



# SteamConnect



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# The Purpose

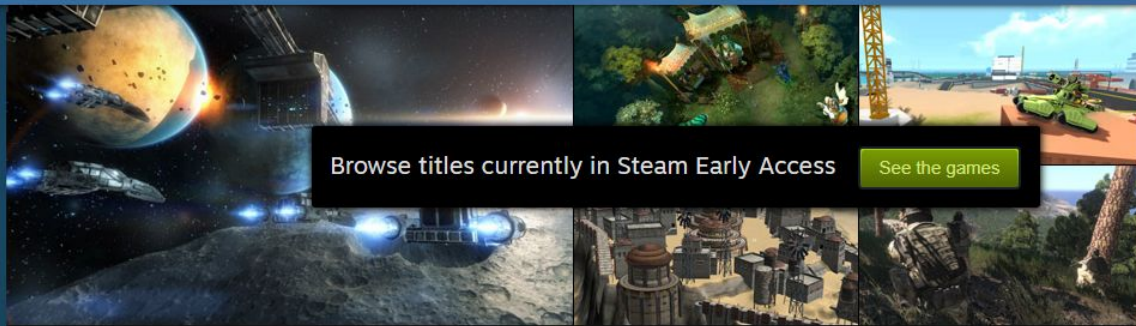
SteamConnect will analyze current and former early access games to determine patterns within the attributes to determine the success of the games.



# The Purpose - Early Access

## Early Access Games

Discover, play, and get involved with games as they evolve.



Browse titles currently in Steam Early Access

See the games

## What is Early Access?

Get immediate access to games that are being developed with the community's involvement. These are games that evolve as you play them, as you give feedback, and as the developers update and add content.

We like to think of games and game development as services that grow and evolve with the involvement of customers and the community. There have been a number of prominent titles that have embraced this model of development recently and found a lot of value in the process. We like to support and encourage developers who want to ship early, involve customers, and build lasting relationships that help everyone make better games.

As a gamer...

Be the first to play exciting new games

Discuss and give feedback

# The Purpose - Early Access



# The Purpose - Early Access



**Not Recommended**  
81.4 hrs on record

**EARLY ACCESS REVIEW** POSTED: NOVEMBER 5

My Grand children may enjoy this when its finished

Was this review helpful?  **Yes**  **No**  **Funny**

592 people found this review helpful  
586 people found this review funny

13 

**Not Recommended**  
6.1 hrs on record

**EARLY ACCESS REVIEW** POSTED: OCTOBER 31

Guinness World Record for longest EA Game. GG

Was this review helpful?  **Yes**  **No**  **Funny**

242 people found this review helpful  
102 people found this review funny

45 

# The Purpose - Null Hypothesis

For this project, we want to determine how early access status affects how well a game is perceived by the gaming community.

Null hypothesis: There is no difference between the scores of early access games and games that have been fully released.

# Datasets

Our datasets:

- Steam Web API
  - Pulls user & game data from Steam
- SteamSpy
  - Uses Web API
  - Presents individual game data





## PLAYERUNKNOWN'S BATTLEGROUNDS



Store | Hub | SteamDB | Site

**Developer:** PUBG Corporation **Publisher:** PUBG Corporation

**Genre:** Violent, Action, Adventure, Massively Multiplayer, Early Access

**Languages:** English, Korean, Simplified Chinese, French, German, Spanish, Arabic, Japanese, Polish, Portuguese, Russian, Turkish, Thai

**Tags:** Early Access (4562), Survival (4147), Shooter (3483), Multiplayer (3078), Open World (2527), PvP (2481), Massively Multiplayer (2226), FPS (1998), Action (1924), Third-Person Shooter (1844), Tactical (1556), Online Co-Op (1549), Co-op (1317), Walking Simulator (1224), Violent (1082), First-Person (1060), Strategy (1037), Memes (890), Adventure (862), Casual (501)

**Category:** Multi-player, Online Multi-Player, Stats

**Release date:** Mar 23, 2017

**Price:** \$29.99

**Score rank:** 16% **Userscore:** 60% **Old userscore:** 61%

**Owners:** 22,512,885 ± 142,499

**Players in the last 2 weeks:** 16,894,492 ± 124,193 (75.04%)

**Players total:** 22,385,548 ± 142,115 (99.43%)

**Followers:** 1,046,316

**Peak concurrent players yesterday:** 2,625,543

**YouTube stats:** 5,190,525 views and 15,714 comments for videos uploaded last week, 3 new videos uploaded yesterday.

**Playtime in the last 2 weeks:** 29:31 (average) 21:06 (median)

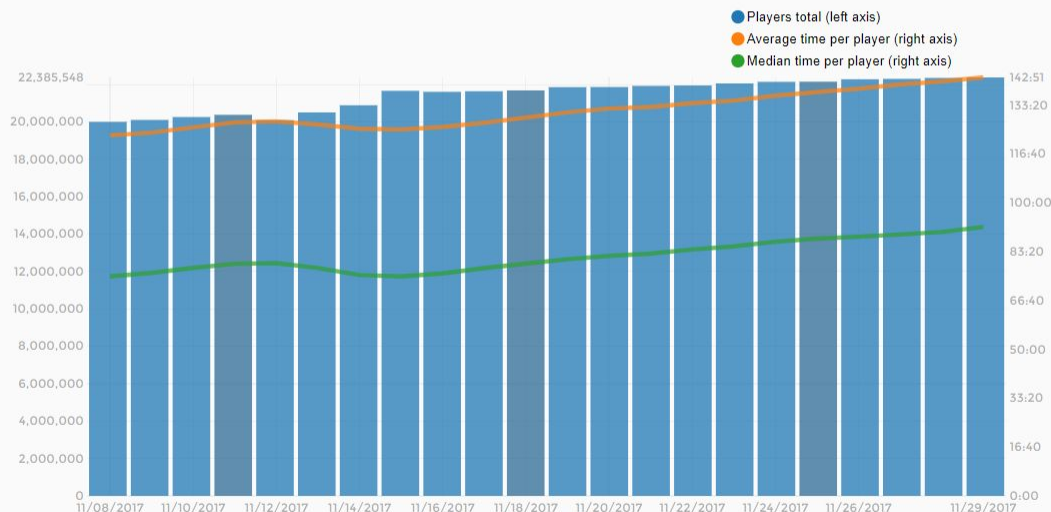
**Playtime total:** 142:50 (average) 91:49 (median)

OWNERS CHANGES AUDIENCE (2 WEEKS) AUDIENCE TOTAL CCU (DAILY) CCU (HOURLY) TWITCH (DAILY)

TWITCH (HOURLY) YOUTUBE REVIEWS MORE LIKE THIS RELATED GEOGRAPHY

GEOGRAPHY OVER TIME (SHARE) GEOGRAPHY OVER TIME (TOTALS) PLAYTIME (TOTAL) PLAYTIME (2 WEEKS)

### Total audience:

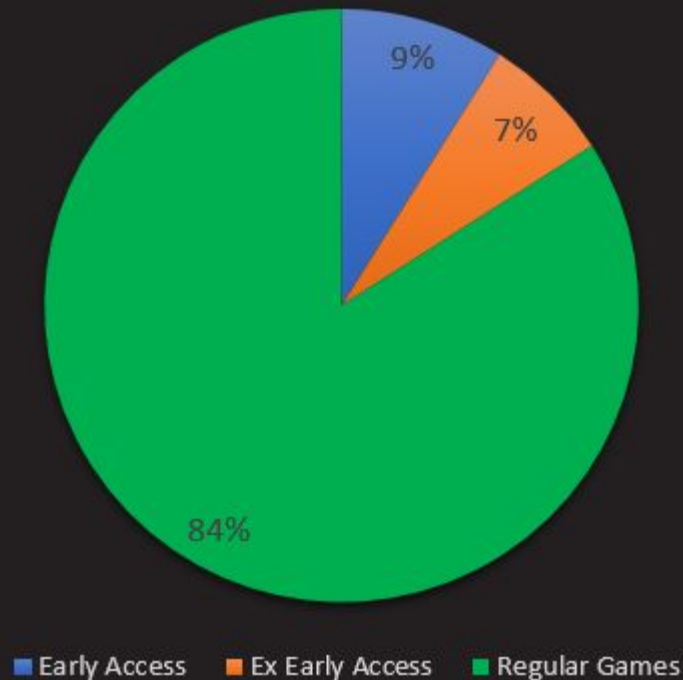




# Datasets

Three Types of games:

- 903 Early Access
- 938 Ex Early Access
- 9390 Regular Release Games



# About the Data

Important attributes:

- Release date
- Price
- Score (positive/negative)
- Amount of owners
- Playtime (median)
- Player Count

More, but non-numeric, so not of much use

# Reviews

- Game data spans from 2013 to 2017
  - However, some years did not have enough data, so it was removed
- Userscore attribute had strange calculation
  - Current userscore only counted reviews of products purchased through Steam and also left review
  - Remade by dividing number of positive reviews by sum of positive and negative
- Games with no reviews defaulted to 100%
  - Removed all games with 0 reviews to solve this
- Dropped games that did not have many reviews
  - If a game had less than 25 reviews, it was dropped

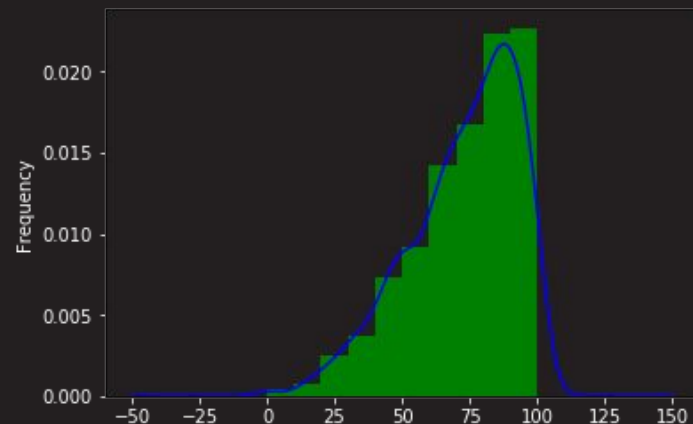
# Side By Side Comparison

	Early Access		Ex Early Access		Regular Games	
	Mean	Median	Mean	Median	Mean	Median
Score	73.07	76.52	73.31	76.27	73.75	77.84
Price	\$10.29	\$9.99	\$10.01	\$7.99	\$8.64	\$4.99
Owners	175,798	11,876	262,973	22,887	273,918	40,083
Players	142,746	7,423	194,657	14,846	178,717	19,794
Never Played	33,052	4,453	68,316	8,041	95,201	20,289

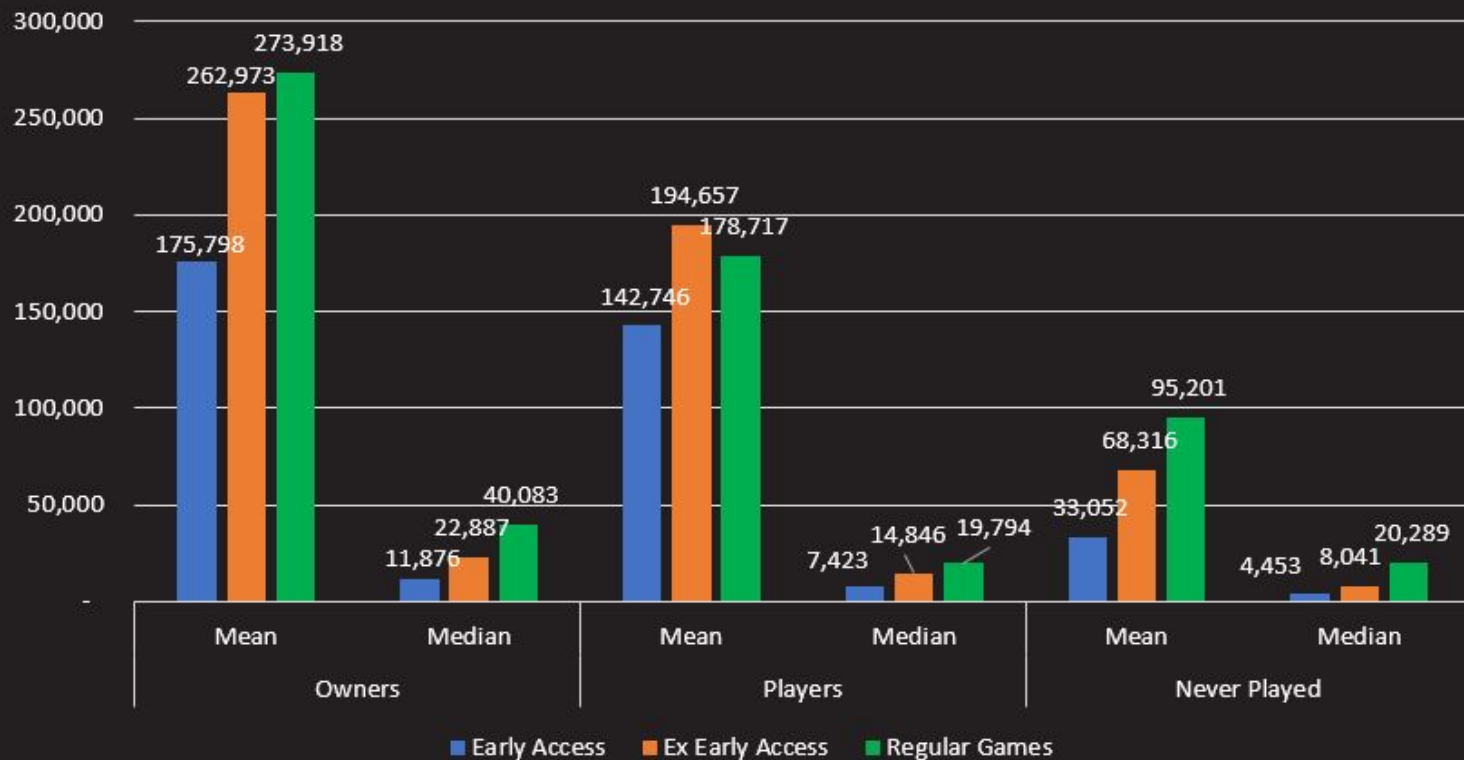
# User Score



# Price



# Players





## Kickstarter, Early Access and the Price

JUNE 13, 2013 - GARAT

Our pricing for this stage of early access was determined by our Kickstarter. The stages of our early access for ALL users, which was determined during our Kickstarter, is:

June through August: \$90 for early alpha access, during the time where we're still locking down features and making tweaks to the flow of the game. This access is permanent access - you will be able to play through alpha, beta and on through retail. (Galactic Edition Equivalent with all included perks)

September through November: \$60 for beta access. The game will be much more complete at this time, but with a lot of balance work still to do and more optimizations to get it working on as many systems as possible. Same as above, this is beta and turns into a retail version on launch. (Warfare edition equivalent with all included perks)

Retail: December 2013 (Combat edition equivalent)

This is the pricing determined over a year ago. Our Kickstarter set these levels, and while we understand people may not like it, it's the decision we had to make.



Planetary Annihilation  
\$29.99

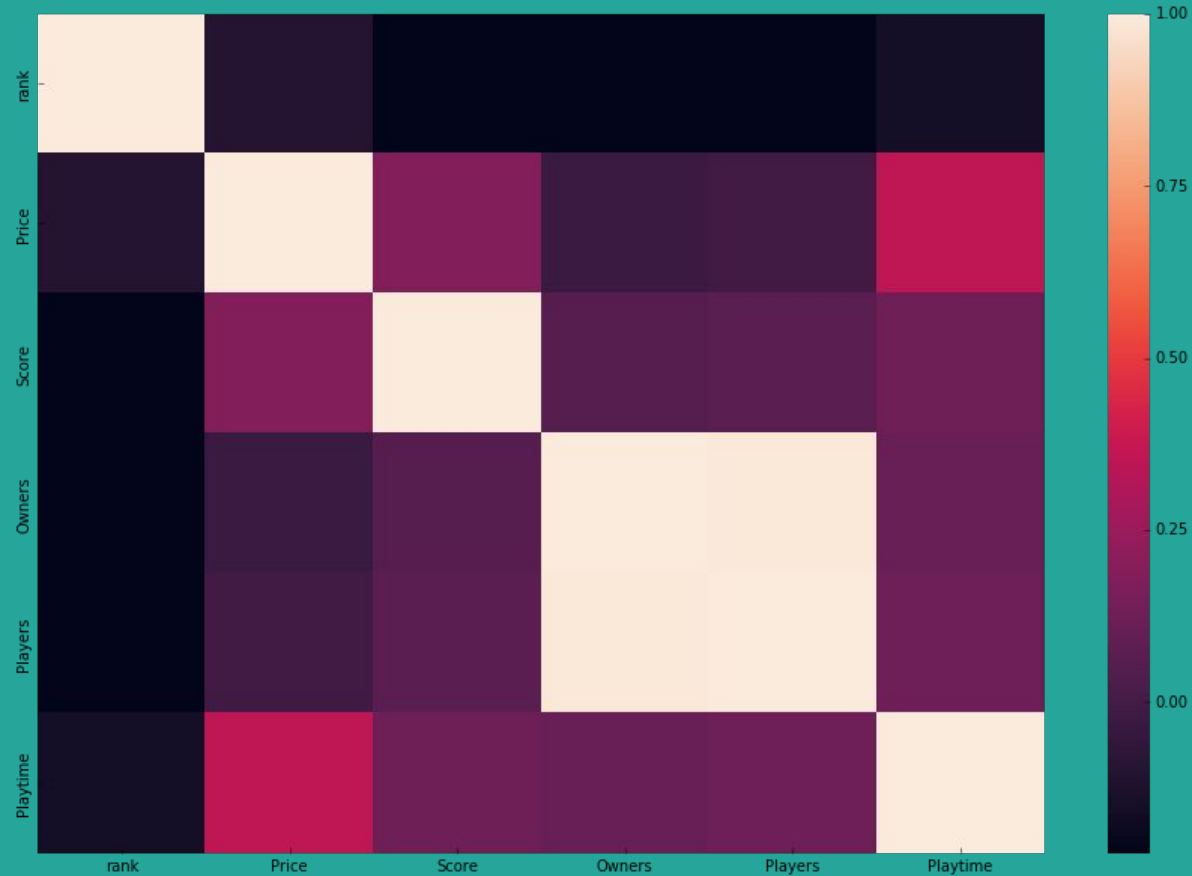
# Game Tags

We planned to use game tags, but...

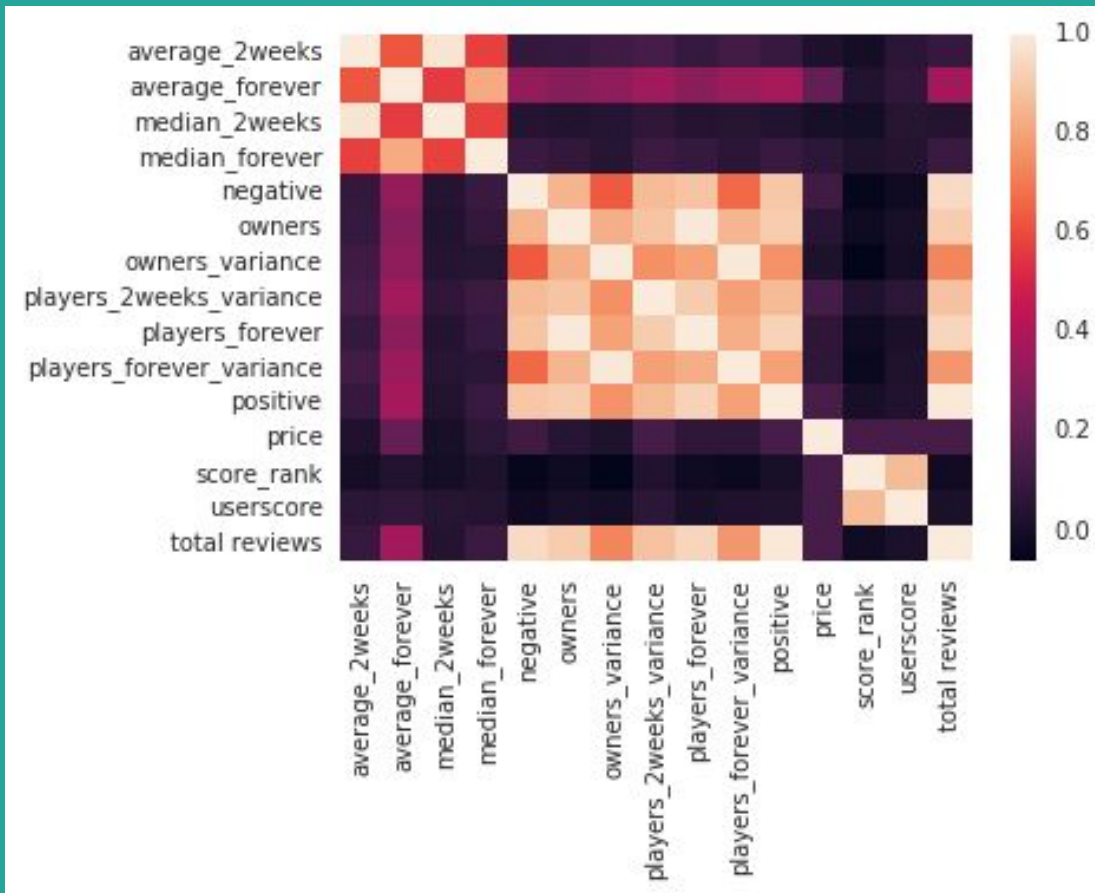
- Game genres
- Submitted by developers & players
- Allow us to categorize the games
- Hope to sort games by genre and score

```
108600    {u'Building': 339, u'Crafting': 423, u'Co-op': ...  
15540     {u'Singleplayer': 15, u'Indie': 57, u'Procedur...  
206500    {u'PvP': 69, u'Mechs': 219, u'Free to Play': 4...  
215830    {u'Hack and Slash': 7, u'Massively Multiplayer...  
221100    {u'PvP': 3940, u'Shooter': 1893, u'Atmospheric...  
Name: tags, dtype: object
```

# Correlation Heatmap



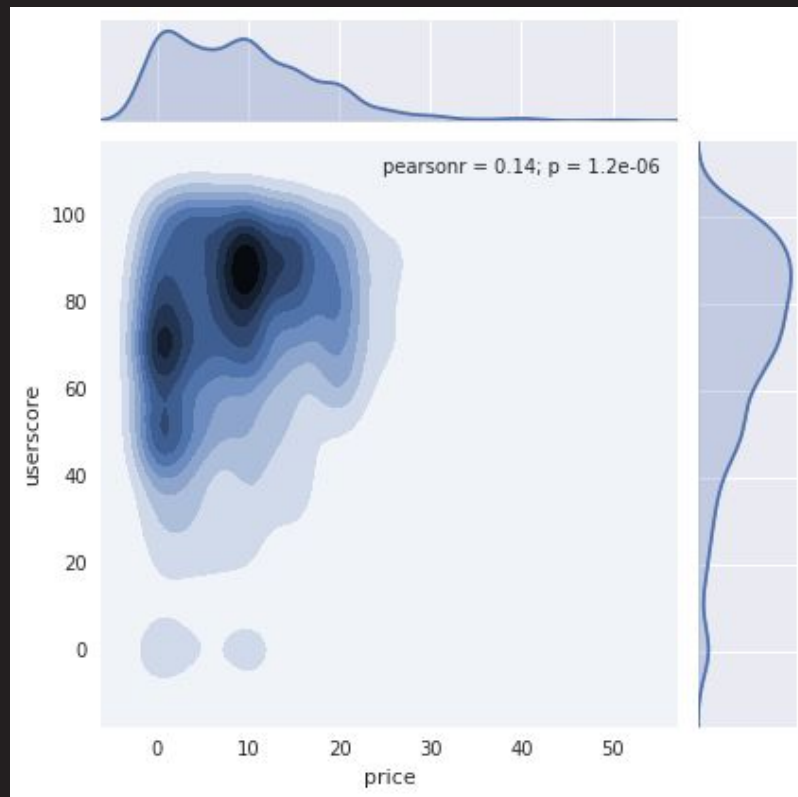
# Correlation Heatmap



# Price Distribution



# Price vs. Userscore



# Success

- Early access VS. full games
  - User scores differ only by 1 variance (not much difference)
  - Higher number of total reviews as users are more willing to submit feedback and support
  - Early access games have a slightly higher average price
  - This means more money, but risky as people pay for unfinished product
- Common misconception: Most games purchased aren't actually played
  - Statistics-wise, this is not true, as players and owners have high correlation. Which means most people who have the game will play it at least once.



# Challenges

- Data constantly changing
  - Currently player count changes depending when you pull data
  - Some scores have changed since our first pull
- Data if affected by sales and free-to-play weekends
  - Holiday game sales affect price data with no indication in data
  - We knew Steam Autumn Sale was live, so we had to redo data
  - Free-to-play weekends skew data, since everyone technically temporarily owns the game
- Some early access titles aren't actually games
  - Steam also has software; again, no real indication in data
  - This could possibly skew price data, as some are expensive