Comparison of FPS Genre to Other Genres on Steam

Presented by

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Research Question

+ How popular are First-Person Shooter (FPS) games amongst other video game genres?

Sub Questions

1) **How many FPS games are there out of other genres?**

2) **Does it depend on what studio works on a shooter game? If So which developer?**

What are Genres in Video Games?

Prerequisites

+ library(tidyverse)

+ library(tidyr)

+ library(dplyr)

+ library(readr)

+ library(ggplot2)

About Our Data

+ Data frame contains games found on Steam (Video game digital distribution service by Valve)

  + Link to original data: https://www.kaggle.com/nikdavis/steam-store-games
  + Contains majority of Steam games
  + Gathered in 2019

```
glimpse(steam_data)

Rows: 27,075
Columns: 18
$ appid            <int> 10, 20, 30, 40, 50, 60, 70, 80, 130, 220, 240, 280, 300, 320, 340, 360, 380, 400, 420,~
$ name             <chr> "Counter-Strike", "Team Fortress Classic", "Day of Defeat", "Deathmatch Classic", "Hal~
$ release_date     <chr> "11/1/2000", "4/1/1999", "5/1/2003", "6/1/2001", "11/1/1999", "11/1/2000", "11/8/1998"~
$ english          <int> 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,~
$ developer        <chr> "Valve", "Valve", "Valve", "Valve", "Gearbox Software", "Valve", "Valve", "Valve", "Ge~
$ publisher        <chr> "Valve", "Valve", "Valve", "Valve", "Valve", "Valve", "Valve", "Valve", "Valve", "Valv~
$ platforms        <chr> "windows;mac;linux", "windows;mac;linux", "windows;mac;linux", "windows;mac;linux", "w~
$ required_age     <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,~
$ categories       <chr> "Multi-player;Online Multi-Player;Local Multi-Player;Valve Anti-Cheat enabled", "Multi~
$ genres           <chr> "Action", "Action", "Action", "Action", "Action", "Action", "Action", "Action", "Actio~
$ steamspy_tags    <chr> "Action;FPS;Multiplayer", "Action;FPS;Multiplayer", "FPS;World War II;Multiplayer", "A~
$ achievements     <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 33, 147, 0, 54, 0, 0, 0, 13, 15, 22, 520, 73, 70, 0, 51, 66~
$ positive_ratings <int> 124534, 3318, 3416, 1273, 5250, 2758, 27755, 12120, 3822, 67902, 76640, 3767, 10489, 6~
$ negative_ratings <int> 3339, 633, 398, 267, 288, 684, 1100, 1439, 420, 2419, 3497, 1053, 1210, 787, 1020, 473~
$ average_playtime <int> 17612, 277, 187, 258, 624, 175, 1300, 427, 361, 691, 6842, 190, 1356, 311, 46, 102, 28~
$ median_playtime  <int> 317, 62, 34, 184, 415, 10, 83, 43, 205, 402, 400, 214, 134, 32, 29, 81, 184, 137, 301,~
$ owners           <chr> "10000000-20000000", "5000000-10000000", "5000000-10000000", "5000000-10000000", "5000~
$ price            <dbl> 7.19, 3.99, 3.99, 3.99, 3.99, 3.99, 7.19, 7.19, 3.99, 7.19, 7.19, 0.00, 7.19, 3.99, 0.~
```
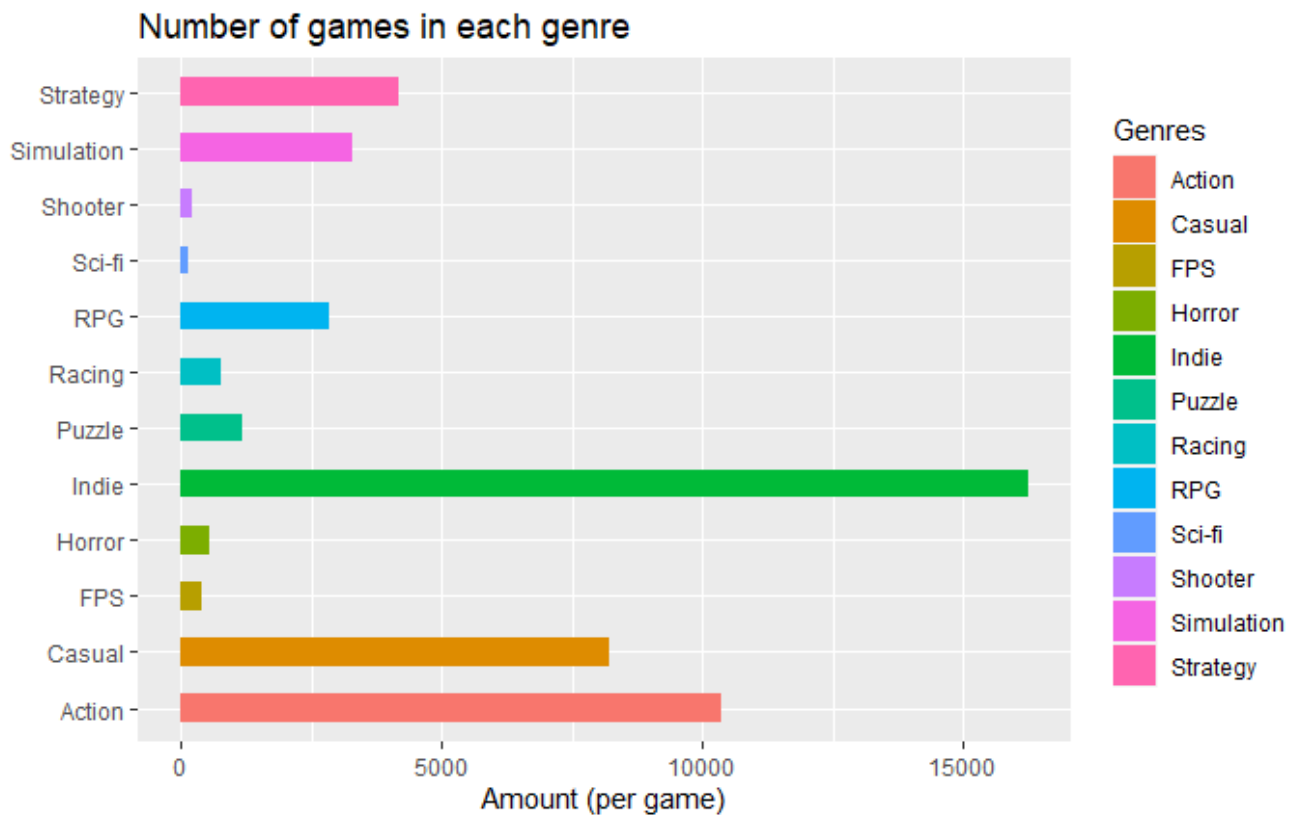
```
colnames(steam_data)

 [1] "appid"           "name"             "release_date"      "english"            "developer"
 [6] "publisher"       "platforms"        "required_age"      "categories"         "genres"
[11] "steamspy_tags"   "achievements"     "positive_ratings"  "negative_ratings"   "average_playtime"
[16] "median_playtime" "owners"           "price"
```

How many FPS games are there out of other genres?

Number of games in each genre

Analysis:
- Bar chart records the number of games in each title of genre selected
- FPS makes up 1.5% of Steam games
  - While Indie makes up 60%
- Indie is the largest genre because of the requirements
  - Video game created by an individual or group without financial and technical support of a publisher

```
#Genres

Top_Games <- data.frame (Genres = c("Action", "FPS", "Shooter", "Sci-fi", "Puzzle", "Indie", "Strategy", "Racing"
, "RPG", "Casual", "Horror", "Simulation"), Amount = c(10344,405,227,157,1167,16232,4180,765,2863,8205,566,3284))


#ggplot(Top_Games, aes(x = Genres, y = Ammount_of_games)) + geom_col(fill = "black")
ggplot(Top_Games, aes(x = Genres, y = Amount, fill = Genres,)) + geom_bar(stat = "identity", width = 0.5) + labs
(title = "Number of games in each genre", x = "", y = "Amount (per game)") + coord_flip()
```
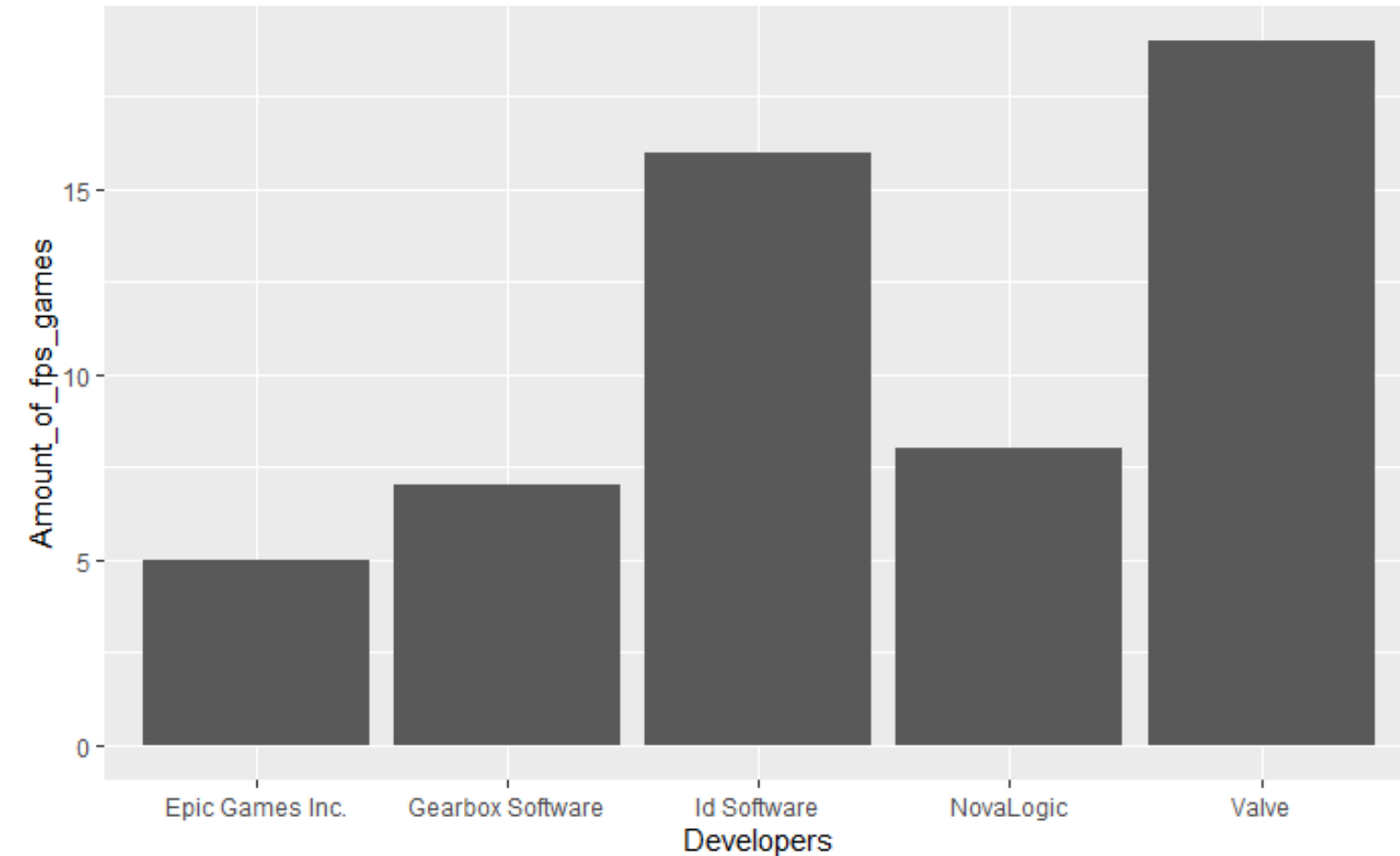
Does it depend on what studio works on a shooter game? If So which developer?

- **Analysis**:
- Top 5 game developer studios who released the most FPS games on Steam
- Valve has released the most FPS games with over 21 titles
  - Some include: Counter-Strike, Team Fortress, Half-Life series, Left 4 Dead series, and many more

Conclusion

+ Understanding:
    + FPS make up a minority of video games on Steam
        + Though small there are many well-known FPS games
    + Difficult to prove whether one genre is popular than another
        + Numerous genres and broad number of owners per title
    + Deciding which genre is most popular is dependent on the person
        + Lifestyle, personality, and costs
+ Weaknesses:
    + Data
        + Data was large, 27,075 rows
        + More than one genre within a game
    + Time restraints when creating project
        + Wanted to add more graphs
            + Avg. playtime amongst genres
            + Amount of owners