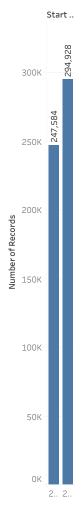
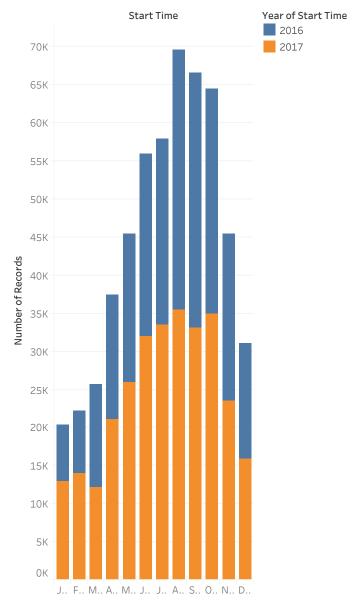
<How many trips have been recorded total during the chosen period?>



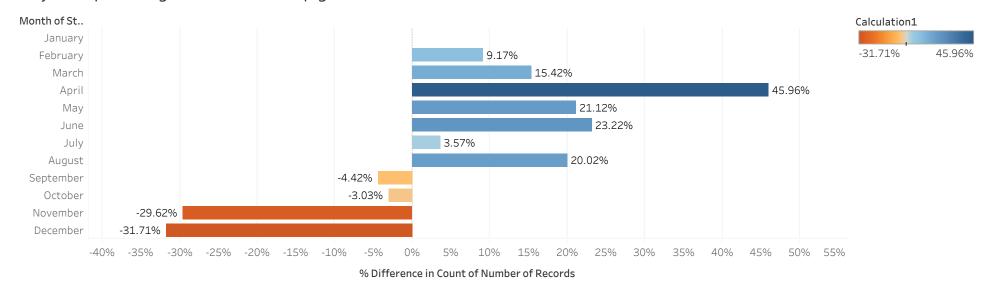
Sum of Number of Records for each Start Time Year. The marks are labeled by count of Number of Records.

<How many trips have been recorded total during the chosen period?>



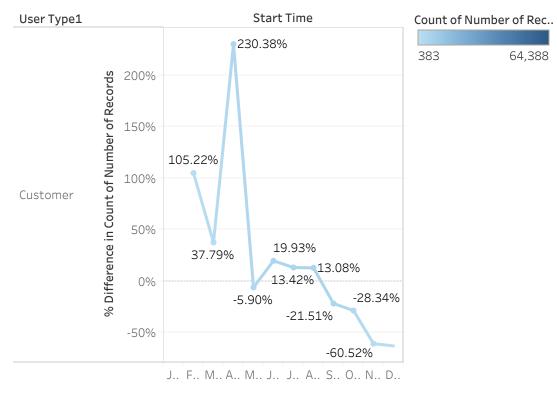
Sum of Number of Records for each Start Time Month. Color shows details about Start Time Year. The marks are labeled by sum of Number of Records.

<By what percentage has total ridership grown?>



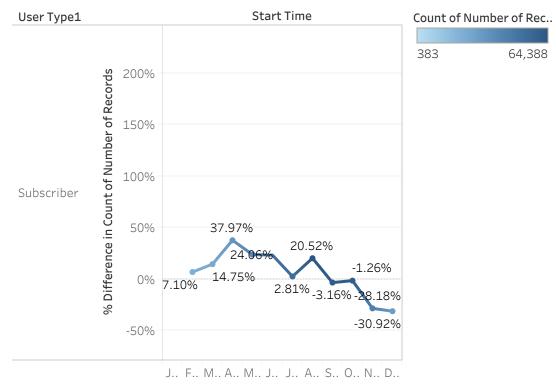
% Difference in Count of Number of Records for each Start Time Month. Color shows Calculation 1. The marks are labeled by Calculation 1.

<How has the proportion of short-term customers and annual subscribers changed?>



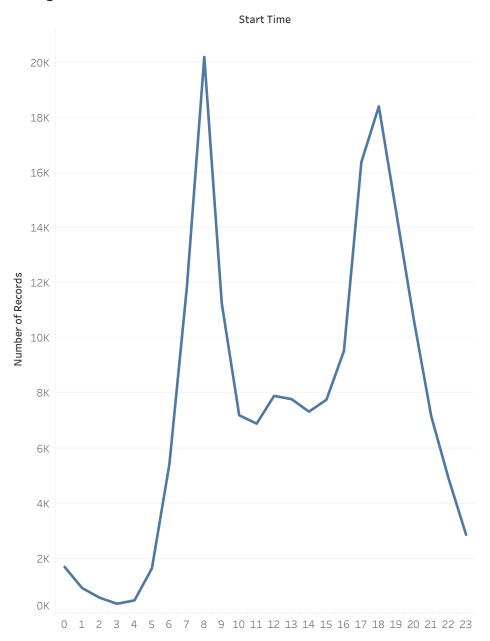
The trend of % Difference in Count of Number of Records for Start Time Month broken down by User Type1. Color shows count of Number of Records. The marks are labeled by Calculation1. The view is filtered on User Type1, which keeps Customer and Subscriber.

<How has the proportion of short-term customers and annual subscribers changed?>



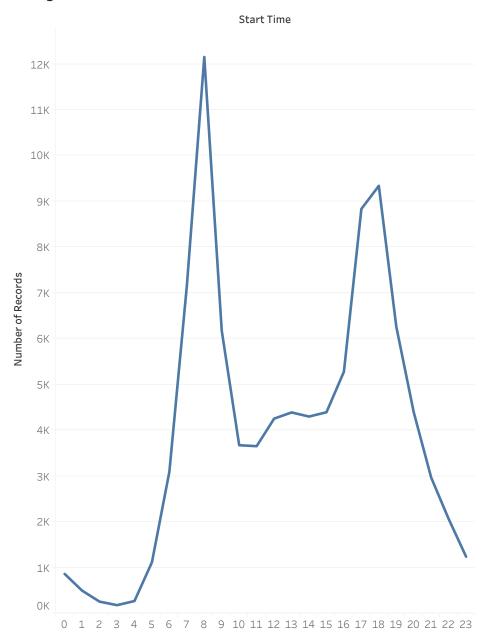
The trend of % Difference in Count of Number of Records for Start Time Month broken down by User Type1. Color shows count of Number of Records. The marks are labeled by Calculation1. The view is filtered on User Type1, which keeps Customer and Subscriber.

<Today, what are the peak hours in which bikes are used during summer months?>



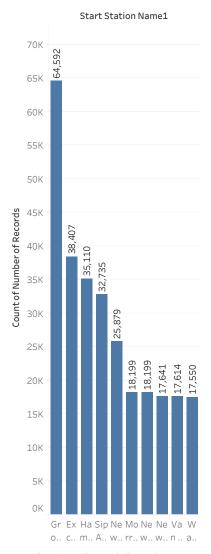
The trend of sum of Number of Records for Start Time Hour. The data is filtered on Start Time Month, which keeps June, July and August.

<Today, what are the peak hours in which bikes are used during summer months?>



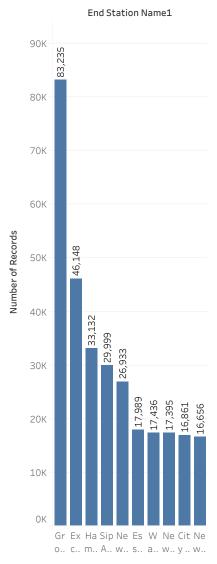
The trend of sum of Number of Records for Start Time Hour. The data is filtered on Start Time Month, which keeps January, November and December.

<Today, what are the top 10 stations in the city for starting a journey? (Based on data, why do you hypothesize these are the top locations?)>



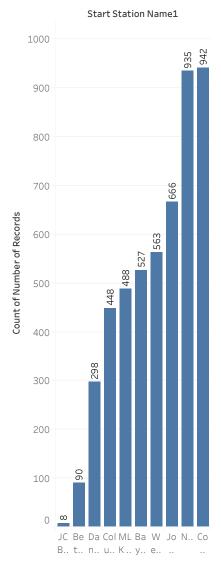
Count of Number of Records for each Start Station Name1. The marks are labeled by sum of Number of Records. The view is filtered on Start Station Name1, which has multiple members selected.

<Today, what are the top 10 stations in the city for ending a journey? (Based on data, why?)>



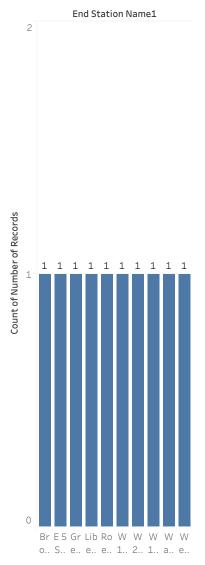
Sum of Number of Records for each End Station Name1. The marks are labeled by sum of Number of Records. The view is filtered on End Station Name1, which has multiple members selected.

<Today, what are the bottom 10 stations in the city for starting a journey? (Based on data, why?)>



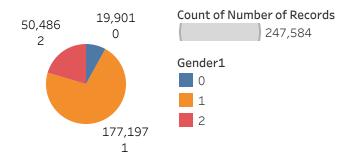
Count of Number of Records for each Start Station Name1. The marks are labeled by sum of Number of Records. The view is filtered on Start Station Name1, which has multiple members selected.

<Today, what are the bottom 10 stations in the city for ending a journey (Based on data, why?)>



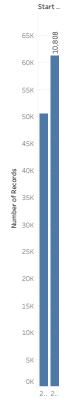
Count of Number of Records for each End Station Name1. The marks are labeled by sum of Number of Records. The view is filtered on End Station Name1, which has multiple members selected.

<Today, what is the gender breakdown of active participants (1=Male v. 2=Female), 0=Unknown?>>



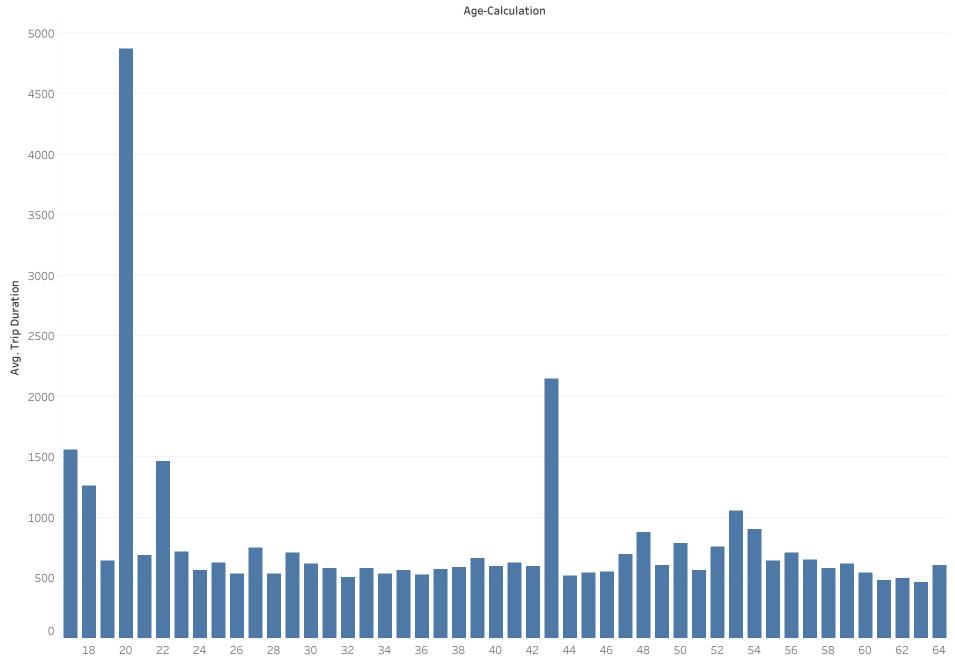
Sum of Number of Records and Gender1. Color shows details about Gender1. Size shows count of Number of Records. The marks are labeled by sum of Number of Records and Gender1. The data is filtered on Start Time Year, which keeps 2016.

<How effective has gender outreach been in increasing female ridership over the course of the past three years?>



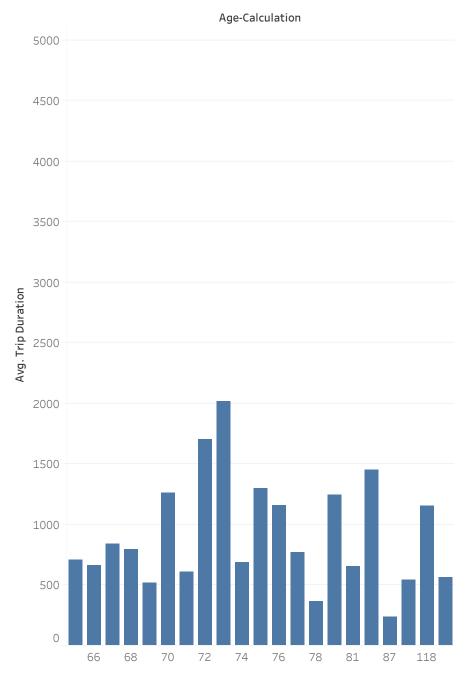
Sum of Number of Records for each Start Time Year. The marks are labeled by Difference in Number of Records. The data is filtered on Gender1, which keeps 2.

<How does the average trip duration change by age?>



 $Average\ of\ Trip\ Duration\ for\ each\ Age-Calculation.\ The\ view\ is\ filtered\ on\ Age-Calculation,\ which\ has\ multiple\ members\ selected.$

<How does the average trip duration change by age?>



 $Average\ of\ Trip\ Duration\ for\ each\ Age-Calculation.\ The\ view\ is\ filtered\ on\ Age-Calculation,\ which\ has\ multiple\ members\ selected.$

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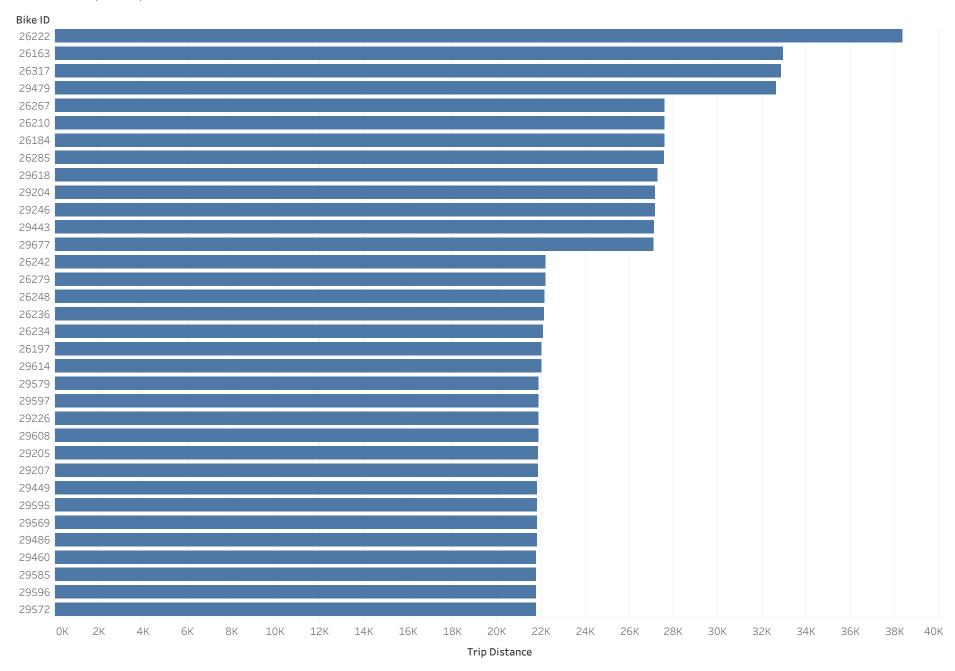
In Mil

es>

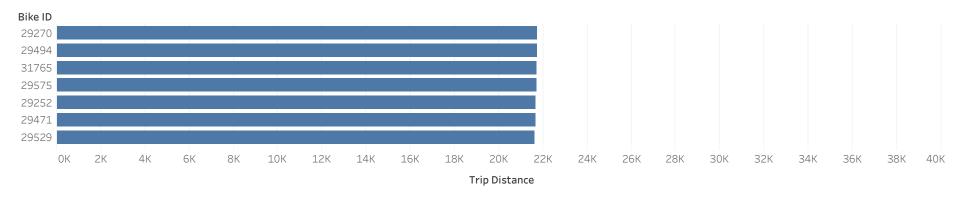
8.457

Average of Trip Distance.

Which Bikes (by ID) are most likely due for repair or inspection this year?

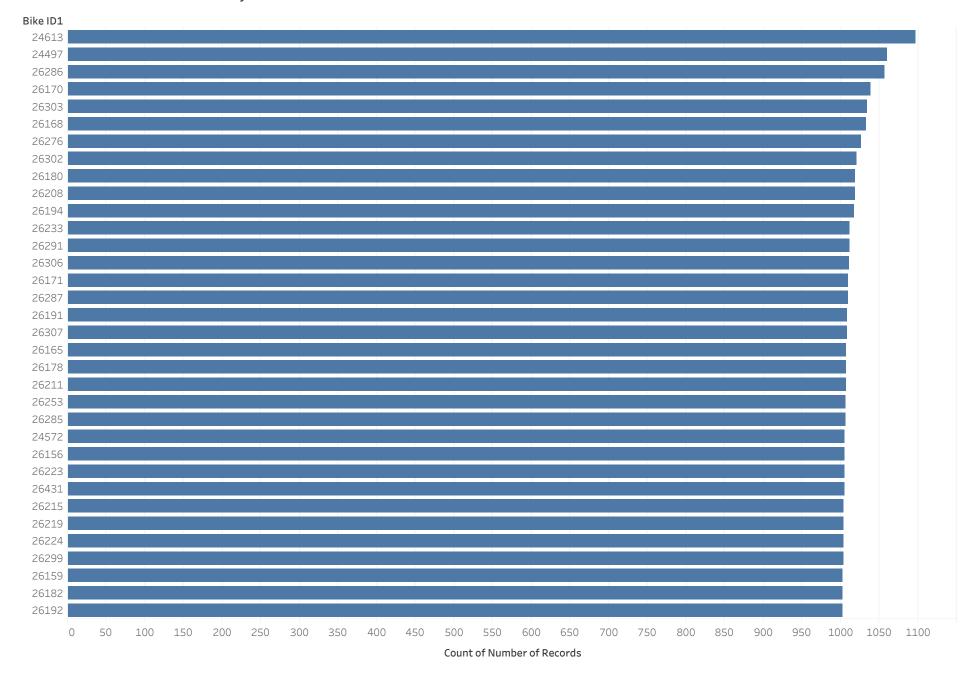


Which Bikes (by ID) are most likely due for repair or inspection this year?

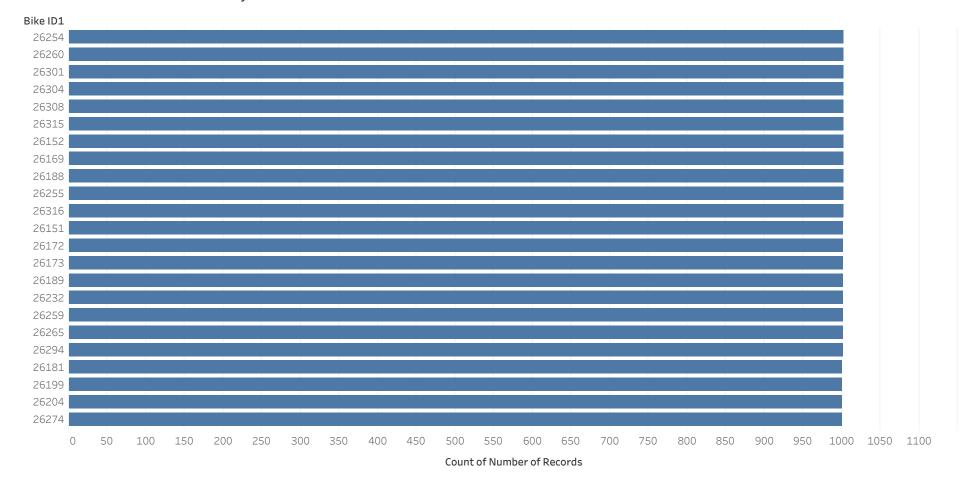


Sum of Trip Distance for each Bike ID. The view is filtered on sum of Trip Distance, which includes values greater than or equal to 20,000.

<How variable is the utilization by bike ID?>

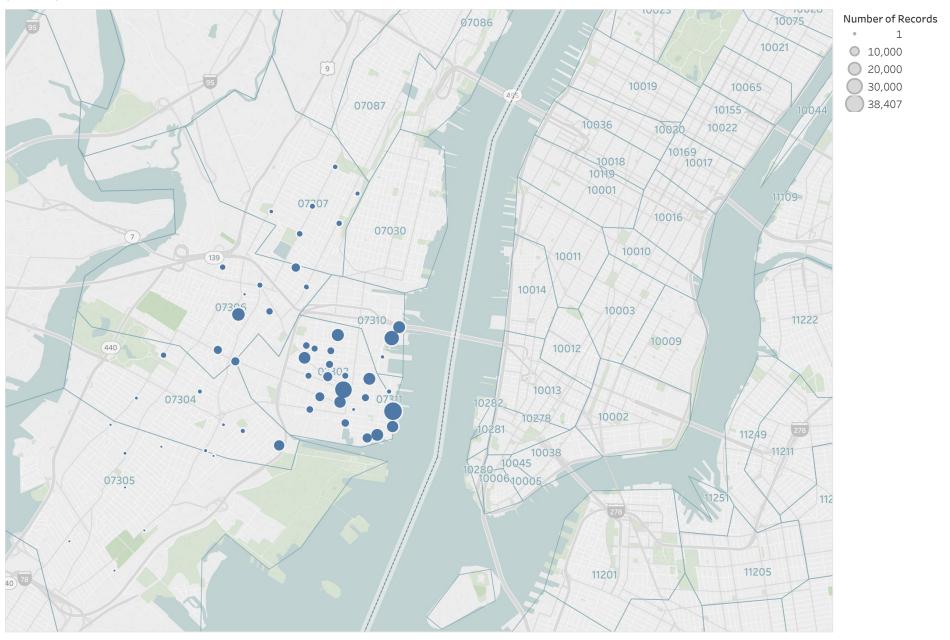


<How variable is the utilization by bike ID?>



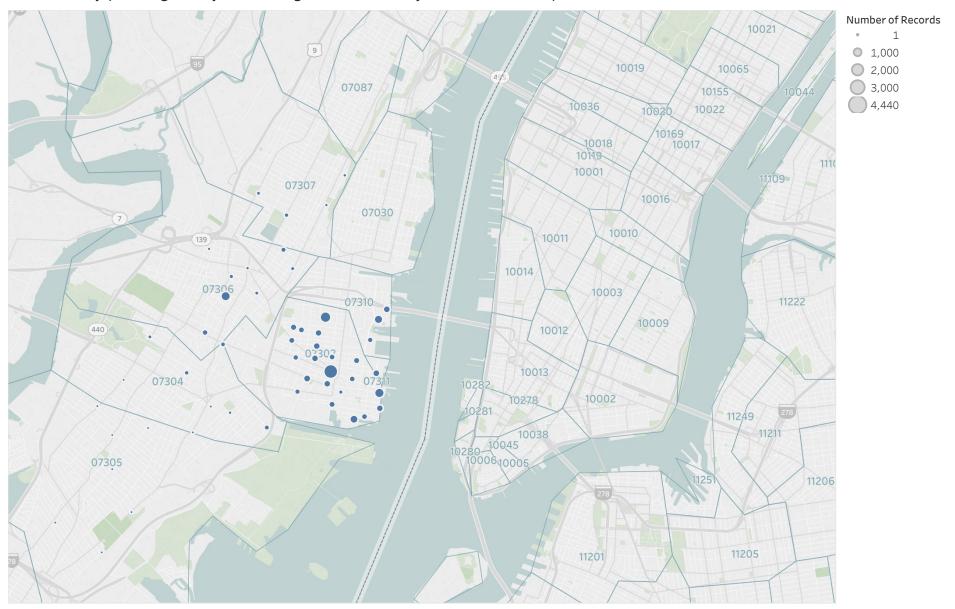
Count of Number of Records for each Bike ID1. The view is filtered on count of Number of Records, which ranges from 1,000 to 1,097.

<A static map that plots all bike stations with a visual indication of the most popular locations to start and end a journey with zip code data overlaid on top.>



Map based on Start Station Longitude1 and Start Station Latitude1. Size shows sum of Number of Records.

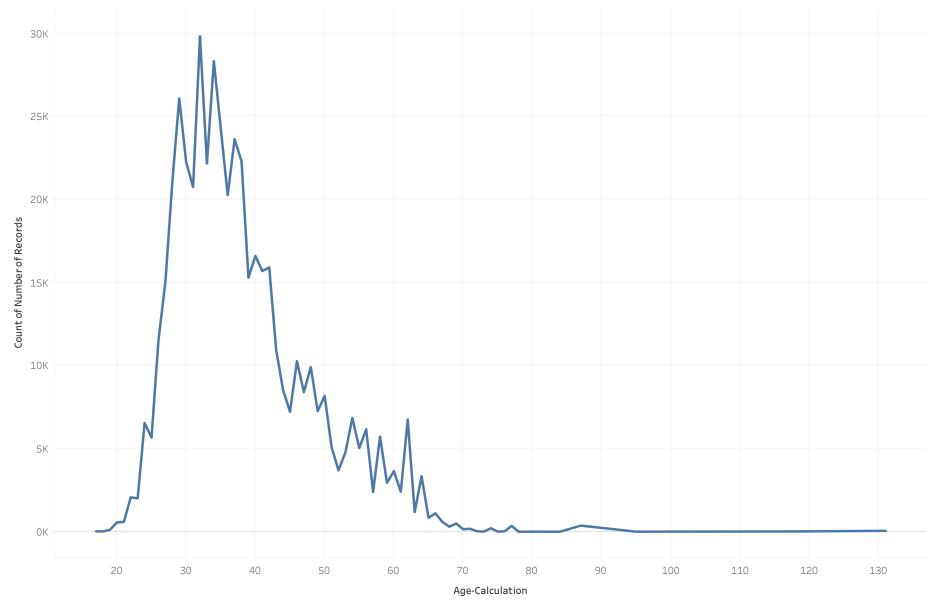
<A dynamic map that shows how each station's popularity changes over time (by month and year) -- with commentary pointing to any interesting events that may be behind these phenomena.>



Map based on Start Station Longitude1 and Start Station Latitude1. Size shows sum of Number of Records.

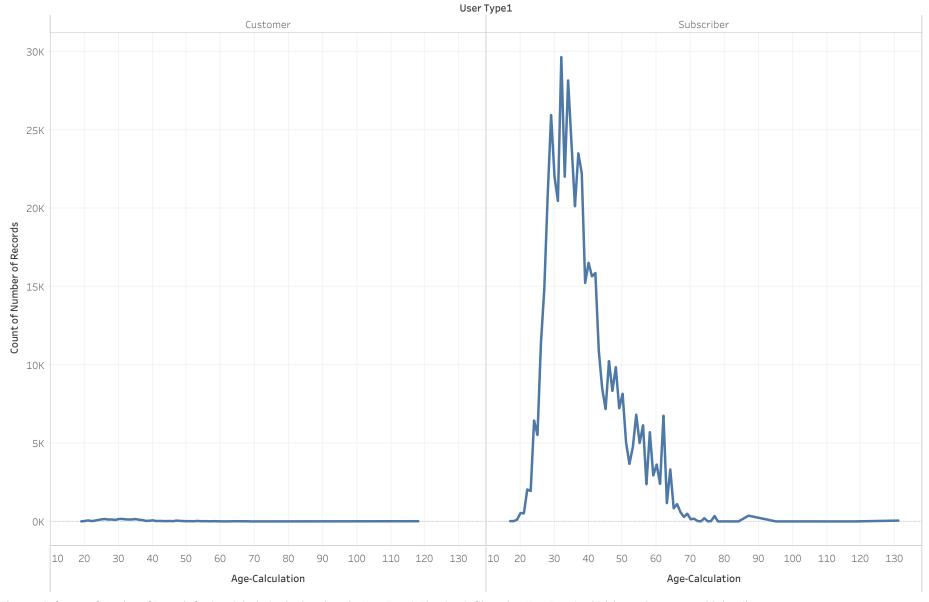
<Find at least two unexpected phenomena in the data and provide a visualization and analysis to document their presence>

I would have expected a a smooth increase in rides until mid age and a smooth decrease after that. The variability between 60 and 65 indicates there may be some data quality issues.



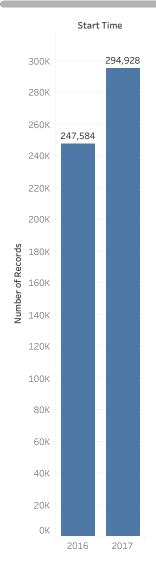
<Find at least two unexpected phenomena in the data and provide a visualization and analysis to document their presence>

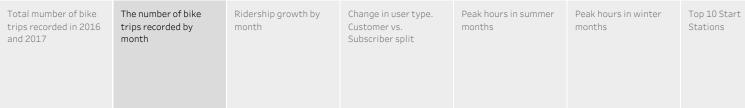
The low number of rides from customers versus subscribers suggests that it would be sufficient to have a business model that is based only on subscriptions

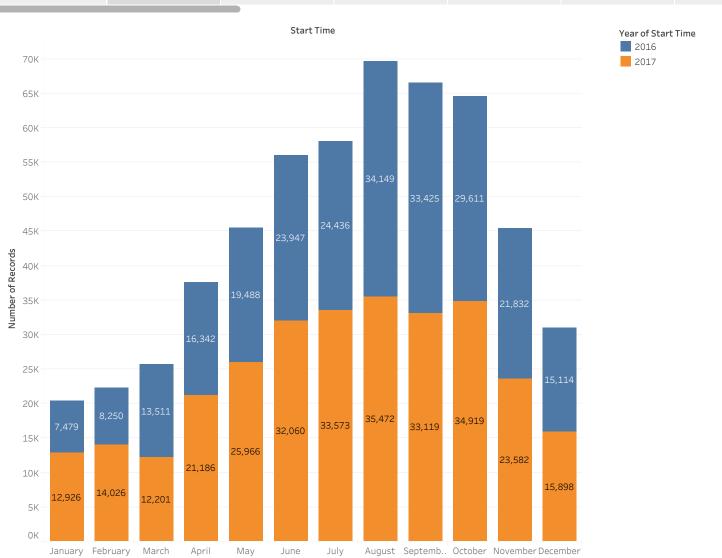


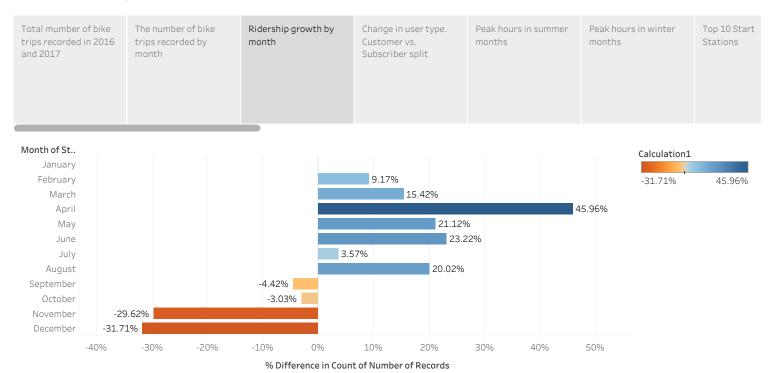
The trend of count of Number of Records for Age-Calculation broken down by User Type1. The view is filtered on User Type1, which keeps Customer and Subscriber.

	umber of bike Ridership growth by month	Change in user type. Customer vs. Subscriber split	Peak hours in summer months	Peak hours in winter months	Top 10 Start Stations
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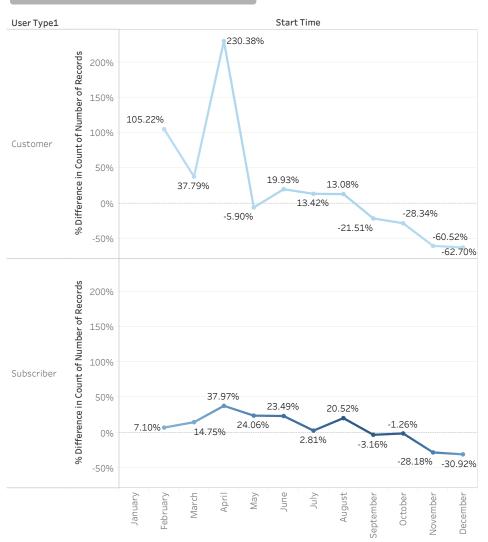




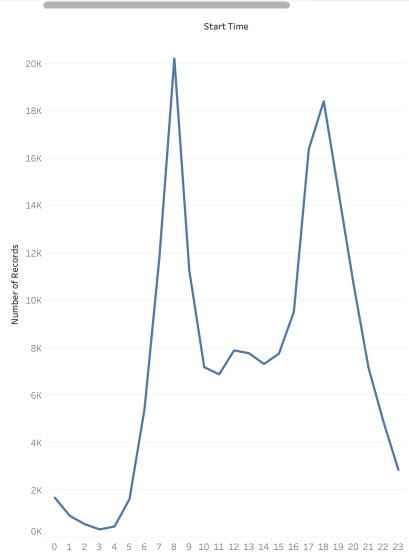


Count of Number of Recor..

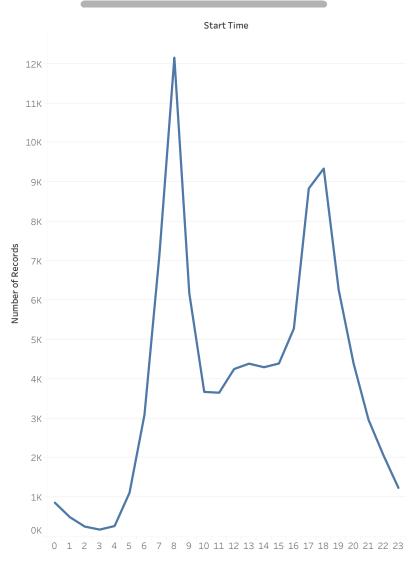
383 64,388



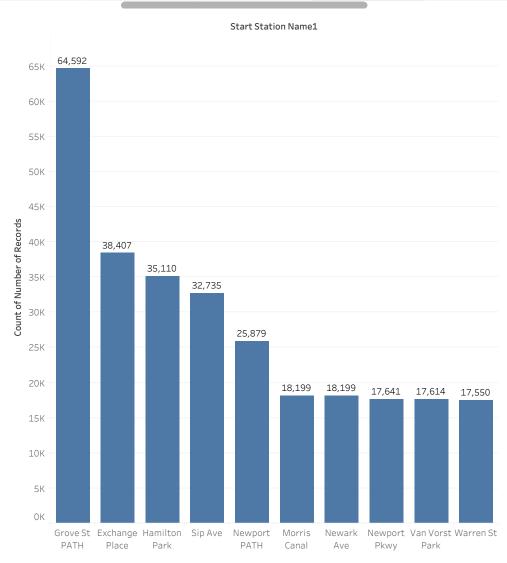
The number of bike trips recorded by month	Ridership growth by month	Change in user type. Customer vs. Subscriber split	Peak hours in summer months	Peak hours in winter months	Top 10 Start Stations	Top 10 End Stations
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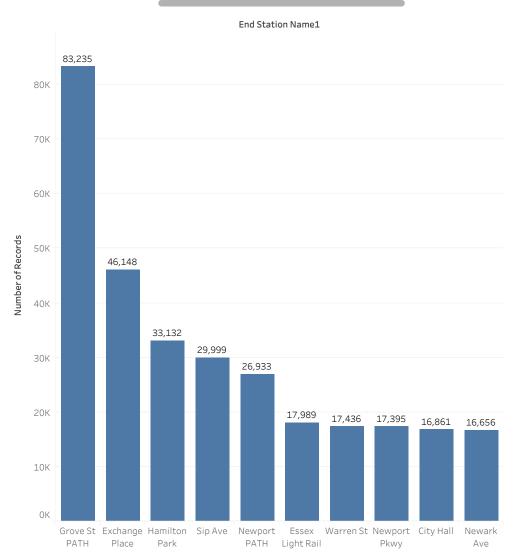
Ridership growth by month	Change in user type. Customer vs. Subscriber split	Peak hours in summer months	Peak hours in winter months	Top 10 Start Stations	Top 10 End Stations	Bottom 10 Start Stations



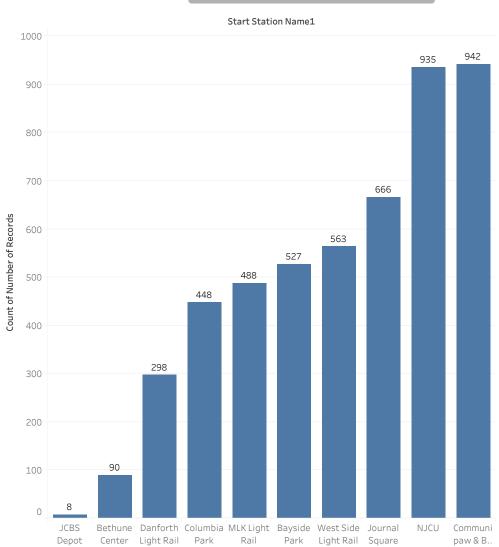
Change in user type. Customer vs. Subscriber split	Peak hours in summer months	Peak hours in winter months	Top 10 Start Stations	Top 10 End Stations	Bottom 10 Start Stations	Bottom 10 End Stations
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Peak hours in summer months	Peak hours in winter months	Top 10 Start Stations	Top 10 End Stations	Bottom 10 Start Stations	Bottom 10 End Stations	Gender Breakdown od Ridership

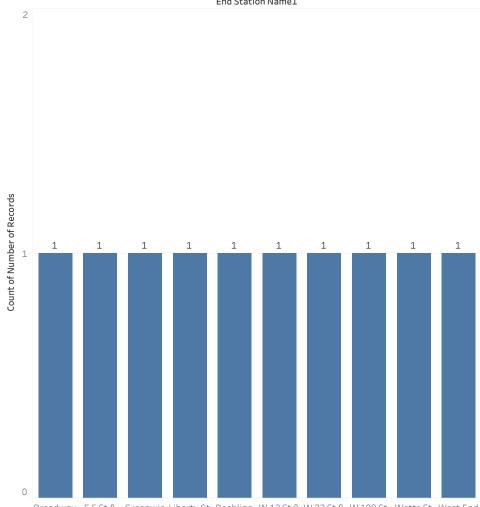


Peak hours in winter months	Top 10 Start Stations	Top 10 End Stations	Bottom 10 Start Stations	Bottom 10 End Stations	Gender Breakdown od Ridership	Female Ridership Increase



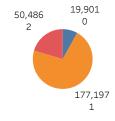






Broadway E5St& Greenwic Liberty St Roebling W13St&W22St&W100St WattsSt WestEnd & W 24 St Avenue C h St & W.. & Broad.. St & N 4.. 5 Ave 10 Ave & Manh.. & Green.. Ave & W...

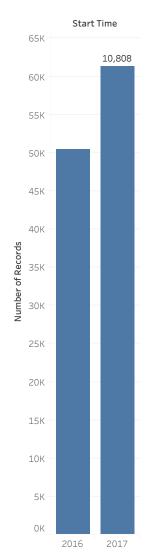
Top 10 End Stations	Bottom 10 Start Stations	Bottom 10 End Stations	Gender Breakdown od Ridership	Female Ridership Increase	Average Trip Duration By Age	Average Trip Distance In Miles

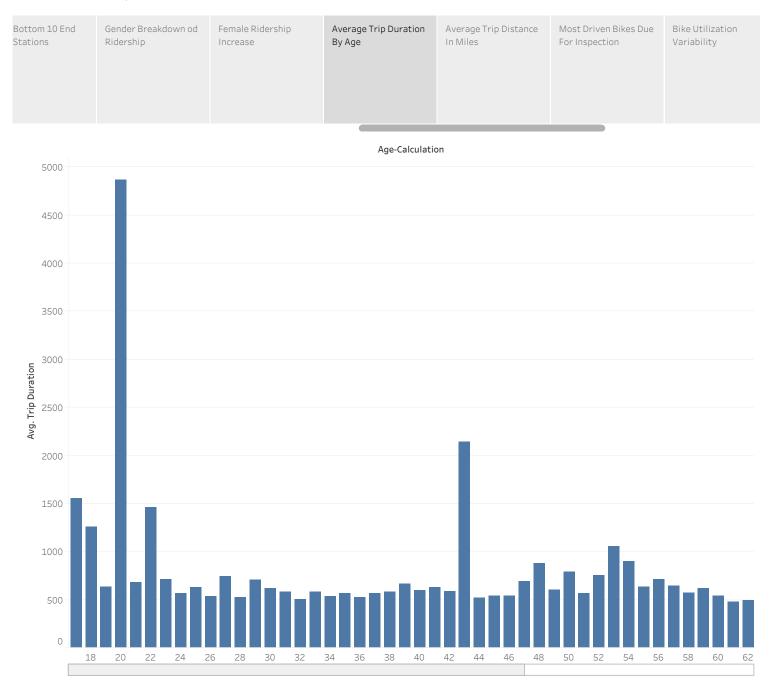




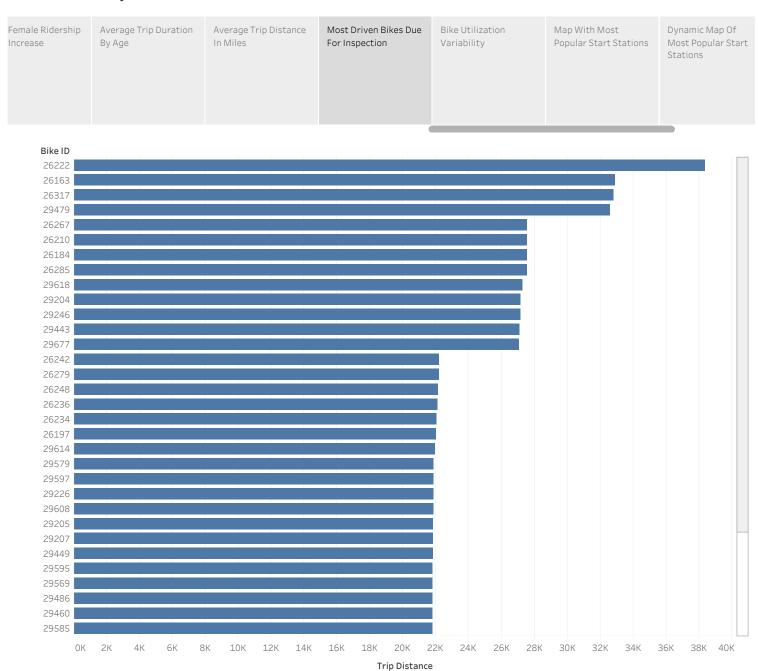
Count of Number of Recor.. 247,584

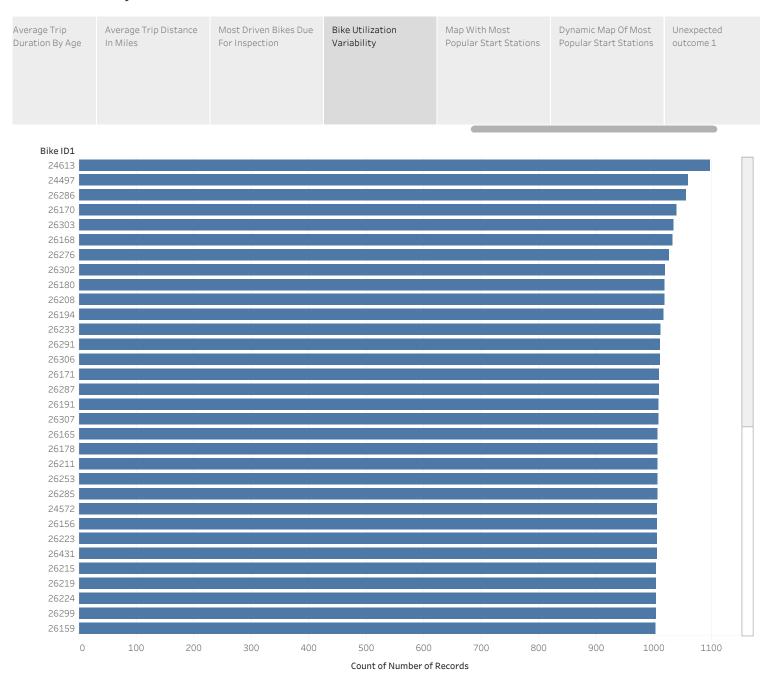
Bottom 10 Start Stations	Bottom 10 End Stations	Gender Breakdown od Ridership	Female Ridership Increase	Average Trip Duration By Age	Average Trip Distance In Miles	Most Driven Bikes Due For Inspection

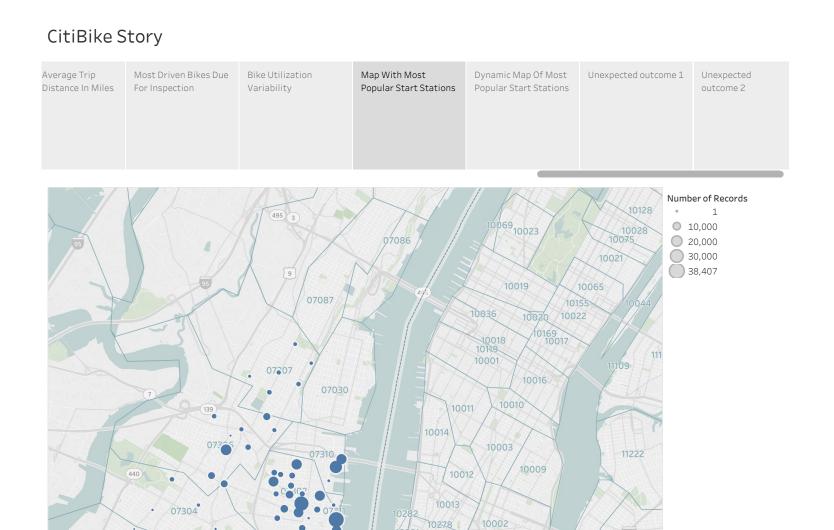




Gender Breakdown od Ridership	Female Ridership Increase	Average Trip Duration By Age	Average Trip Distance In Miles	Most Driven Bikes Due For Inspection	Bike Utilization Variability	Map With Most Popular Start Stations
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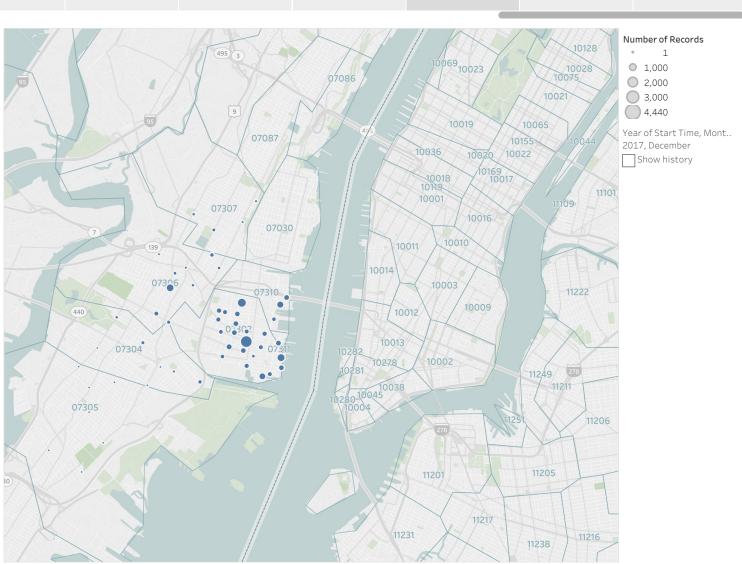


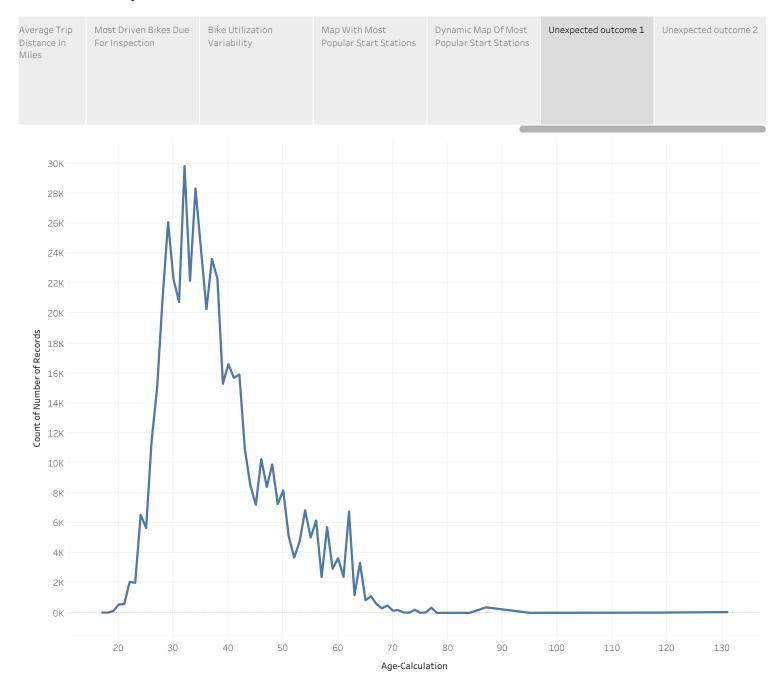




10280-10045







Average Trip Distance In Miles Most Driven Bikes Due For Inspection Bike Utilization Variability Map With Most Popular Start Stations Dynamic Map Of Most Popular Start Stations	unexpected outcome 2
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