



Source: <https://na.leagueoflegends.com/en/news/esports/esports-editorial/worlds-semifinals-pics>

I eSports Coming of Age in 2018

Saturday night hockey? Sunday afternoon football? Traditional sports may soon have to share the spotlight with a new kid on the block - eSports.

eSports, a form of organized video gaming competitions at a professional level, has been in existence for a few decades, but has recently been gaining more attention. The League of Legends World Championship (image) is an example of one of the estimated 600 eSports events that occurred in 2017. The event was the most watched on the video streaming platform Twitch in 2017 with 49.5 million viewers, and generated \$5.5 million in ticket revenues.¹

eSports is now becoming more popular due to improvement in gaming content and technological improvements in both gaming equipment and broadband speed. eSports is as popular as baseball or ice hockey in the millennial generation, or those aged 21 to 35.² In 2017, eSports events had a total audience of approximately 335 million viewers with total revenues of \$655 million.³ Viewership is expected to grow at a 14.4% compound annual growth rate to 2021 (see

Figure 1).⁴ Traditional sports franchises are recognizing the growing trend and making investments into the industry. For example, the NHL's first foray into eSports was the 2018 NHL Gaming World Championship final that took place in June in the new Esports Arena recently opened at the Luxor in Las Vegas.

Though the industry is currently small in comparison to the North American sports industry revenue of approximately \$72 billion,⁵ eSports has the potential to build similar revenue streams from ticket sales, advertising from TV and online streams, sponsorship and team merchandise sales. While technology, gaming and consumer electronics brands dominate sponsorship, more non-traditional eSports brands are entering the picture due to the attractive demographic profile. Similar to traditional sports, a large share of the total eSports audience does not play the game themselves, which can lead to revenue streams from ticket sales, merchandising and advertising. It is anticipated that streaming deals will

1 NewZoo.

2 Ibid.

3 Ibid.

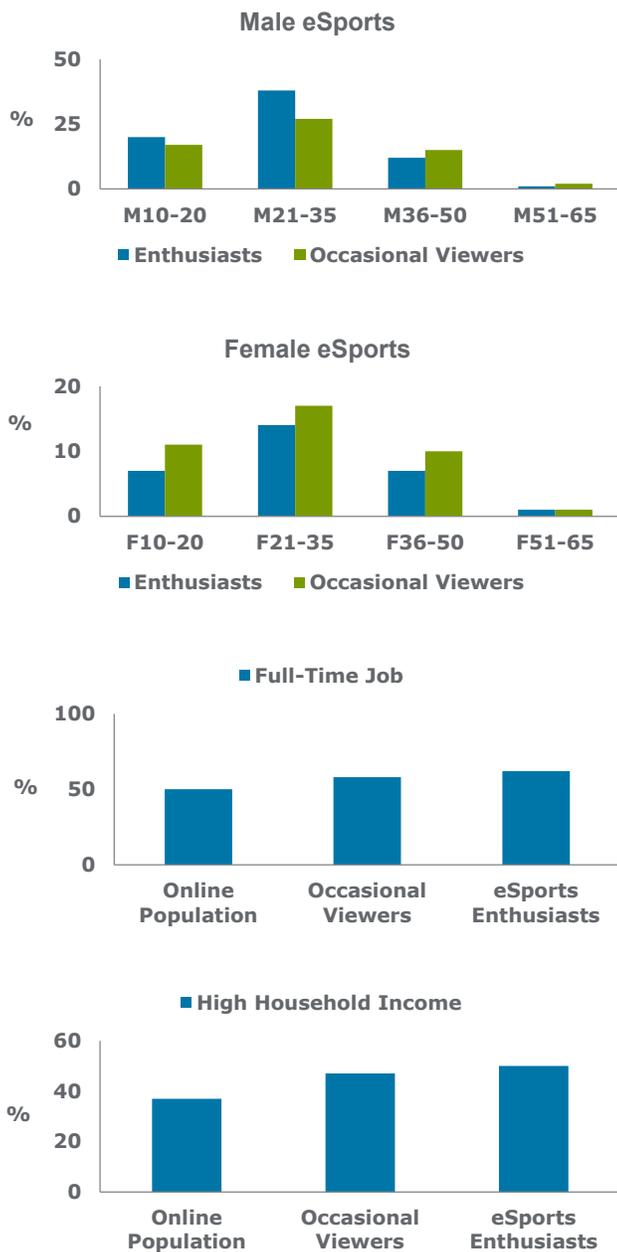
4 Ibid.

5 Ibid.

continue with online media streaming platforms like Twitch and YouTube, but also with traditional mainstream television networks trying to tap into the opportunity.

Figure 1: Demographic Profile

The main age group for eSports participants is predominantly the 21-35 age group, or essentially those considered the millennial generation. eSports viewers typically have a full-time job and a higher household income.



Source: Newzoo, Bernstein, Global 2016.

Greystone’s public equities portfolios hold several stocks that participate in this emerging industry to varying degrees, including gaming publishers Tencent Holdings Limited (Tencent) and NetEase, Inc.; video gaming equipment providers Microsoft Corporation, Nvidia Corporation (Nvidia) & Samsung Electronics Co., Ltd; video streaming services Amazon.com, Inc. (Twitch), Alphabet Inc. (YouTube) and YY Inc.. Two stocks that truly stand out include China-based Tencent, a gaming publisher, and U.S.-based Nvidia, a gaming equipment manufacturer.

Tencent has a number of business areas, including online gaming, online advertising, social media services, and payment services. The majority of the company’s revenues come from gaming, with longer-term growth expected to come from advertising and payment services. Through acquisitions, in-house development or licensing arrangements with third parties, it has built a diverse games portfolio including League of Legends, Honor of Kings, PlayerUnknown’s Battlegrounds and Fortnite.

The company supported eSports originally as a way to extend popularity of the games; eSports has only recently become a larger part of their business strategy. It has also made investments in eSports and into the Chinese streaming services Douyu and Huya, a strategy to dominate the Chinese gaming market. At Tencent, mobile games are growing faster than PC games while Nvidia designs and manufactures graphics processing units (GPUs), and related software. Its GPU segment includes sales of the company’s GeForce products for high-end video games. The core graphics and gaming outlook is very bullish given secular trends in the gaming industry. These trends include the rising popularity of eSports as well as the increasing computer system requirements for video games.

The rise in popularity of eSports essentially acts as indirect advertising for Nvidia’s GPU products. It is estimated that 86% of eSports gamers play on Nvidia’s GeForce, with viewership expanding 100 million since 2016 to approximately 400 million in 2018.⁶ High-end PC games with more detailed 3D graphics rendering have higher frames-per-second requirements than older generations of games. These higher requirements, in turn, require next-generation graphics cards, forcing gamers to upgrade if they wish to enjoy the latest games. More demanding games will lead to higher GPU penetration in the existing gamer base. Nvidia’s installed base of users include 74 million gamers on legacy architectures released on or before 2014.⁷ Given the large number of potential upgraders, only a slight increase is needed in the penetration of graphics cards

6 Nvidia, UBS estimates.
7 Nvidia.

into the existing gamer base to result in substantial gaming revenues. The company is growing revenues approximately 40% year-over-year.

eSports is still in the early days in the successful monetization of revenue streams, and the industry is rapidly changing. Our investment philosophy seeks companies with positive business momentum, the potential to improve the earnings generating capacity of the company, and we believe that the eSports industry has provided a tailwind to the earnings of the companies in which we invest.

Figure 2: Sports Versus eSports TV Viewership Median Age

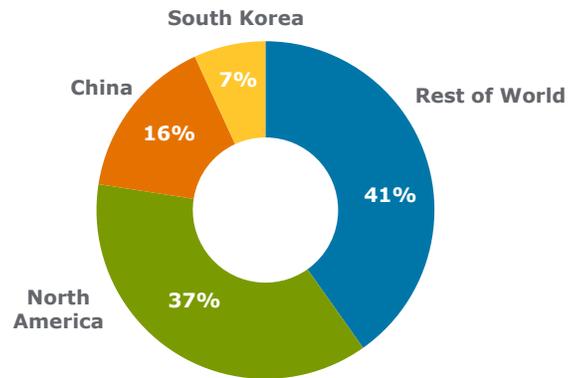
	2006	2016	Difference
PGA Tour	59	64	5
MLB	52	57	5
Olympics	50	53	3
NHL	46	50	4
NBA	40	42	2
eSports	N/A	32	N/A

Source: Magna Global, SportsBusiness Journal, Nielson.

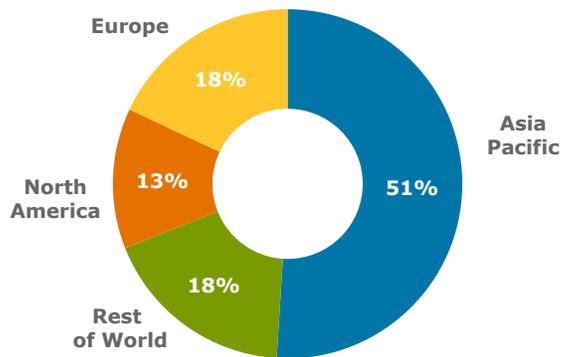
Figure 3: Market Outlook

Asia is the largest region for eSports viewership, while North America remains the biggest by market revenue. The biggest revenue categories are sponsorship and advertising.

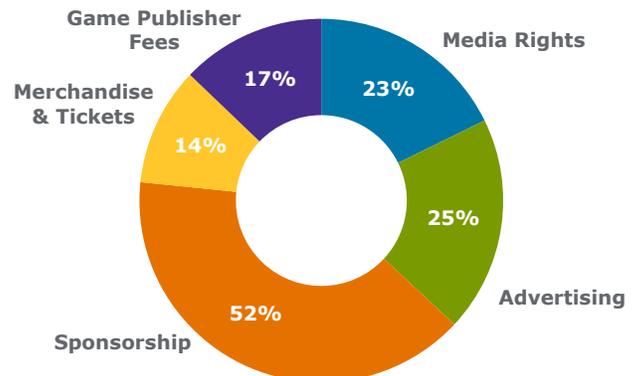
Market Revenue 2018 (US\$906 million)



Viewership 2018 (380 million)



Revenue 2018 (US\$906 million)



Source: Newzoo, Bloomberg.

Greystone Managed Investments Inc.

With over \$36 billion in assets under management,⁹ we proudly serve universities, pension funds, multi-employer groups, endowments & foundations, insurance companies, and non-profit organizations.

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- Alternative Plus¹¹

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- Term
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ALTERNATIVES

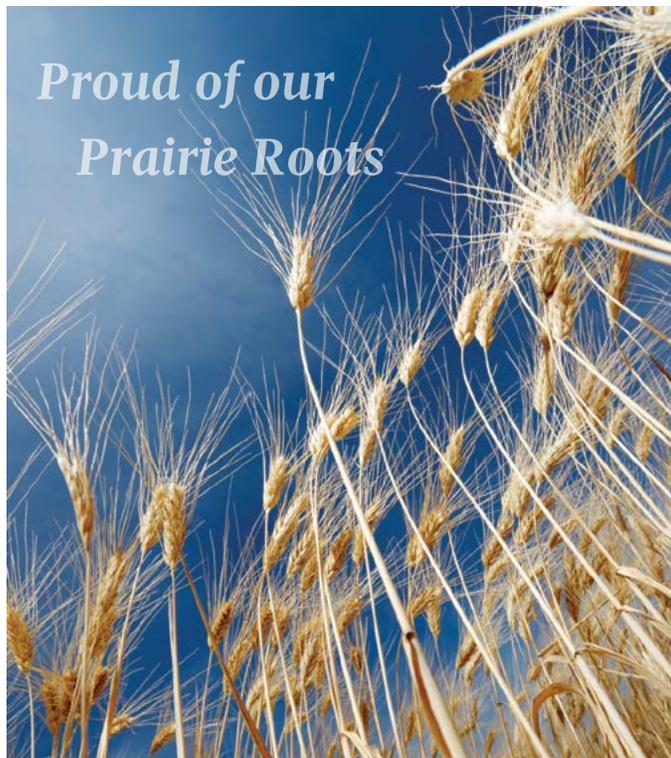
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⁹ As at Jun 30, 2018.

¹¹ An eligible employee is defined as contributing one or more years of service to Greystone.

¹⁰ The Greystone Alternative Plus Solution is an integrated open-ended alternatives mandate where a client invests in the Greystone Infrastructure Fund (Canada) LP, the Greystone Mortgage Fund and the Greystone Real Estate Fund Inc. or the Greystone Real Estate LP Fund. Greystone holistically manages the underlying cash flows and liquidity of the allocation as well as the asset mix between the underlying strategies.

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