Splotter game statistics

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Contents

1 Introduction

1.1 Overall summary

This document contains summary statistics and graphs for all splotter games. This project is for providing summary statistics for the Splotter games convention in Pittsburgh in 2024. This data was collected from logged user plays and collections in the boardgamegeek.com (hereafter bgg) api. It should be noted that these are self reported ownership and play statistics and therefore may not fully encompass all plays or owned games of entire splotter fan base.

```
#Read in dataframe
Splottergames<-read.csv("Splottergames.csv")

#View the dataframe
View(Splottergames)
```

```r
#####Renaming columns of dataframe to something a bit more intutive####
Splottergames1<-Splottergames%>%
  select(-ID)%>%
  rename(AverageRating = ratings.average,
         StdDevRatings = ratings.stddev,
         Ownedcopies = ratings.owned,
         Weight = ratings.averageweight,
         numberofweights = ratings.numweights
         )

Splottergames1
```

```
##    AverageRating StdDevRatings Ownedcopies Weight numberofweights Plays ranking
## 1        7.85184       1.53072        5886 4.3194              407  9146     351
## 2        3.90909       1.77121         129 2.0000                4    29   25268
## 3        7.60535       1.43524        4381 3.0382              157  9812     657
## 4        6.25851       1.40409         860 2.4688               32   617    7129
## 5        6.01543       1.56592         164 1.7500                4   125   16197
## 6        6.31873       1.68213         936 3.6724               58   716    6031
## 7        8.06567       1.60447       24516 4.1990              970 49961      39
## 8        4.56000       2.05290          21 1.0000                1     7      NA
## 9        6.95765       1.60269        1019 3.5810              105  1405    2952
## 10       7.89053       1.47859        2715 4.2621              103  2991    1502
## 11       7.88254       1.52176        5160 3.9865              443 11065     307
## 12       6.27586       1.59518         137 0.0000                0    31      NA
## 13       5.22197       1.51102         321 1.3750                8   210   24202
## 14       7.70798       1.65187        4461 4.1957              368  6898     608
## 15       7.83774       1.49464        6021 3.6863              255 17452     337
## 16       6.78304       1.54133         730 3.8621               29   297    6364
## 17       6.01189       1.49515         636 2.6071               28   290   10758
##                  name
## 1           Antiquity
## 2               Beest
## 3                 Bus
## 4              Cannes
## 5                Draf
## 6           DuckDealer
## 7                 FCM
## 8              Gossip
## 9            GreedInc
## 10  HorselessCarriage
## 11          Indonesia
## 12               Kiek
## 13            Oraklos
## 14        RoadsnBoats
## 15 The Great Zimbabwe
## 16         UR 1830 BC
## 17                VOC
```

1.2 Explanation of data

AverageRating: The average rating of all user ratings for each splotter game. The scale for this goes from 1-10 with users usually rating in round numbers, however select few rate down to 0.01
StdDevRatings: The standard deviation of all user ratings for each splotter game. The scale for this goes from 1-10 with users usually rating in round numbers, however select few rate down to 0.01.
Ownedcopies: Number of reported own copies of each game on baordgamegeek
Weight: Average weight of all user submitted weights of each game. Scale goes from 1-5 where 1 is typically a game with lighter ruleset/depth and 5 is heaviest ruleset/depth.
numberofweights: Number of individuals who voted on the weight of a game.
PLays: Number of recorded plays of each game on boardgamegeek.
ranking: Overall ranking of each game out of all boardgames listed on boardgame geek (over 25,000)
name: Name or abbreviated name of each game

2 First lets calculate some summary statistics for all splotter games.

2.1 How many total copies of splotter games do people reportedly own on bgg?

```
#Sum total of all splotter games owned by bgg users
sum(Splottergames1$Ownedcopies)
```

```
## [1] 58093
```

There are a total of 58,093 owned copies of all splotter games on bgg.

2.2 What are the total recorded plays across all published splotter games on bgg?

```
#Sum total of all splotter games owned by bgg users
sum(Splottergames1$Plays)
```

```
## [1] 111052
```

There are a recorded 111,052 plays across all published splotter games on bgg.

2.3 What is the median rating across all published splotter games on bgg?

```
#Calculate median rating of splotter games
median(Splottergames1$AverageRating)
```

```
## [1] 6.78304
```

Splotter games have an median rating of 6.78/10 in the bgg rating system.

2.4 What is the median weight of splotter games on bgg?

```
#Calculate median rating of splotter games
median(Splottergames1$Weight)
```

```
## [1] 3.581
```

The median weight of splotter games on bgg is 3.581/5.

2.5 How many splotter games are within the top 500 ranked games on bgg?

```
#Subseting to games only ranked within the top 500
Splottergames2<-Splottergames1 %>%
  filter(ranking < 500)%>%
  select(name, ranking)%>%
  as_tibble()
```

```
## filter: removed 13 rows (76%), 4 rows remaining
```

```
## select: dropped 6 variables (AverageRating, StdDevRatings, Ownedcopies, Weight, numberofweights, ...
```

```
#Show the number of games in the top 500
nrow(Splottergames2)
```

```
## [1] 4
```

```
#Print names of games in the top 500
Splottergames2
```

```
## # A tibble: 4 x 2
##   name               ranking
##   <chr>                <int>
## 1 Antiquity              351
## 2 FCM                     39
## 3 Indonesia              307
## 4 The Great Zimbabwe     337
```

There are 4 splotter games in the top 500 of games on bgg.

3 Top 5 played splotter games, their weights, and their overall ranking

3.1 What are the top 5 most played splotter games and what is their weight and average rating?

```r
#Subseting to top 5 games and ranking them by plays
Splottergames3<-Splottergames1 %>%
  mutate(Playrank=min_rank(desc(Plays)))%>%
  filter(Playrank<=5)%>%
  arrange(Playrank)%>%
  select(name, Playrank, AverageRating, Ownedcopies, Weight, Plays, ranking)%>%
  as_tibble()
```

```
## mutate: new variable 'Playrank' (integer) with 17 unique values and 0% NA
```

```
## filter: removed 12 rows (71%), 5 rows remaining
```

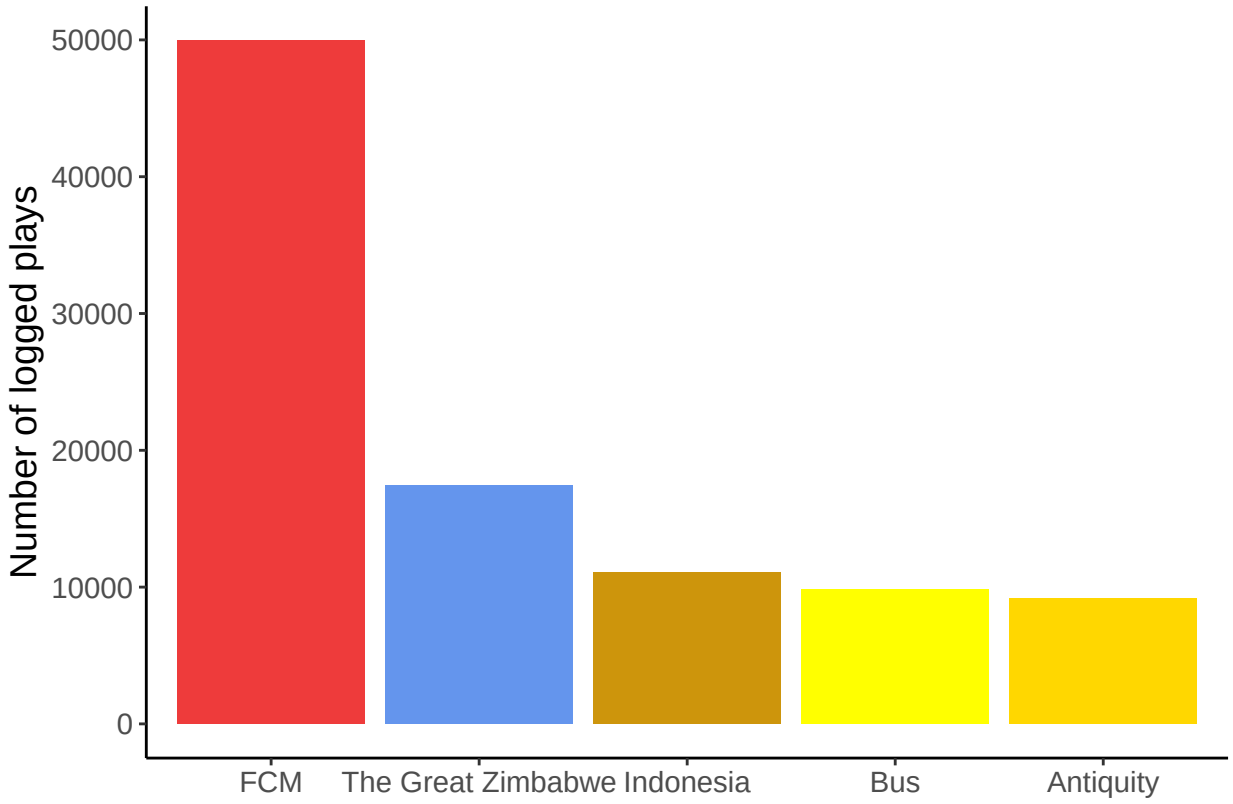
```
## select: dropped 2 variables (StdDevRatings, numberofweights)
```

```r
#Print the top 5 games
Splottergames3
```

```
## # A tibble: 5 x 7
##   name               Playrank AverageRating Ownedcopies Weight Plays ranking
##   <chr>                 <int>         <dbl>       <int>  <dbl> <int>   <int>
## 1 FCM                       1          8.07       24516   4.20 49961      39
## 2 The Great Zimbabwe        2          7.84        6021   3.69 17452     337
## 3 Indonesia                 3          7.88        5160   3.99 11065     307
## 4 Bus                       4          7.61        4381   3.04  9812     657
## 5 Antiquity                 5          7.85        5886   4.32  9146     351
```

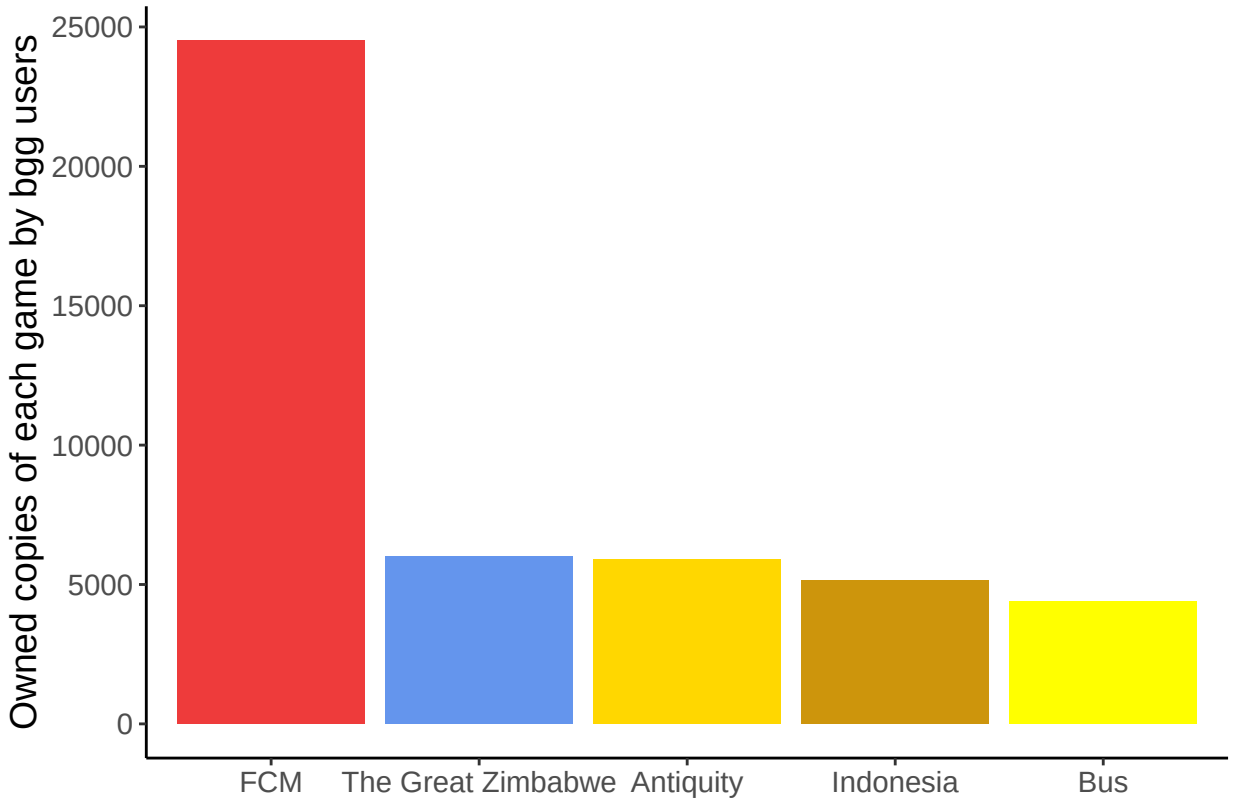
3.2 Visual of the number of plays of each of the top 5 played splotter games

```r
#assign some details to help our visualization of data
level_order<-c("FCM", "The Great Zimbabwe", "Indonesia", "Bus","Antiquity")


#Quick visual of number of copeis owned of top 5 splotter games
ggplot(Splottergames3 )+
  geom_col(aes(x=name, y=Plays, fill=name))+
  scale_x_discrete(limits=level_order)+
  scale_fill_manual(values=c("gold","yellow1","brown2", "darkgoldenrod3", "cornflowerblue"))+
  theme_classic()+
  theme(legend.position="none")+
  theme(text=element_text(size=14))+
  xlab(" ")+
  ylab("Number of logged plays")
```



3.3 Number of owned copies of each of the top 5 splotter games

```
#assign some details to help our visualization of data
level_order2<-c("FCM", "The Great Zimbabwe","Antiquity", "Indonesia", "Bus")


#Quick visual of number of plays of top 5 splotter games
ggplot(Splottergames3 )+
  geom_col(aes(x=name, y=Ownedcopies, fill=name))+
  scale_x_discrete(limits=level_order2)+
  scale_fill_manual(values=c("gold","yellow1","brown2", "darkgoldenrod3", "cornflowerblue"))+
  theme_classic()+
  theme(legend.position="none")+
  theme(text=element_text(size=14))+
  xlab(" ")+
  ylab("Owned copies of each game by bgg users")
```


Owned copies of each game by bgg users
25000
20000
15000
10000
5000
0
FCM
The Great Zimbabwe
Antiquity
Indonesia
Bus