Data from June 17-18, 2020

Patch 10.12

Positional Presence at the Highest Levels:

Examining the Top Players to Determine Role Influence

Karl Roush

Project Repo at *github.com/karoush/position_presence*

Contents

Executive Summary

If a certain role has a greater contribution (i.e. higher power level or greater impact) to winning a game, then in theory it should be represented as a higher play rate in the Challenger and Grandmaster ranked ladders. Furthermore, if all roles were of equal agency, the presence of each position would be 20% (five total roles). However, not all roles are equal; ***the purpose of this report is to determine the relative differences in role presence at an apex competitive level and compare across regions***.

There are several key takeaways from the data. Firstly, ADC has the *least presence* across all the studied regions. However, the role with the *most presence* varies by region. This is likely the result of differing regional playstyles.

Table 1: Patch 10.12 Positional Data by Presence, Combined Challenger and Grandmaster

Region	Most Presence	Least Presence
NA	Mid (22.02%)	ADC (17.22%)
EUW	Jungle (23.10%)	ADC (18.30%)
KR	Support (21.23%)	ADC (18.91%)

Introduction

Due to time limits imposed by the data collection process (see API Rate Limitations), the following regions were examined:

- North America (NA)
- Europe West (EUW)
- Europe Nordic and East (EUN)*
- South Korea (KR)

*The raw data for EUN can be found in **Raw Data** but was not included in **Data Analysis**. This is because most LEC (the EU competitive scene) players use the EUW server, leading to the perception that the EUN server is less competitive.

The terms role and position are used equivalently in this report and refer to:

- TOP
- JUNGLE
- MID
- DUO_CARRY (ADC)
- DUO_SUPPORT (Support)

Rationale

The purpose of this report is to determine the relative differences in role presence at an apex competitive level and compare across regions.

In theory, if all roles were of equal agency, the presence of each position would be 20% (five total roles). A higher presence would indicate a role with more impact and a lower presence would indicate a role with less impact.

Additionally, playstyles vary by region. Korea (KR) is known for their aggressive early-game playstyles so it is expected that JUNGLE and DUO_SUPPORT have a higher presence. In contrast, North America (NA) and Europe West (EUW) are known for placing emphasis on MID, using roams to snowball advantages to the rest of the team.

Data Collection

All data pertains to the Solo/Duo Queue game mode on Summoner's Rift and was collected during Patch 10.12 on June 17-18, 2020.

View the project repository and data at *github.com/karoush/position_presence*

Process Overview

This tool makes use of the Riot API through a custom written class in Python. There are numerous wrappers available for the Riot API, but I choose to write my own to gain a better understanding of how to interact with the API.

The process for collecting the necessary data is as follows:

1. Select a region
2. Obtain the ladder data
    a. Option for different tiers
    b. Returns a list of Summoner Names, wins/losses, etc.
3. Convert the Summoner Names to Account IDs
    a. The Riot API operates primarily with Account IDs, a combination of letters and numbers that are linked for each account
    b. Conversions between Summoner Name and Account ID is done through an API call
4. Obtain the ranked match history for each player using their Account ID
5. Convert the match history to a list of positions played
6. Determine the main role that each player plays
7. Aggerate the data for analysis

API Rate Limitations

For developers, the Riot API limits requests to 100 per every 2 minutes. For each player on the ranked ladder requests, two requests are made (one for the Account ID and one for the match history). This greatly increases the amount of time to collect the data.

Taking NA Challenger as an example, there are 300 players in this tier. This means that 600 requests are made, in addition to the initial ladder data request. Therefore, it takes more than 12 minutes to obtain the NA Challenger data. This is why only three regions were examined.

Data Analysis

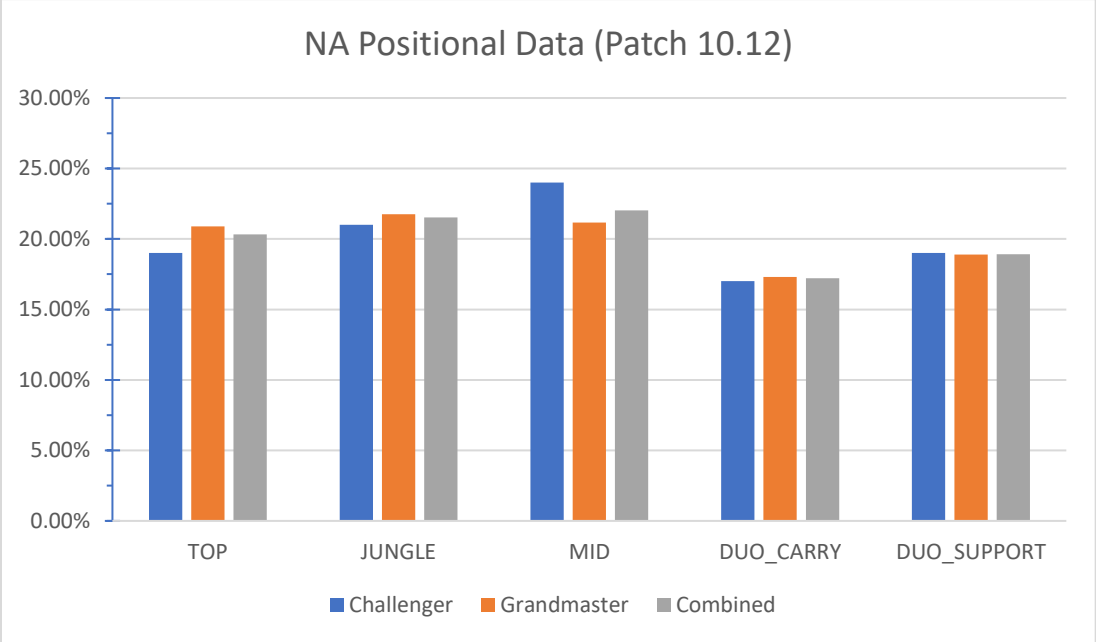
Raw data in a tabular format can be found under **Raw Data**. The number of Challenger players (300 or less) presents a small data set, so typically it is better to consider the Challenger data in combination with the Grandmaster data.

As a reminder, if all positions are equally represented, then the percentage of players in that role should be 20%. In theory, if a role is more impactful in winning games, this would be represented by a presence greater than 20% (the reverse would be true of a less impactful role).

North America

In the NA server, the most popular position is MID at 22.02% in the combined data.

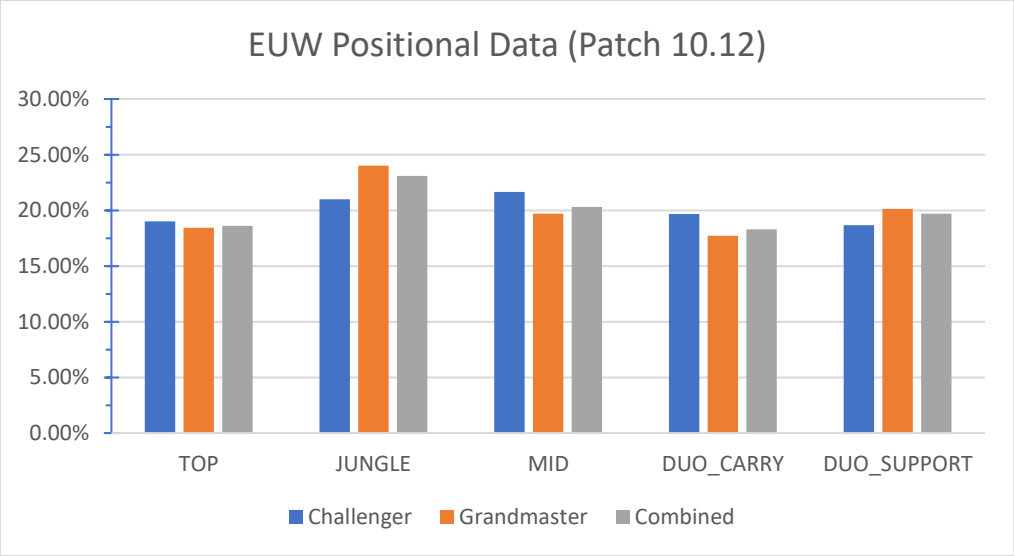
Interestingly, there is a high concentration of MID mains in Challenger (24%), though this could be attributed to the popularity of the role. The least popular role by far was DUO_CARRY with 17.22% representation, falling below the ideal distribution by 2.78% (the ideal is 20%).



Europe West

In the EUW server, the most popular position is JUNGLE at 23.10% in the combined data.

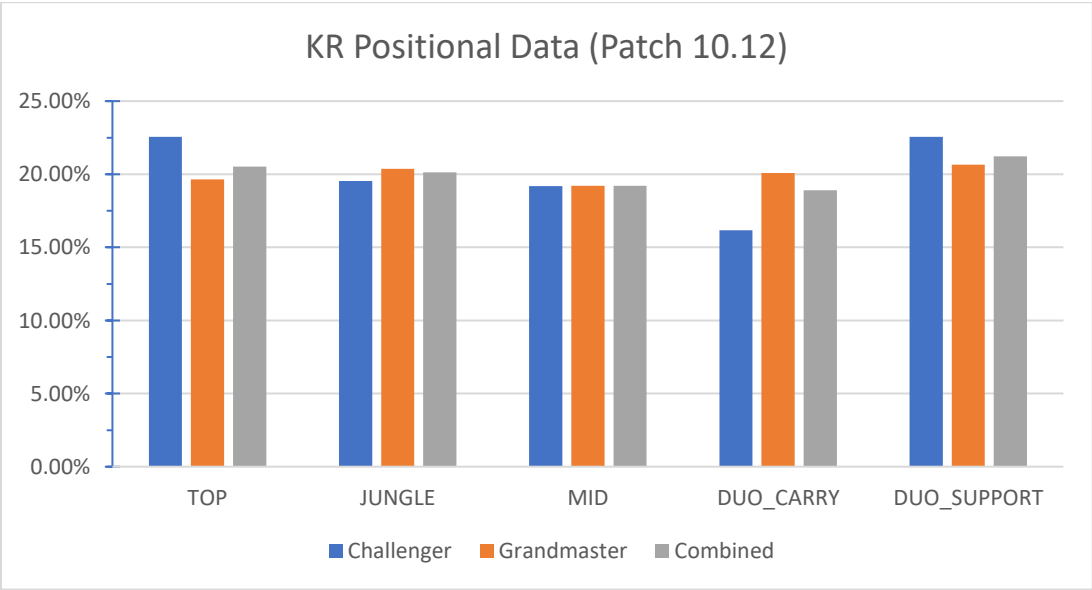
Compared to the NA sever, MID is very close to 20% in both Challenger and Grandmaster. However, in Grandmaster the JUNGLE role is very popular, sitting 4% above the ideal distribution.



South Korea

In the KR server, the most popular position is DUO_SUPPORT at 21.23% in the combined data.

Like how MID is popular in the NA server, DUO_SUPPORT is quite popular in the KR server which could be the reason for the higher prevalence. It is also worth noting that in KR Challenger, TOP (22.56%) is tied as the most popular role. This is almost opposite to EUW and NA where TOP is the second least popular role.



Concluding Thoughts

The key takeaways of positional presence is best shown through the table below.

Table 2: Patch 10.12 Positional Data by Presence, Combined Challenger and Grandmaster

Region	Most Presence	Least Presence
NA	Mid (22.02%)	ADC (17.22%)
EUW	Jungle (23.10%)	ADC (18.30%)
KR	Support (21.23%)	ADC (18.91%)

Firstly, ADC has the least presence across all regions. However, the role with the most presence varies by region. This is likely the result of differing playstyles by region.

In the future I would like to expand the dataset to include Master tier players. For the NA server, this would add 4,000 additional players which would greatly increase the data set. Likewise, expanding the data set to other regions would have a similar effect.

This data was only collected during Patch 10.22, representing approximately two weeks of data. It would also be interesting to examine how the presence of these roles changes with each patch. As an ADC main, I would love to see more buffs to the DUO_CARRY role since it feels weak- this is supported by the data presented in this report.

Raw Data

The raw data is dumped by default into *role_data.txt* which is sorted by role in descending popularity. This data is converted to a tabular format below and in *positional_data.xls*

Table 3: Patch 10.12 Positional Data (Region= NA)

Tier	Position	Number of Players	Percentage of Tier	Delta from 20%
Challenger	TOP	57	19.00%	-1.00%
	JUNGLE	63	21.00%	1.00%
	MID	***72***	***24.00%***	***4.00%***
	DUO_CARRY	51	17.00%	-3.00%
	DUO_SUPPORT	57	19.00%	-1.00%
Grandmaster	TOP	146	20.89%	0.89%
	JUNGLE	***152***	***21.75%***	***1.75%***
	MID	148	21.17%	1.17%
	DUO_CARRY	121	17.31%	-2.69%
	DUO_SUPPORT	132	18.88%	-1.12%
Combined	TOP	203	20.32%	0.32%
	JUNGLE	215	21.52%	1.52%
	MID	***220***	***22.02%***	***2.02%***
	DUO_CARRY	172	17.22%	-2.78%
	DUO_SUPPORT	189	18.92%	-1.08%

Table 4: Patch 10.12 Positional Data (Region= EUW)

Tier	Position	Number of Players	Percentage of Tier	Delta from 20%
Challenger	TOP	57	19.00%	-1.00%
	JUNGLE	63	21.00%	1.00%
	MID	***65***	***21.67%***	***1.67%***
	DUO_CARRY	59	19.67%	-0.33%
	DUO_SUPPORT	56	18.67%	-1.33%
Grandmaster	TOP	129	18.43%	-1.57%
	JUNGLE	***168***	***24.00%***	***4.00%***
	MID	138	19.71%	-0.29%
	DUO_CARRY	124	17.71%	-2.29%
	DUO_SUPPORT	141	20.14%	0.14%
Combined	TOP	186	18.60%	-1.40%
	JUNGLE	***231***	***23.10%***	***3.10%***
	MID	203	20.30%	0.30%
	DUO_CARRY	183	18.30%	-1.70%
	DUO_SUPPORT	197	19.70%	-0.30%

Table 5: Patch 10.12 Positional Data (Region= KR)

Tier	Position	Number of Players	Percentage of Tier	Delta from 20%
Challenger	***TOP***	***67***	***22.56%***	***2.56%***
	JUNGLE	58	19.53%	-0.47%
	MID	57	19.19%	-0.81%
	DUO_CARRY	48	16.16%	-3.84%
	DUO_SUPPORT	***67***	***22.56%***	***2.56%***
Grandmaster	TOP	136	19.65%	-0.35%
	JUNGLE	141	20.38%	0.38%
	MID	133	19.22%	-0.78%
	DUO_CARRY	139	20.09%	0.09%
	DUO_SUPPORT	***143***	***20.66%***	***0.66%***
Combined	TOP	203	20.53%	0.53%
	JUNGLE	199	20.12%	0.12%
	MID	190	19.21%	-0.79%
	DUO_CARRY	187	18.91%	-1.09%
	DUO_SUPPORT	***210***	***21.23%***	***1.23%***

Table 6: Patch 10.12 Positional Data (Region= EUN)

Tier	Position	Number of Players	Percentage of Tier	Delta from 20%
Challenger	TOP	31	15.50%	-4.50%
	JUNGLE	46	23.00%	3.00%
	MID	45	22.50%	2.50%
	DUO_CARRY	31	15.50%	-4.50%
	DUO_SUPPORT	***47***	***23.50%***	***3.50%***
Grandmaster	TOP	101	20.45%	0.45%
	JUNGLE	88	17.81%	-2.19%
	MID	***125***	***25.30%***	***5.30%***
	DUO_CARRY	79	15.99%	-4.01%
	DUO_SUPPORT	101	20.45%	0.45%
Combined	TOP	132	19.02%	-0.98%
	JUNGLE	134	19.31%	-0.69%
	MID	***170***	***24.50%***	***4.50%***
	DUO_CARRY	110	15.85%	-4.15%
	DUO_SUPPORT	148	21.33%	1.33%