DATA VISUALIZATION

THEME

PARKS

GROUP 12

MARÍA COBO MUÑOZ
JORGE DAVO SAINZ
JORIS KÖSTER
FRAN KARLOVIĆ
ANICA KRÜGER
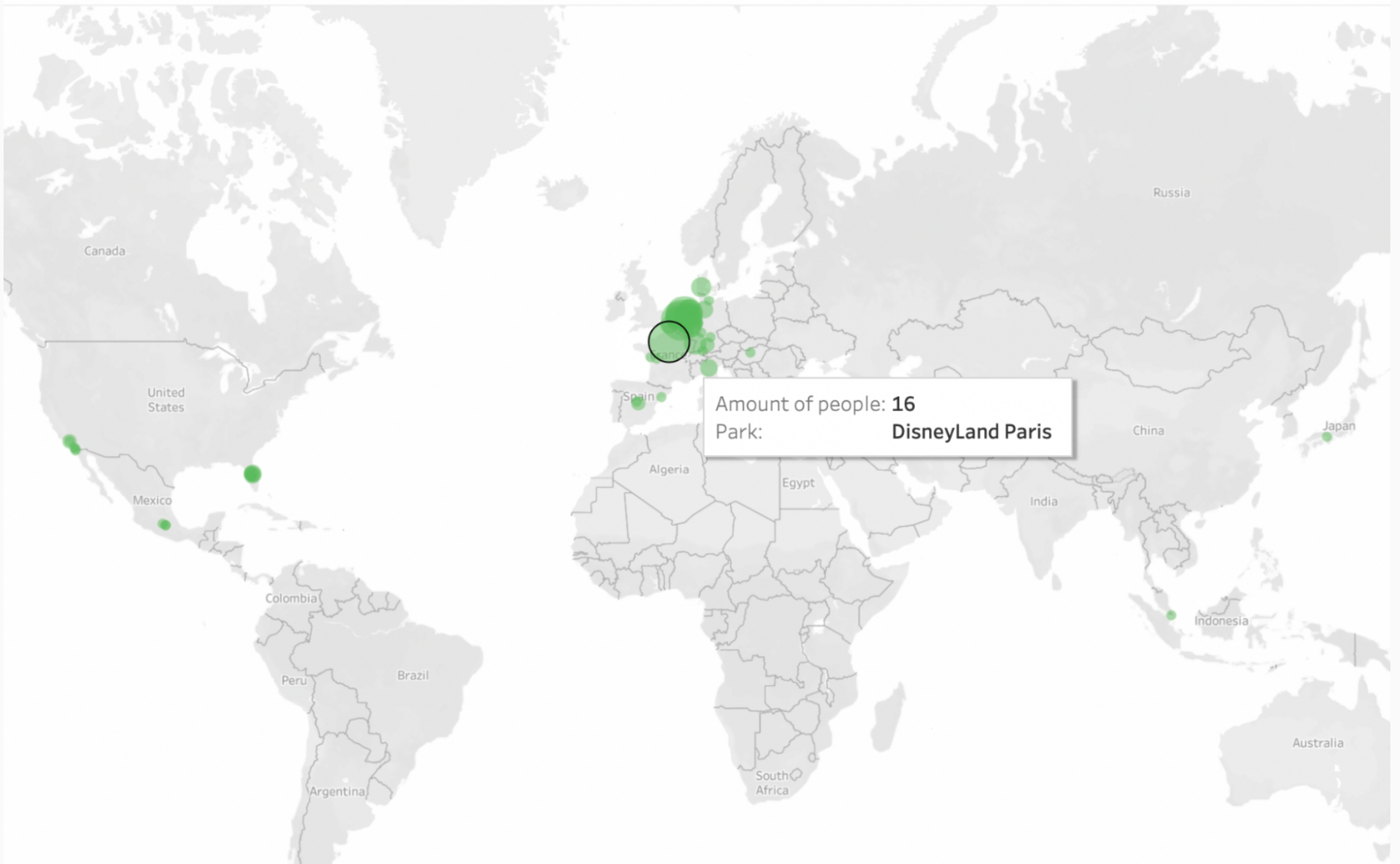SUSANNE FUENTES BONGENAAR

VISUALIZATIONS

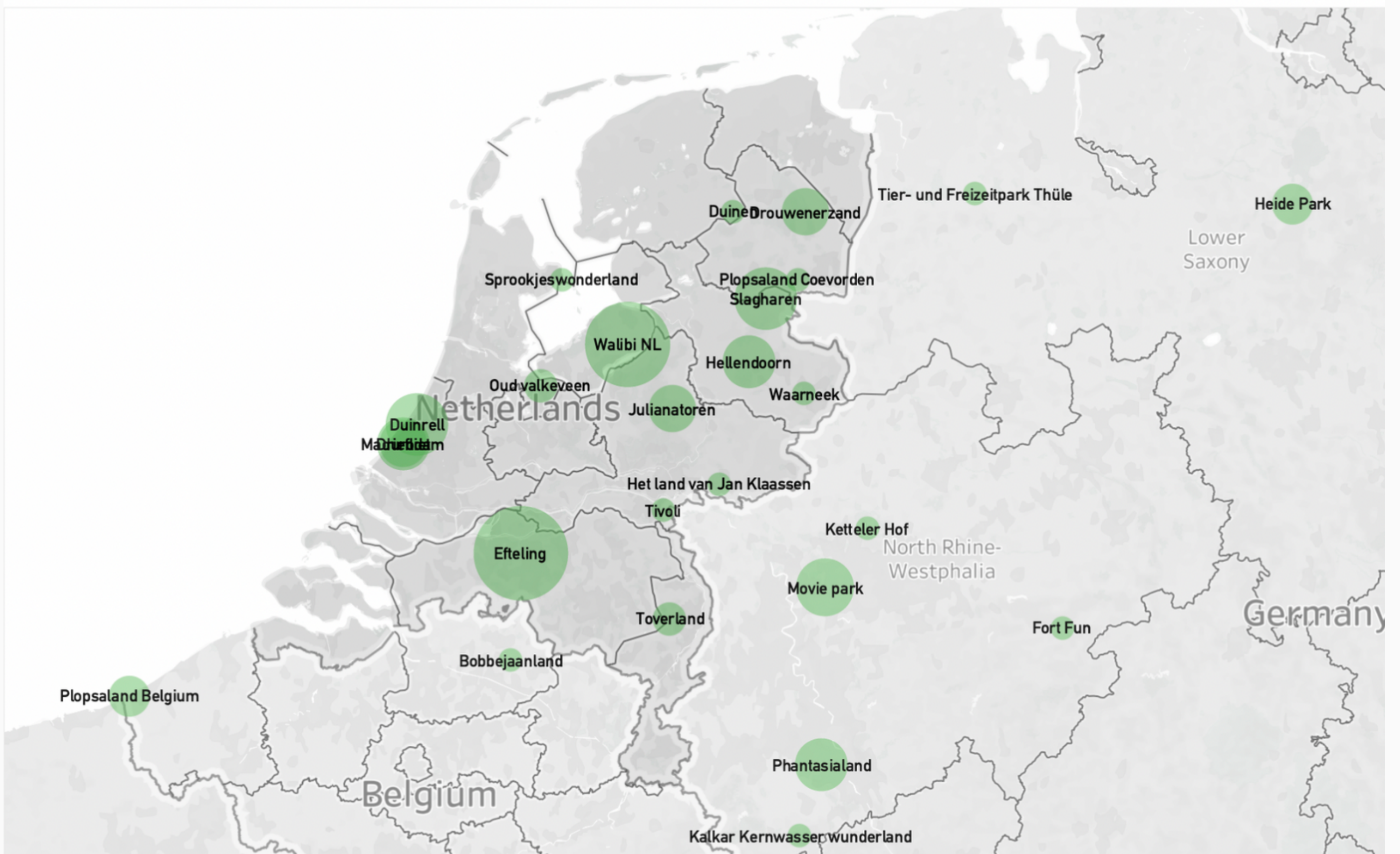## DEMOGRAPHICS (MARIA)
ACADEMIC VISUALIZATIONS:

What theme parks do CreaTers visit
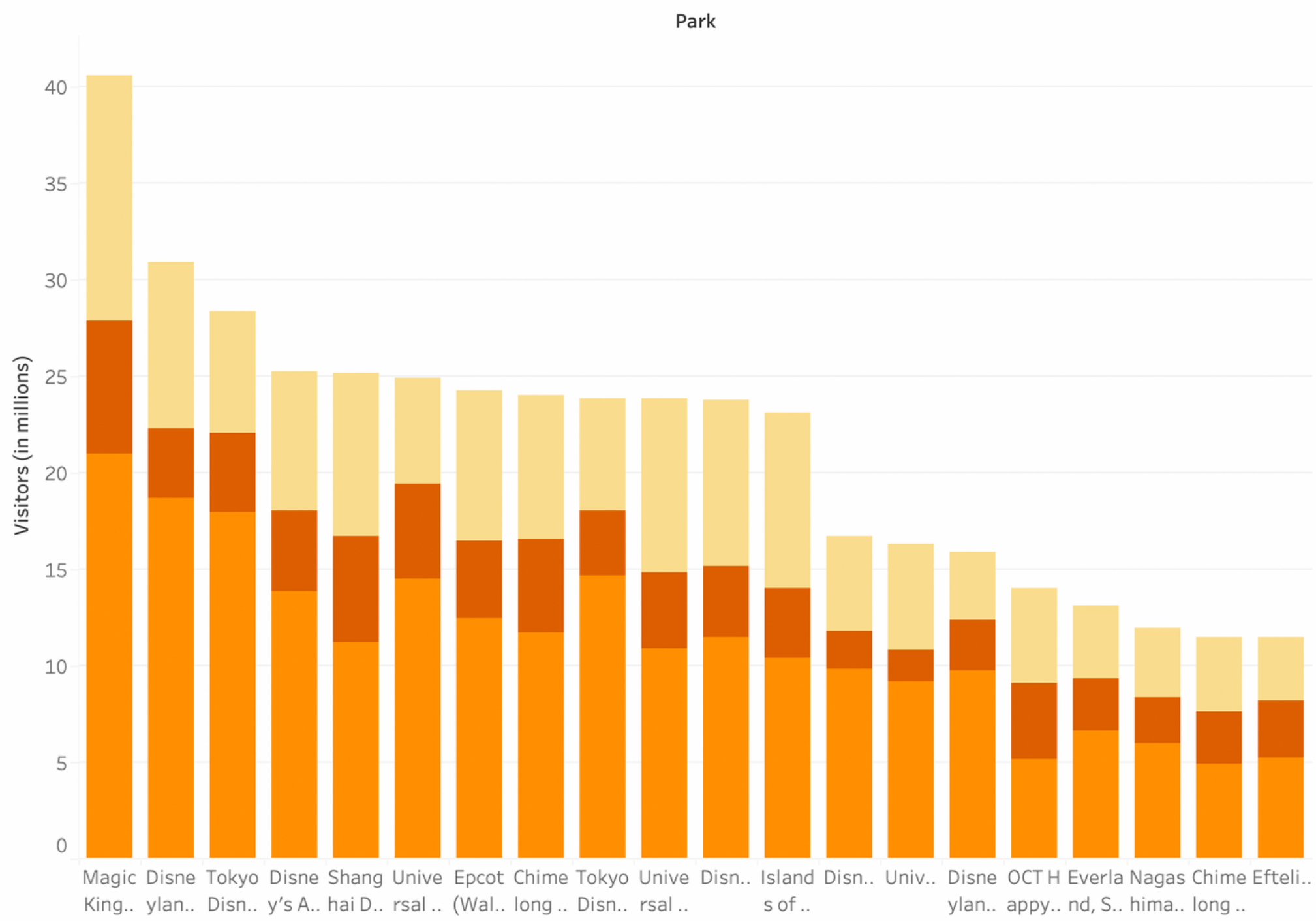

Amount of people: 16
Park: DisneyLand Paris

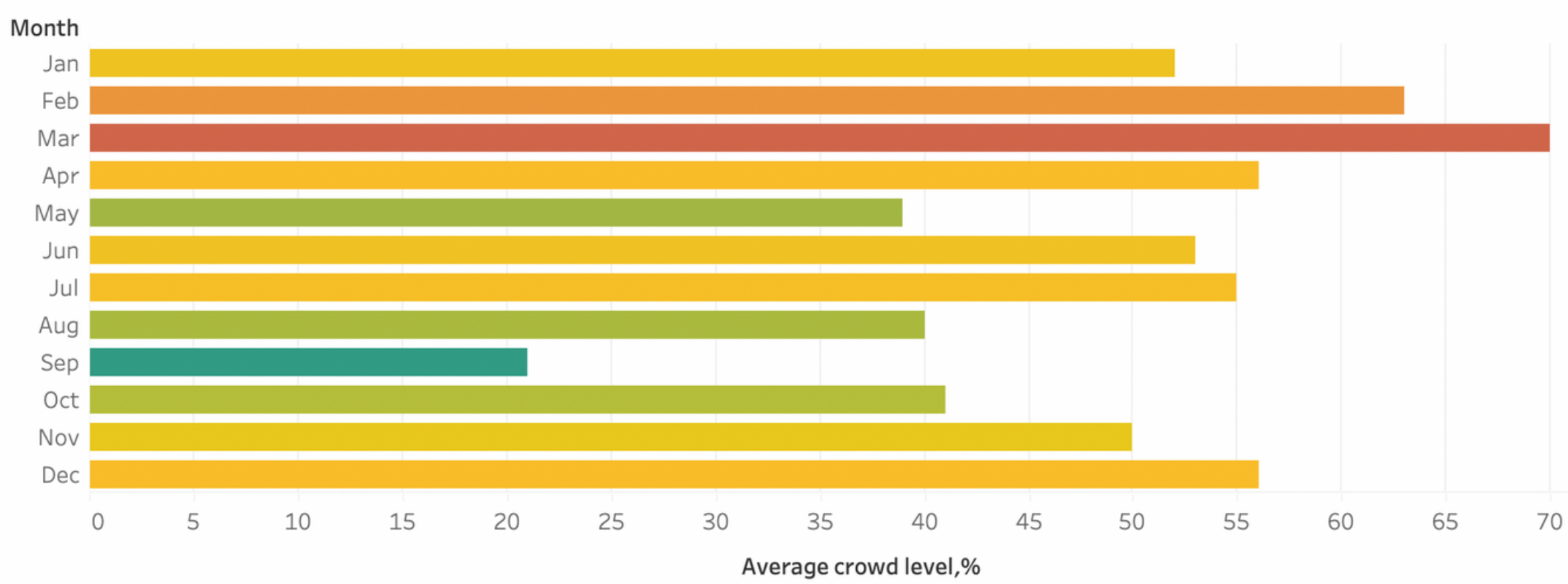What theme parks do CreaTers visit

DEMOGRAPHICS (MARIA)

ACADEMIC VISUALIZATIONS:

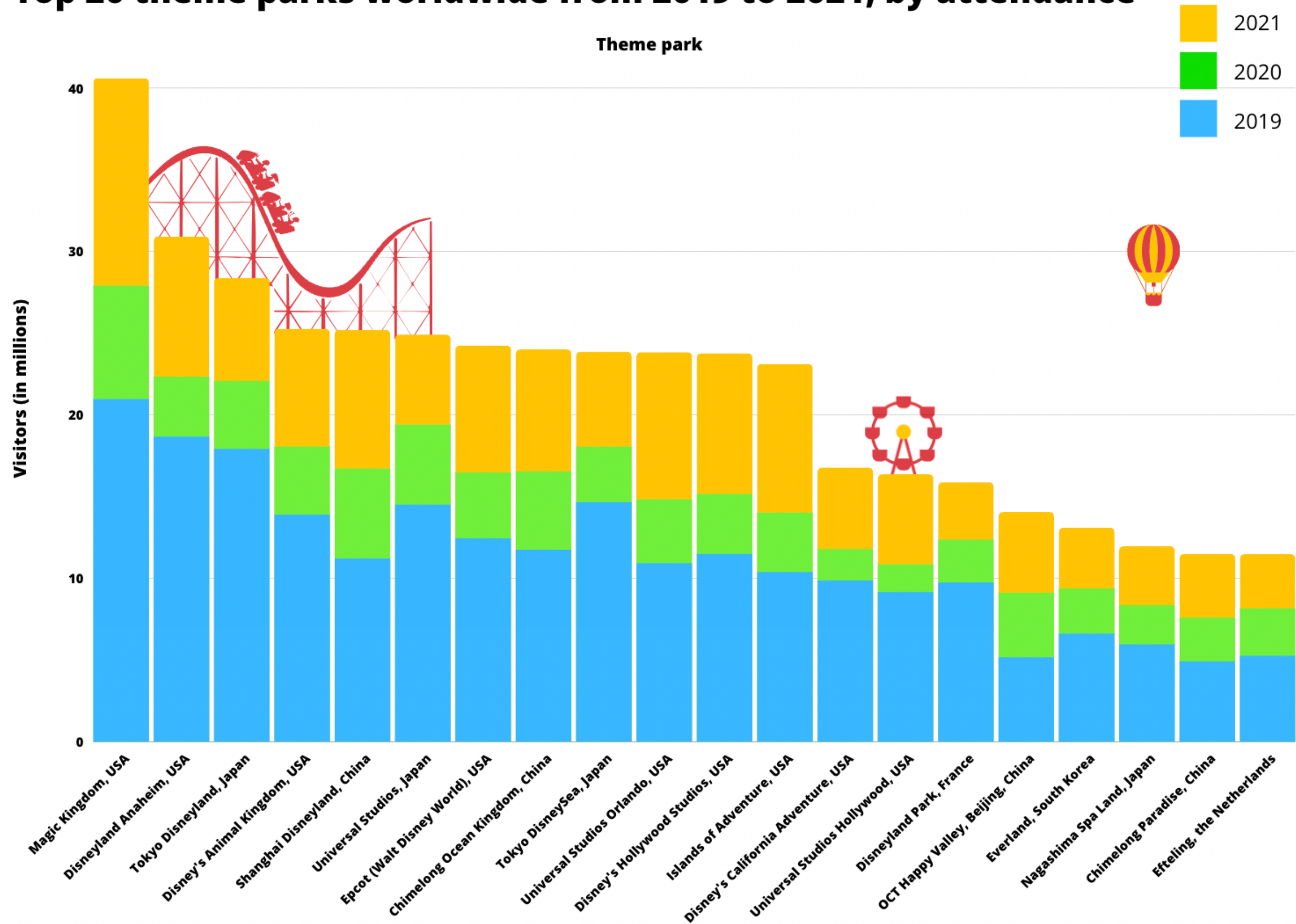## Top 20 theme parks worldwide from 2019 to 2021, by attendance

Magic Kingdom's crowd calendar (all time)

Top 20 theme parks worldwide from 2019 to 2021, by attendance

Theme park

Legend:
- 2021
- 2020
- 2019

Y-axis: Visitors (in millions) — 0, 10, 20, 30, 40

Theme parks (x-axis labels):
Magic Kingdom, USA
Disneyland Anaheim, USA
Tokyo Disneyland, Japan
Disney's Animal Kingdom, USA
Shanghai Disneyland, China
Universal Studios, Japan
Epcot (Walt Disney World), USA
Chimelong Ocean Kingdom, China
Tokyo DisneySea, Japan
Universal Studios Orlando, USA
Disney's Hollywood Studios, USA
Islands of Adventure, USA
Disney's California Adventure, USA
Universal Studios Hollywood, USA
Disneyland Park, France
OCT Happy Valley, Beijing, China
Everland, South Korea
Nagashima Spa Land, Japan
Chimelong Paradise, China
Efteling, the Netherlands

Magic Kingdom's crowd calendar (all time)

JAN	FEB	MAR 70%	APR
MAY	JUN	JUL	AUG
SEP 21%	OCT	NOV	DEC

Legend: Busy → Quiet
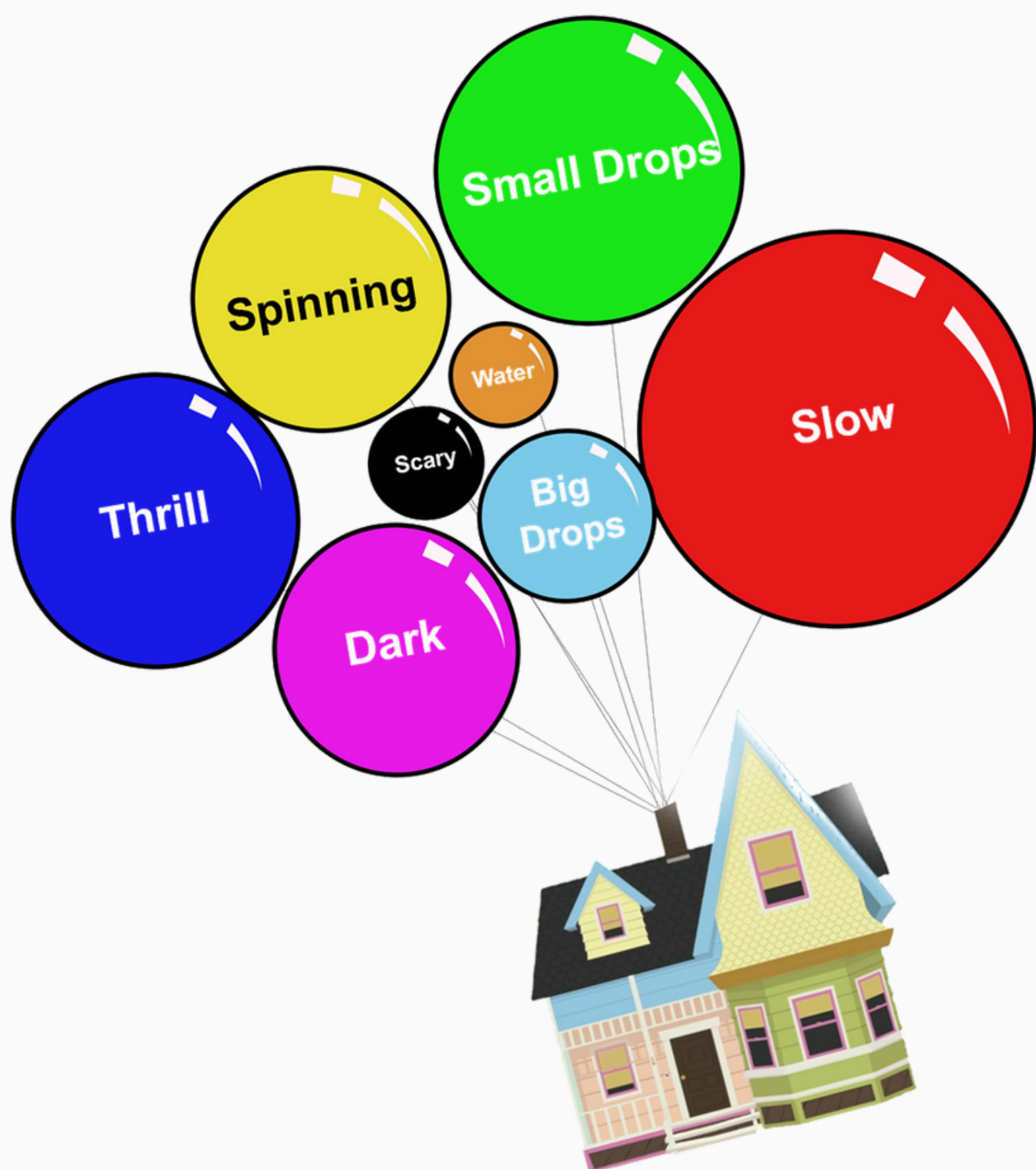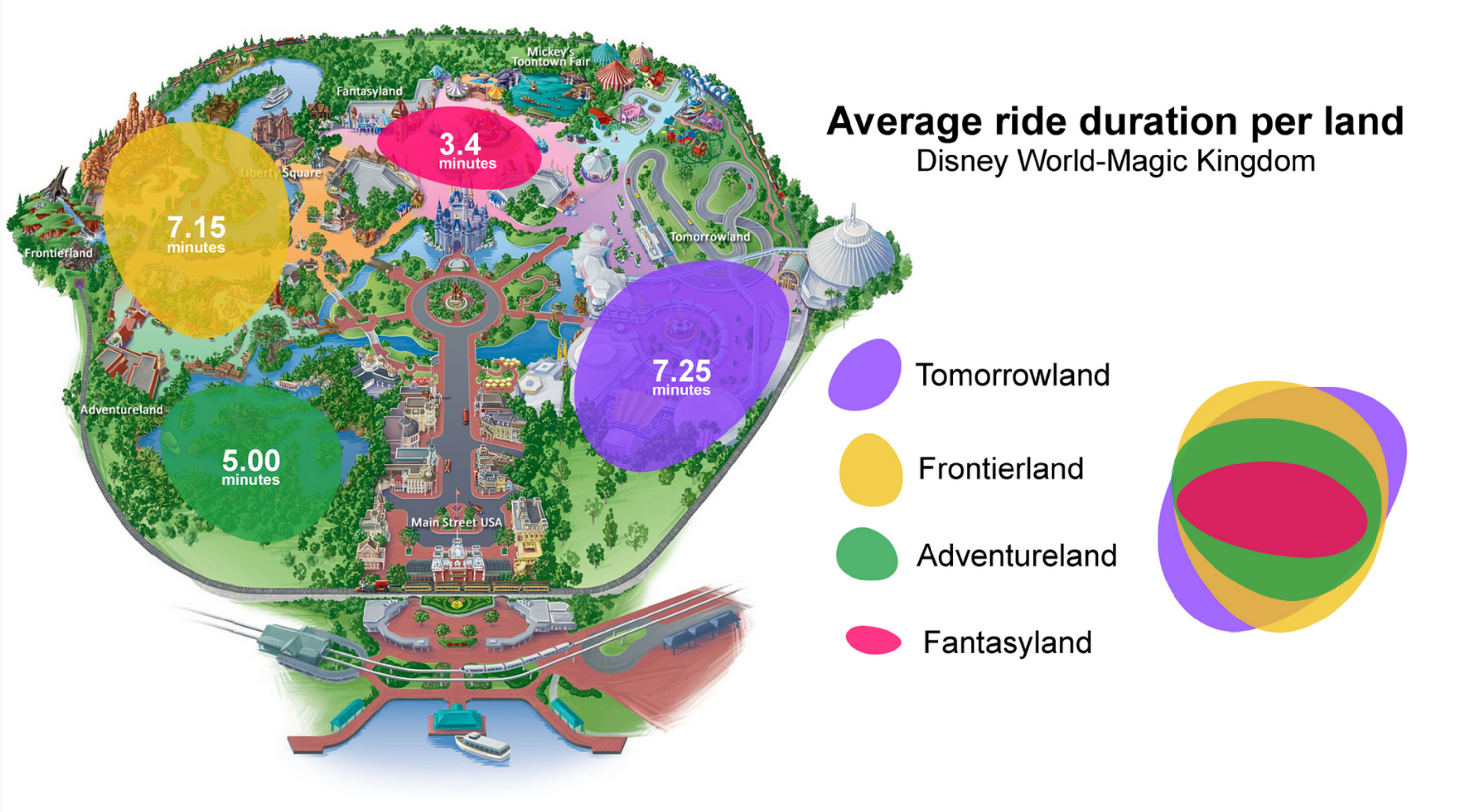% of full capacity

MAGIC KINGDOM (JORGE)

ACADEMIC VISUALIZATIONS:

Trend In theme pak attractions DisneyWorld
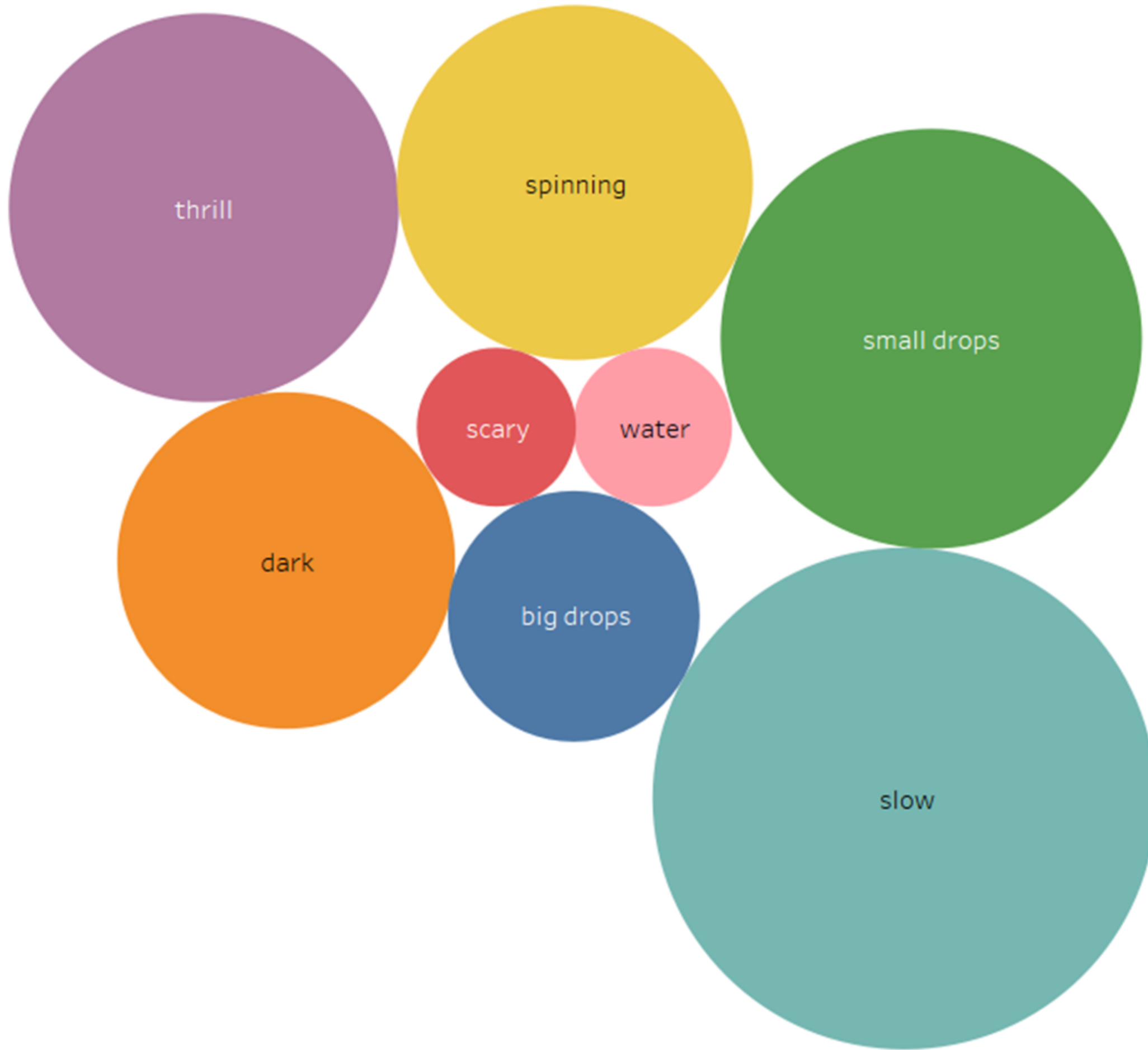
MAGIC KINGDOM (JORGE)

FUN VISUALIZATIONS:

Average ride duration per land
Disney World-Magic Kingdom

3.4 minutes

7.15 minutes

7.25 minutes

5.00 minutes

- Tomorrowland
- Frontierland
- Adventureland
- Fantasyland

Ride type frequency
Disney World Resort

Slow (20 appearances)
Small Drops (14 appearances)
Thrill (12 appearances)
Spinning (10 appearances)
Dark (9 appearances)
Big Drops (5 appearances)
Scary (2 appearances)
Water (2 appearances)

Small Drops

Spinning

Water

Slow

Scary

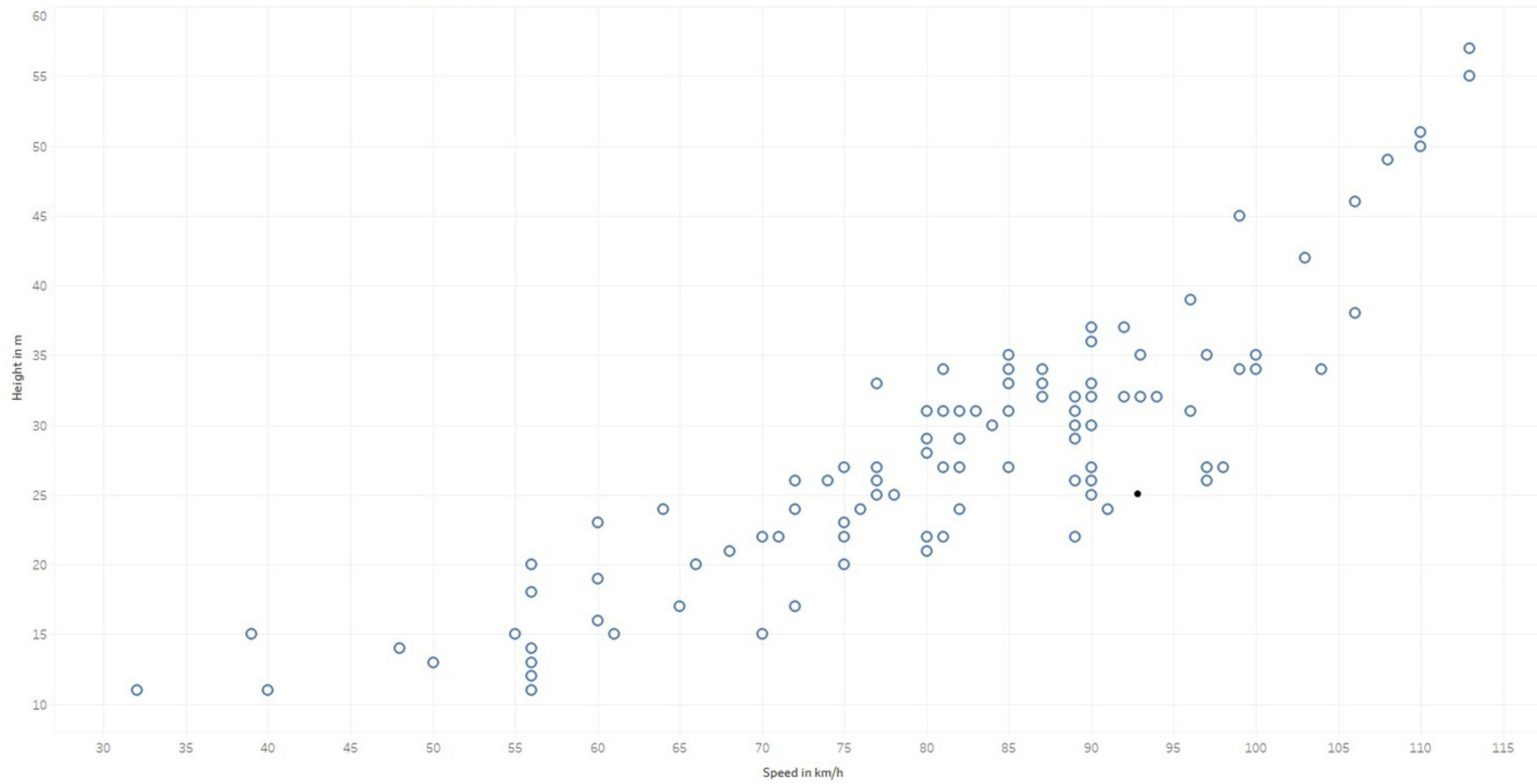Big Drops

Thrill

Dark

Area equals amount of
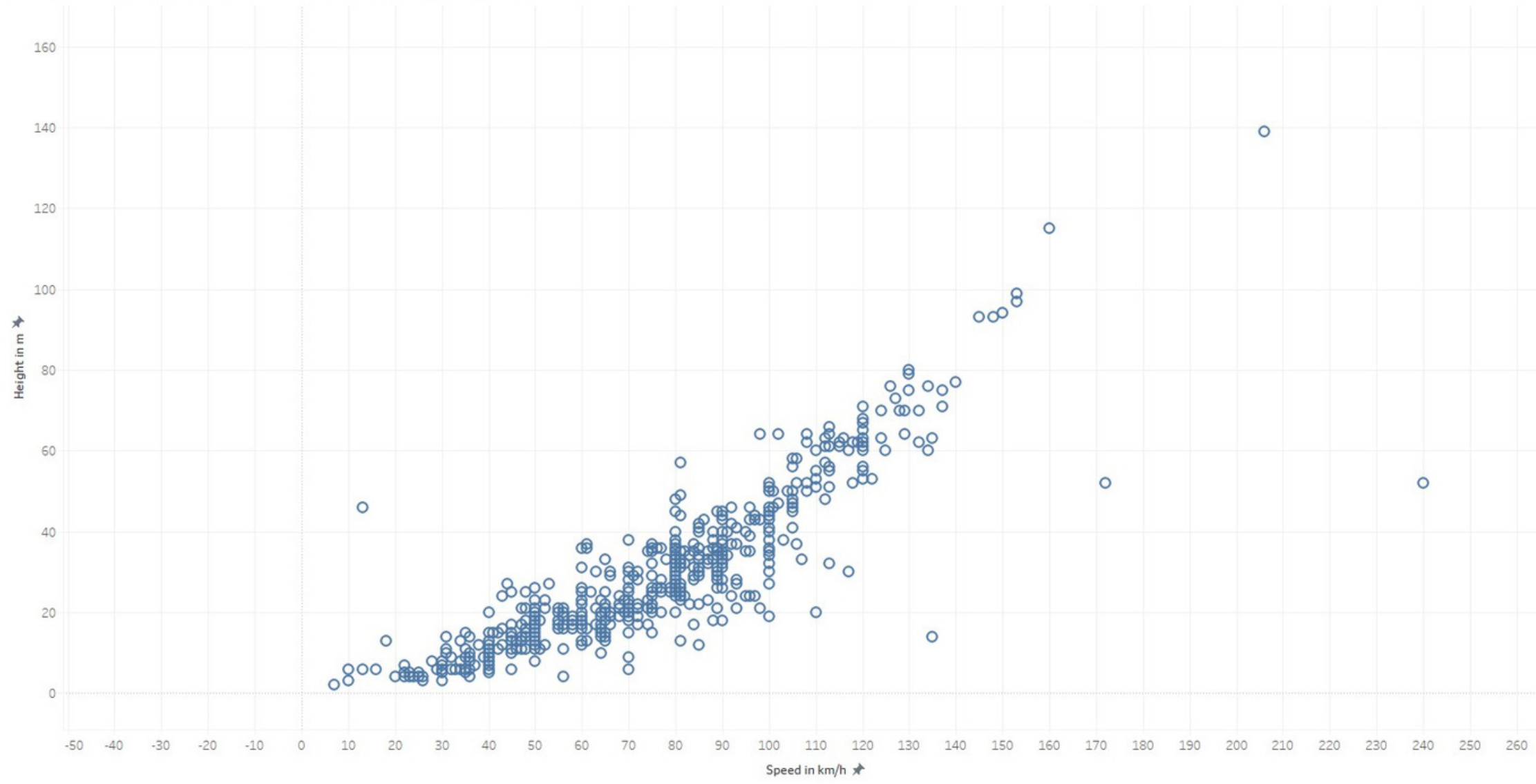appearances in the resort
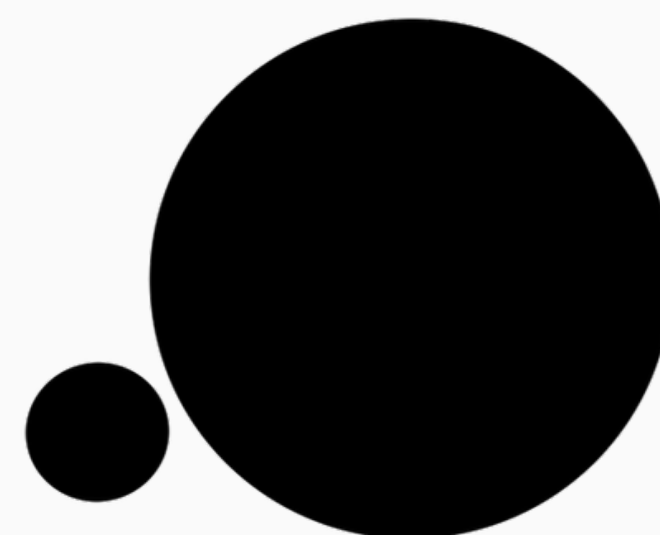
ROLLERCOASTERS (JORIS)

ACADEMIC VISUALIZATIONS:

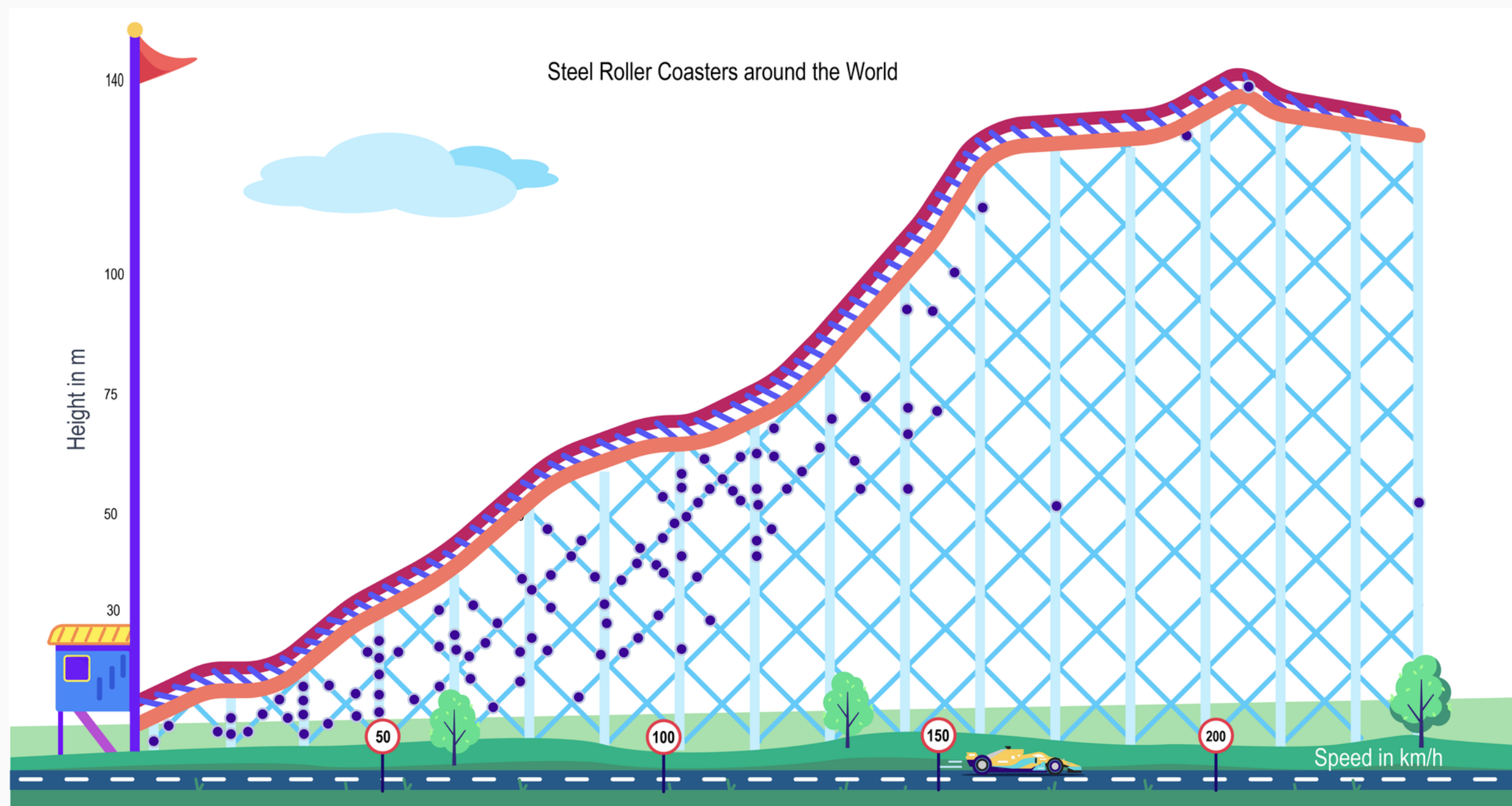Wooden Roller Coasters around the world Speed/Height

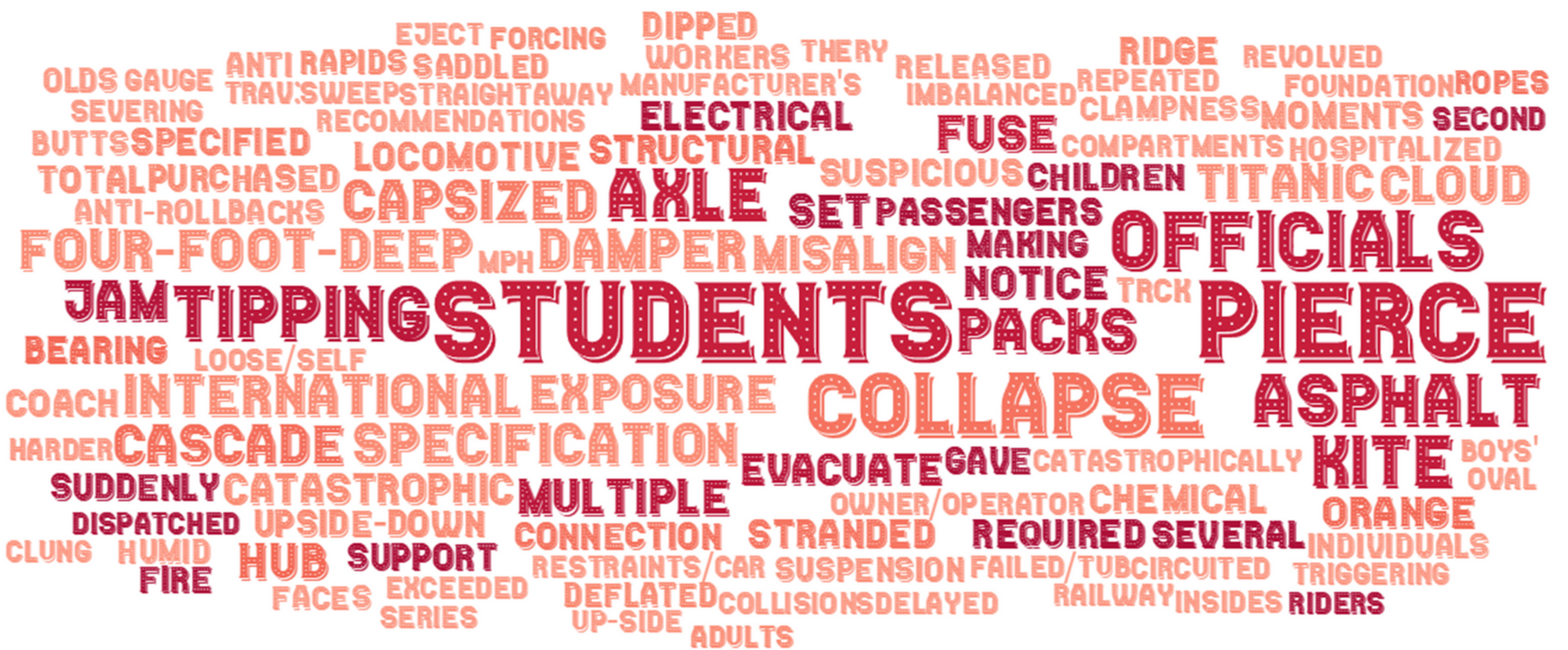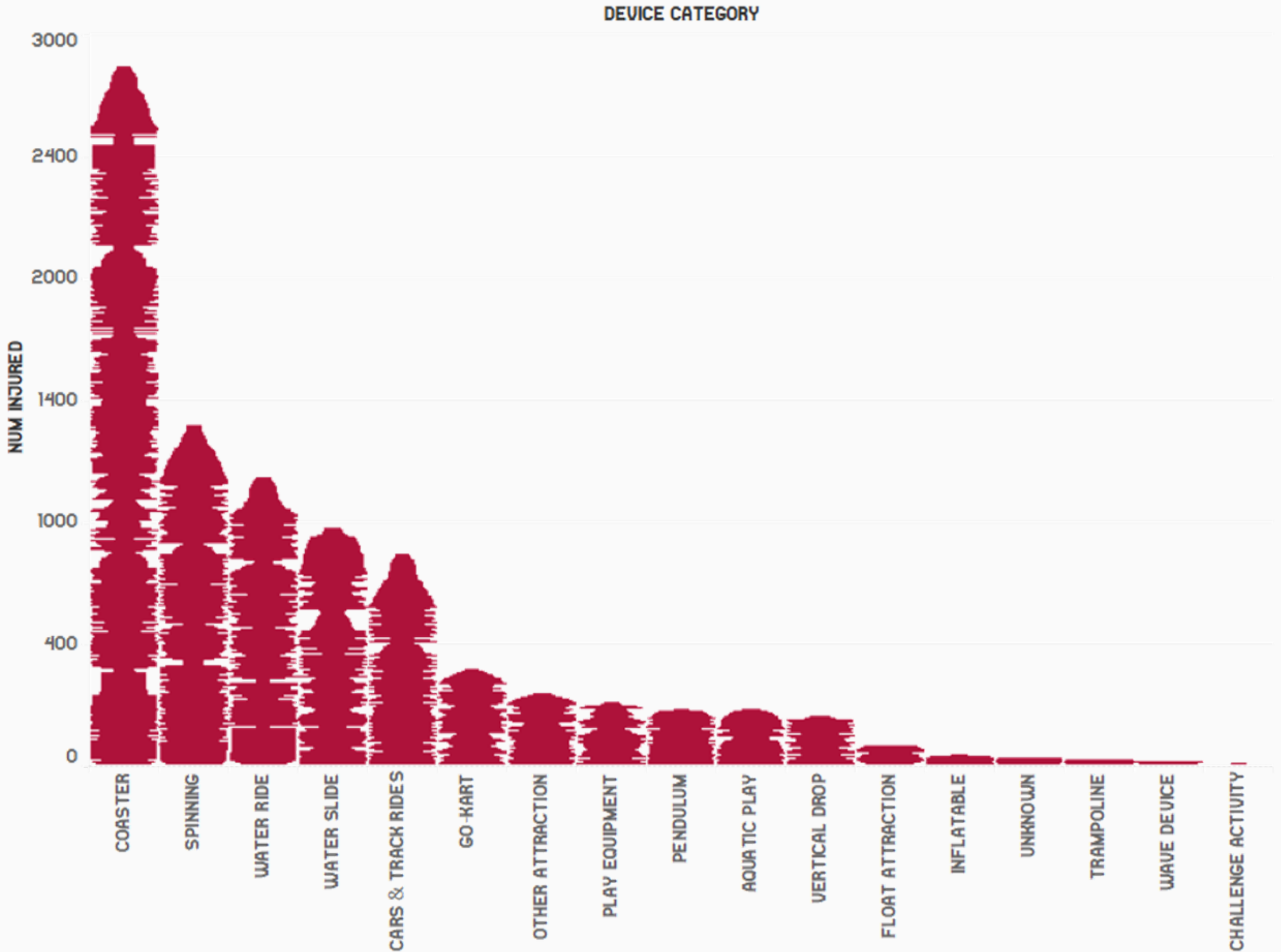Steel Roller Coasters around the world Speed/Height

ROLLERCOASTERS (JORIS)

FUN VISUALIZATIONS:

Wooden Roller Coasters around the World

Steel Roller Coasters around the World

DEVICE CATEGORY

Amount of Rollercoasters build per year from 1884 until 2022
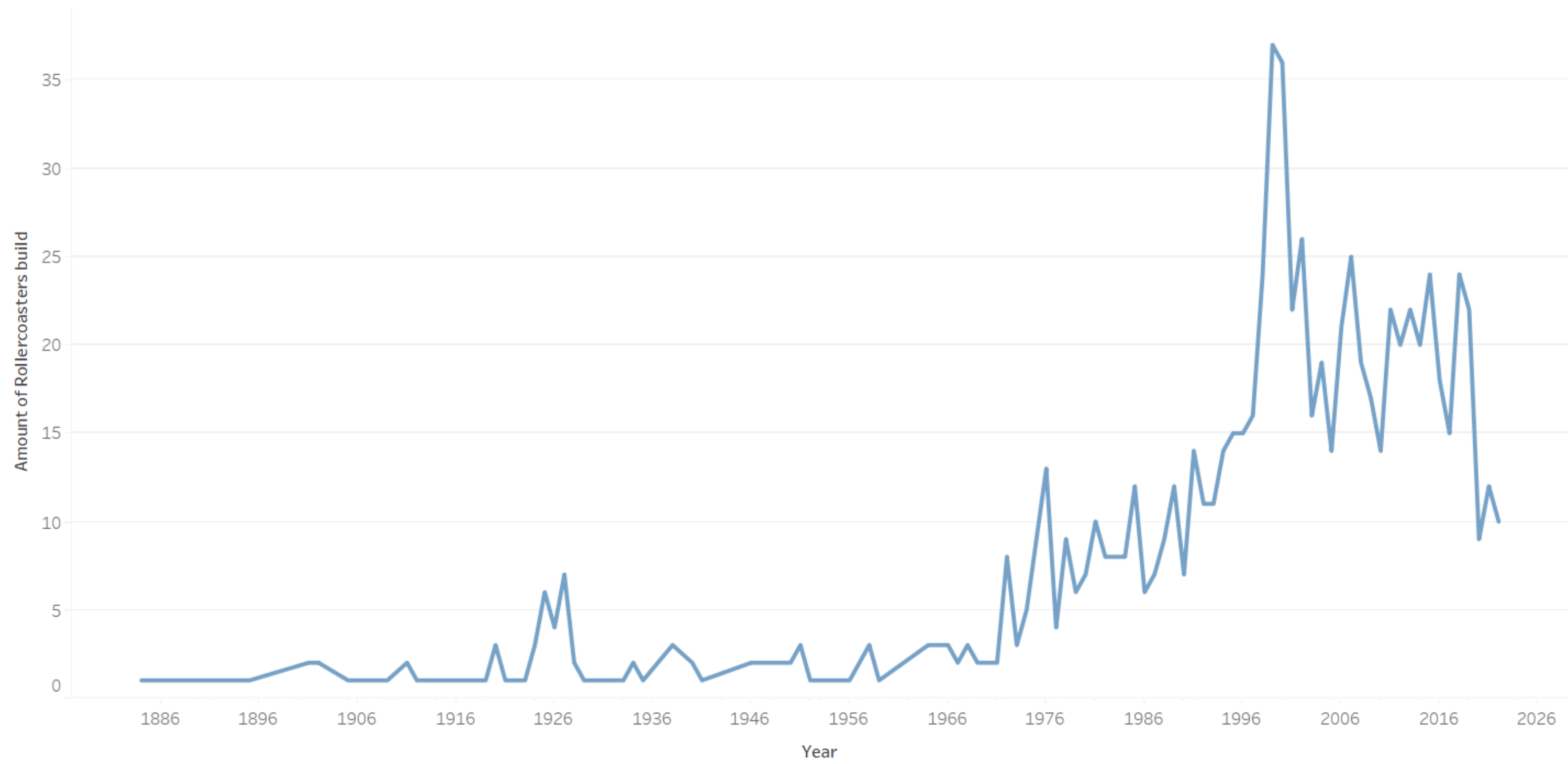
The trend of count of Rollercoaster for Year Year.The view is filtered on Year Year, which keeps non-Null values only.

Track Layouts of rollercoasters over the years
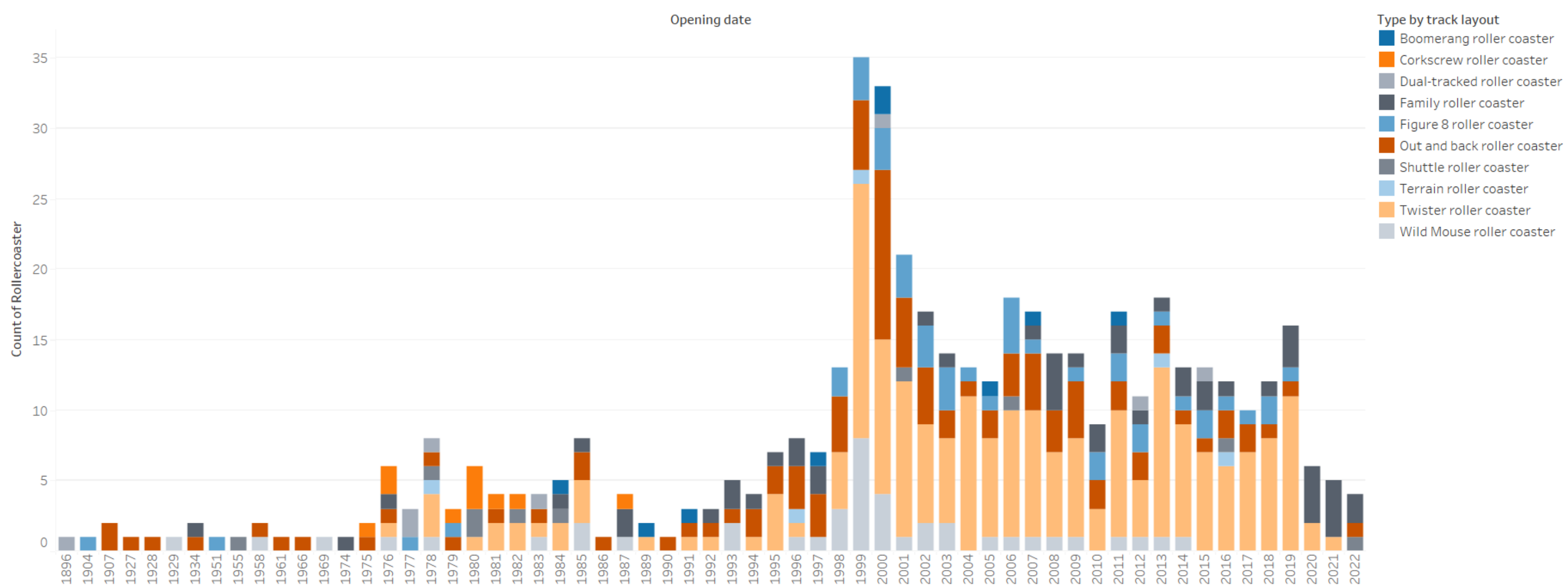
Count of coaster_db for each Opening date Year. Colour shows details about Type by track layout.The view is filtered on Type by track layoutandOpening date Year.The Type by track layout filter keeps 10 of 60 members.The Opening date Year filter excludes Null.

HISTORY (ANICA)

Track Layouts of rollercoasters over the years

Year in stacked bar chart can be selected and pie charts and table change accordingly

Type by track layout
- Boomerang rolle..
- Corkscrew roller ..
- Dual-tracked roll..
- Family roller coa..
- Figure 8 roller co..
- Out and back roll..
- Shuttle roller coa..
- Terrain roller coa..
- Twister roller co..
- Wild Mouse rolle..

Count of coaster_db: 641

Type of Track Layout

Material of rollercoaster

Material
- Steel
- Wood

Type of track layout and which material was used

| | Material | |
Type by track l..	Steel	Wood
Boomerang roll..	17	1
Corkscrew roll..	14	
Dual-tracked ro..	8	3
Family roller co..	65	1
Figure 8 roller ..	55	3
Out and back r..	52	72
Shuttle roller c..	33	1
Terrain roller c..	1	4
Twister roller c..	233	21
Wild Mouse rol..	54	3

Track Layouts of rollercoasters over the years

Type by track layout
- Boomerang rolle..
- Corkscrew roller ..
- Dual-tracked roll..
- Family roller coa..
- Figure 8 roller co..
- Out and back roll..
- Shuttle roller coa..
- Terrain roller coa..
- Twister roller co..
- Wild Mouse rolle..

Count of coaster_db: 7

Type of Track Layout

Material of rollercoaster

Material
- Steel
- Wood

Type of track layout and which material was used

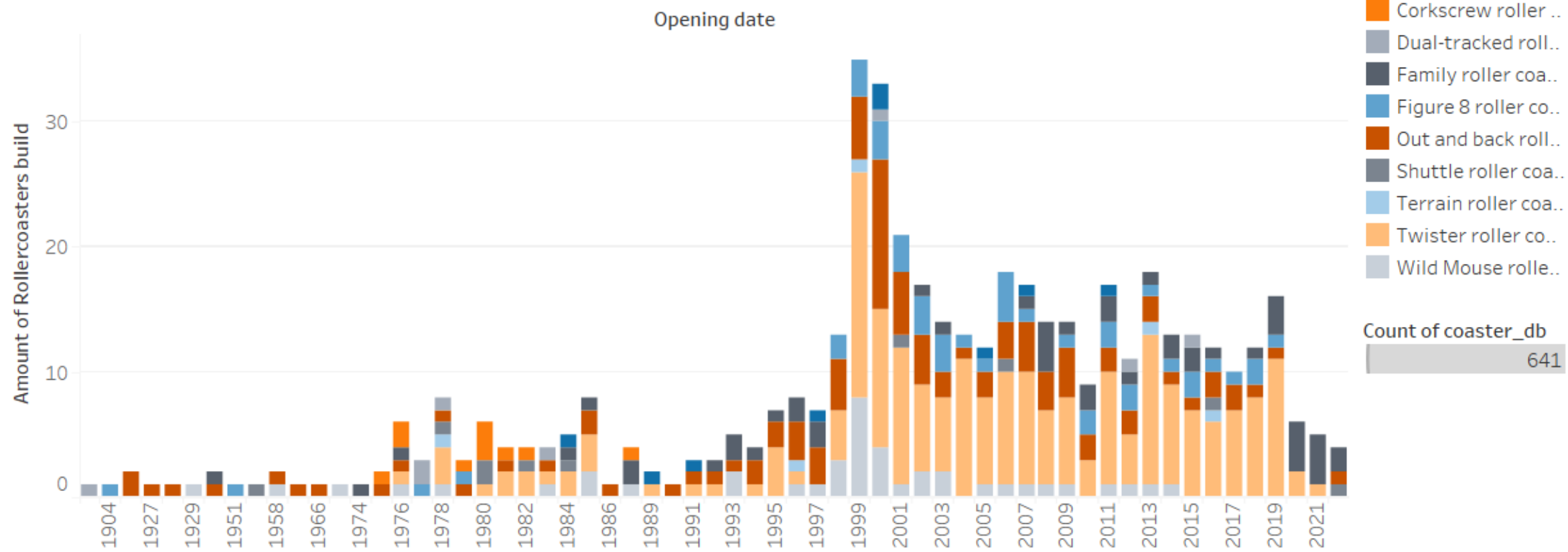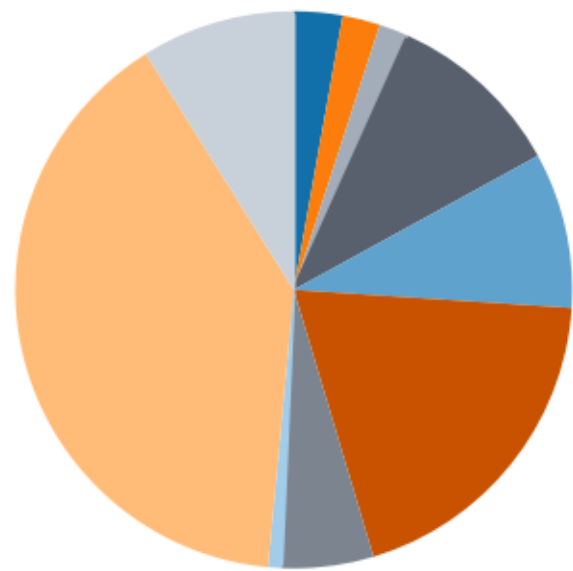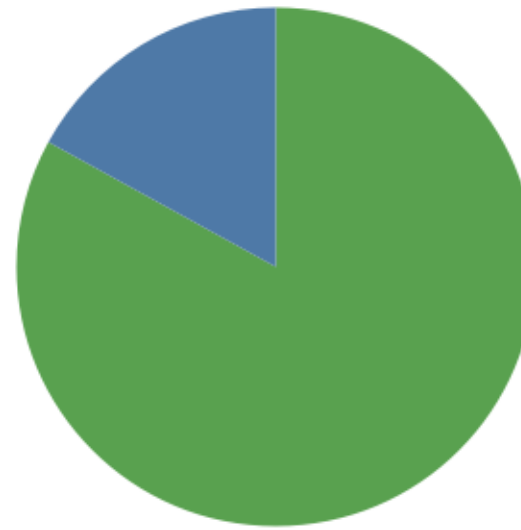| | Material | |
Type by track l..	Steel	Wood
Family roller co..	1	
Out and back r..		2
Twister roller c..	1	3

HISTORY (ANICA)

FUN VISUALIZATIONS:

NUMBER OF ROLLERCOASTERS BUILD PER YEAR FROM 1884 TO 2022

ROLLER
COASTERS

1886   1926   1999   2022

AMOUNT OF ROLLERCOASTERS BUILD PER YEAR SEPERATED BY TRACK LAYOUT

FROM 1896 TO 2022

OUT AND BACK

FAMILY

SHUTTLE

BOOMERANG

TWISTER

WILD MOUSE

FIGURE 8

TERRAIN

CORKSCREW

DUAL-TRACKED

ROLLER
COASTERS

1896   1978   1999   2022   YEAR

ECONOMICS (SUSANNE)
ACADEMIC VISUALIZATIONS:

Leading Theme Park Brands 2022 Revenue and Annual Income over Time

12	Disney Parks and Resorts	$28,71B
5	Universal Studios	$7,54B
16	Merlin Entertainments Group	$2,20B
16	Cedar Fair Entertainment Company	$1,82B
13	SeaWorld Entertainment	$1,73B
27	Six Flags Entertainment Corporation	$1,36B

Net Income axis: -2500M -2000M -1500M -1000M -500M 0M 500M 1000M 1500M 2000M 2500M 3000M 3500M

Sort By: Revenue 2022
Order By: Desc
Start Year: 2020
Select End Year: 2022

Legend:
- End Year (blue)
- Start Year (yellow)

Caption

This visualization shows the 2022 revenue (green) of the leading theme park brands, their name (gray), and the number of parks they have (red). Next to that the difference of income over time is shown with a line/dot graph. A Start Year (blue) and End Year (yellow) can be selected, right now 2020 and 2022 are selected. The view can be sorted by Revenue 2022, Revenue 2020, Name, and Number of Parks, and the order can be selected (ascending or descending).

Yearly revenue, expenses, and income between 2017-2022

Year of Period: 2017 2018 2019 2020 2021 2022

Y-axis: Amount in dollars (-400M to 1400M)
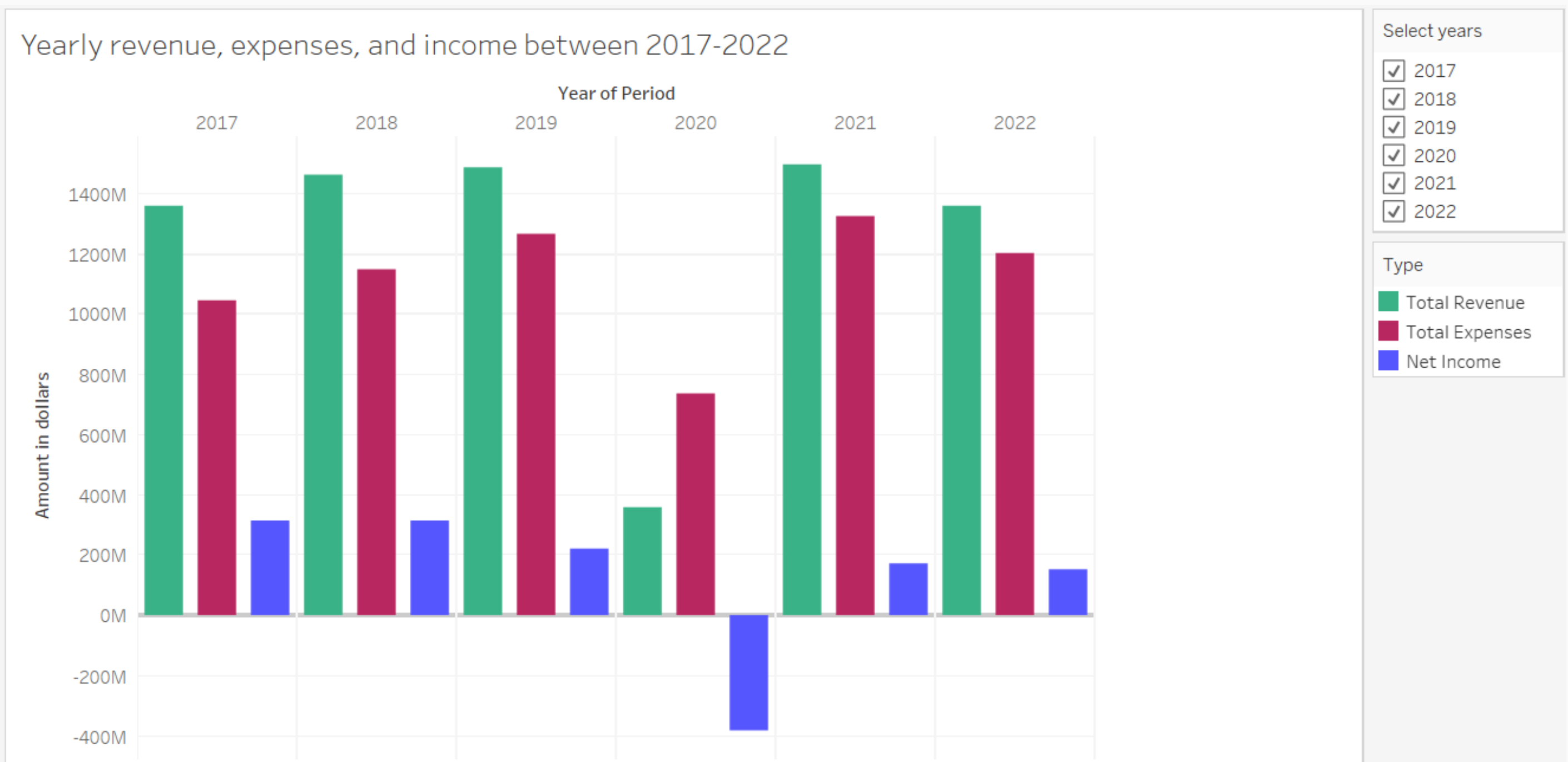
Select years:
- ☑ 2017
- ☑ 2018
- ☑ 2019
- ☑ 2020
- ☑ 2021
- ☑ 2022

Type:
- Total Revenue (green)
- Total Expenses (red)
- Net Income (blue)

Caption

This visualization shows the total revenue, expenses, and income of the Six Flags theme park brand per year. The color of the bars represent the different categories, and the hight of the bars show the amount in dollars. The view can be filtered by year. In this view all years are selected.

ECONOMICS (SUSANNE)
ACADEMIC VISUALIZATIONS:

Quarterly Revenue and relative contribution to Total Revenue per year

$504,8M *(37,2%)* Q3

$435,4M *(32,1%)* Q2

$279,9M *(20,6%)* Q4

$138,1M *(10,2%)* Q1
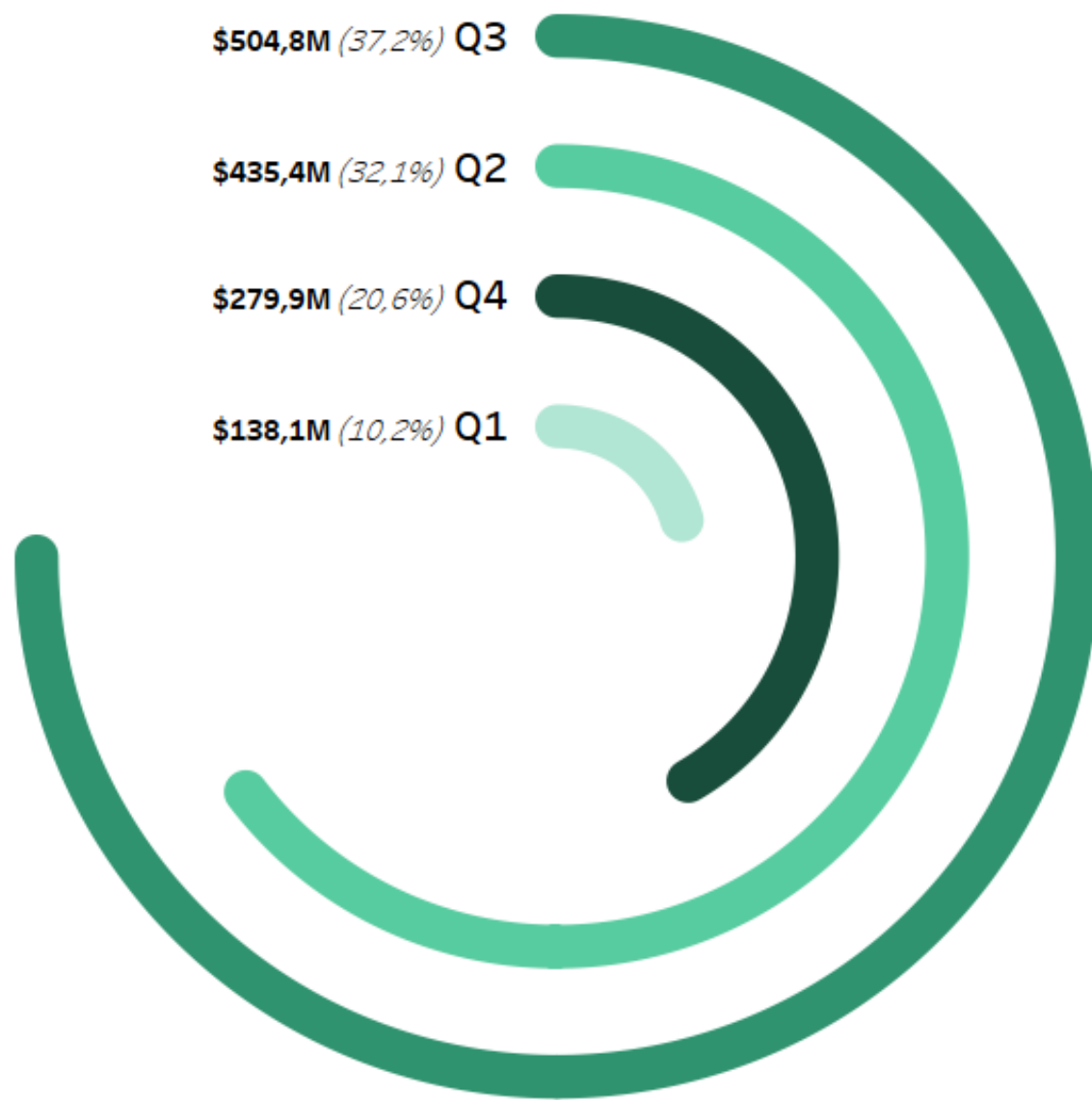
Year
- ○ 2017
- ○ 2018
- ○ 2019
- ○ 2020
- ○ 2021
- ⦿ 2022

Quarter
- ▢ Q1
- ▢ Q2
- ▢ Q3
- ▢ Q4

Caption

The colored bars show the relative amount of revenue per quarter compared to the total revenue in a specific year. The Color represents the quarter, and the lenght of the bar represents the relative contribution compared to the other quarters. shows the Quarter. The labels show detailed information about the amount of revenue, the relative contribution to the total revenue, and the quarter. The view is filtered on year, which is here set at 2022.
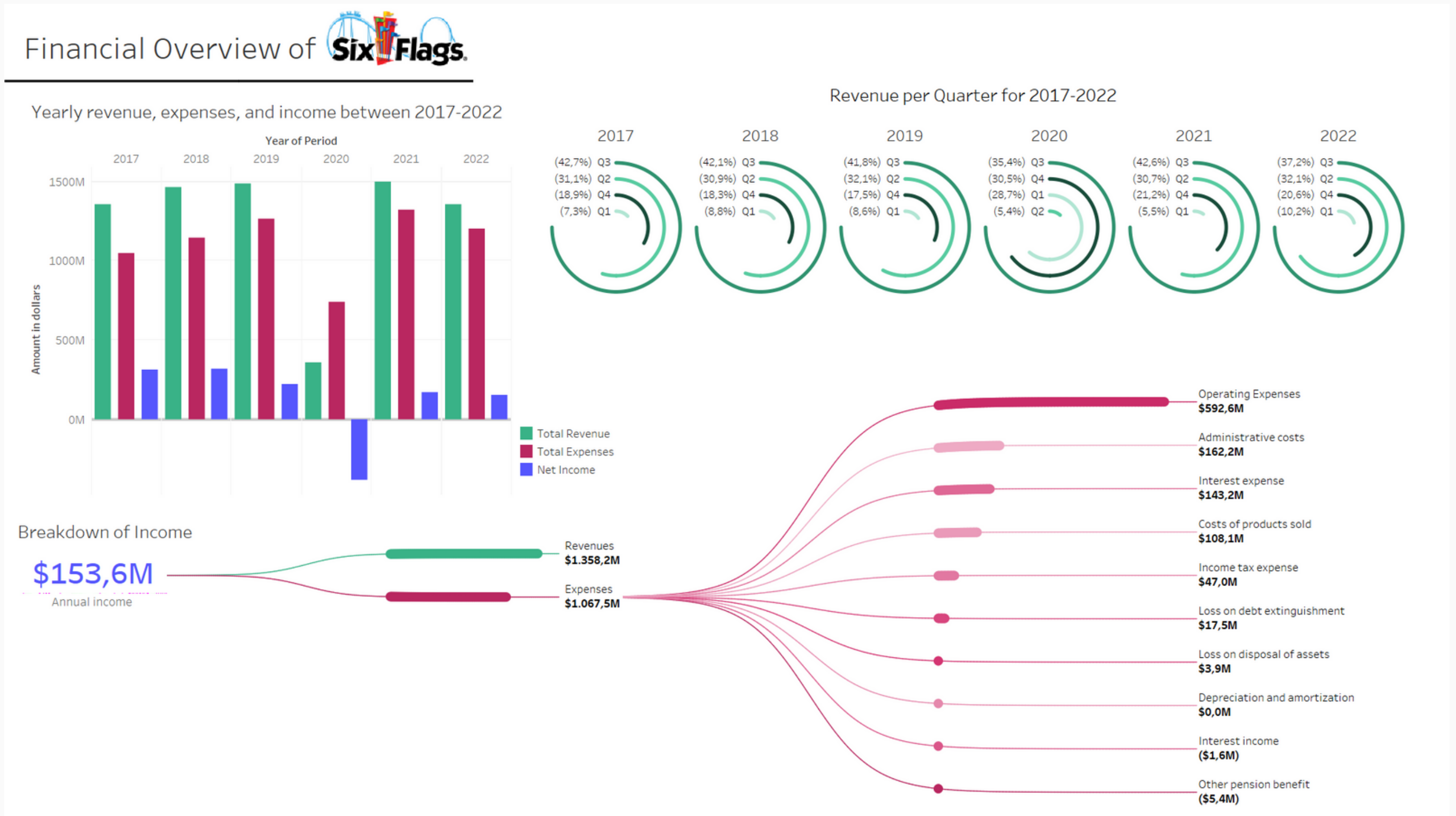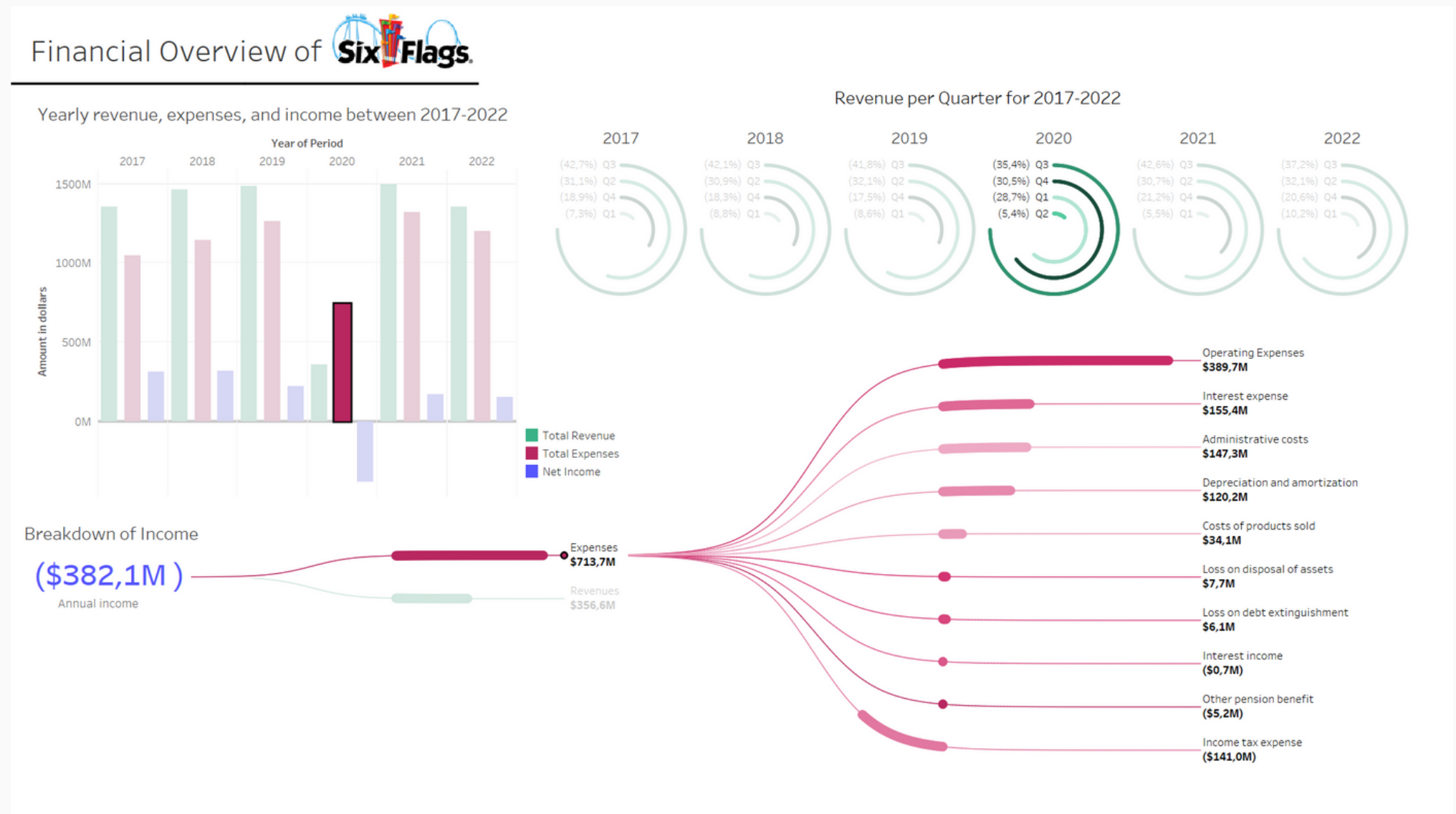
ECONOMICS (SUSANNE)
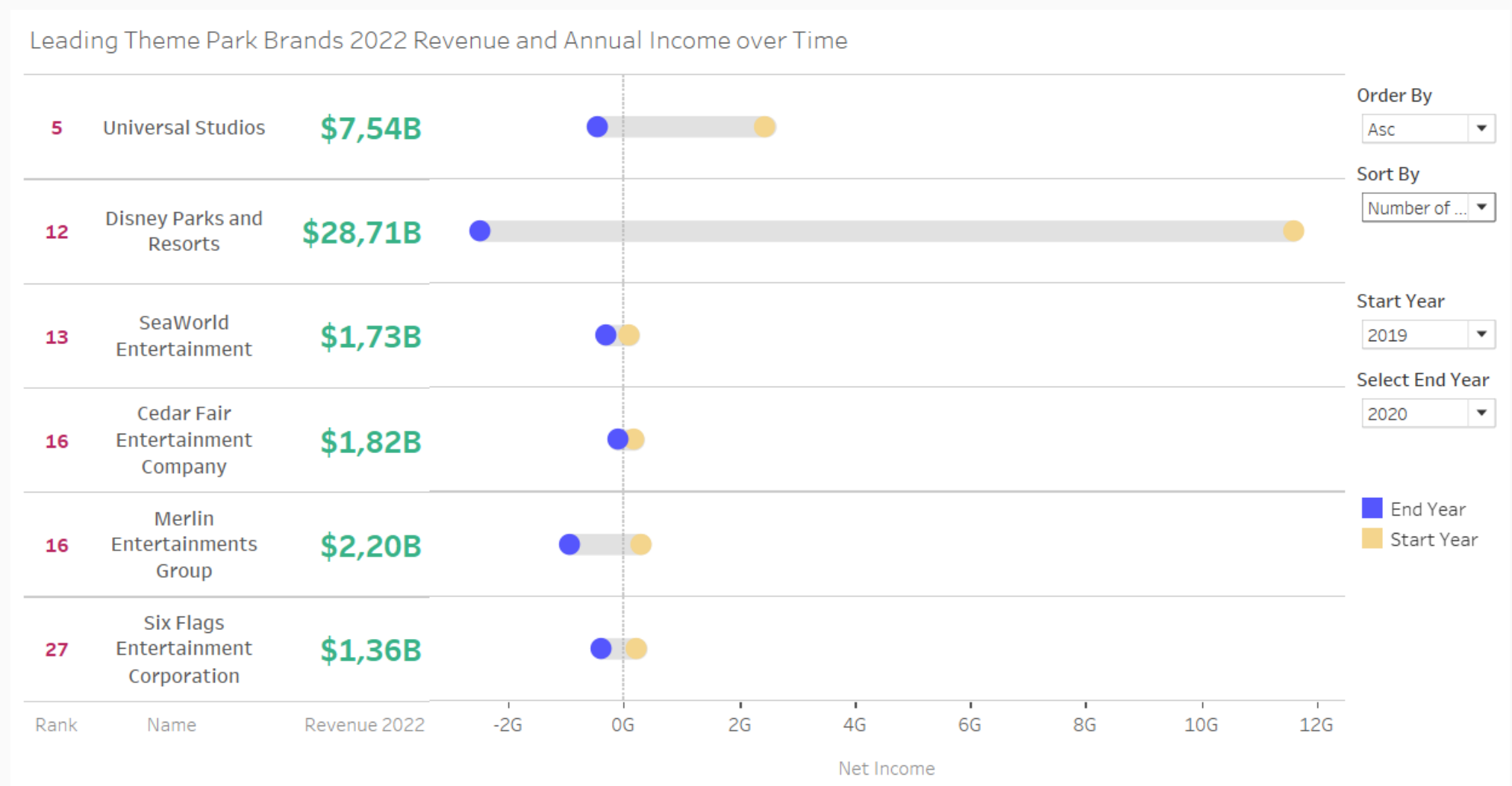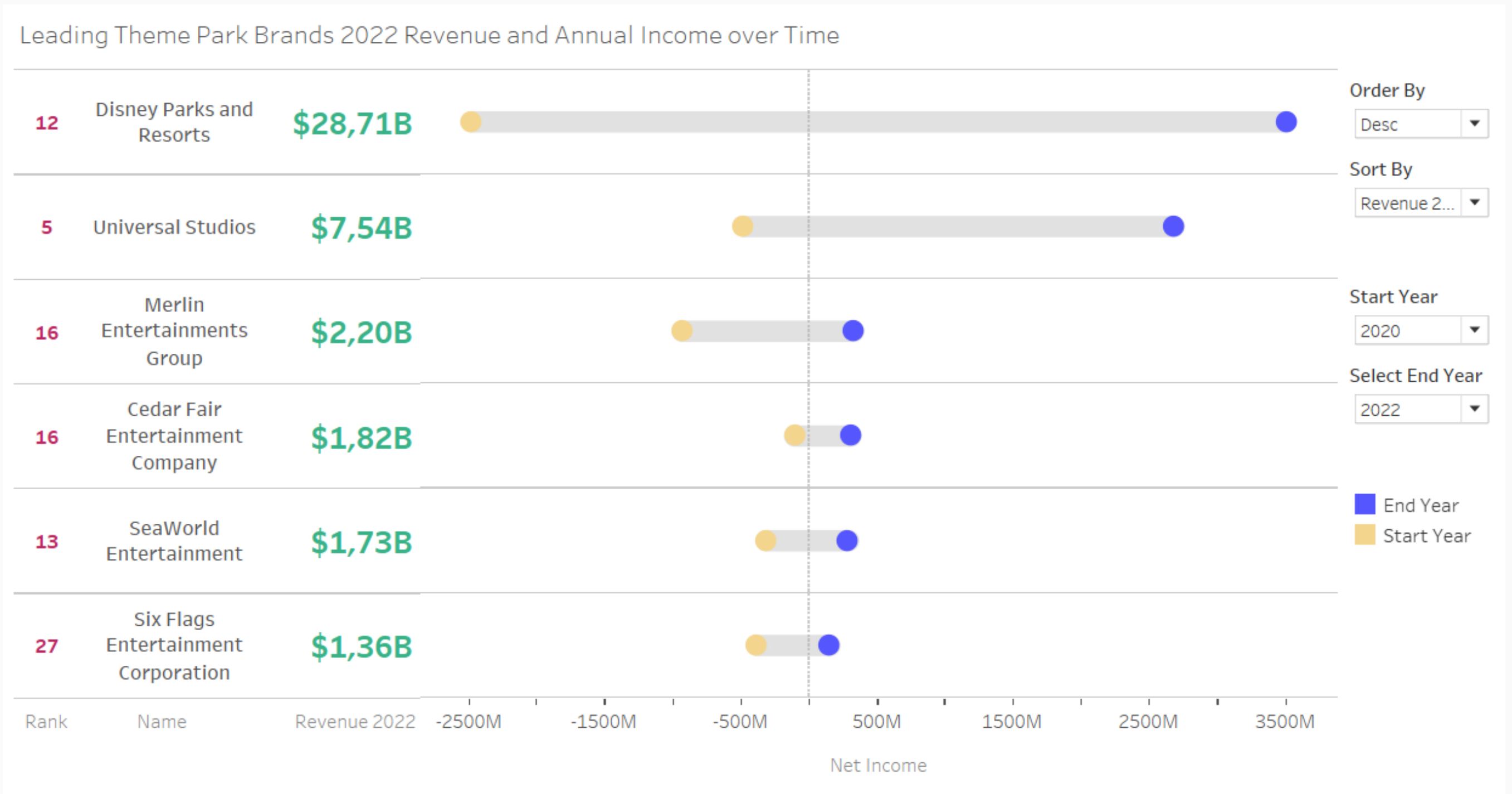
DASHBOARD:

Start and End year can be selected and changed the main graph. The order and sort change the order accordingly.
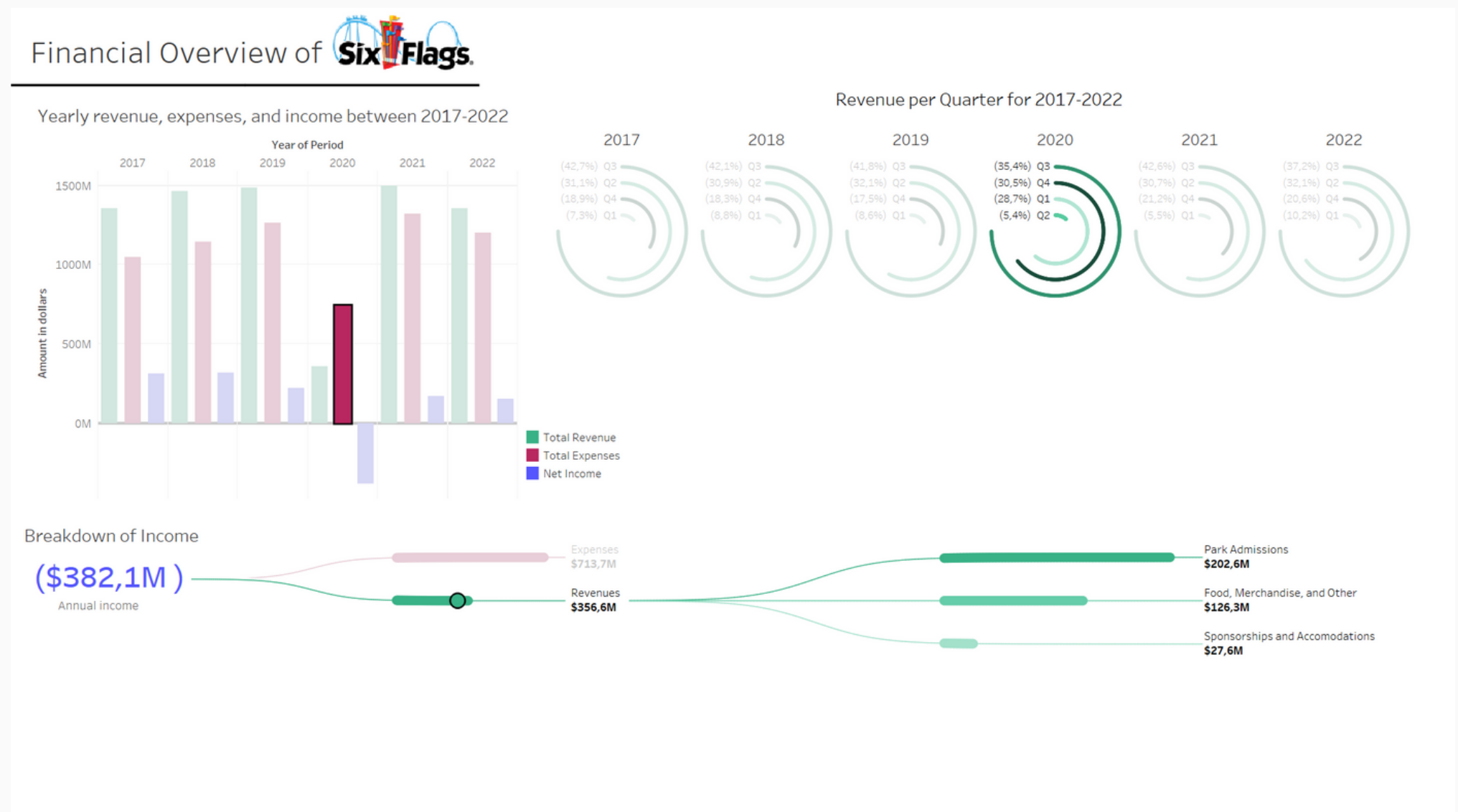
ECONOMICS (SUSANNE)

DASHBOARD:

Year highlight and filter on selection in bar graph.

Changing category and subcategory placement on selecting category.

DATASETS

HISTORY
https://www.kaggle.com/datasets/robikscube/rollercoaster-database
+ own research about track layouts of different rollercoasters named in the dataset

DEMOGRAPHICS
https://queue-times.com/parks/6/stats
https://www.statista.com/statistics/194247/worldwide-attendance-at-theme-and-amusement-parks/
+ own data collected from a google forms with 31 entries from CreaTe students

ECONOMICS
https://www.statista.com/statistics/258810/theme-und-amusement-park-companies-ranked-by-revenue/
https://www.statista.com/statistics/427168/revenue-of-six-flags-entertainment/
https://investors.sixflags.com/financial-information/annual-reports
https://thewaltdisneycompany.com/investor-relations/#reports
https://ir.cedarfair.com/overview/default.aspx#annual-reports
https://www.cmcsa.com/financials/annual-reports
https://www.seaworldinvestors.com/annual-reports/default.aspx
https://www.merlinentertainments.biz/investor-relations/results-reports-and-presentations/
+ own data collected from annual reports from Six Flags, Cedar Fair, SeaWorld, Merlin Entertainments, Universal Studios, and Disney between 2017 and 2022

INJURIES
https://ridesdatabase.org/saferparks/data/

ROLLERCOASTERS
Cleaned and modified Data - Steel and wooden Roller Coasters around the world:
https://www.kaggle.com/datasets/thedevastator/roller-coaster-data-from-around-the-world

MAGIC KINGDOM
https://data.world/lynne588/walt-disney-world-ride-data
https://cdn.touringplans.com/datasets/entities.csv

ALL DATASETS
DV - Themeparks
To access the google drive folder, a Utwente Email address needs to be used - if any issues arise, please get in touch with the team leader.