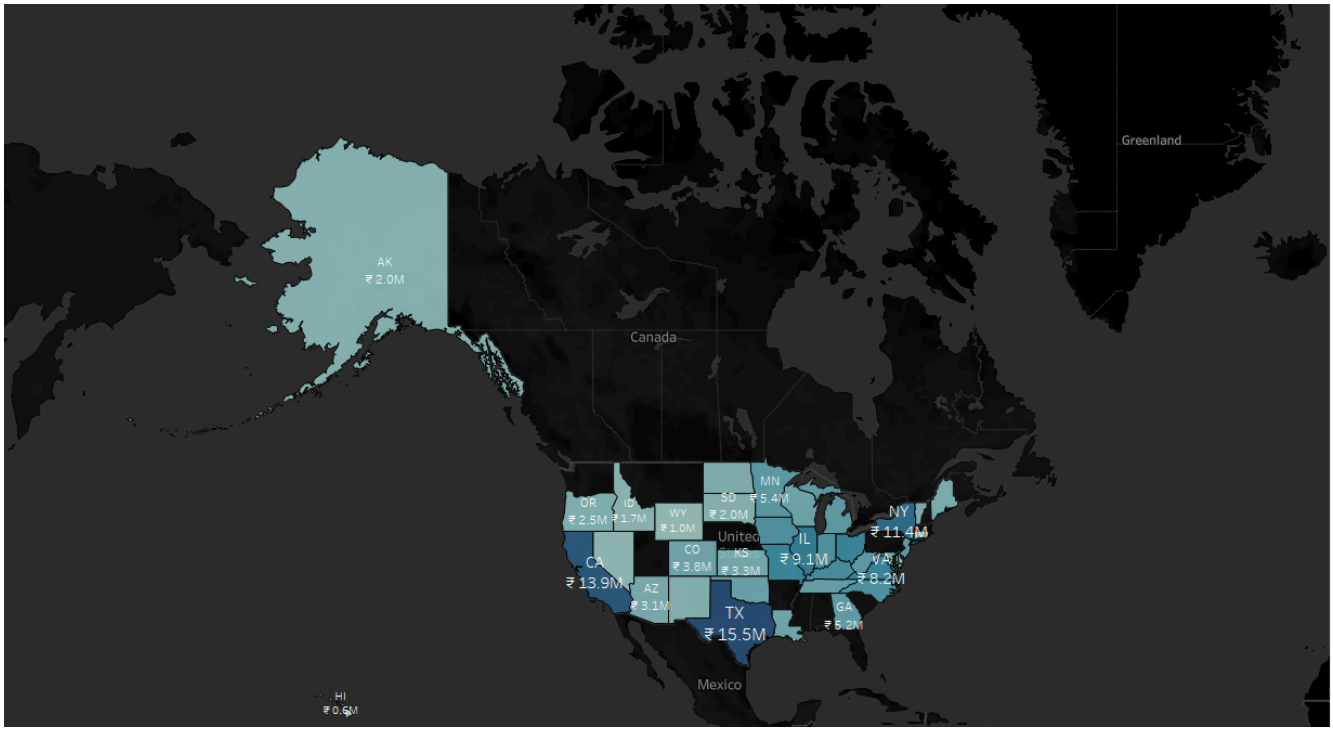
Graph 5: Revenue per Category per Gender



Observation: Based on the category wise revenue per gender, it is seen that among both males and females, Mobiles and Tablets are the most demanded products with the revenue generation of approx. 63 million and 66 million respectively. And the least demanded category is Books.

Conclusion: Mobiles and Tablets, Appliances and Entertainment are the top categories in terms of demand and revenue generation hence these categories can be more focused upon for increasing their availability.

Graph 6: Revenue per State



Observation: In terms of state, maximum revenue is generated in Texas followed by California that is 15.5 and 13.9 million respectively. And least revenue generating state was Alaska with revenue generation of 2 million.

Conclusion: Company can focus on its business expansion in Texas and California thereby increasing the availability of the products hence increasing the revenue generation.