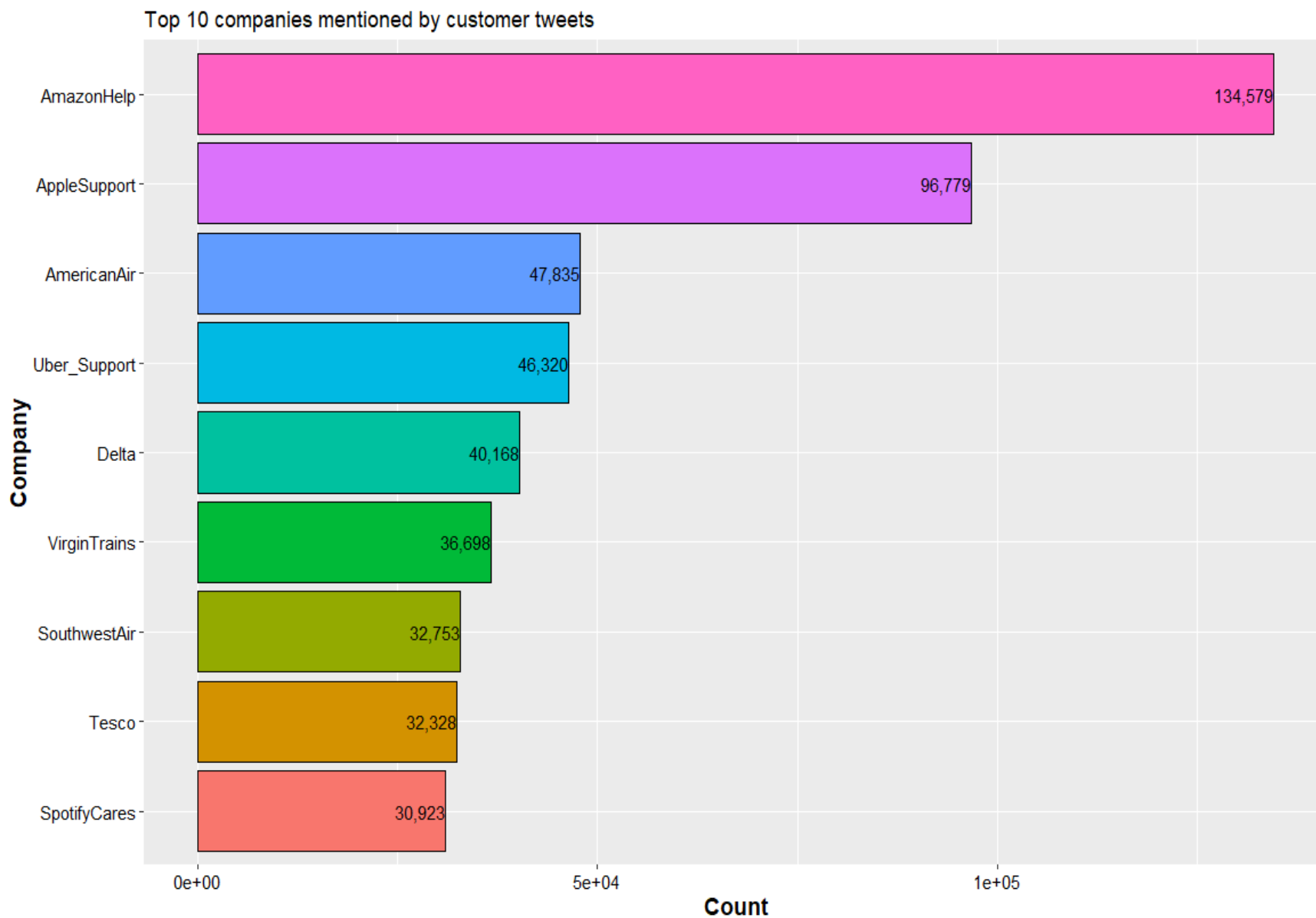


Summary of Dataset

- Dataset compiles of 7 original fields that breaks down tweet IDs, time stamps, and timestamps of when tweets were sent. Reference sample set in table.
- Some key points found from dataset:
 - 108 Distinct Company Support Groups.
 - 1,537,843 Customer tweets.
 - 1,273,931 Customer Support tweets.
- Further metrics will be shown with their respective insights based on this information.

tweet_id	author_id	inbound	created_at	text	Response_tweet_id	In_response_to_tweet_id
1	sprintcare	False	timestamp	@	2	3
2	####	True	timestamp	@	NA	1
3	####	True	timestamp	@	1	4
4	sprintcare	False	timestamp	@	3	5
5	####	True	timestamp	@	4	6

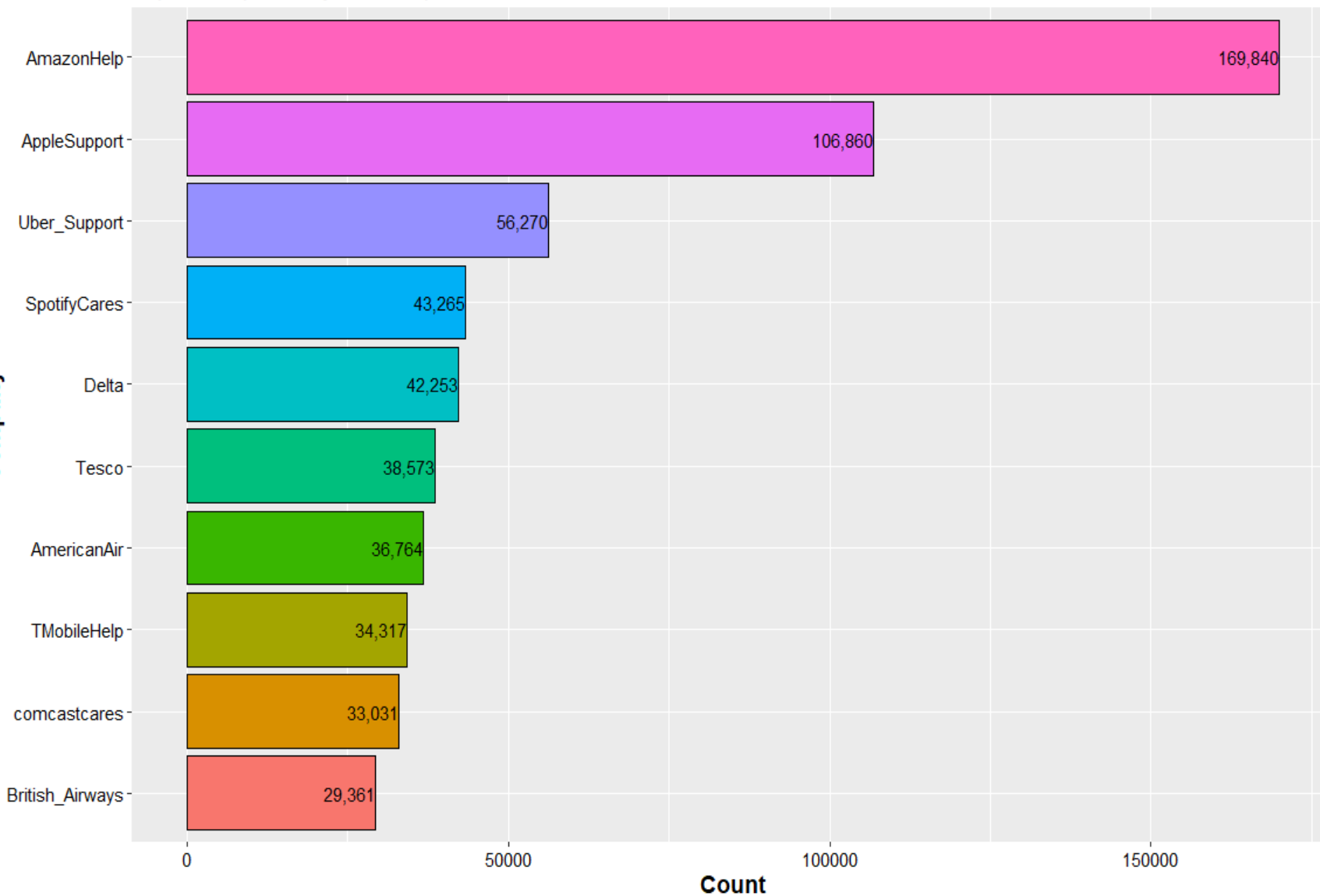


Metric 1

- Establish total number of tweets made by each customer toward the respective company support group.

This will help with benchmarking volume of requests and responses..

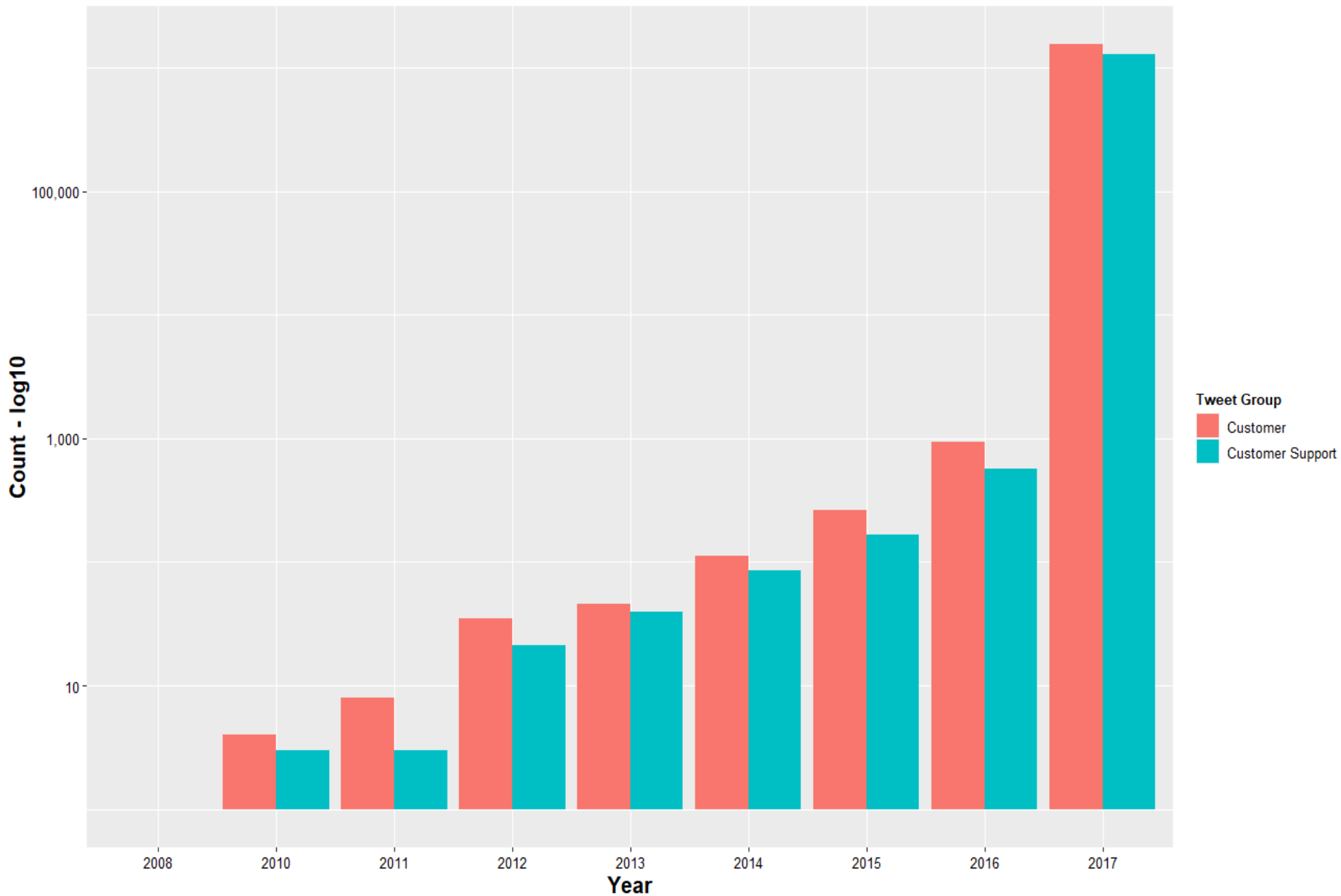
Top 10 companies by tweet responses to customers



Metric 1

- Establish total number of tweets made by each customer support group given initial customer message/request.

Total Tweets per year given inbound status



Metric 1

- Establish total number of tweets made by each customer toward the respective company support group.

This will help with benchmarking volume of requests and responses..

Total Tweets per year given inbound status & month

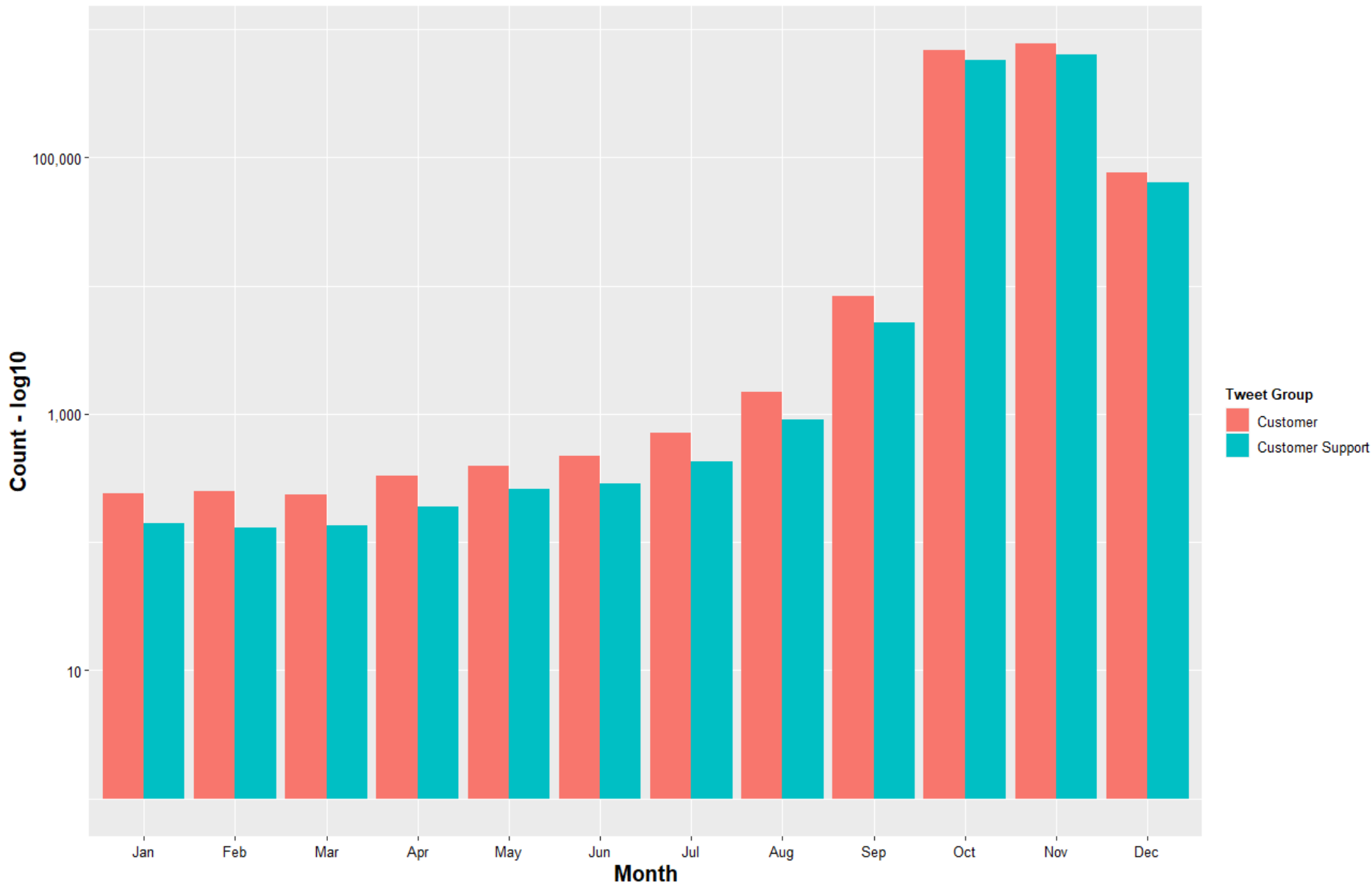


Metric 1

- Establish total number of tweets made by each customer toward the respective company support group.

This will help with benchmarking volume of requests and responses..

Benchmark: Total tweets given inbound status & month

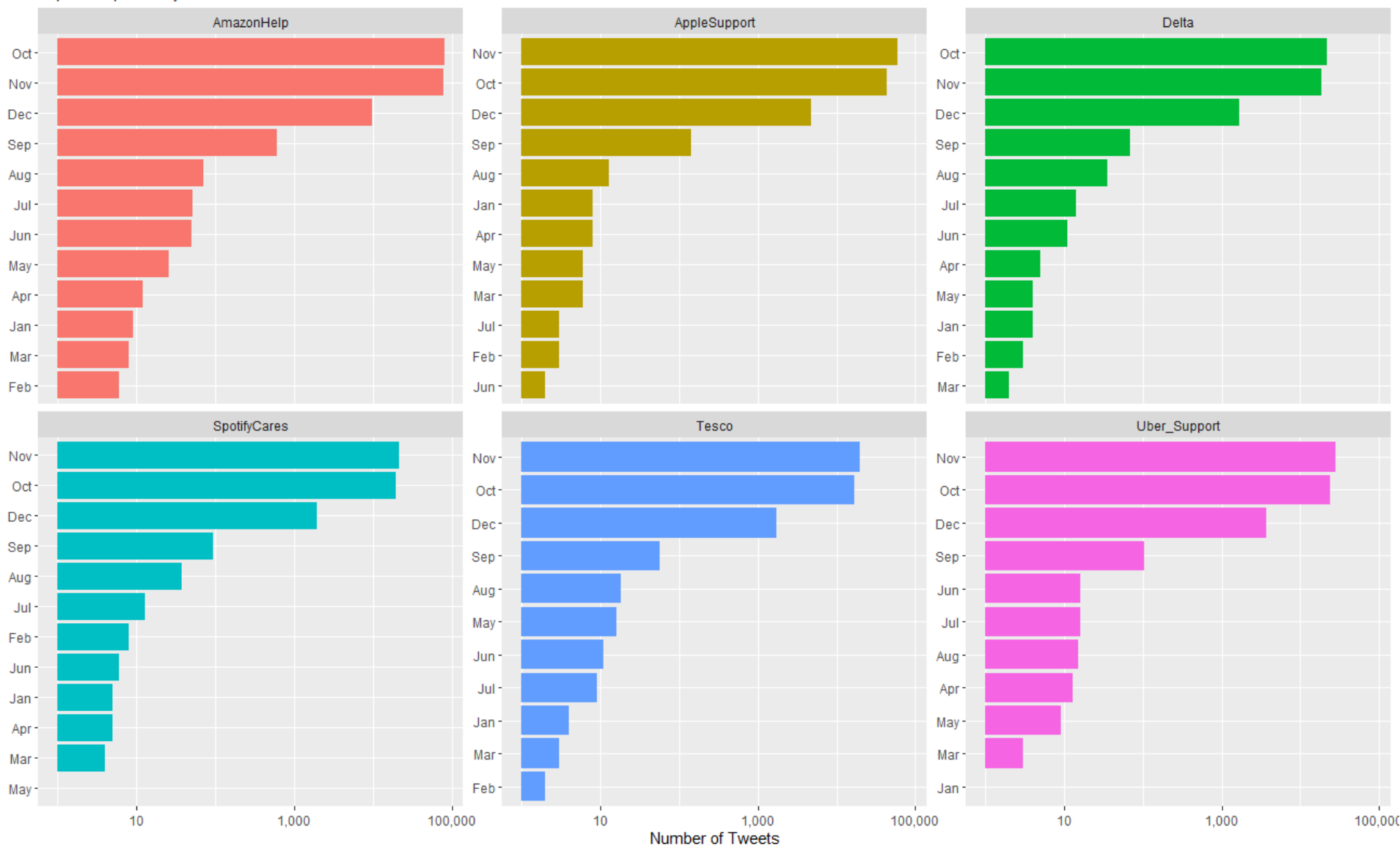


Metric 1

- Establish total number of tweets made by each customer toward the respective company support group.
- Q4 shows an increase in total volume on average of ~ 8x from the other 3 quarters.

What were the most significant time frames for Customer Support

Top 5 companies by volume of tweets - benchmark

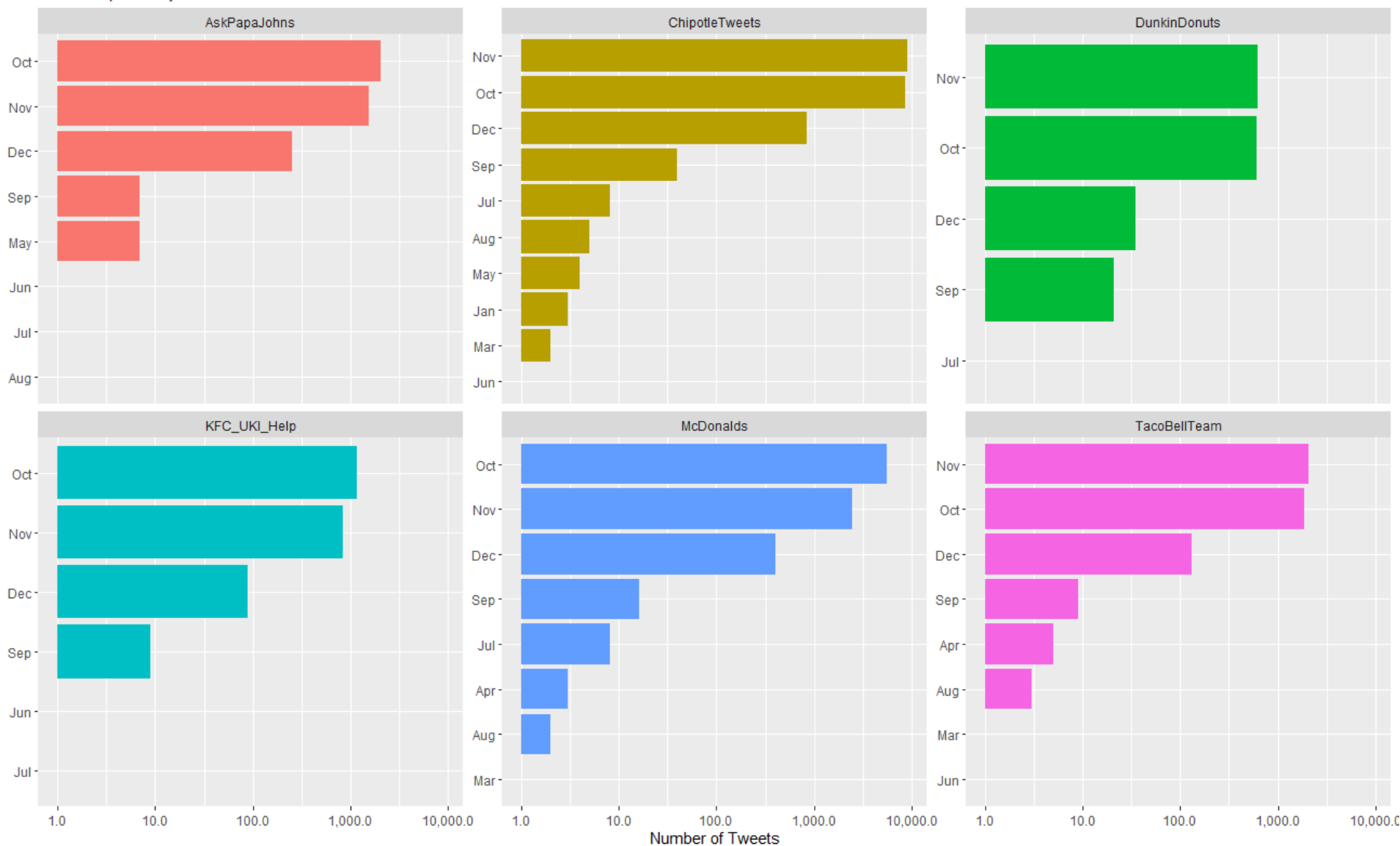


Metric 1

- This breaks down top customer support requests over time.
- Again, given our time series benchmark – we can see that Q4 shows an increase in total volume across the 6 companies.

What were the most significant time frames for Customer Support by Food Service

Food companies by volume of tweets - benchmark

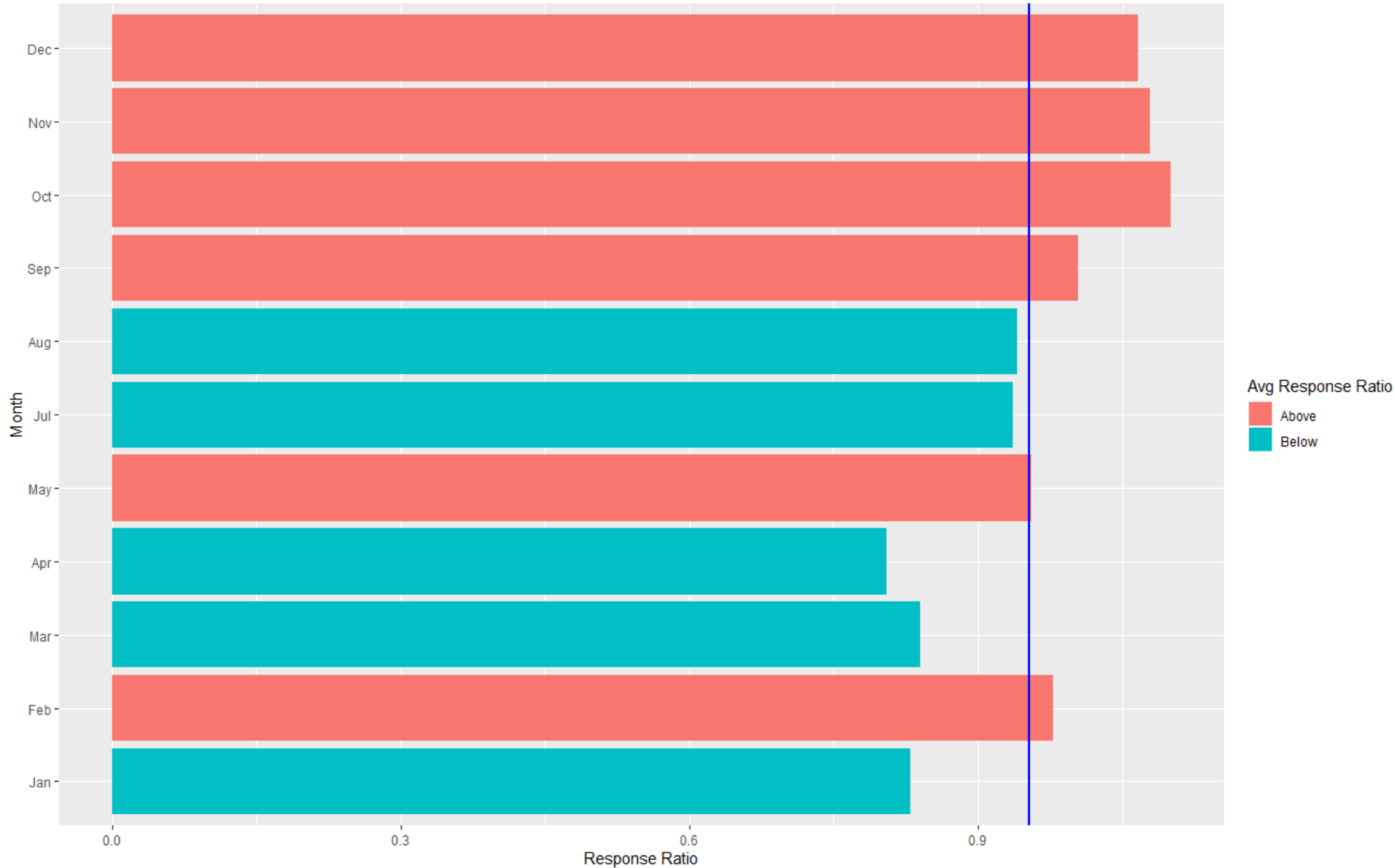


Metric 1

- This continues to look at significant time frames but by industry.
- Here – we can assume that these 6 companies fall under “Food Service” to see if the trend is the same given the data.

Response Ratio between Customer Support and Customer Requests by Month

Time series plot given global avg response ratio of 95%

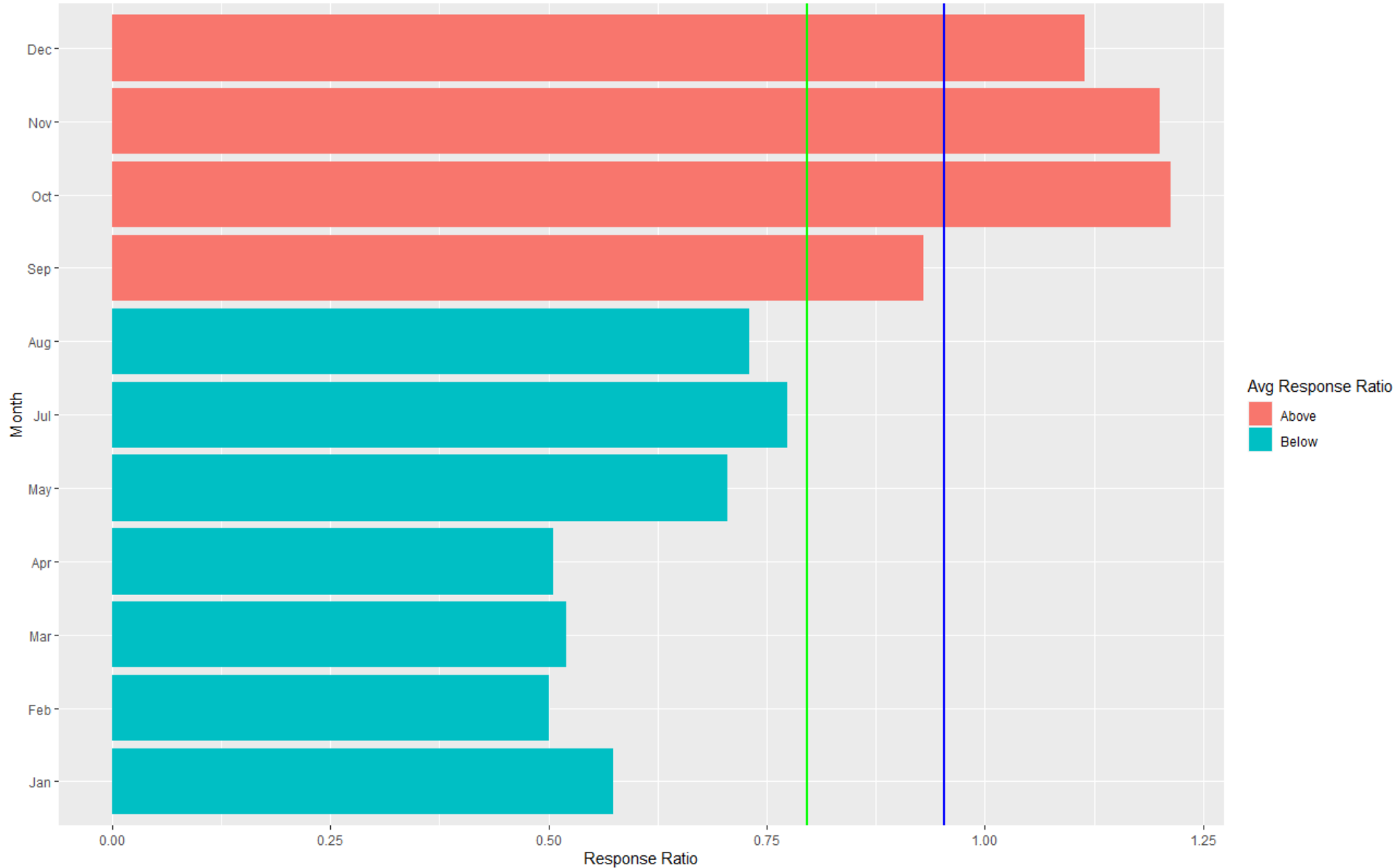


Metric 2

- Response ratio between customer support and customer tweets were calculated.
- This considers only tweets that include @company from customer for the benchmark.

Response Ratio for top companies mentioned by customers

Time series plot given avg response ratio - 79% and 95% ratio, respectively



Metric 2

- Next, response ratio was calculated for the top 6 companies as shown before to compare against benchmark with time series factored in.
- Again, this considers only tweets that include @company from customer.

Average Response Time

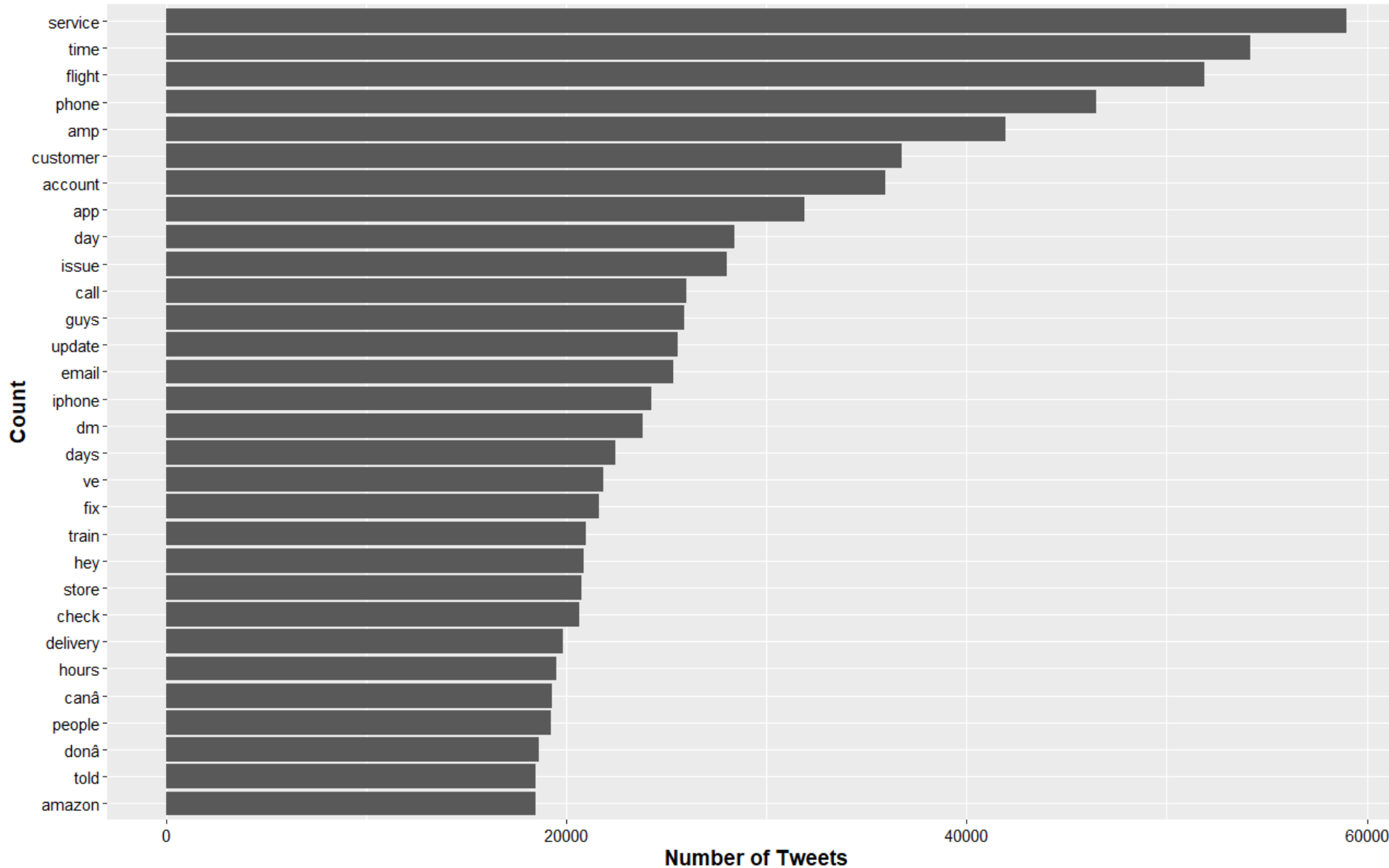
author_id	Total_Time	Avg_Response_Time (min)
AmazonHelp	149.00	2.49
VerizonSupp	299.7858	5.00
sprintcare	298.232	4.9
AppleSuppot	307.123	5.15

Metric 3

- Here we subset the data based on particular company support groups and calculate their average response time given first request from customer.
- This is a subset based on a 3 separate conversations randomly sampled from dataset. Grouped by author_id.

Top 30 most common words to Customer Support

Pulled from @CustomerSupport tweets - benchmark

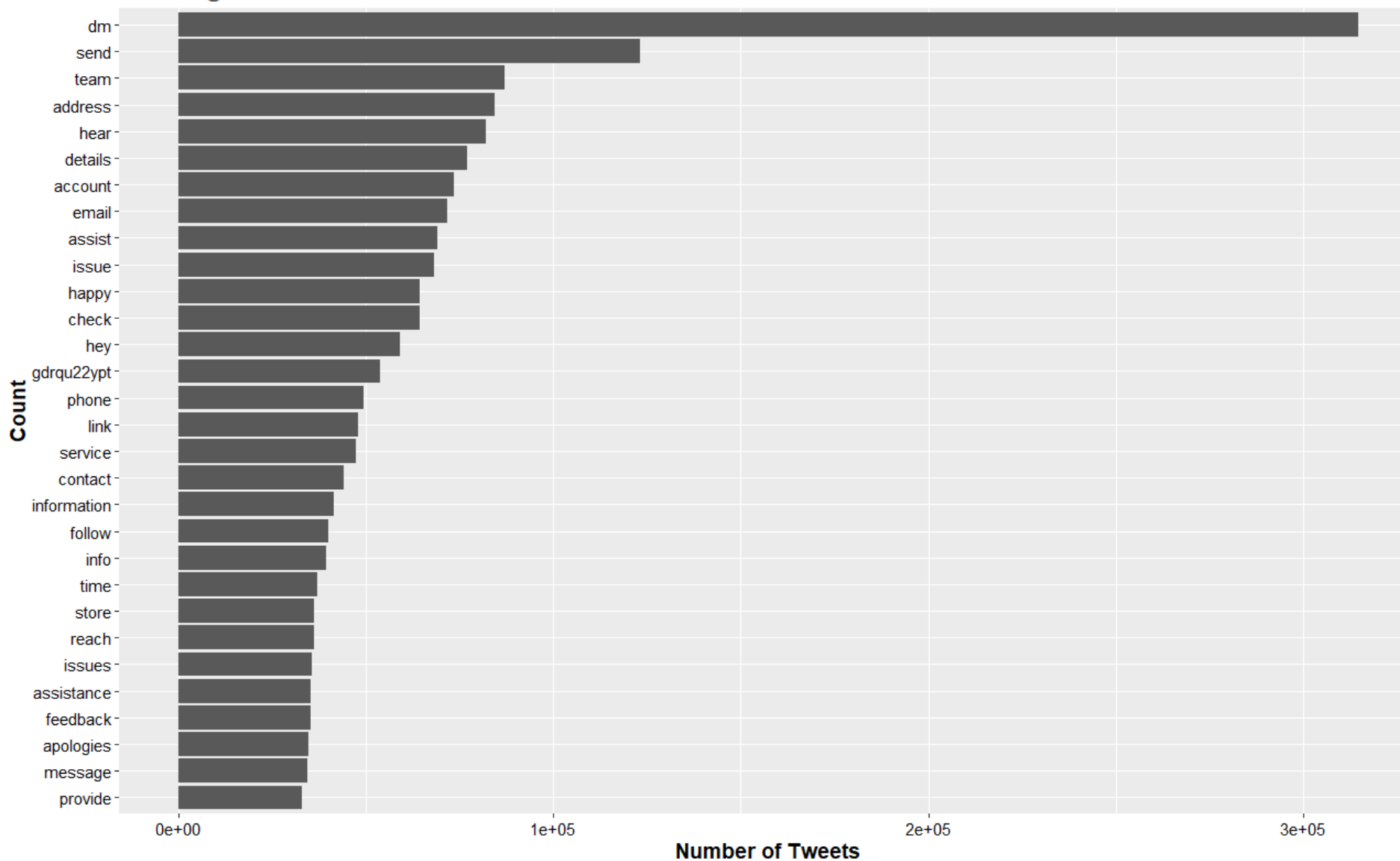


Metric 4

- Here we want to get an idea of what common words/phrases are found in tweets.
- This is pulled directly from tweets sent to Customer Support from each Customer.

Top 30 most common words to Customers

Pulled from @Customer tweets - benchmark

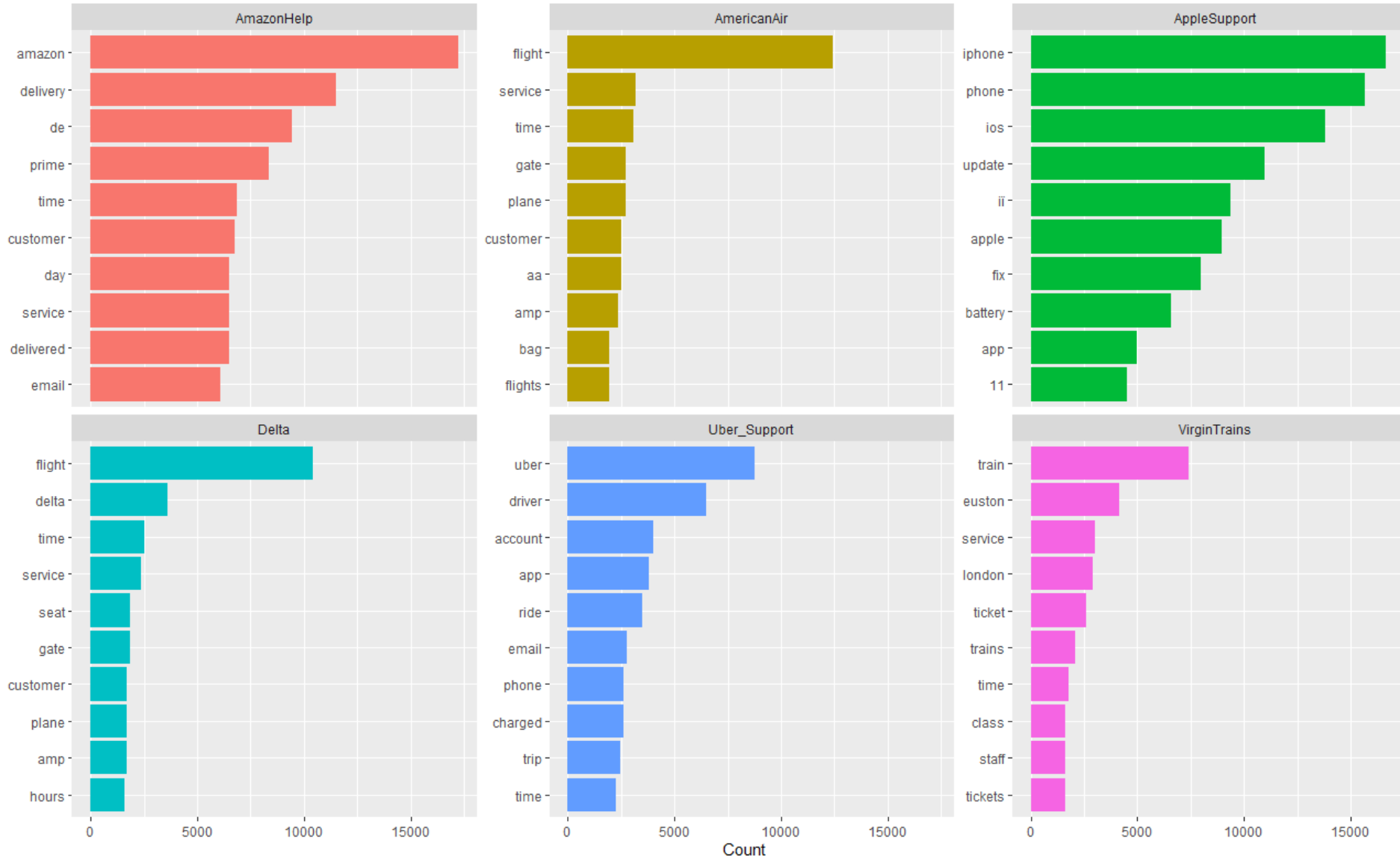


Metric 4

- Same idea as previous slide but this time pulled from Customer Support tweets to Customer requests.
- As expected, direct messaging and accommodation themes are found.

What were the most common words from tweet to Customer Support?

Pulled from Top 6 Companies by @mentions from customers

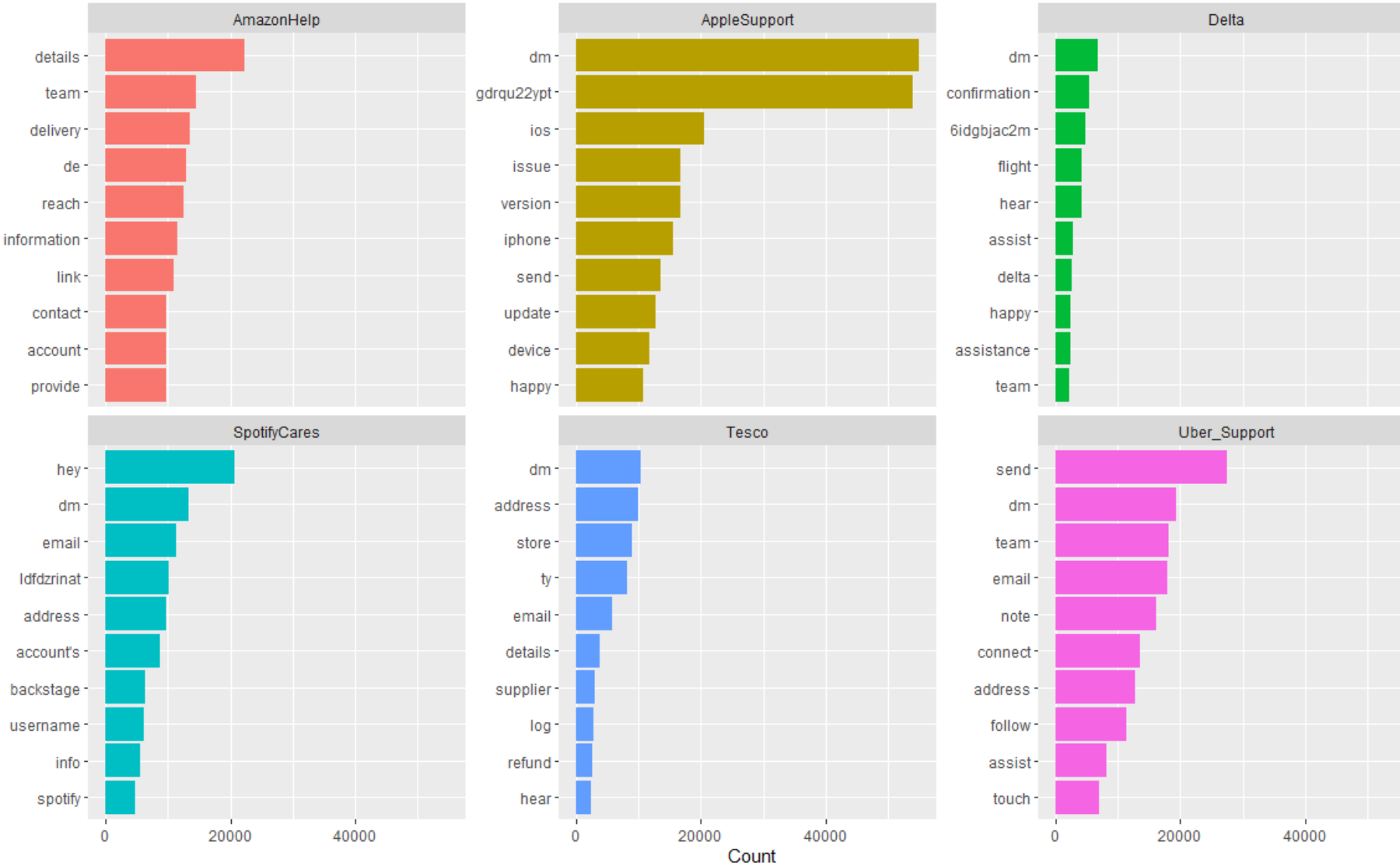


Metric 4

- Given the common words found – sub setting by top companies can give insight on what to expect from customer requests.
- As expected, direct messaging and accommodation themes are found.

What were the most common words from tweet to customer?

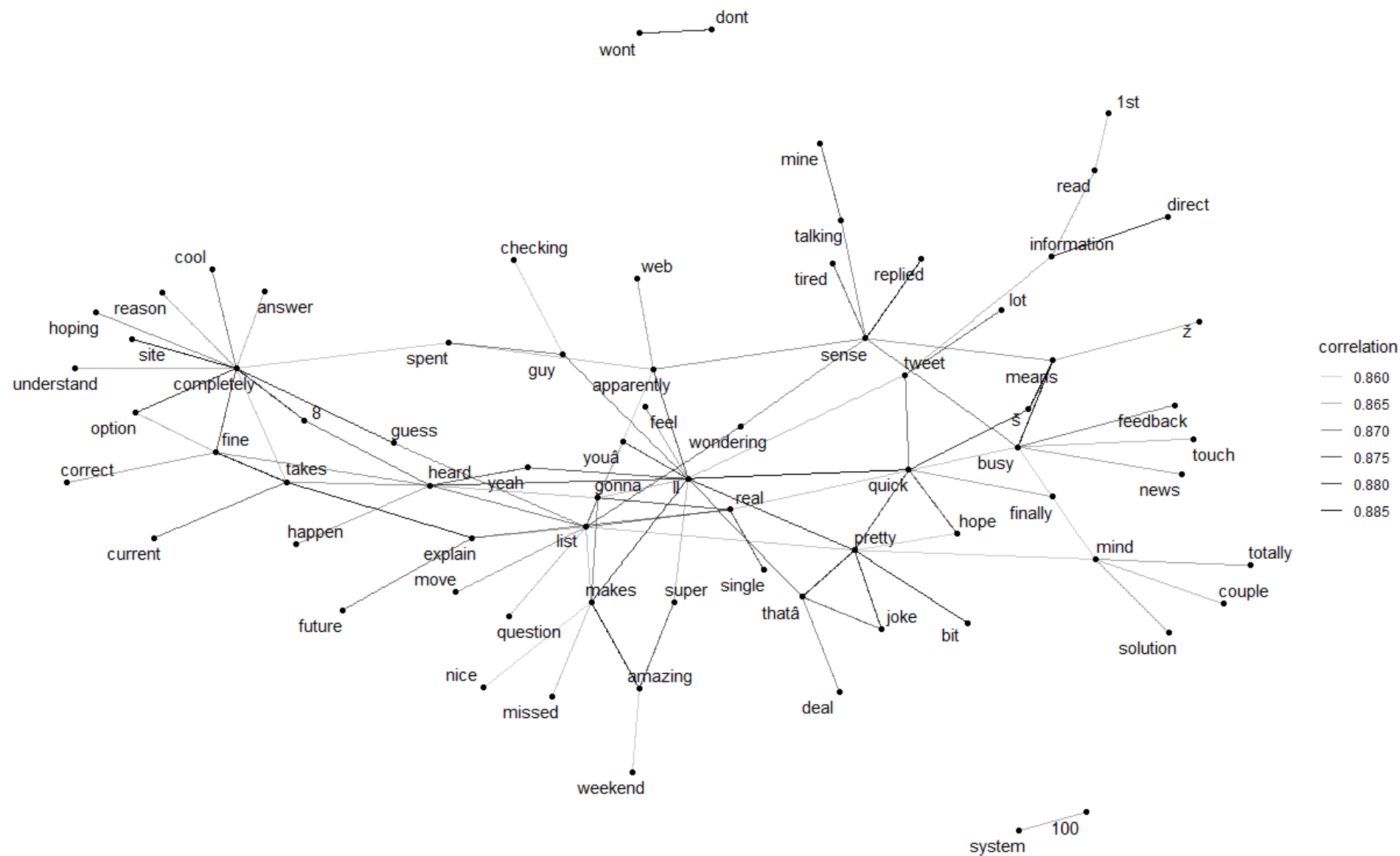
Pulled from Top 6 Companies by Customer Support responses



Metric 4

- Same idea as previous slide but this time pulled from Customer Support tweets to Customer requests.
- Sentiment here seems to revolve around direct messaging or sending external links for further support.

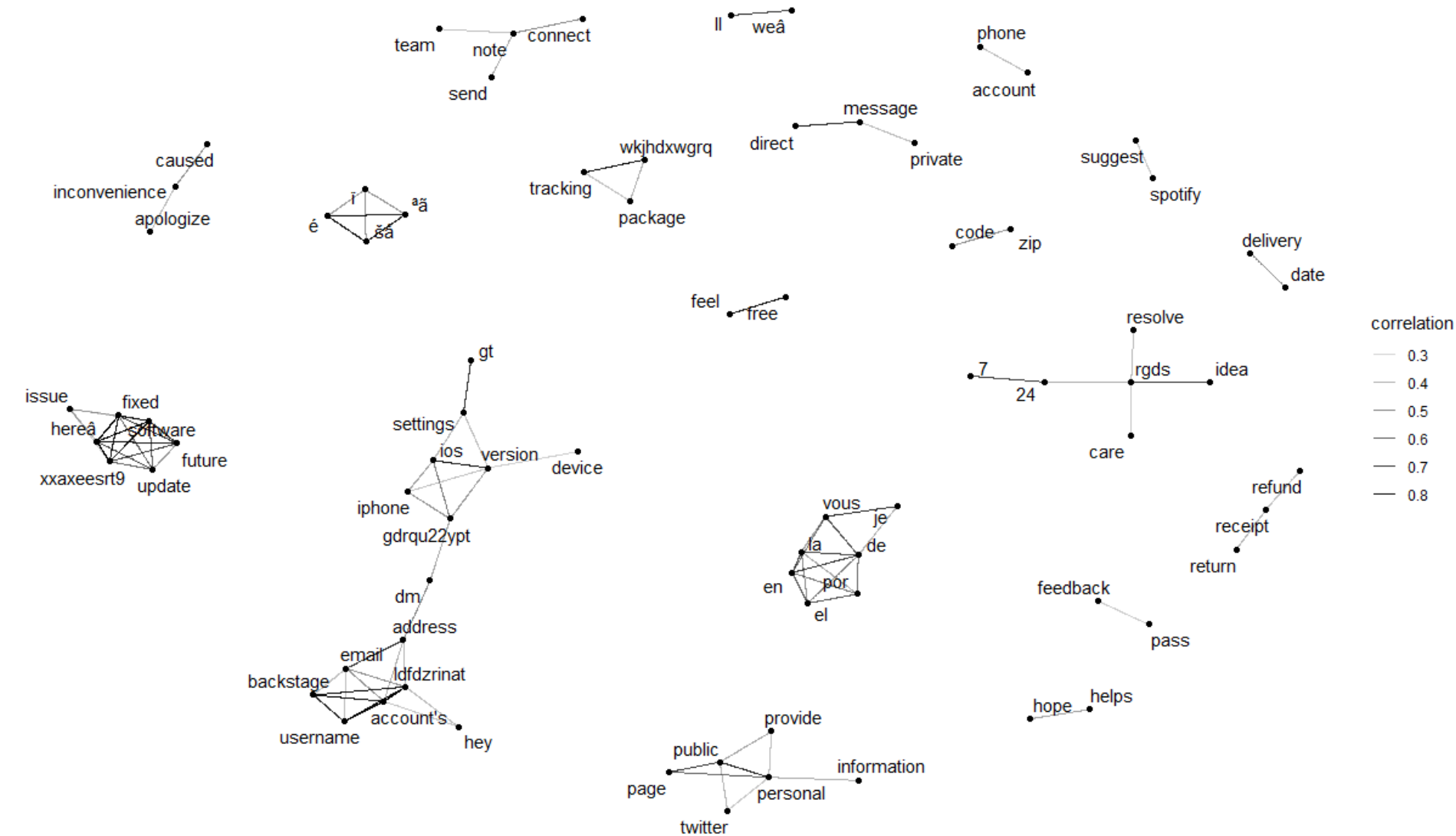
Words that often appear together in tweets to Customer Support



Metric 4

- This network identifies top key-value pairs based on correlation.
- Tweets to customer support shows how words tend to co-occur within tweets.

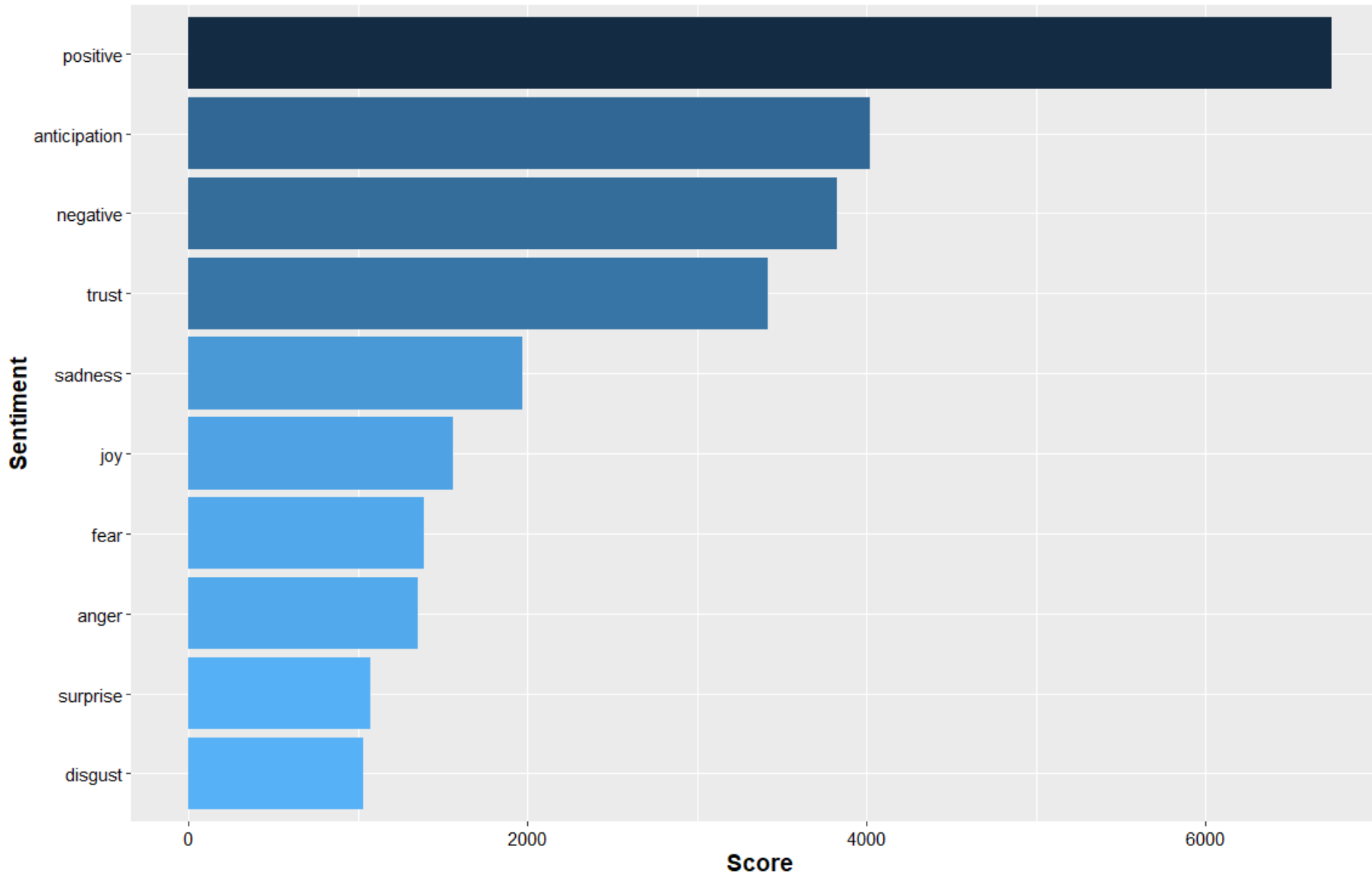
Words that often appear together in tweets from Customer Support



Metric 4

- Similarly with Customer Support tweets - this network identifies top key-value pairs based on correlation.
- Here we can clearly see clusters based on words found across tweets.

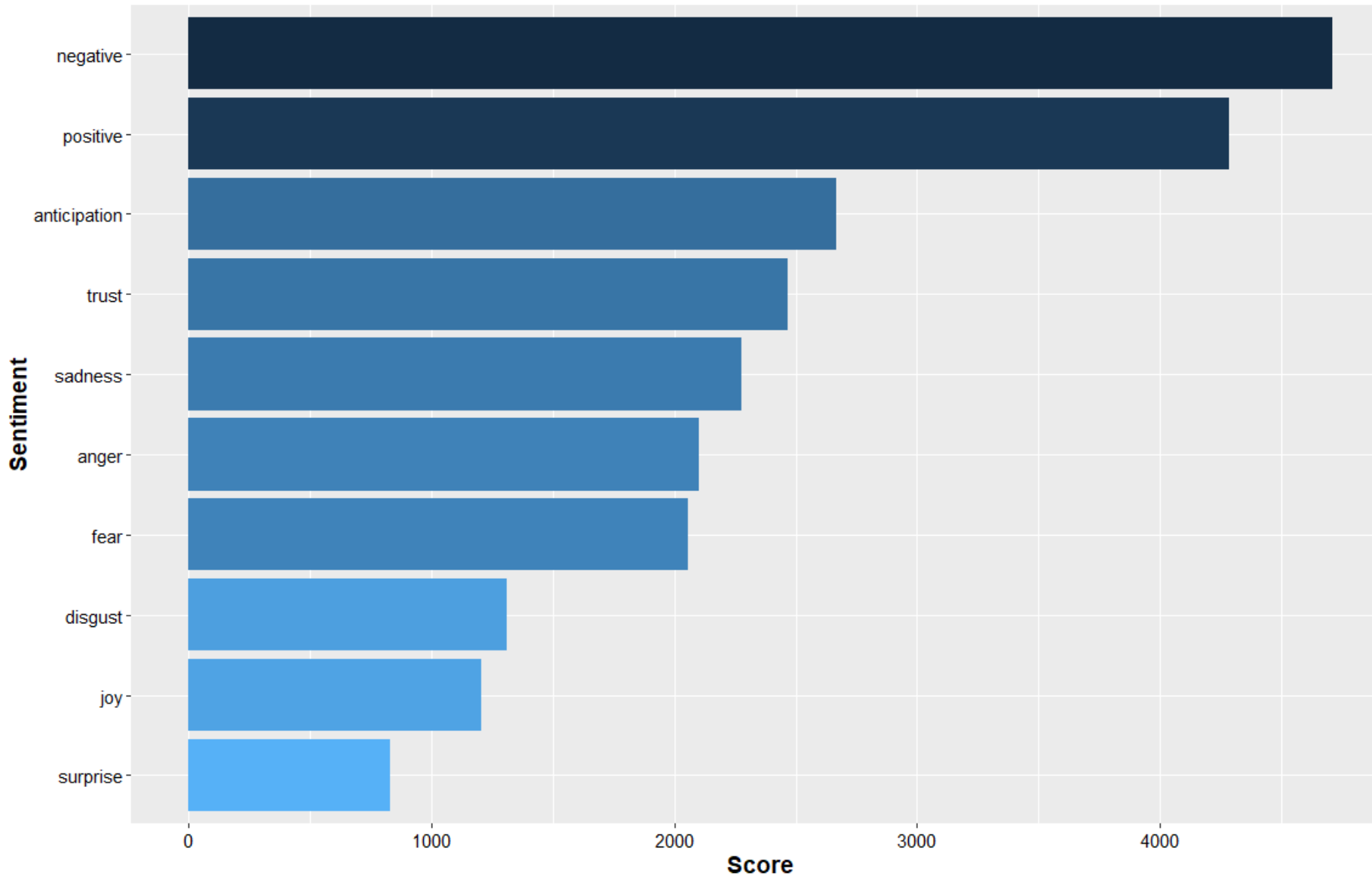
Amazon Customer sentiment based on tweets



Metric 5

- Same idea as previous slide but this time pulled from Customer Support tweets to Customer requests.
- Sentiment here seems to revolve around direct messaging or sending external links for further support.

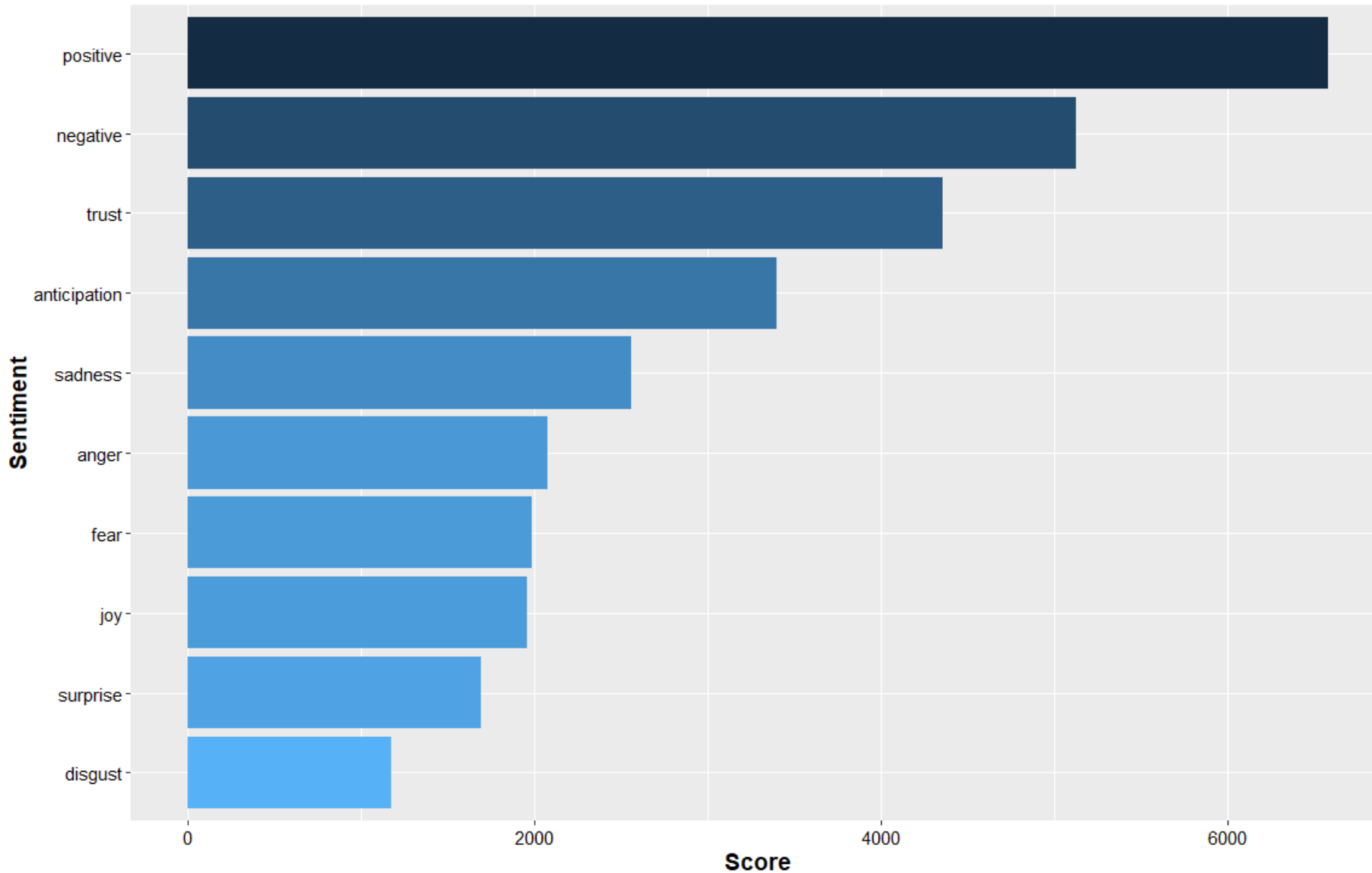
Apple Customer sentiment based on tweets



Metric 5

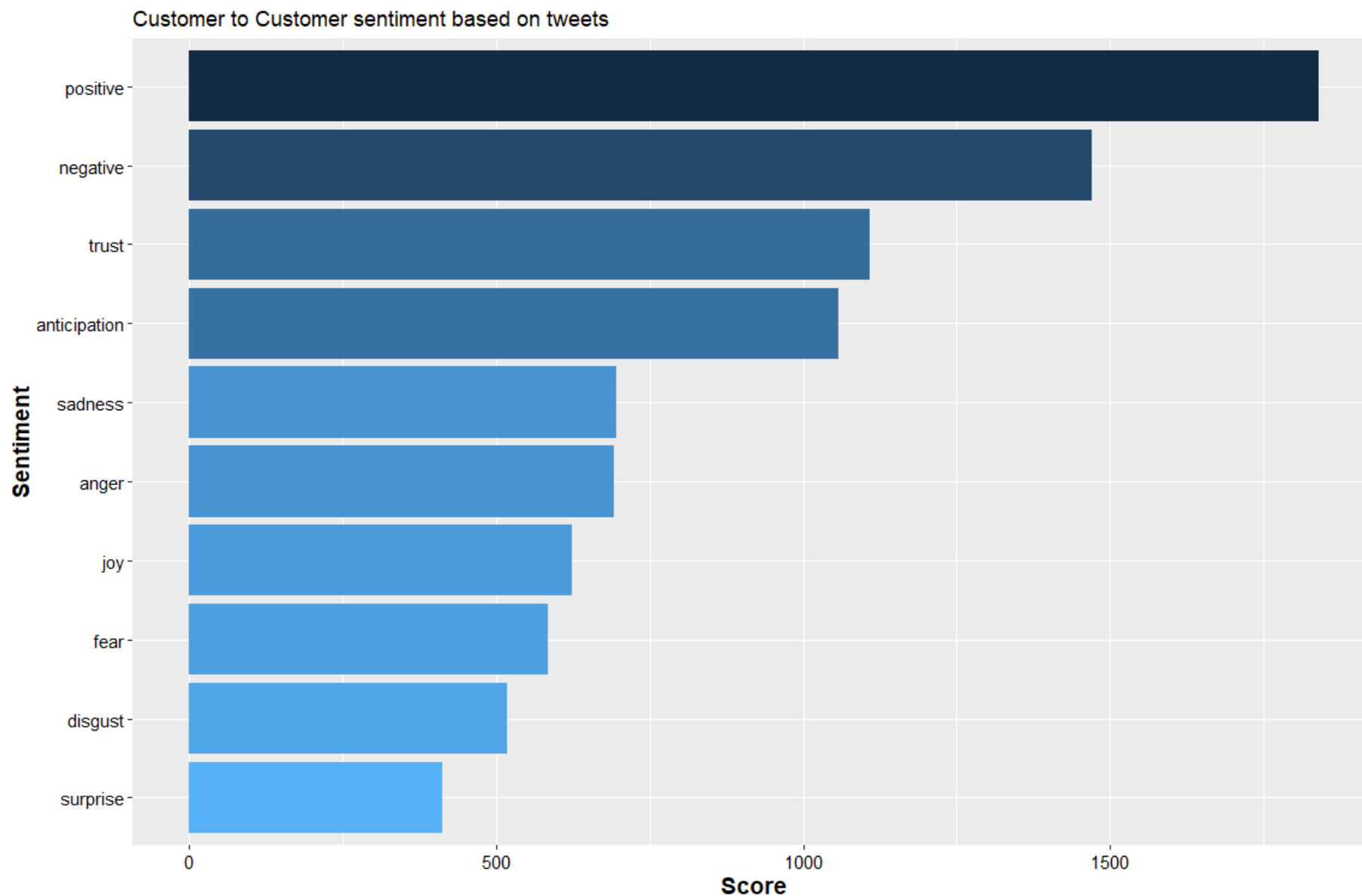
- Same idea as previous slide but this time pulled from Customer Support tweets to Customer requests.
- Sentiment here seems to revolve around direct messaging or sending external links for further support.

Uber Support Customer sentiment based on tweets



Metric 5

- Same idea as previous slide but this time pulled from Customer Support tweets to Customer requests.
- Sentiment here seems to revolve around direct messaging or sending external links for further support.



Metric 5

- Same idea as previous slide but this time pulled from Customer Support tweets to Customer requests.
- Sentiment here seems to revolve around direct messaging or sending external links for further support.