Analyzing paid-search trends with line & area charts

MARKETING ANALYTICS IN SPREADSHEETS

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Digital marketing data set

| Year	Source	Cost	CTR
2018	Google	$112.00	7.98%
2018	Facebook	$108.00	4.87%
2017	Google	$95.00	7.87%
2017	Facebook	$79.00	5.68%
2016	Google	$79.00	7.80%
2016	Facebook	$47.00	6.01%

Keep in mind:

- CTR increase is always good
  - *Ads are performing well*
- Cost is more complicated
  - Increase cost and CTR is good
  - Increase cost and decrease CTR is bad
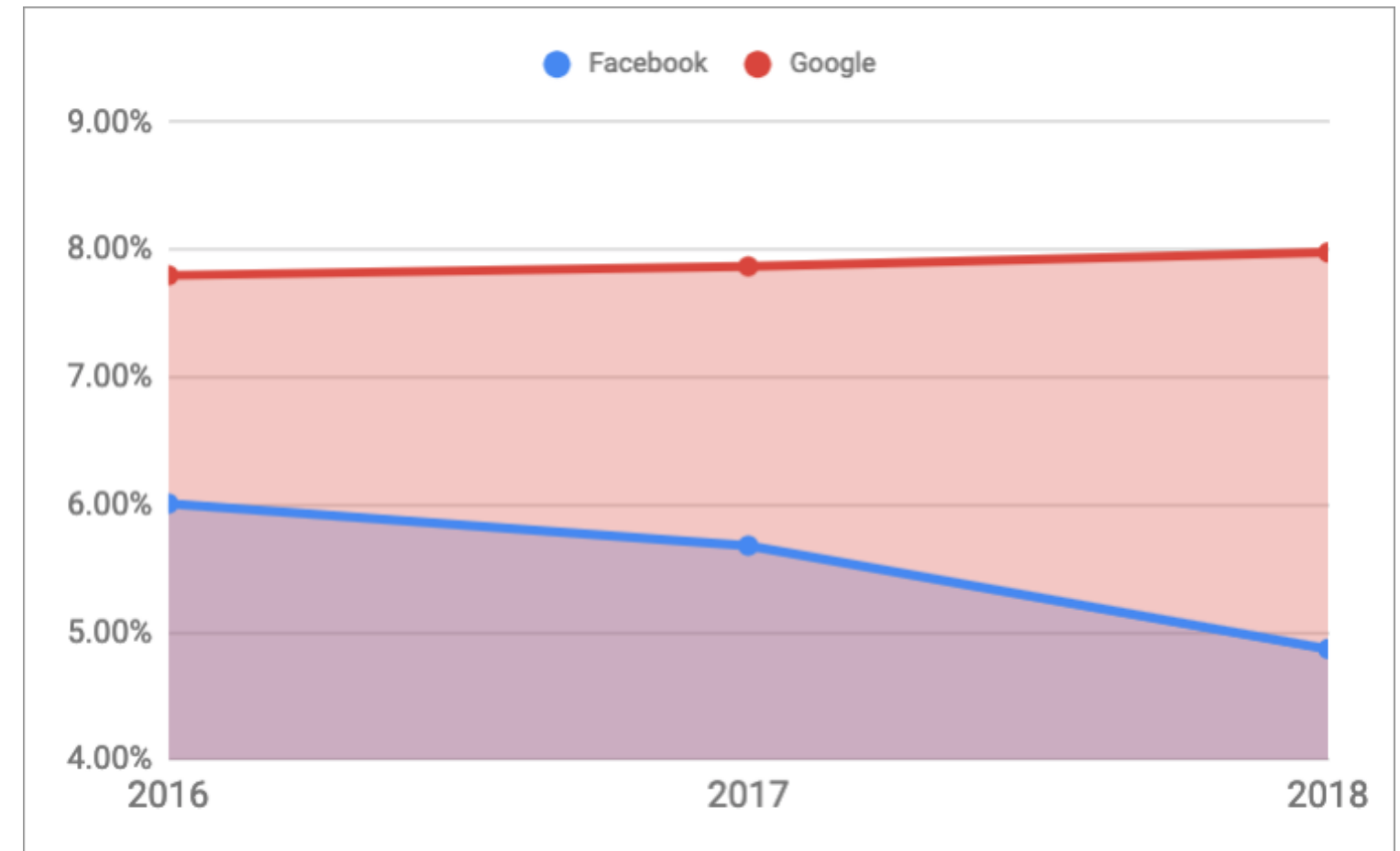
Visualizing CTR trends

LINE CHART

- Shows basic trend of each line

- May be the most recognizable of all trend charts

- Great for any number of trends
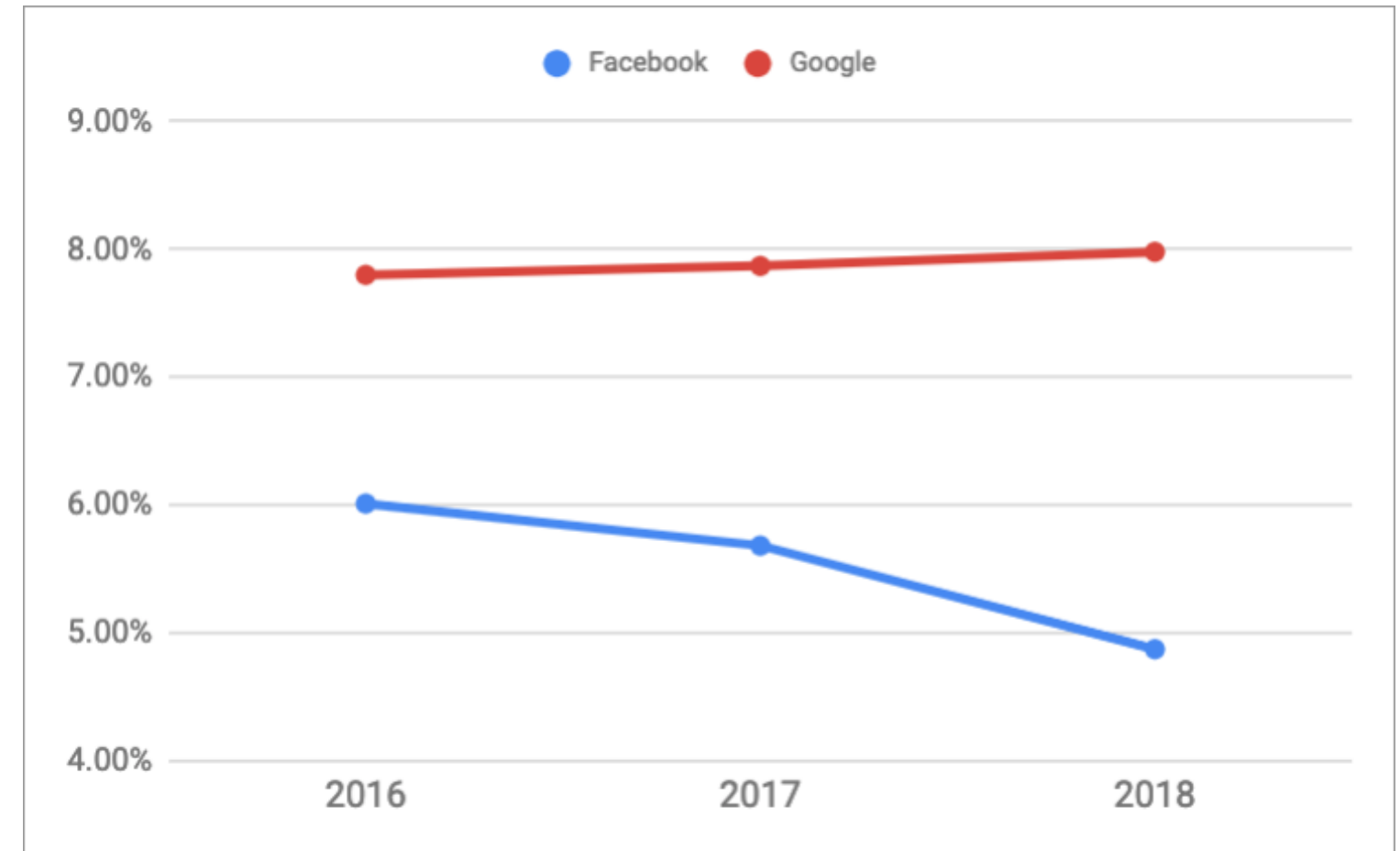
Visualizing CTR trends

AREA CHART

- Shaded under the curve

- Great for showing relative differences between trends

- Will get messy if too many trends are plotted on a single area chart
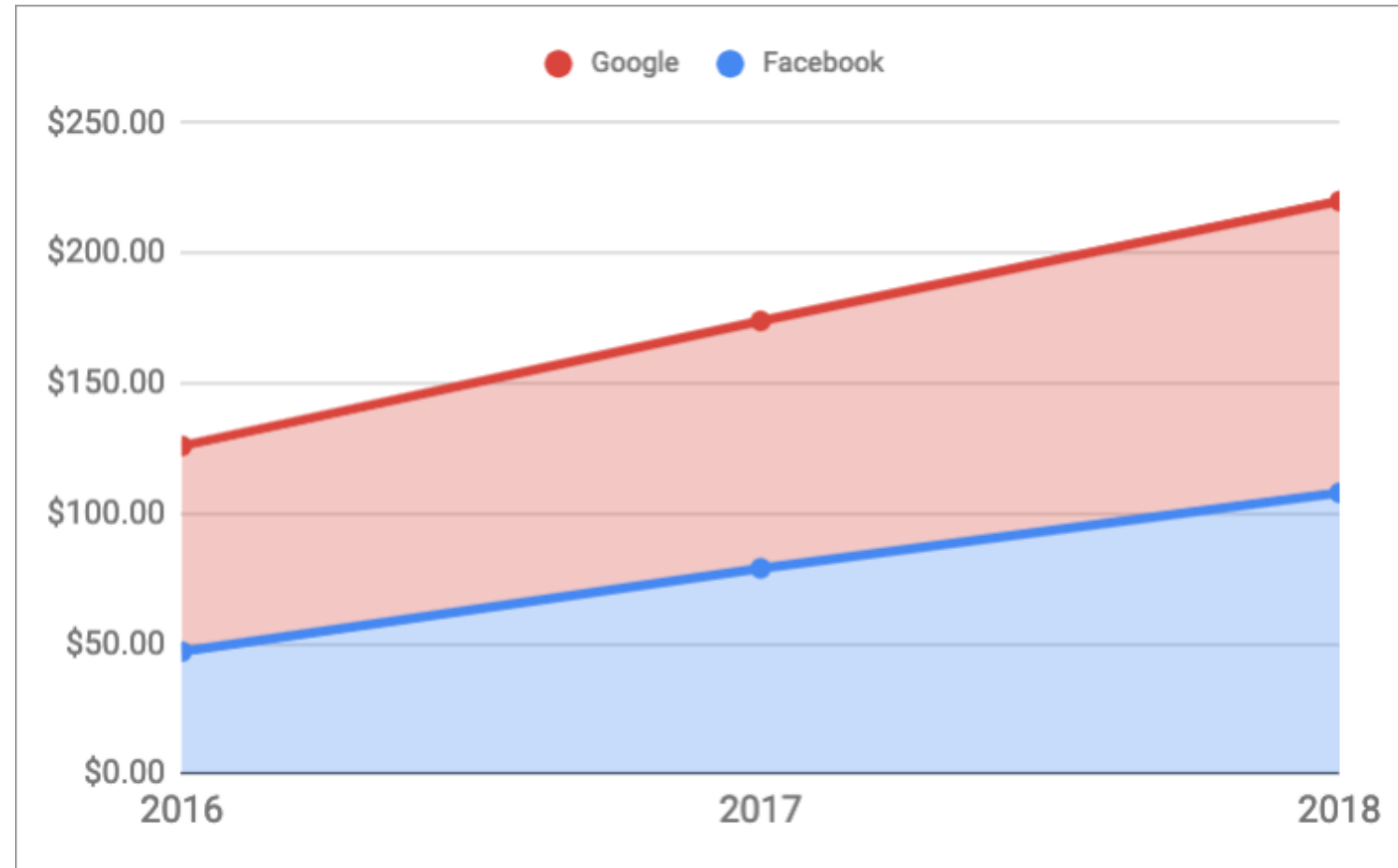
Visualizing cost trends

STACKED AREA CHART

- Aggregate of all trends

- Shows contribution by each trend

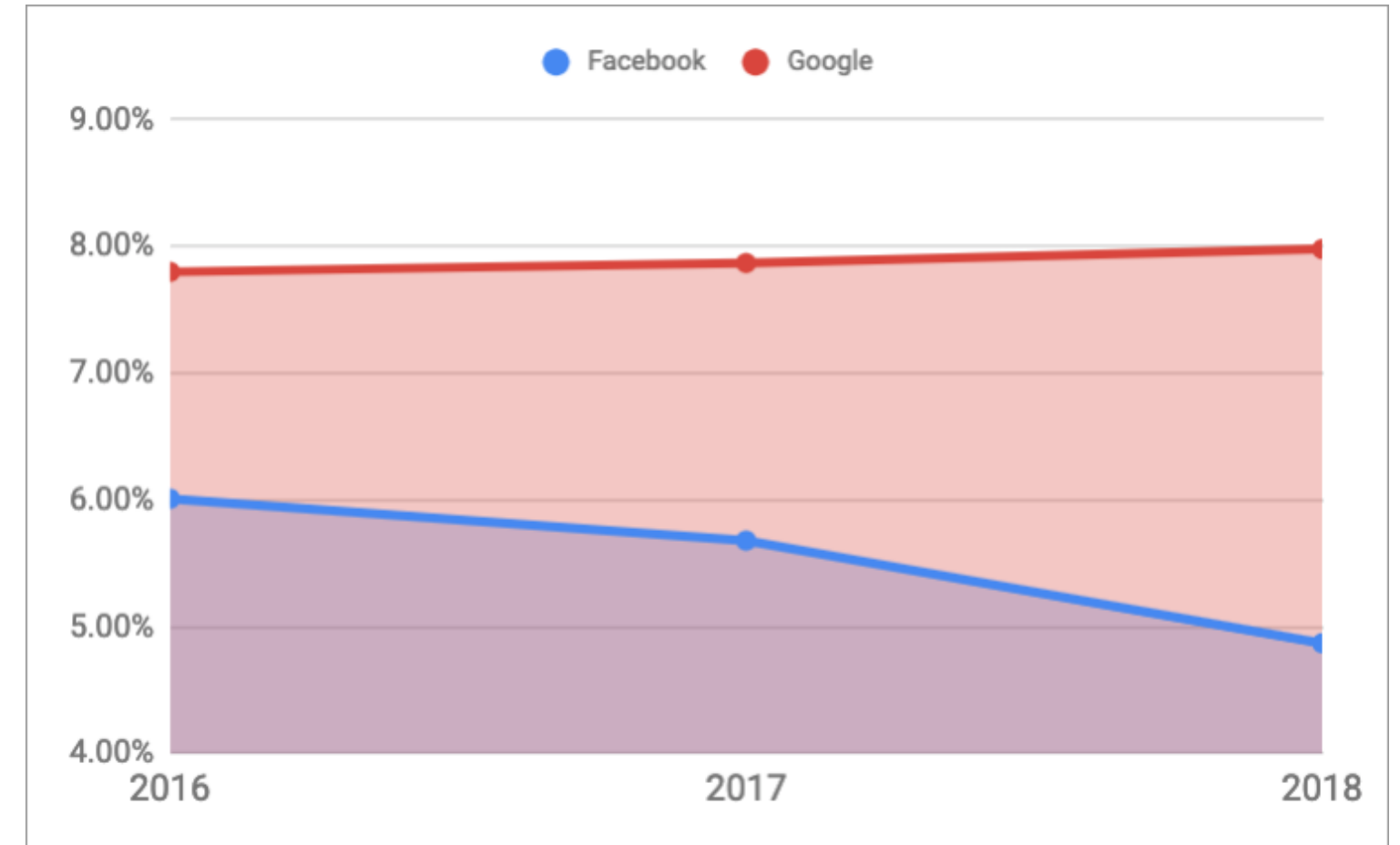- CTR does not work with this since it is an average

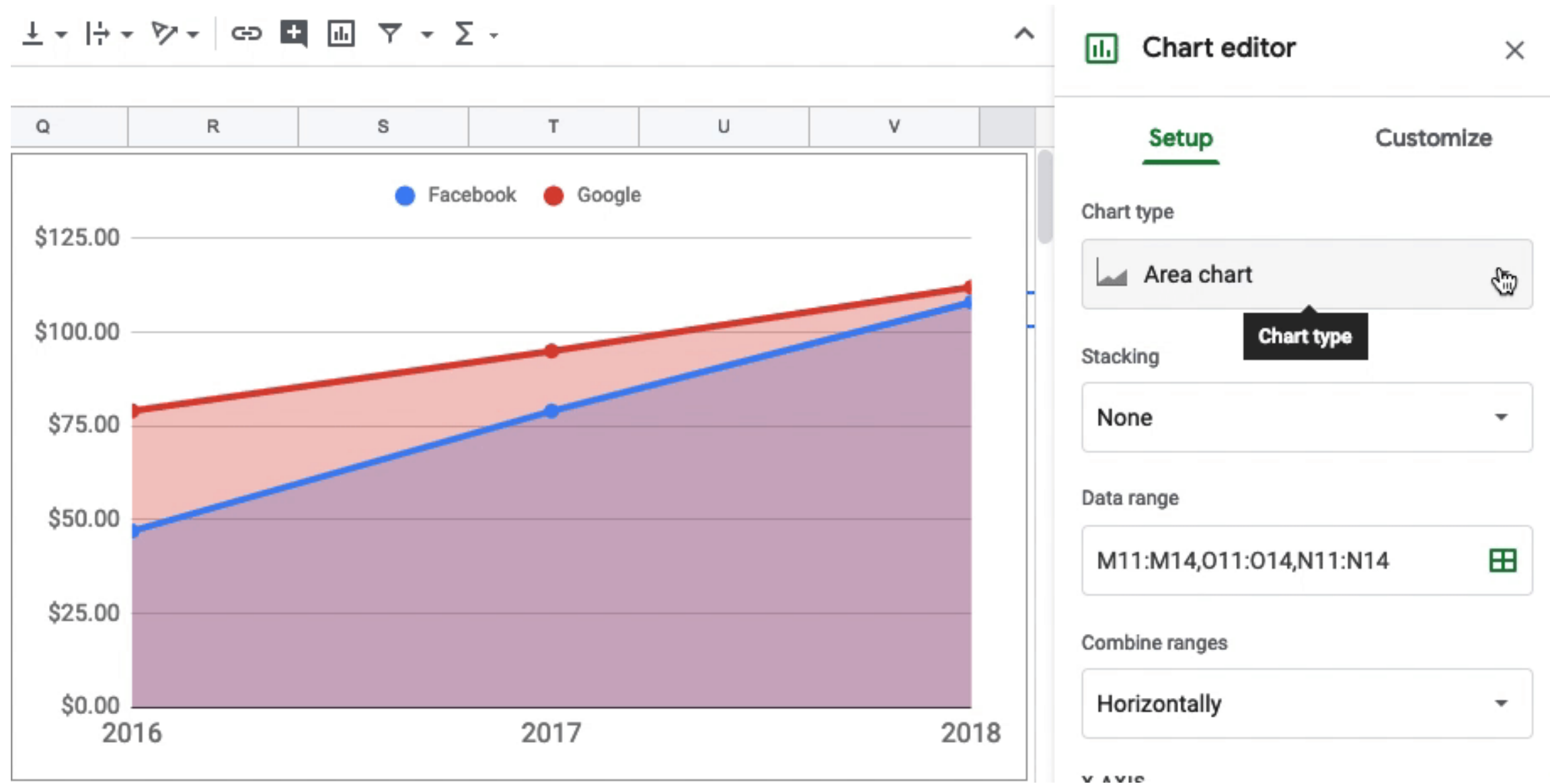MARKETING ANALYTICS IN SPREADSHEETS
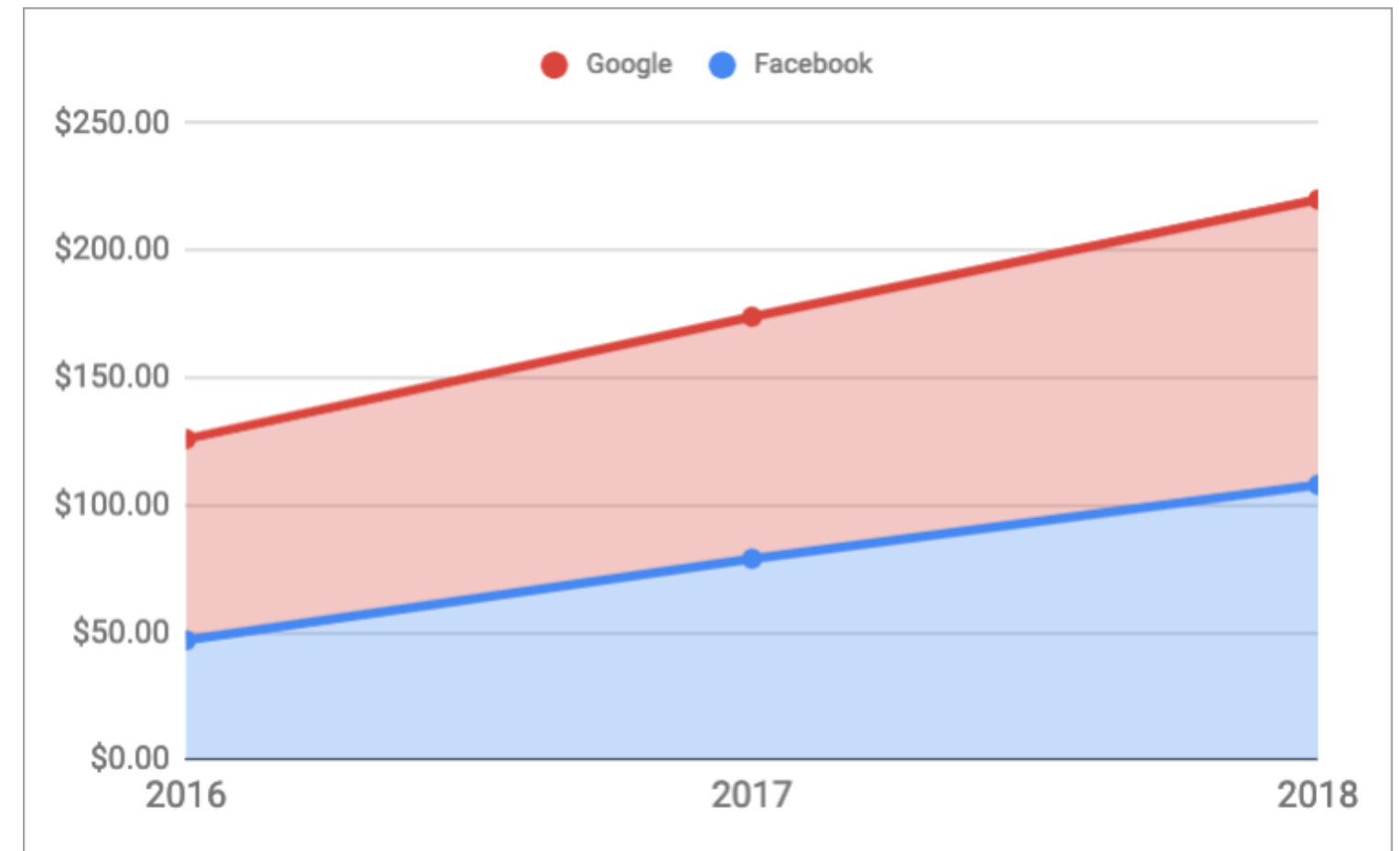
Compare area charts

STACKED AREA CHART

AREA CHART

MARKETING ANALYTICS IN SPREADSHEETS

Change chart type

Add a series to a chart

	Cost		CTR	
Year	**Google**	**Facebook**	**Google**	**Facebook**
2018	$112.00	$108.00	7.98%	4.87%
2017	$95.00	$79.00	7.87%	5.68%
2016	$79.00	$47.00	7.80%	6.01%
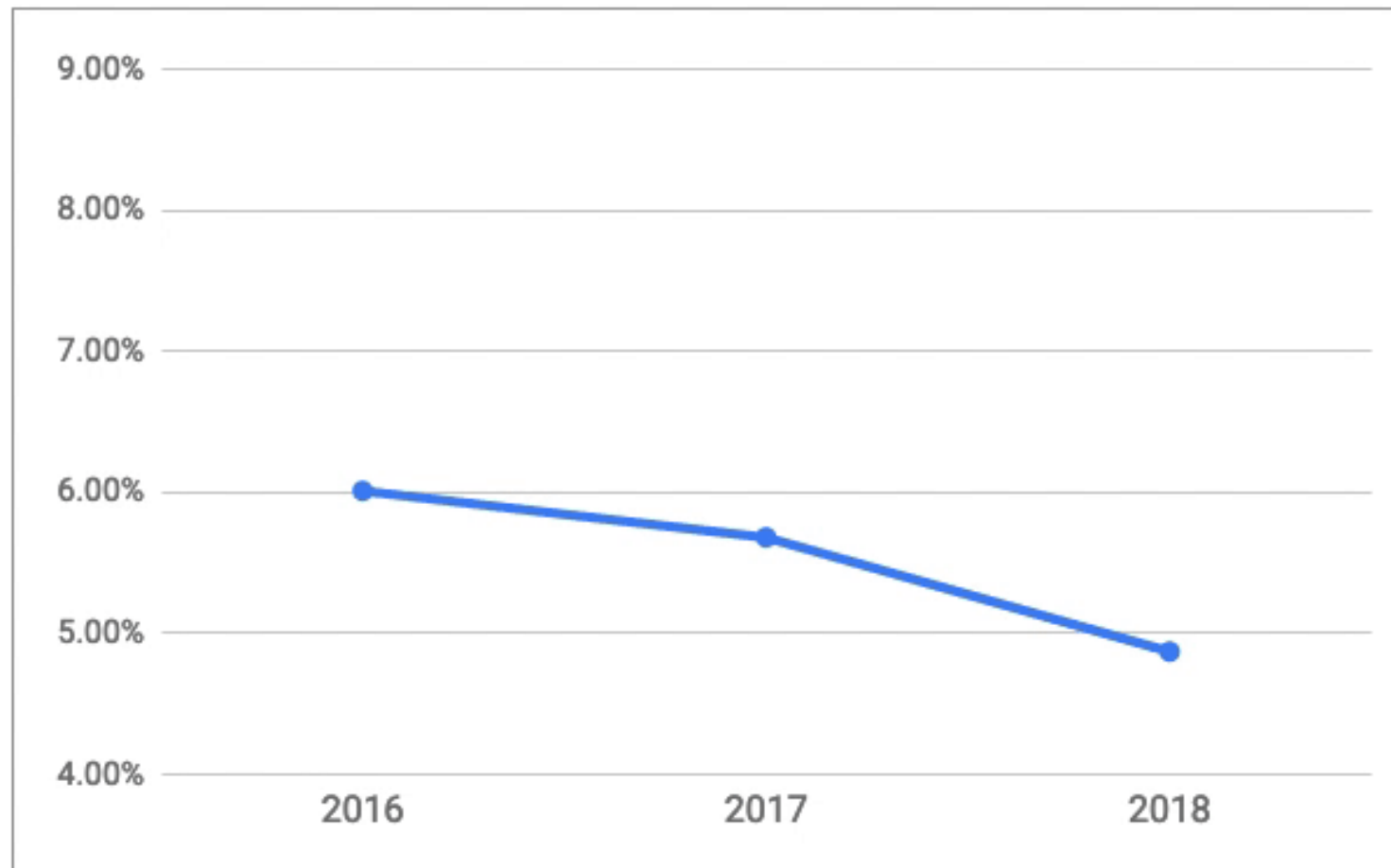
Horizontally ▾

X-AXIS

123 Year

SERIES

123 Facebook

Add Series ⊞

☐ Switch rows / columns
☑ Use row 13 as headers
☑ Use column N as labels
☐ Aggregate column N

MARKETING ANALYTICS IN SPREADSHEETS

Reformat data set for trend analysis

ORIGINAL DATA SET

Year	Source	Cost	CTR
2018	Google	$112.00	7.98%
2018	Facebook	$108.00	4.87%
2017	Google	$95.00	7.87%
2017	Facebook	$79.00	5.68%
2016	Google	$79.00	7.80%
2016	Facebook	$47.00	6.01%

REFORMATTED DATA SET

	Cost		CTR	
Year	Google	Facebook	Google	Facebook
2018	$112.00	$108.00	7.98%	4.87%
2017	$95.00	$79.00	7.87%	5.68%
2016	$79.00	$47.00	7.80%	6.01%

Let's get to work!

MARKETING ANALYTICS IN SPREADSHEETS

Visualizing ad group performance with column & bar charts

MARKETING ANALYTICS IN SPREADSHEETS

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Ad groups data set

Ad Group	Impressions	Clicks	CTR	Cost
Data Science	414	27	6.52%	$47.74
Data Analyst	325	26	8.00%	$49.69

Impressions by ad group
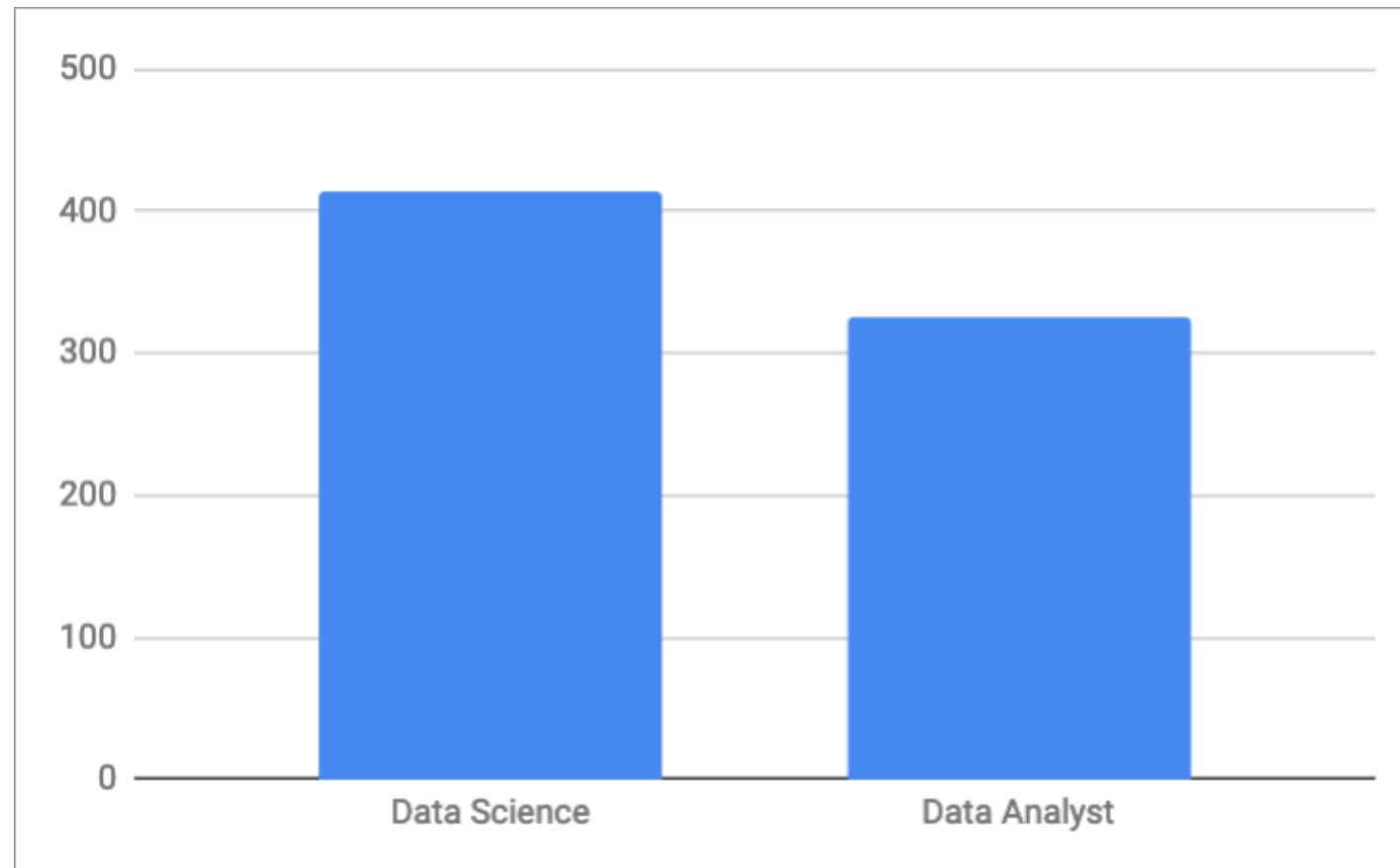
- Column Chart

Impressions by ad group

- Column Chart
- Bar Chart
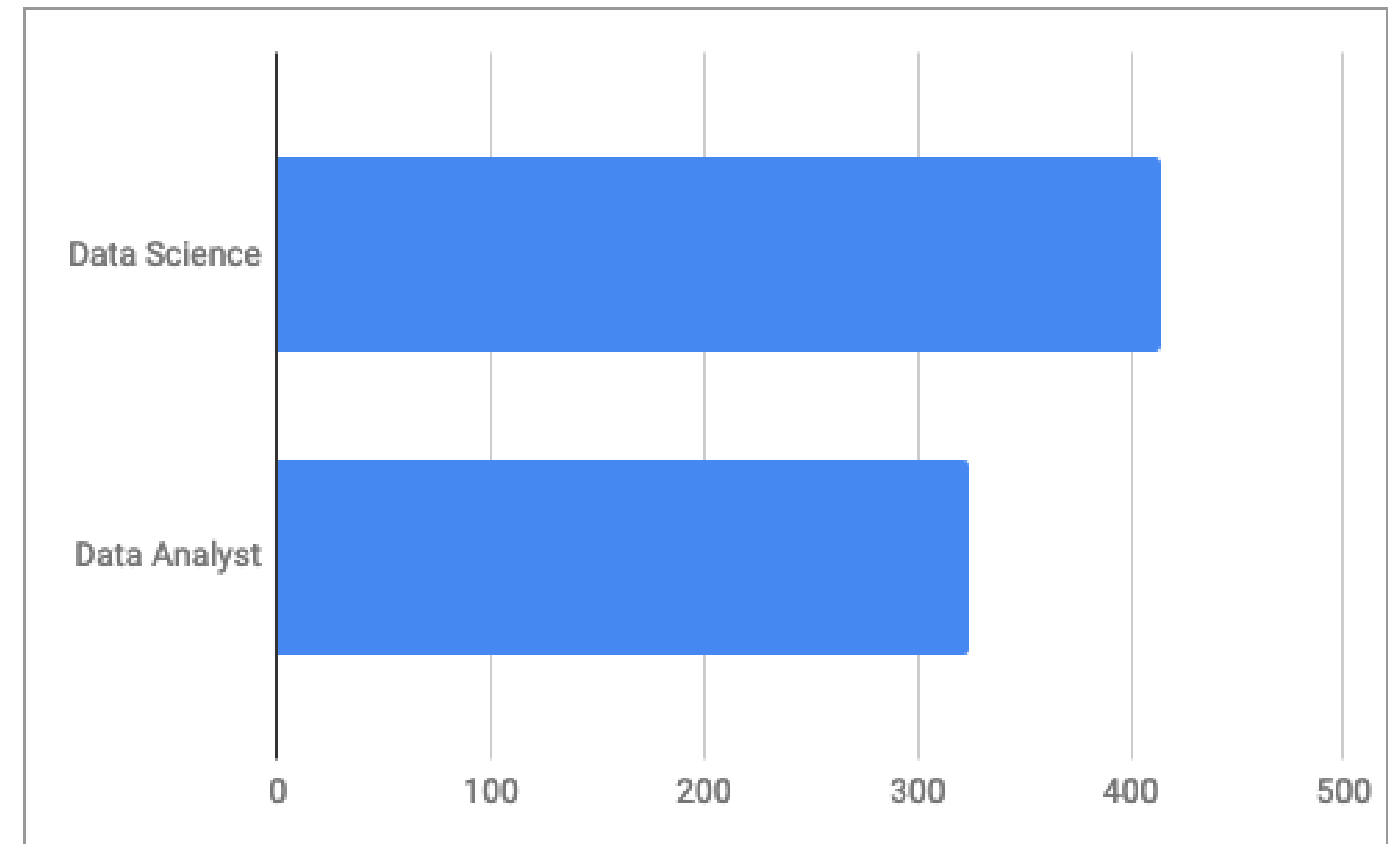
Impressions & click performance by ad group

- Stacked column chart
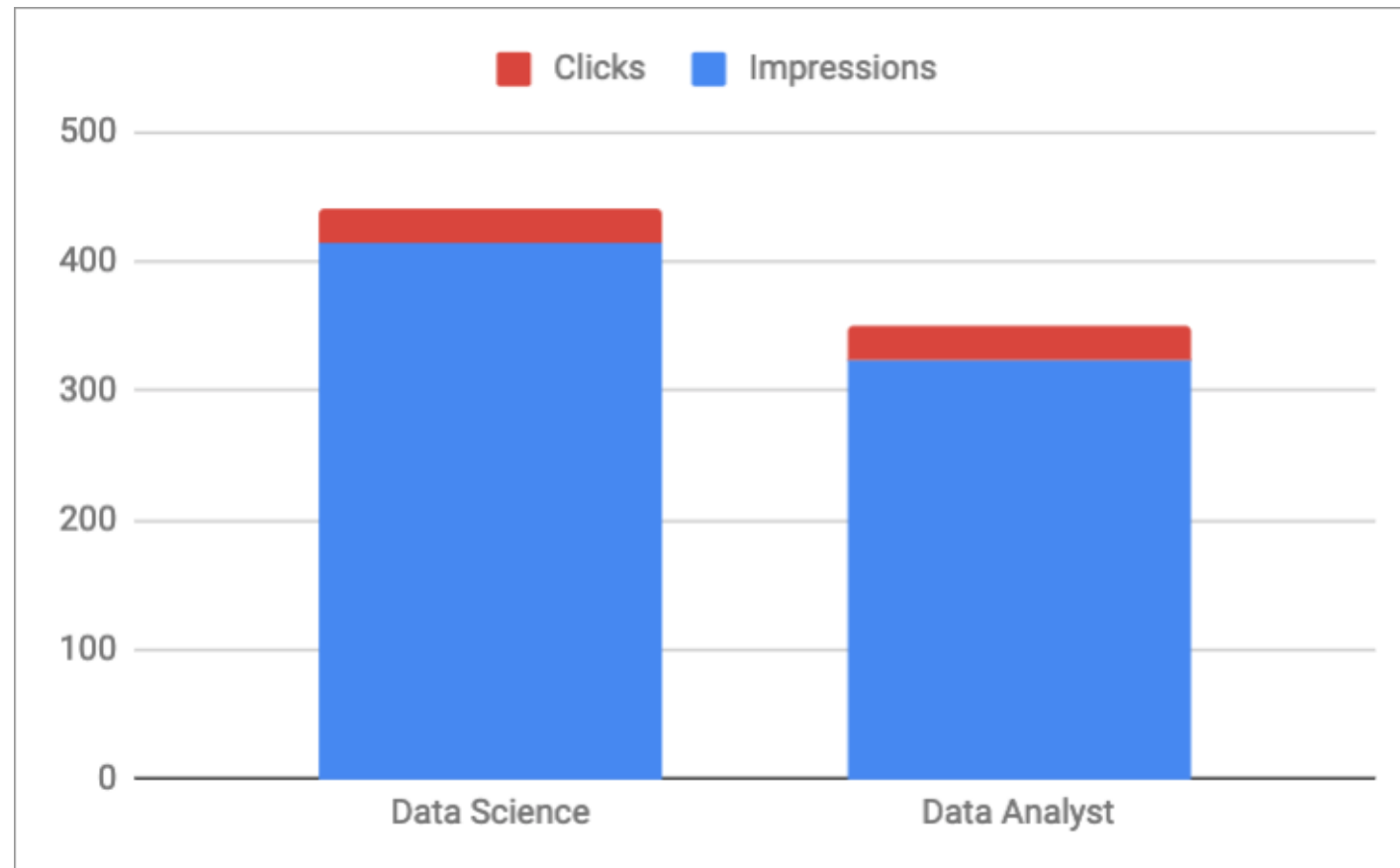
Ad group overall performance

- 100% stacked bar chart

A brief recap

- **Column charts and bar charts are very similar**
  - The only difference is the axis in which the labels reside

- **Normal bar/column charts**
  - Great for visualizing 1 or 2 ad group metrics at a time

- **Stacked bar/column charts**
  - Effective at showing a few ad group metrics at a time

- **100% stacked bar/column charts (*with columns/rows switched*)**
  - Provide insight into percent make up of the total for each metric

Let's get to work!

MARKETING ANALYTICS IN SPREADSHEETS

Evaluating campaigns with pie & scatter charts

MARKETING ANALYTICS IN SPREADSHEETS

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Campaigns data set

Campaign Name	Impressions	Clicks	Goal Completions
DataCamp Brand	249	29	8
R users	140	34	4
Python Users	414	27	16

Campaigns data set

- **Goal completions**
  - Measured interactions on websites

  - Examples of goal completions:
    - Submitting an online form

    - Purchasing a subscription

Campaign impression share

- Pie chart
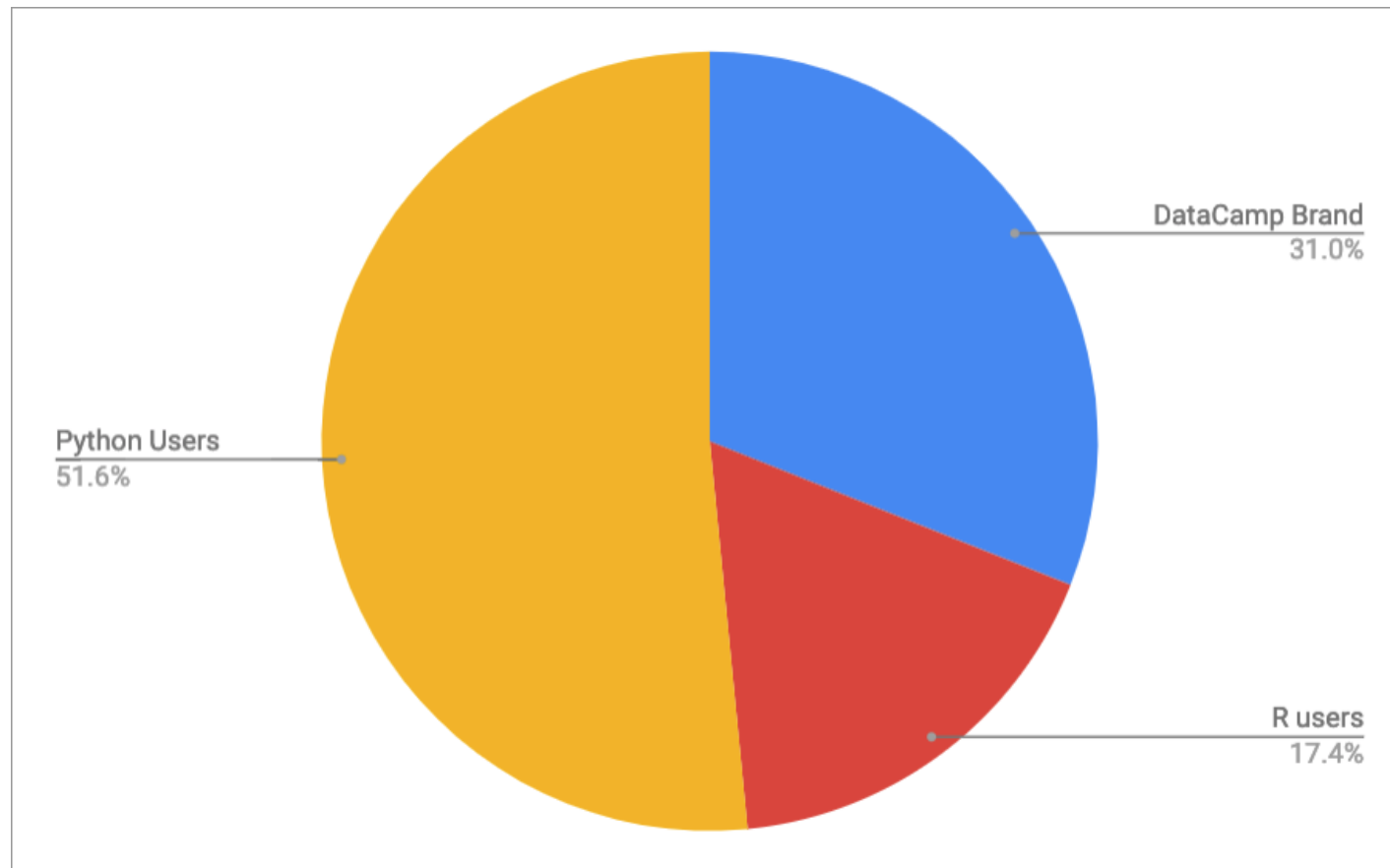
Transform a pie chart into a doughnut chart

- Doughnut chart = pie chart, but with a hole in the middle
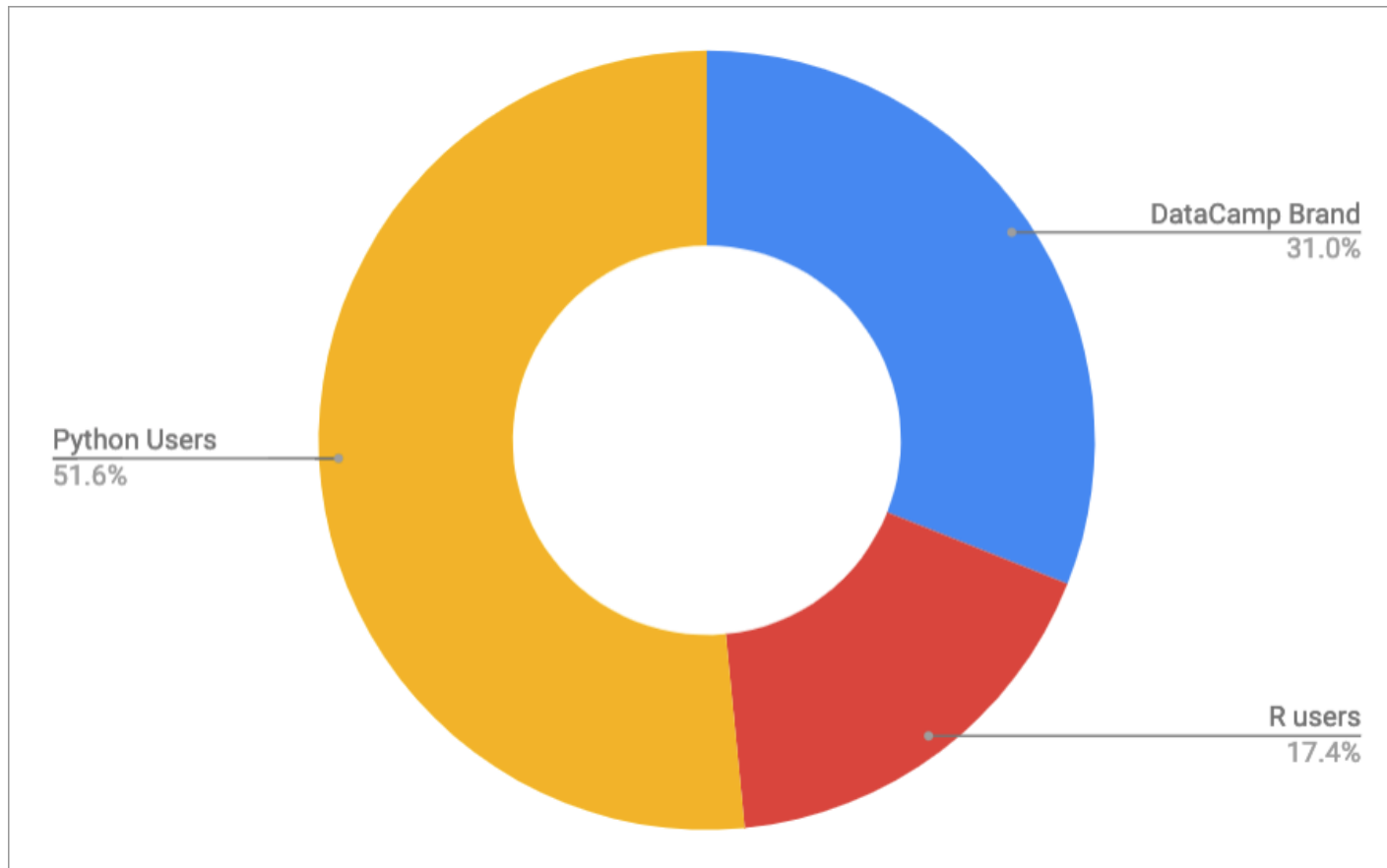
Determining relationship between goal completions and clicks

- Scatter chart
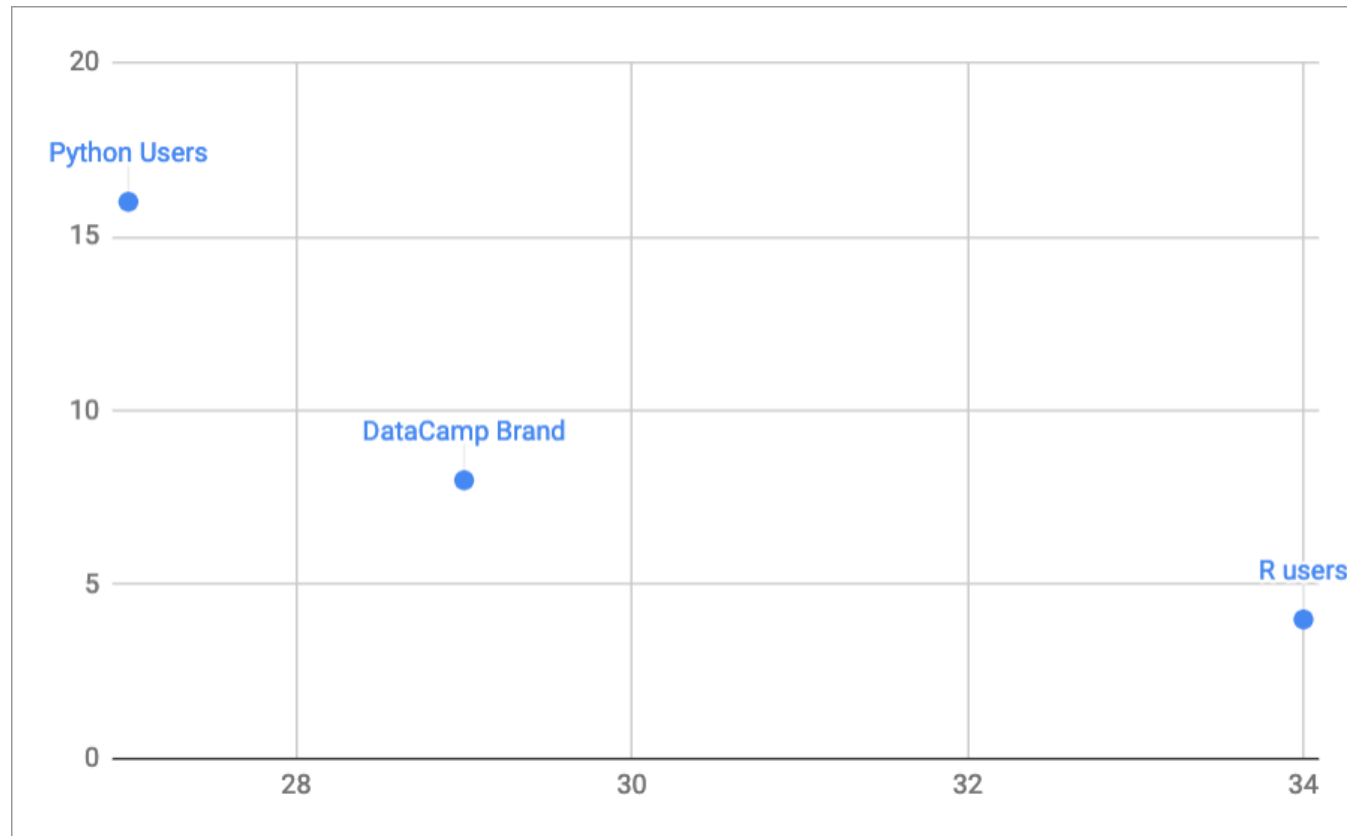
Adding weight to a scatter chart

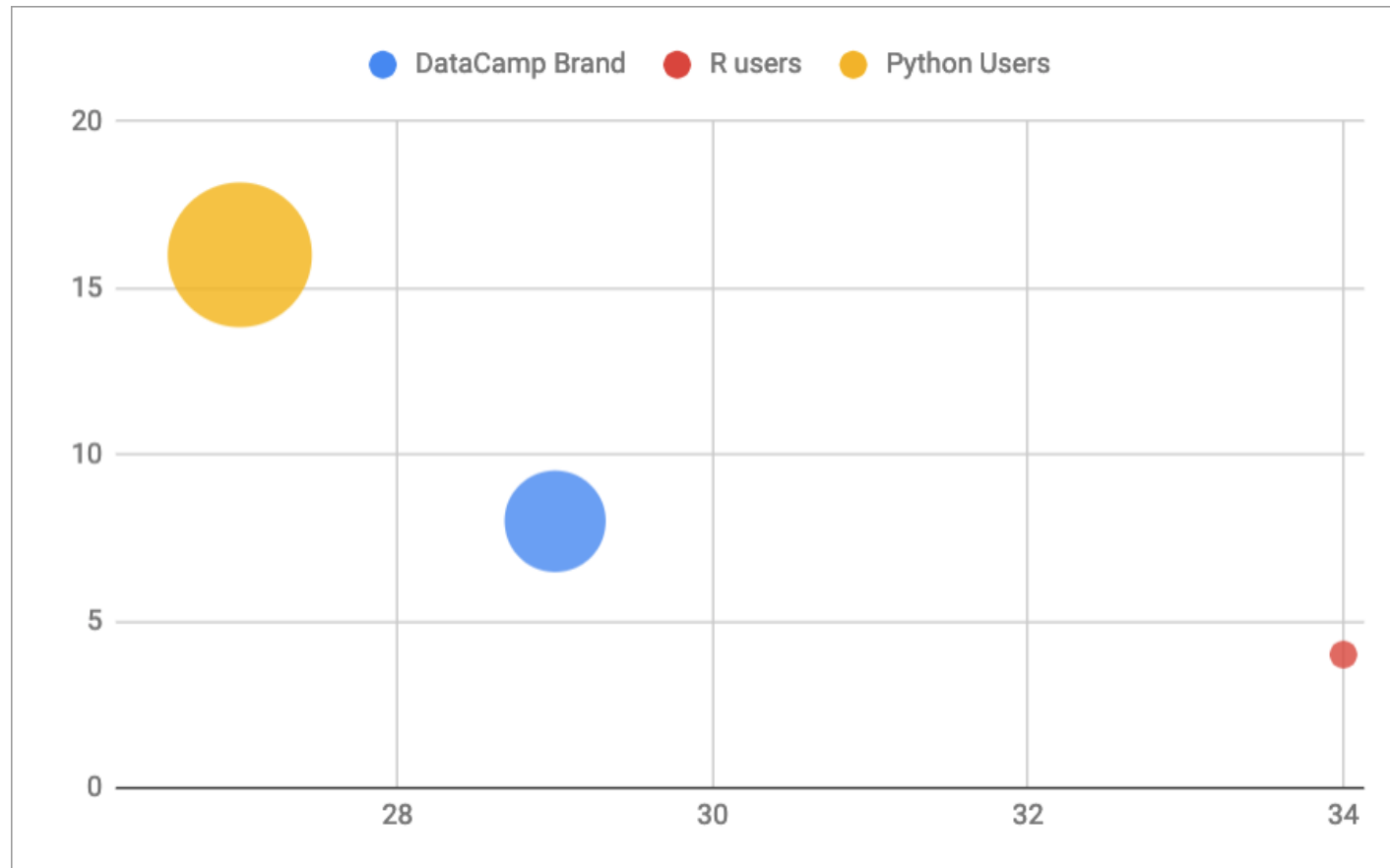- Bubble chart = scatter chart with weight applied to each measurement

Let's recap

- **Goal completions**
  - Important user engagements that measure the effectiveness of a campaign

- **Pie/doughnut charts**
  - Display relative makeup of a total

- **Scatter charts**
  - Great for determining the relative relationship between two metrics

- **Bubble charts**
  - Makes the chart more informative by adding another dimension (size)

Let's get to work!

MARKETING ANALYTICS IN SPREADSHEETS

Build a digital marketing dashboard

MARKETING ANALYTICS IN SPREADSHEETS

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Dashboard overview

- **Dashboards are used to relay information in a timely manner**

- **Typically includes only basic, easy to understand information**

- **Usually made up of charts, but may contain data tables as well**

- **Used for decision making:**
  - Determining a campaign budget based on performance
  - Allocating resources to fix poor performing ad groups
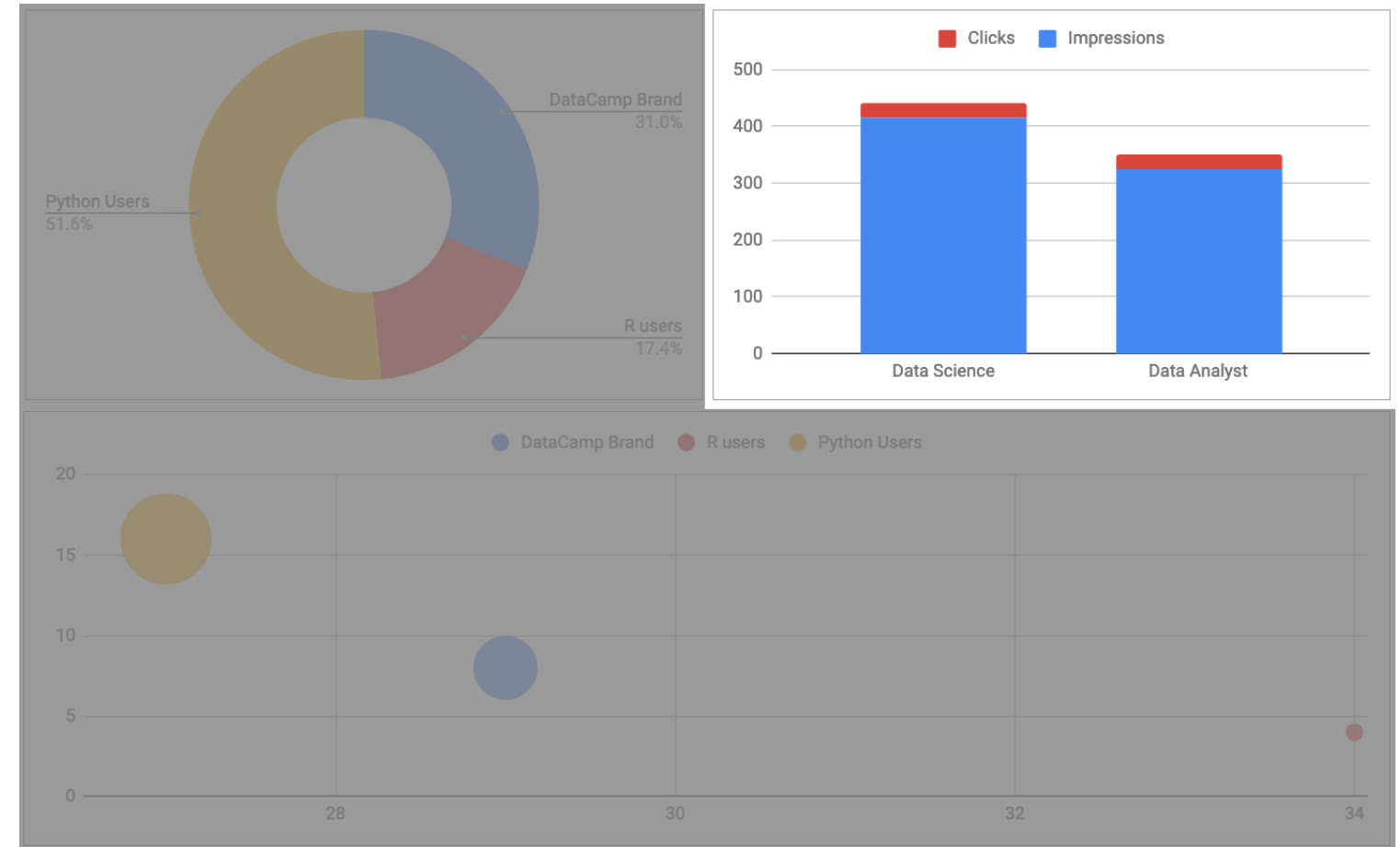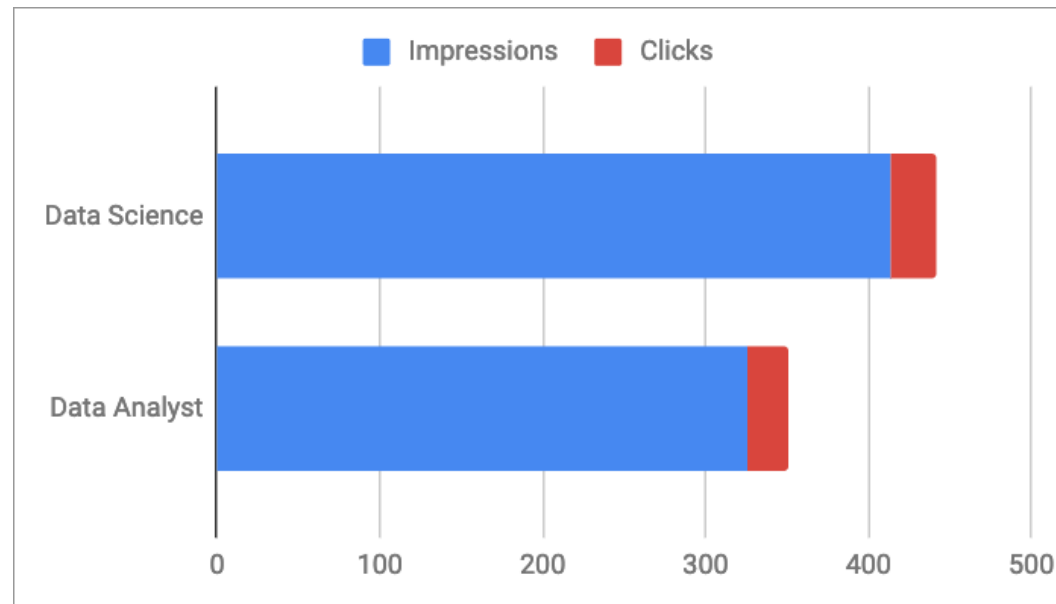
First look at a dashboard
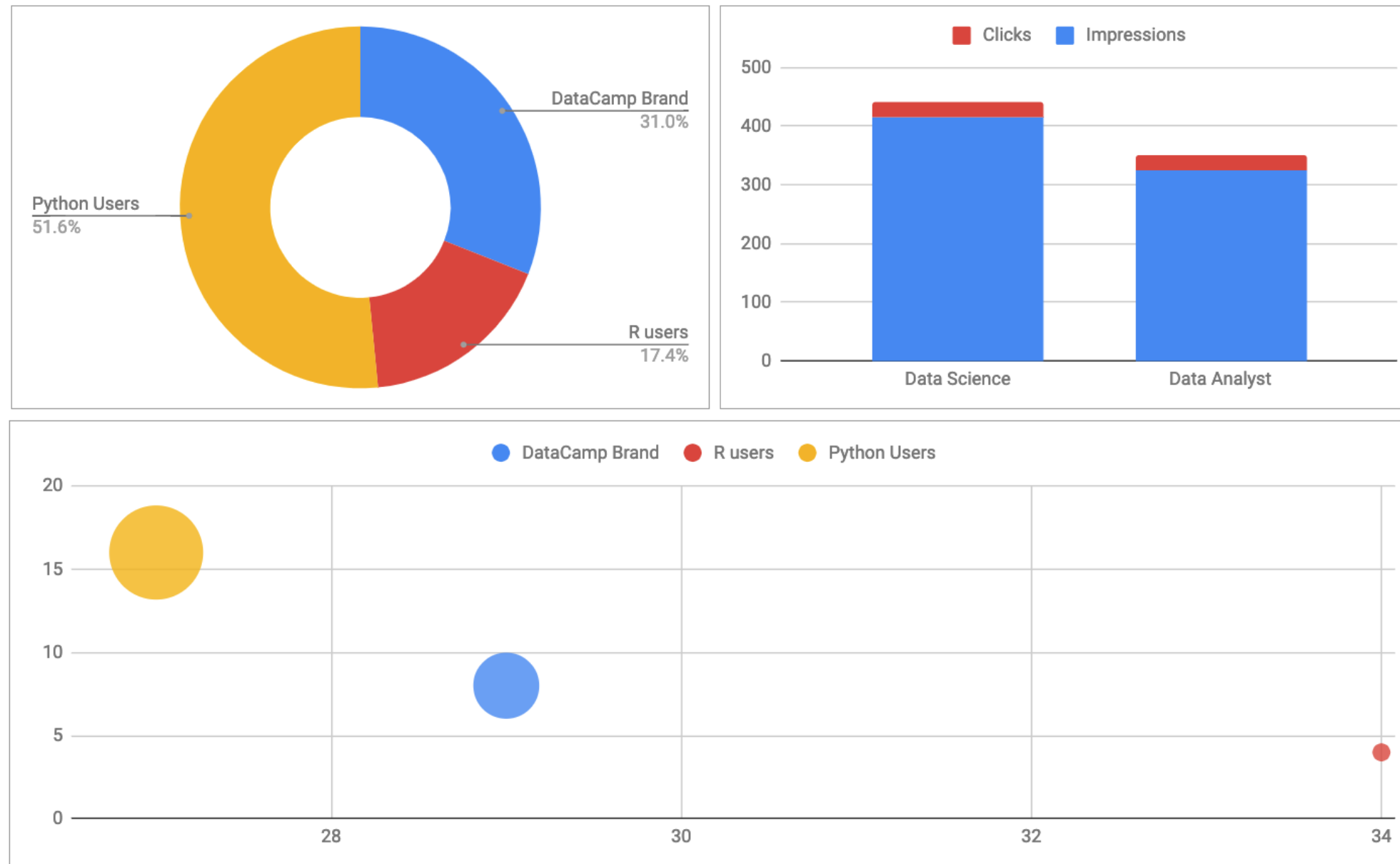
Dashboard charts review: doughnut/pie charts

- Display relative make up of total

- Same as a pie chart except it has a hole in the middle
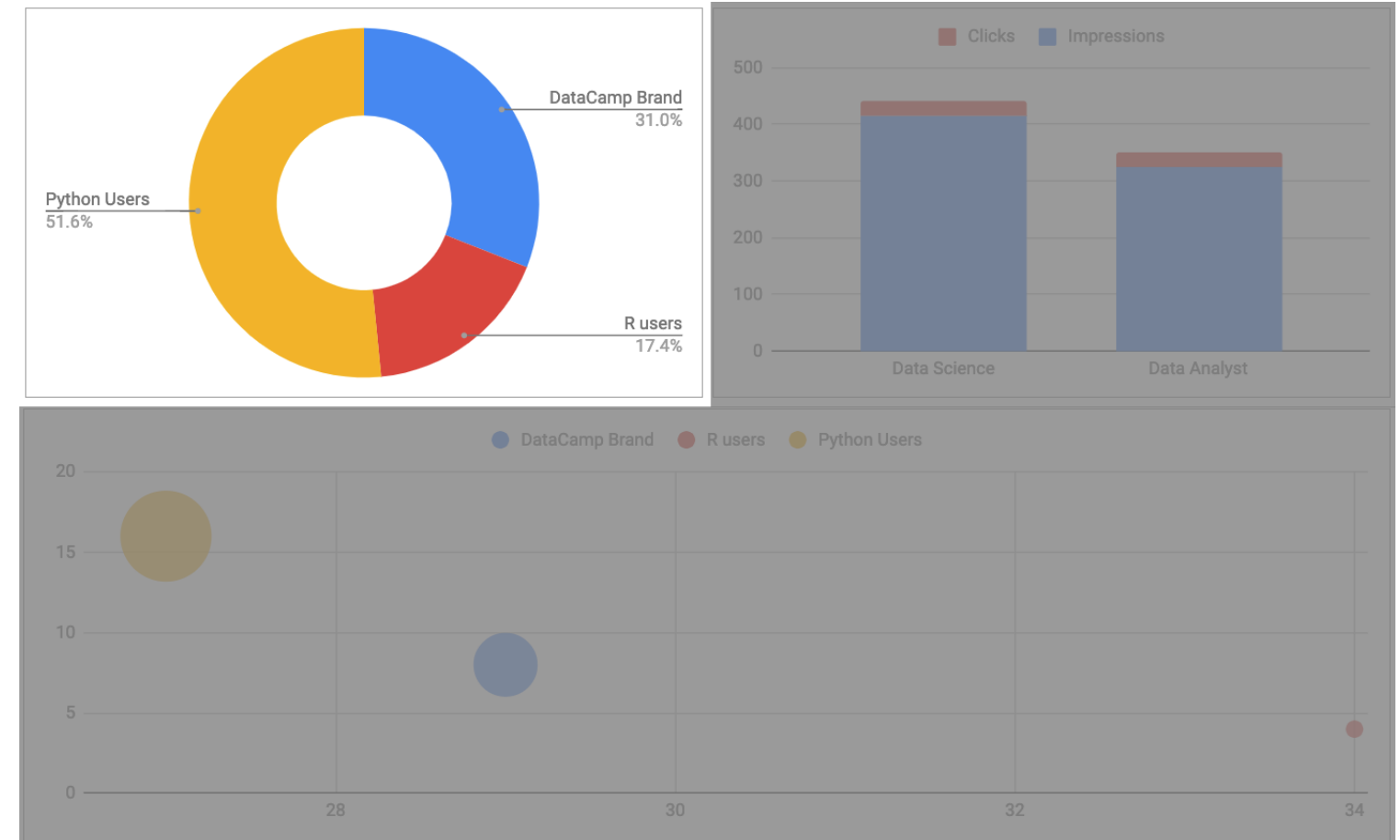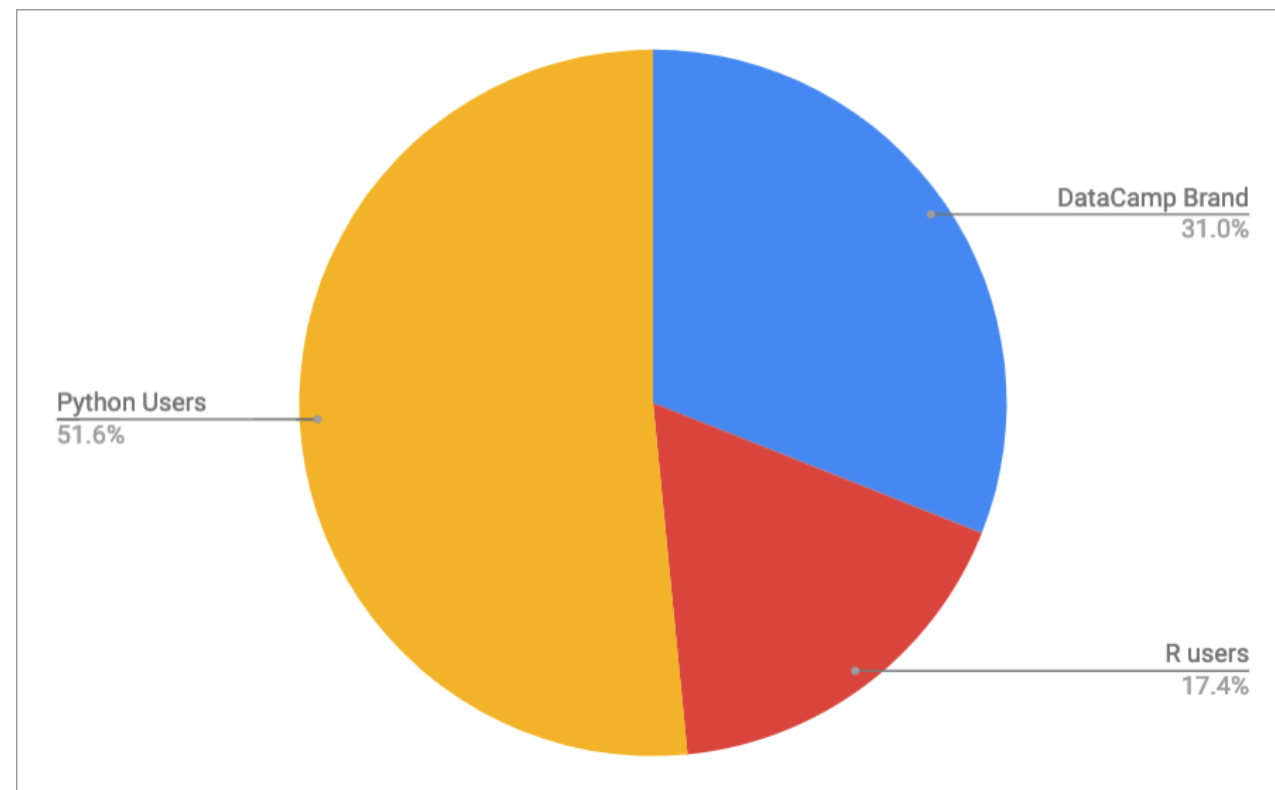
Dashboard charts review: stacked column/bar chart

- Visualize a few metrics at a time, as a single bar

- Bar chart is the same as a column chart, except the labels are on the y-axis (pictured below)

Dashboard charts review: scatter/bubble chart

- Visualize the relationships between metrics

- A scatter chart is the same as a bubble chart, except it does not have weights (pictured below)
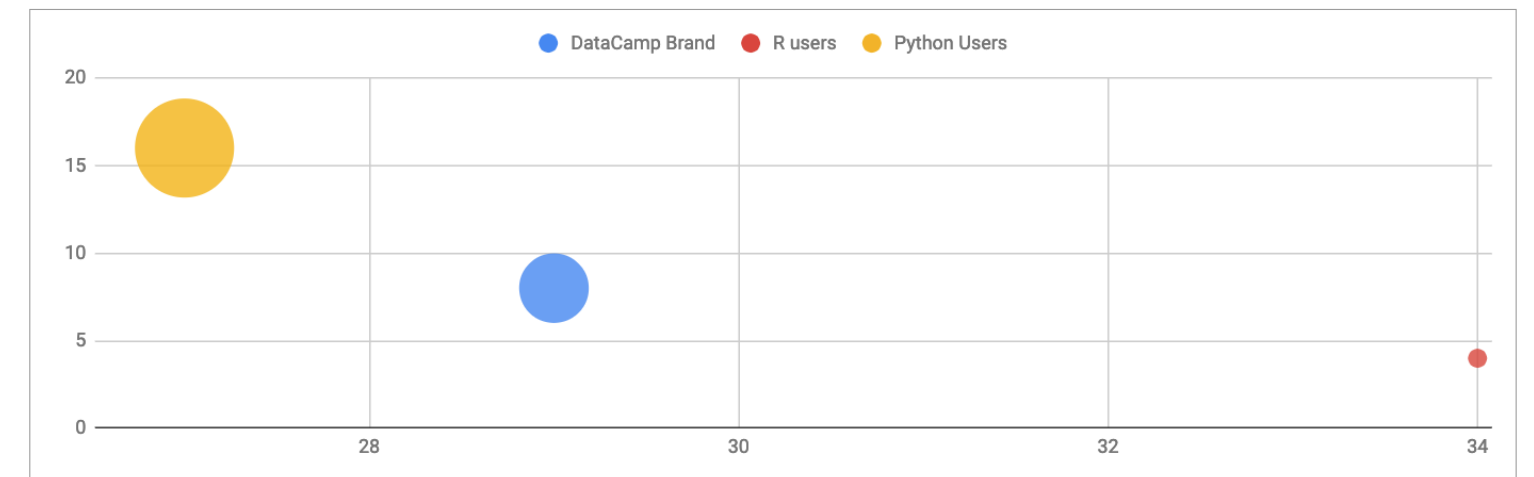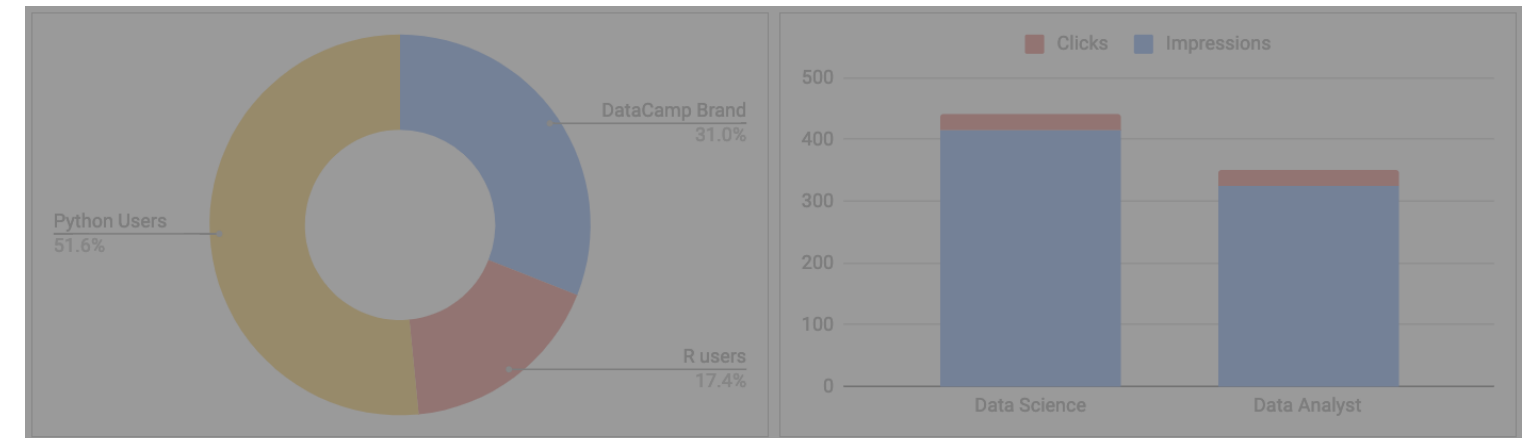
Chapter wrap-up

- **Marketing director needs the following dashboard**
  - Compare the sources

  - Show the percent of impressions by source

  - Show the relationship between clicks, goal completions, and impressions

  - Show the total number of impressions, clicks, and goal completions by source

Let's get to work!

MARKETING ANALYTICS IN SPREADSHEETS