GAMBLING AND DIGITAL GAMES IN THE NETHERLANDS

JANUARY 2017

Table of Contents

2-9 Intro

Table of Contents
SuperData Arcade
Executive Summary
Methodology

11-17 Taxonomy of Digital Games with Gambling Elements

Game Categories
Centrality of Gambling Themes
Possibility of Winning Real Prizes
Sociability
Platforms
Monetization
Growth Drivers and Barriers to Growth

Table of Contents

21-25 **Market Overview: Social Casino**

Regional Revenue
Netherlands and U.K. Revenue
Companies to Know
Market Share of Top Companies
Industry Consolidation

27 **Market Overview: Fantasy Sports**

Companies to Know

29-30 **Market Overview: Amateur eSports**

Regional Revenue
Companies to Know

32-33 **Market Overview: Collectible Card Games**

Regional Revenue
Games to Know

SUPERDATA

Table of Contents

35-36 Market Overview: Virtual Item Wagering

Companies to Know
Companies Prohibiting Virtual Item Betting

38-42 Social Casino Demographics

Gender; Age; Income
Education
Children

44-50 Gambling-Related Game Habits and Sentiments

Social Casino Genres
Social Casino Genres by Age, Income and Education
Playing Habits
Average Spending
Discoverability

SUPERDATA

Table of Contents

52-54 | Real-Money Gambling Habits and Sentiments

Most-Popular Forms of Gambling
Discoverability
Potential Problem Gambling

56-61 | Gambling and Gambling-Style Game Overlap

Switching from Gambling to Gambling-Style Games
Switching from Gambling to Gambling-Style Games, by Age
Why Players Switch from Gambling to Gambling-Style Games
Switching from Gambling-Style Games to Gambling
Switching from Gambling-Style Games to Gambling, by Age
Why Players Switch from Gambling-Style Games to Gambling

Table of Contents

63-67 Definitions
Terminology
Game Platforms
Genres
Geographies

69-70 Everything Else
About SuperData
Contact

The **SuperData Arcade** is the world's most robust and only cross-platform business intelligence tool on the worldwide games market. Housing all of SuperData's gold-standard quantitative research on video games, the Arcade allows for insights ranging from high-level trends to granular data on over **500 games and 100 publishers**. The metrics contained here represent the largest and comprehensive view of the vast and growing digital games market.

The SuperData Arcade allows users to:

- **Gain a comprehensive overview** of the digital games market, across platforms, titles and markets.
- **Create custom queries and segmentation** across all data and export to .csv or PDF format for full analytical control and presentations.
- **Spot opportunities early** and find out when key competitors struggle to maintain conversion rates and average spending.
- **Automatically receive custom data pulls** by email as soon as updates are available.

To arrange a demo of the SuperData Arcade, contact Sam Barberie at sam@superdataresearch.com.

Executive Summary

- **Social casino games earned $27.0M in the Netherlands last year.** Social casino games strongly resemble real-world gambling, but almost never give users the chance to win prizes of real value.
- **Game companies are restricting players' ability to wager virtual items.** Publishers want to avoid accusations that they are enabling unregulated online gambling.
- **Digital Collectible Card Games grew to become a $1.27B industry in 2016.** This type of game relies on dedicated players who spend heavily to purchase packs of random cards.
- **Dutch social casino players are 38 years old on average.** Players in this group are three years older on average and have more spending power than players in the U.K.
- **Thirty-three percent (33%) of Dutch social casino players have gone from playing a social casino game to a real-money version of that game.** British social casino players are more likely to do the same (48%) due to greater accessibility to gambling.
- **Sixty-five percent (65%) of Dutch social casino players who gamble show some form of potentially problematic gambling behavior.** Dutch players exhibit this behavior at a similar level to their British counterparts (62%).

Methodology

IN THIS STUDY:

Data: 391,846,806 unique transactions and 2024 qualified survey respondents from the U.K. and Netherlands[1]

Time period: January 2012 to October 2016 (Data) November 2016 to December 2016 (Survey)

User base: 74,106,448 unique gamers

Every month we collect spending data on millions of unique online gamers directly from publishers and developers, totaling 50+ publishers and 450+ game titles.

We clean, aggregate and analyze these data to establish market benchmarks and models for all segments of digital games and interactive media.

We combine the digital point-of-sale data with qualitative consumer insights to speak to the "why" of the market.

Our research covers everything from worldwide genre benchmarks to title-level KPIs, country-level deep dives and brand equity.

For a more detailed overview and explanation of our methodology and data collection, please refer to our website: www.superdataresearch.com/methodology

[1]Survey respondents lived in the U.K. or the Netherlands, were age 13 and up, and played a social casino game in the past three months. Each country had 1012 survey respondents.

TAXONOMY OF DIGITAL GAMES WITH GAMBLING ELEMENTS

Game categories

Social casino categories:

- **Casino style:** Games that offer a virtual casino environment where a variety of gambling games are available including cards, slots and table games. Example: *DoubleDown Casino*.
- **Poker:** Card-based casino games, such as Texas Hold'em Poker, where the outcome is a combination of chance and player skill involving probability calculations and observance of patterns in other players' behavior. Example: *Zynga Poker*.
- **Slots:** Slot machine casino games where the outcome is based on chance. Example: *Slotomania*.
- **Other table games:** Baccarat, blackjack, hi-lo and various card games that can be wagered on but are generally played on a smaller scale than Poker style games.
- **Bingo:** Bingo casino games with a random automated caller where the outcome is based on chance. Example: *Bingo Bash*.

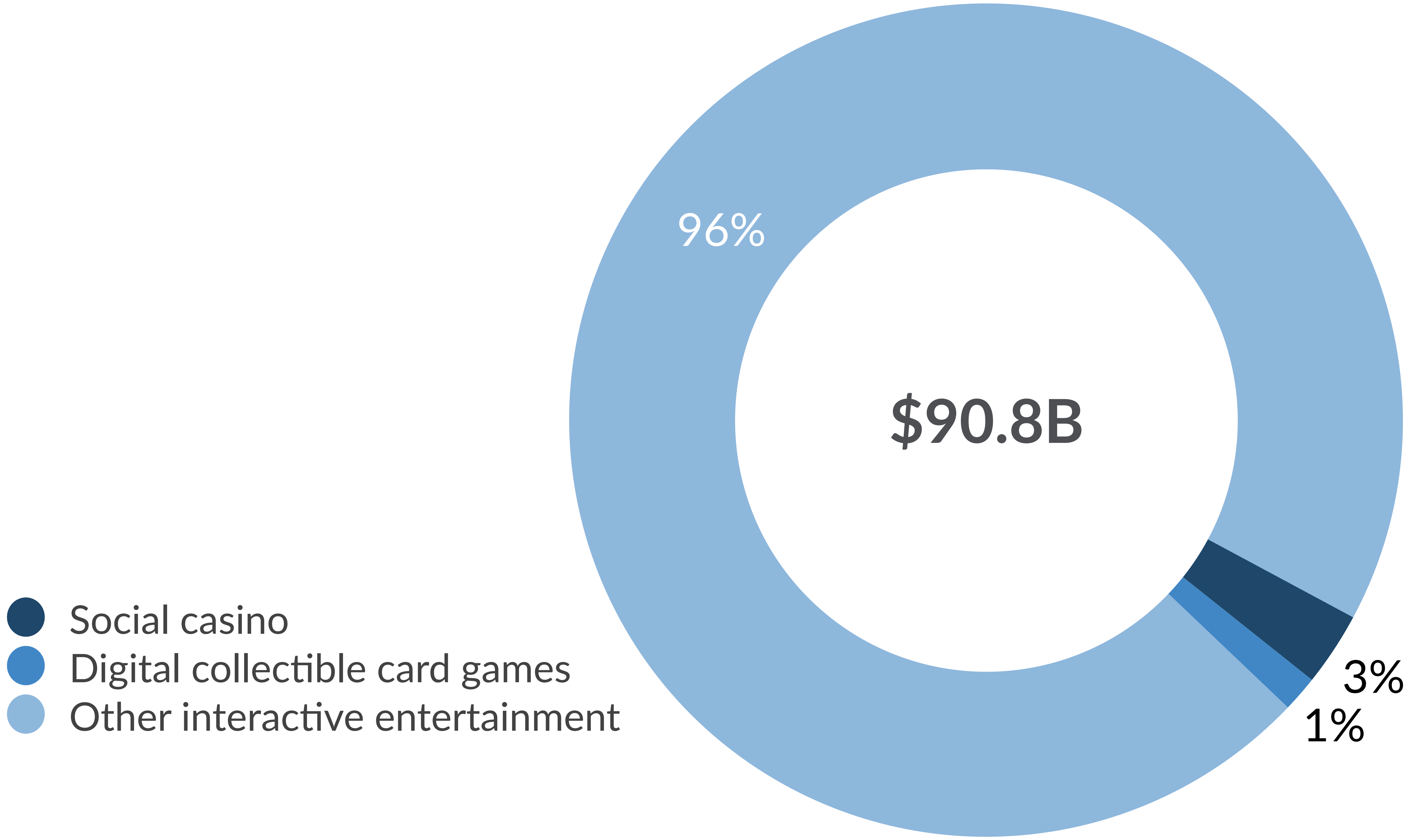
Game categories

Video game activities with gambling themes:

- **Fantasy sports:** Games where users assemble teams of players whose performance is based on their real-world counterparts. These can be played for free or for real-money prizes.
  - **Season-long fantasy sports:** Players manage a team over an entire season. Examples: Yahoo Fantasy Sports, ESPN Fantasy.
  - **Daily fantasy sports:** Fantasy sports competitions that take place over a short time period, usually a day or week. These have a greater focus on real-money winnings than season-long fantasy sports. Examples: FanDuel, DraftKings.
- **Online amateur eSports:** Websites that let players and game publishers organize online video game leagues and tournaments. Some events have a buy-in fee and award cash prizes. Examples: Battlefy, Faceit.
- **Digital collectible card games (CCGs):** Video games where cards are purchased in random packs. Gameplay success is determined by a combination of drawing good cards randomly and analytic skill in making multi-step strategic decisions. These are often based on real-world card games. Examples: *Hearthstone: Heroes of Warcraft*, *Magic – The Gathering Online*, *FIFA Ultimate Team*.
- **Wagering in-game items:** When players use virtual items (such as weapons, outfits and currency) to place bets. Users bet on things like eSports matches, as well as virtual lotteries and casino-style games. Some games and platforms let players convert these items into real money. Example: *Counter-Strike: Global Offensive* “skin betting” sites.

Digital interactive entertainment generated $90.8B in 2016

2016 digital interactive entertainment revenue[1]



Revenue from games with gambling-style elements makes up a minor share of the total digital entertainment market.

- Social casino games, digital collectible card games and amateur eSports together generated billions in revenue in 2016.
- The diversity of digital interactive entertainment means the market as a whole is far larger than gambling-style game revenue.

[1] Digital interactive entertainment encompasses SuperData's market estimates for digital video games, eSports, gaming video content (online videos about games on sites like YouTube), and virtual reality hardware and software. It does not include revenue from real-money gambling other than eSports betting. Other gambling-related games in this report are not included in this chart, as SuperData does not estimate revenue from fantasy sports or in-game item wagering. Amateur eSports revenue is not shown as its total revenue ($40.1M) is too low to display accurately on this chart.

Social casino games have the heaviest gambling themes of any digital game

Most titles in this genre aim to replicate the feel of a real-world casino.

Social casino games have the strongest gambling themes of game activities with gambling elements.

- Social casino players demand authenticity, with 54% of Dutch players enjoying playing social slots based on real-world machines.

Services that let players wager virtual items closely resemble real-world gambling.

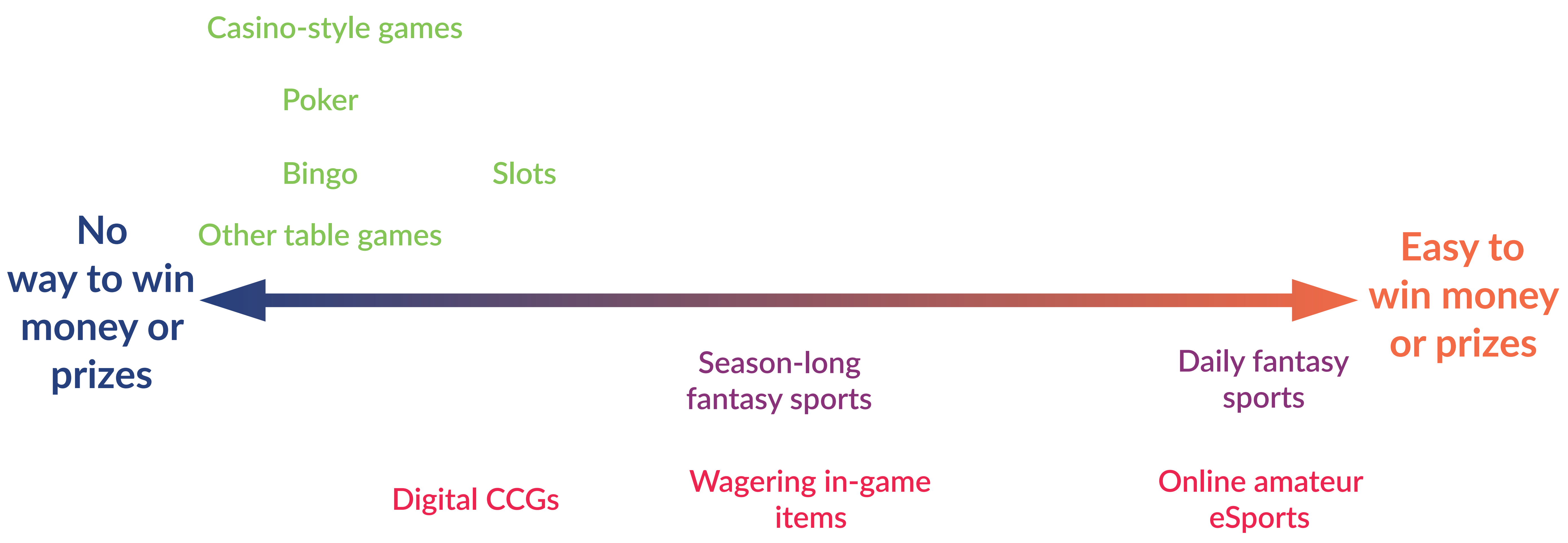
- Many sites in this segment essentially replace casino chips with virtual items, this attracts young players, prompting a crackdown from game makers and government authorities.
- In particular, game publisher Valve has come under scrutiny for maintaining an open API that allows players to trade and gamble in-game assets on third party sites.
- In 2016, Washington State's Gambling Commission issued a cease and desist letter to the company, which Valve is disputing.

[1]Determined by SuperData's in-house metrics and qualitative research. | This slide has been updated from an earlier version. "Daily fantasy sports" have been moved closer to the "No gambling themes" side of the spectrum.

Real-world prizes are rarely part of social casino games

To avoid regulatory issues, publishers keep their social apps and real-money games separate.

Possibility of winning real prizes[1]
Social casino vs. Fantasy sports vs. Other



Only a handful of social casino games offer prizes with real value.

- Games like *myVegas Slots*, *myVegas Blackjack*, *Konami Slots and POP! Slots* (all by PlayStudios) let players earn rewards like free meals and discounted hotel stays in select land-based casinos.

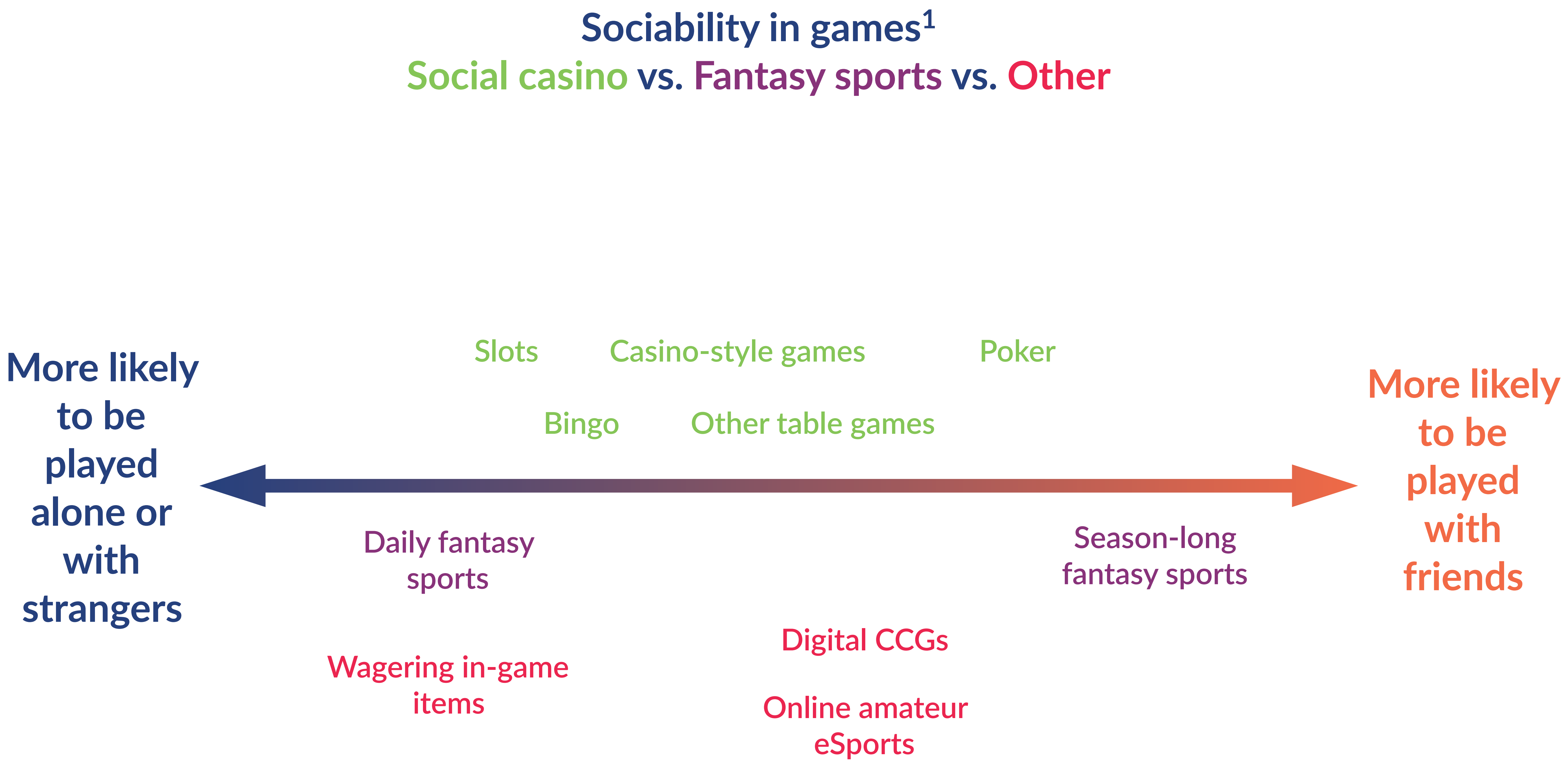
Real-money winnings are the main appeal of daily fantasy sports.

- Daily fantasy sports companies advertise their products as a way to win cash.
- These games are especially popular in the U.S. since sports betting is illegal in most of the country.

[1]Determined by SuperData's in-house metrics and qualitative research.

SUPERDATA

Not all social casino games encourage actual social interactions



Poker is the most "social" type of social casino game.

- Social poker attracts players who want to spend time with others in a virtual space.
- Other game types like bingo and slots are a more solitary activity.

Fantasy sports have become more solitary with the rise of daily fantasy contests.

- Groups of friends and coworkers have long played season-long fantasy contests together.
- Because daily fantasy sports encourage players to play frequently, users are more likely to play against strangers so they can fit the games into their schedule.

[1]Determined by consumer surveys on playing habits combined with qualitative insights on the gameplay mechanics of each game type.

Most types of gambling-style games appear in mobile apps

Both Apple and Google allow apps with real-money prizes on their digital storefronts.

Game type	Mobile apps	PC/Mac apps	Console games	Facebook	Other websites
Social casino (all types)	●			●	●
Fantasy sports (all types)	●				●
Online amateur eSports	●	●	●		●
Digital CCGs	●	●	●		●
Wagering in-game items					●

Mobile apps and standalone websites have the largest variety of gambling-style games.[1]

- Due to legal issues and conflicts with developers' terms of service, virtual item wagering platforms are the only type of gambling-style game with no major mobile apps.

[1]Due to legal restrictions, real-money gambling apps are not available in the Netherlands.

Games with gambling elements monetize with direct payments from players

One-time payments for virtual currency and tournament entry fees win out over subscription-based monetization.

- The rise of free-to-play titles means game players are now most comfortable making one-off payments instead of paying for recurring subscriptions.

Game type	Advertising	Direct revenue from consumers	Other revenue sources
Social casino (all types)	• In-app ads (10%)[1]	• Sales of virtual casino chips to players (85%)	• Revenue from building white-label social casino apps for other companies (5%)
Season-long fantasy sports	• In-app/website ads (20%)	• Entry fees users pay to enter contests (70%) • Paid features like better league management tools (10%)	
Daily fantasy sports		• Entry fees users pay to enter contests (100%)	
Online amateur eSports		• Entry fees users pay to enter contests (80%)	• Payments from game publishers who use the platforms to organize leagues (20%)
Digital CCGs		• Sales of virtual cards to players (95%) • The sale of other in-game items like new characters. (5%)	
Wagering in-game items	• Website ads (30%)		• A cut of the virtual items wagered online (70%)

[1] Percentages are qualitative estimates of what share of earnings each revenue source generates.

Drivers of growth are highly distinct for each type of gambling-style game.

Game type	Growth drivers	Barriers to growth
Social casino (all types)	• Mobile social casino revenues continue to grow as existing players spend more. • Midsize land-based casinos are launching social casino apps to engage existing customers off of the gambling floor.	• More casual players are leaving the space, so companies rely on a smaller audience of higher-spending players. • Revenue for desktop social casino games (i.e., games played on Facebook) is falling as players abandon Facebook games in favor of casual mobile games.
Season-long fantasy sports	• TV broadcasters and sports leagues continue to promote fantasy sports as a way to increase engagement.	• Since season-long online fantasy sports have existed for roughly two decades, there is little innovation in the space. • Virtually all potential fantasy sports players have already joined the market.
Daily fantasy sports	• Sports betting is illegal in most of the U.S., so these games offer a rare way for Americans to win real money based on the outcome of sports competitions.	• After a series of scandals (where employees of one company used internal statistical data to win contests on competing sites), U.S. lawmakers began to more explicitly regulate the industry. • Increased regulatory costs make it difficult for new companies to enter the market.
Online amateur eSports	• Game developers are encouraging amateur tournament systems to appeal to dedicated players. • The growth of professional eSports results in better awareness of amateur eSports.	• The wide variety of amateur leagues available makes it difficult for potential players to learn which amateur league they should join.
Digital CCGs	• Players are growing more comfortable spending real money on digital cards; average monthly spending will rise from $30.99 in 2016 to $32.75 by 2020E.[1] • Digital CCGs are relatively affordable to create compared to some game types like Shooters; developers are able to continually release new titles into the market.	• CCG players usually invest their time in just one or two games; this makes them less likely to try out new titles. • Titles have a difficult time attracting new players unless they feature characters from entertainment brands like movies, comic books and other video games.
Wagering in-game items	• As graphical fidelity increases, there are more opportunities for visually interesting (and valuable) in-game items	• Authorities around the world are cracking down on certain types of in-game item betting, arguing it amounts to unregulated (and underage) online gambling. • To avoid controversy, game developers are now actively preventing players from trading or betting in-game items.

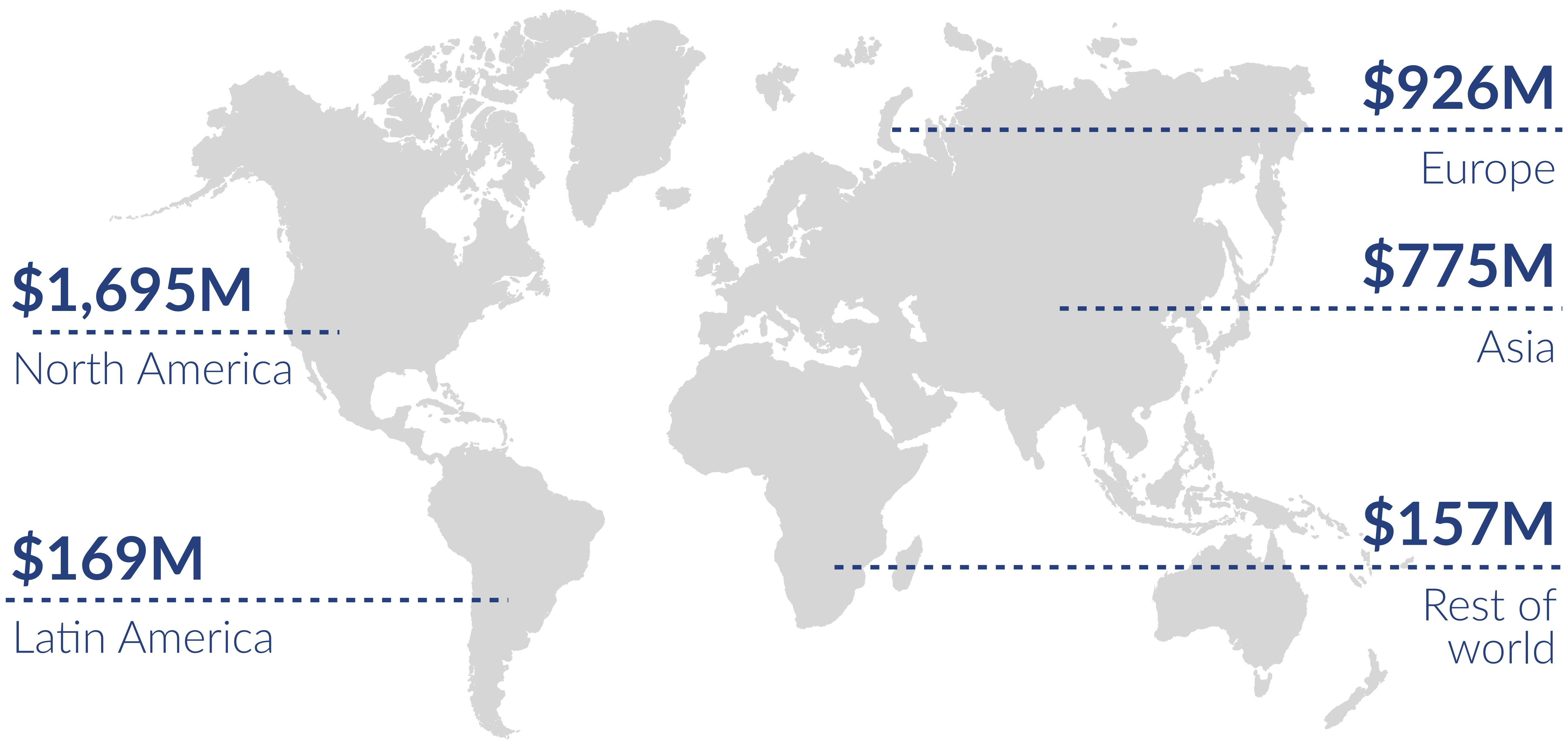
[1]Determined by SuperData's in-house metrics, which incorporate transactional and user data from SuperData's data-sharing partners.

MARKET OVERVIEW: SOCIAL CASINO

Social casino games earned a total of $2.6B in 2016

2016 marked the first year that social casino games earned more on mobile than on desktop websites like Facebook.

Social casino revenues by region, 2016[1]



Global social casino revenues and audience, 2016[2]

Mobile: $1.43B

Desktop: $1.36B

Audience: 151M[3]

North America earns 61% percent of global social casino revenue.

- Since the U.S. lacks widespread legal gambling, players turn to social casino titles to conveniently experience casino gameplay.

Desktop social casino revenue will peak at $1.36B in 2016.

- Social casino games are more resilient than other types of casual desktop social games.
- Other types of desktop social games have declined in recent years as players moved over to mobile games.

[1]Determined by SuperData's in-house metrics, which incorporate transactional and user data from SuperData's data-sharing partners. | [2]SuperData does not include Asia in our global social casino market size estimates, as most Western publishers have negligible market shares in Asia. Asian social casino tastes are often highly localized and popular social casino games in the region do not resemble those found in Europe and North America. | [3]Audience reflects November 2016 Monthly Active Users (MAU). See Terminology section for details.

Social casino earned $229M in the U.K. & $27M in the Netherlands in 2016

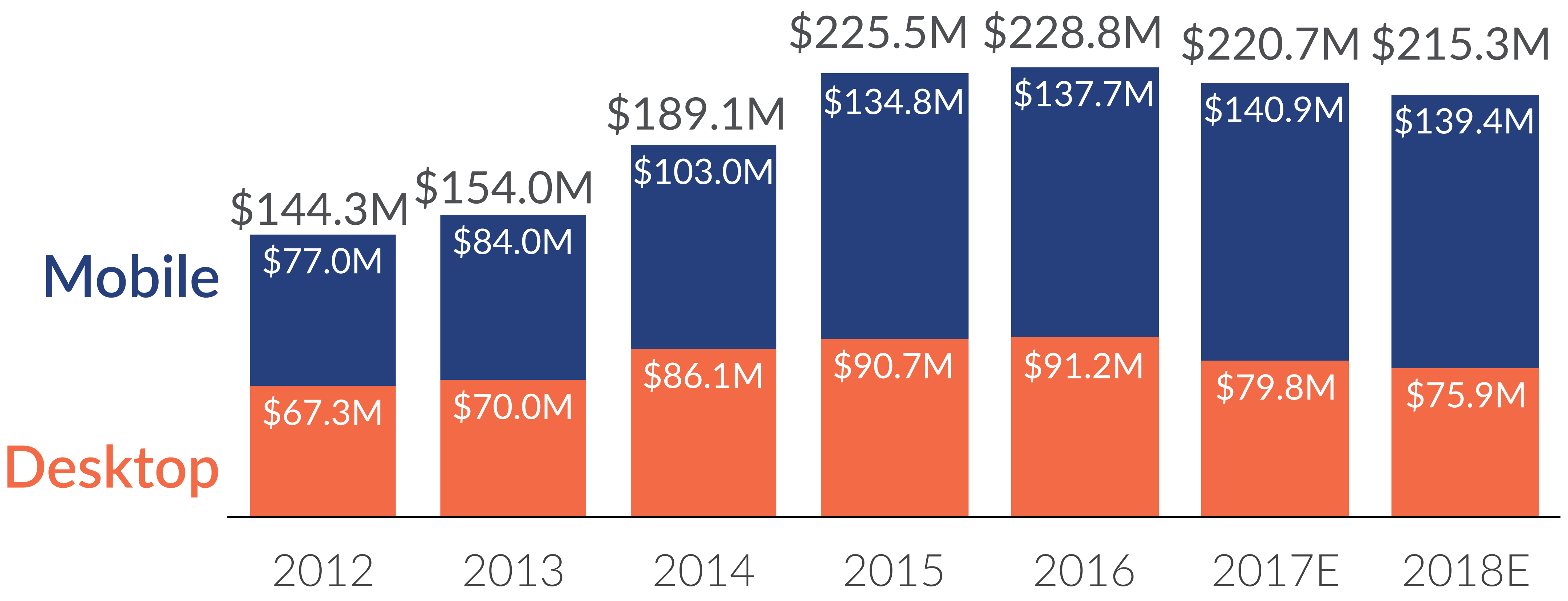
Mobile's share of social casino revenue in 2016 was 60% in the Netherlands and the U.K.

- Mobile has already overtaken desktop social casino earnings in both countries, and mobile's market share will grow in the U.K. as players shift away from desktop and move toward mobile social casino games. In the Netherlands, mobile's market share will stay flat since the country's social casino player base is slightly older than in the U.K., and older players prefer large-screen desktop computers.

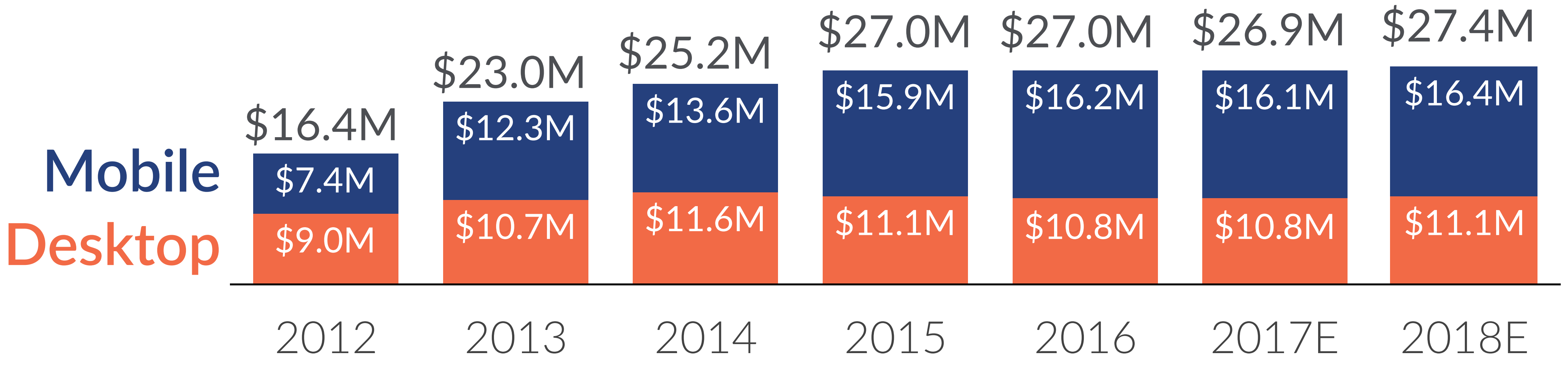
The U.K. social casino market is currently worth roughly eight times the Netherlands social casino market.[1]

- Social casino revenue is far larger in the U.K. due to the larger audience of social casino players in 2016 (11.9M vs. 4.1M).
  - U.K. 2016 social casino desktop user numbers and average revenue per user (ARPU) were 6.5M and $14.03; mobile MAU and average revenue per user were 5.4M and $25.66.
  - Netherlands 2016 social casino desktop MAU and ARPU were 2.7M and $3.99; mobile MAU and ARPU were 1.4M and $11.22.

U.K. social casino revenue[1]



Netherlands social casino revenue[1]



[1]All figures determined by SuperData's in-house metrics.

Social casino is now an essential part of gambling businesses' portfolios

Having a social casino subsidiary lets gambling businesses increase engagement with current customers and reach others who would not otherwise be able to gamble due to factors like geography.

- Social casino games are usually not subject to the same strict regulations as real-world gambling. Governments have largely confirmed this, so publishers do not risk uncertainty when entering the social casino space.

Company	Relevant games	Key figures[1]	Details
Playtika	• *Slotomania, Caesars Casino, World Series of Poker*	• Playtika regularly earns over $60M monthly and makes over a quarter of all social casino revenue. • *Slotomania* earned $32.7M in October 2016, making it the world's top social casino game.	• Based in Israel, Playtika was formerly a subsidiary of land-based gambling giant Caesars Entertainment. • To pay off debt, Caesars is currently in the process of selling Playtika to a consortium of Chinese investors for $4.4B. • The publisher will continue to license the names of Caesars-owned gambling brands like *Caesars Casino* and *World Series of Poker*.
zynga	• *Zynga Poker, Hit it Rich! Slots, Wizard of Oz Slots*	• Zynga social casino games earned a total of $25.8M in October 2016, making it the number-two social casino publisher in the world. • Forty-eight percent (48%) of Zynga's Q3 2016 earnings of $147M came from social casino games.	• The San Francisco-based social game maker Zynga has shifted its company strategy to focus primarily on social casino. • Zynga's social casino offerings range from the long-running *Zynga Poker* to a library of slots games that prominently feature brands like movies. • The company has slots games based on classic films like *The Wizard of Oz, Willy Wonka*, and *The Princess Bride*.
Big Fish Games	• *Big Fish Casino, Jackpot City, Vegas Party Slots*	• *Big Fish Casino*, the company's flagship title, made $12.6M in October 2016 with an audience of 6.7M monthly active users. • In late 2015, horse racetrack and casino operator Churchill Downs purchased Big Fish games for $885M in cash and stock.	• Churchill Downs purchased Big Fish both for the growth opportunities in social casino and also because Big Fish offered valuable technological expertise that Churchill Downs has used to enhance services like on-site wagering software.

[1]Determined by SuperData's in-house metrics and company financial reports.

Real-money gambling companies own four out of 10 top publishers

All top social casino game publishers have titles available in the Netherlands.

Social casino revenue rankings are top heavy: the five biggest publishers earn roughly three times as much ($157.1M) as the next five ($51.6M).

- Playtika and Zynga operate a similar number of titles (17 versus 15, respectively), but the former earns significantly more social casino revenue largely due to hit title *Slotomania*.

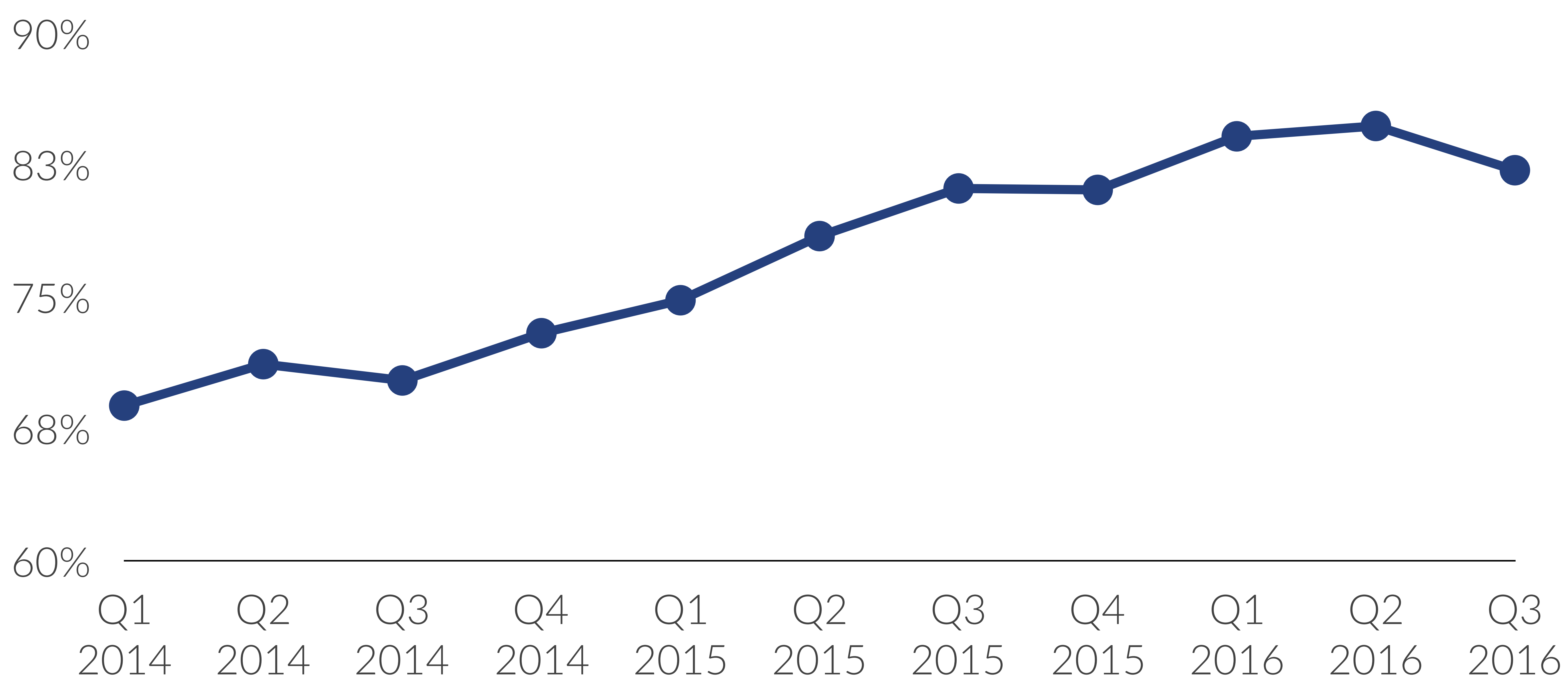
Ranking	Company	October 2016 Revenue	Market Share	Owned by gambling business	Parent company real-money gambling revenue[2]	Availability of titles in Netherlands
1	Playtika	$69,694,985	28%	No		Yes
2	Zynga	$25,854,467	10%	No		Yes
3	Double Down Interactive/IGT	$21,592,750	9%	Yes	$886M (Q3 2016)	Yes
4	Scientific Games	$21,106,698	8%	Yes	$632M (Q3 2016)	Yes
5	Product Madness/ Aristocrat	$18,814,344	8%	Yes	$886M (Apr 1 to Sept 30 2016)	Yes
6	Churchill Downs	$13,598,572	5%	Yes	$176M (Q3 2016)	Yes
7	GSN/Sony	$11,956,534	5%	No		Yes
8	DoubleU Casino Games	$11,940,012	5%	No		Yes
9	PlayStudios	$7,856,666	3%	No		Yes
10	Murka	$6,208,394	3%	No		Yes

[1]Determined by SuperData's in-house metrics and company financial reports. | [2]Earnings include all revenue related to real-money gambling (e.g., lotteries, slot machine sales, direct casino revenue, licensed real-money gambling products). Figures are based on the most recently-available public earnings reports.

The top 10 social casino publishers earned 82% of revenue in Q3 2016

The biggest publishers benefit from brand recognition and the ability to spend on user acquisition.

Market share of top 10 social casino publishers[1]



Since Q1 2014, the market share of the top 10 publishers rose by 13 percentage points.

- The social casino market is not seeing large influxes of new users. Large publishers, especially those with ties to real-money gambling businesses, benefit from greater brand recognition among the most dedicated players.
- As overall mobile user acquisition costs rise, the biggest social casino publishers can afford to outspend their smaller rivals.

[1]Determined by SuperData's in-house metrics.

SUPERDATA

MARKET OVERVIEW: FANTASY SPORTS

The fantasy sports industry in Europe continues to lag behind the U.S.

The appeal of fantasy sports in Europe is limited due to the widespread availability of sports betting.

- In the U.S., fantasy sports, (and especially daily fantasy sports) provide a rare legal[1] way for fans to wager money on the results of competitions.
- American sports like baseball and American football are best suited to fantasy sports, since athlete statistics are generally more straightforward and quantifiable than in soccer.

Company	Sports offerings	Key figures	Details
DraftKings	• *NFL, NBA, MLB, Golf, NHL, Football, NAS, CFL, MMA, eSports*	• DraftKings has a player base of 300K as of June 2016. (Jun 2016)	• DraftKings and rival FanDuel had planned to merge since both companies were spending hundreds of millions of dollars advertising against each other on TV. However, both companies decided to call off the merger after pressure from U.S. antitrust regulators. • DraftKings acquired the player database of TransferKings, a U.K.-based free-to-play DFS site, in June 2016.
Premier League / EA Sports Lead Partner (Fantasy Premier League)	• *Football*	• The Fantasy Premier League is the largest fantasy sports user base in Europe and has over 4.0M users worldwide.	• The Fantasy Premier League is headquartered in London and provides official fantasy leagues based on the English Premiere League. • *FIFA* video game publisher EA Sports is a lead partner of the Premier League (PL). EA sponsors the Premier League's Fantasy Sports League and awards weekly, monthly, and season-long prizes to users.
Mondo Goal	• *Football*	• Mondo Goal has awarded over £2 million in cash prizes over the company's lifetime, • It has fantasy leagues based on 18 football leagues and has partnerships with 9 top football clubs in Europe.	• Based on the Isle of Man, Mondo Goal is a European daily fantasy sports site that exclusively focuses on football. Offers DFS for 18 different leagues and competitions. • It recently partnered with Yahoo and two Italian betting sites to help stimulate growth by reaching new audiences.

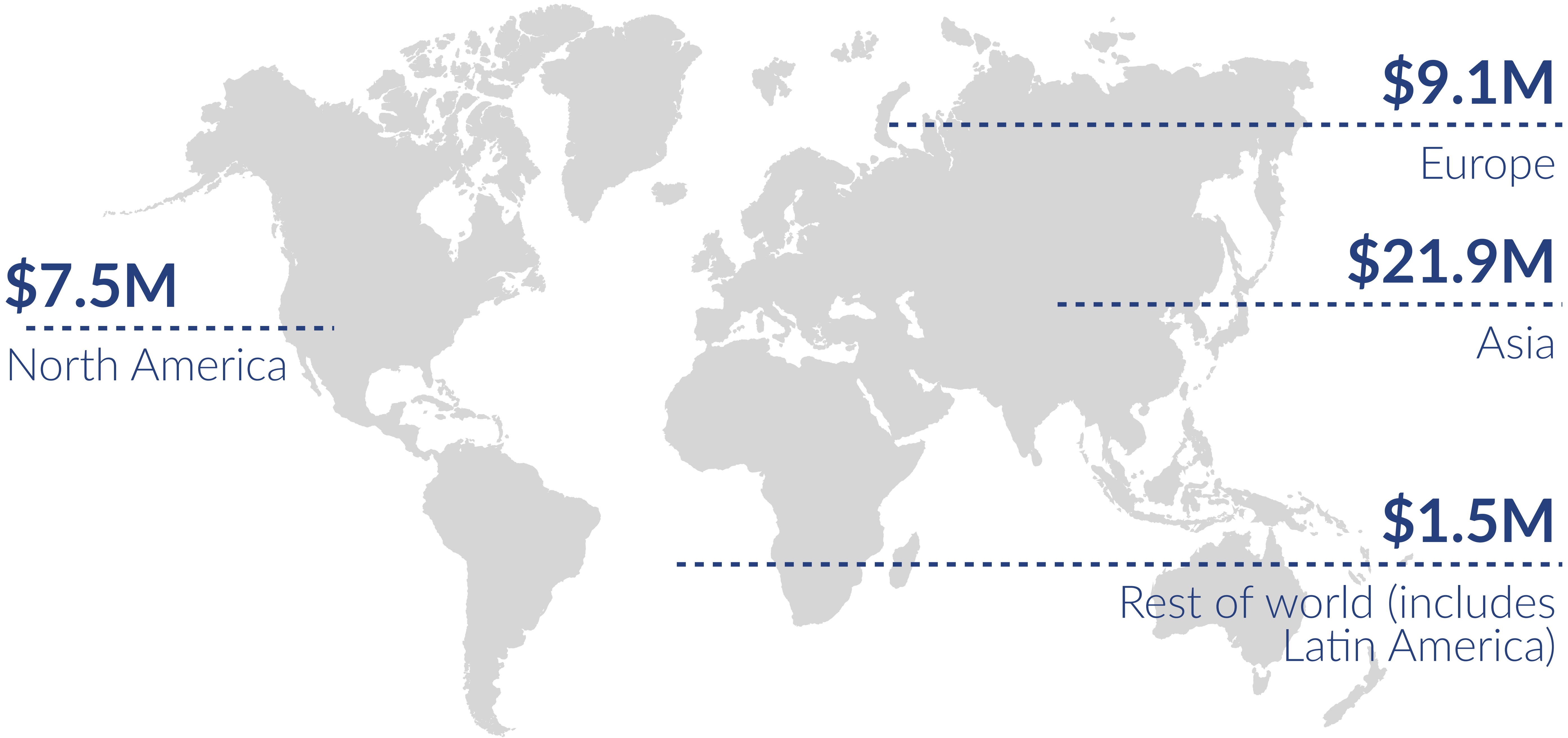
[1]Real-money fantasy sports are not legal in all U.S. states. | This slide has been updated from an earlier version. Details about DraftKings have been updated to reflect that the company is no longer merging with FanDuel and that the company acquired the player database of TransferKings, not the entire platform. The explanation of fantasy soccer's potential barriers to growth has been updated.

MARKET OVERVIEW: AMATEUR ESPORTS

Amateur eSports earned $40.1M last year

While this industry only earned 4% of global eSports revenue in 2016, its earnings will roughly double to $77.7M by 2020E.

Amateur eSports revenues by region, 2016[1]



Global amateur eSport revenues, 2016

$40.1M

Amateur eSports will experience consistent revenue growth as existing players grow more willing to pay to participate in high-level competitions.

- European amateur eSports will grow to $15.2M by 2020E, slower than the global average.
- Europe's eSports industry is well-developed, so there is less room for growth than in regions like Asia.

[1]Determined by SuperData's in-house metrics.

Modern eSports platforms do not limit real-money competition to pro players

Amateur eSports platforms let any player participate in free and paid tournaments to experience high-level competition.

- Similar to traditional sports, eSports titles have amateur leagues where people compete and train in their favorite games. Unlike traditional sports however, even amateur players have the opportunity to play with pros around the world in these leagues.

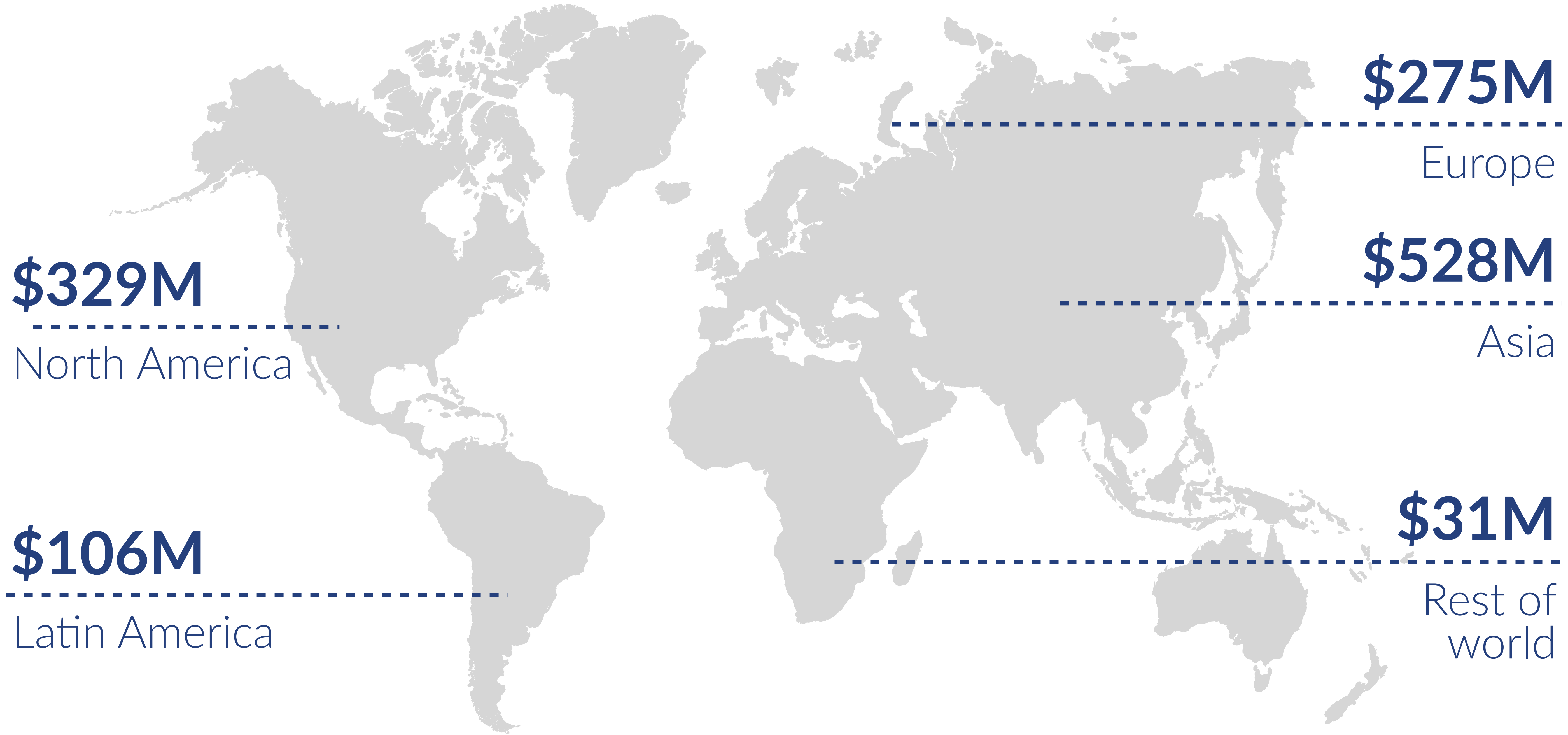
Company	Relevant games	Key figures	Details
FACEIT CHALLENGE YOUR GAME	• *Counter-Strike: Global Offensive, Dota 2, World of Tanks*	• Faceit has garnered $17M in seed and series A investments. • With 4M active members and 2K tournaments a month, Faceit is one of the biggest amateur eSports hubs.	• Amateur players battle for points in tournaments and leagues. These points can be redeemed for prizes like in-game items and gaming peripherals (such as mice). • Faceit is headquartered in London but organizes pro and amateur tournaments worldwide.
ESL	• *Counter-Strike: Global Offensive, League of Legends, Forza Motorsport 6*	• Swedish media firm MTG paid $87M for a controlling share in ESL's parent company in July 2015. • ESL has offices around the world and has over 300 employees.	• ESL is most recognized eSports brand in the world. The company is best known for producing live eSports events and has partnered with companies such as Adidas, Microsoft, and Sony. • The company has an amateur platform on its site. Premium tournaments are accessible for a €3.00 a month subscription where players can compete for cash prizes.
CEVO	• *Counter-Strike: Global Offensive (CS:GO)*	• CEVO has 425K total registered players, and over half a million *Counter-Strike* matches have been played on the platform.	• One of the most respected names in amateur *CS:GO*. CEVO is a match making client that provides players with advanced statistics, better servers, exclusive CEVO tournaments and a cheat free environment at a monthly cost of $4.00 a month. • Players can buy into high-skill tournaments and play for cash prize pools of up to $100K.

MARKET OVERVIEW: COLLECTIBLE CARD GAMES

Digital CCGs earned a total of $1.27B in 2016

Despite a relatively limited global audience of 39.6M, digital CCGs are high earners due to heavy average spending.

Digital CCG revenues by region, 2016[1]



Global digital CCG revenues and audience, 2016

$1.27B

Audience: 39.7M[2]

North America and Asia are the dominant regions for digital CCGs, earning 26% and 42% of global revenue, respectively.

- In Asia (particularly Japan), CCGs like have long been top-earning mobile games.
- Modern physical CCGs originated in North America in the 1990s with the release of *Magic: The Gathering*. Their digital counterparts have built on the popularity of physical card games in the region.

[1]Determined by SuperData's in-house metrics. | [2]Audience reflects 2016 Monthly Active Users (MAU). See Terminology section for details.

SUPERDATA

Blizzard's *Hearthstone* earned roughly a fifth of all digital CCG revenue in 2016

The dominant game has transformed the digital CCG industry as other publishers try to compete.

While most digital CCGs require skill to win matches, high-level players need to spend to purchase packs of random in-game cards if they want to be competitive.

- Digital CCGs are usually based on entertainment properties. This gives players an extra incentive to spend so they can earn cards based on recognizable characters.

Title	Publisher	Key figures	Description
Hearthstone: Heroes of Warcraft	• Activision Blizzard	• *Hearthstone* has earned $282M in revenue from January to September 2016 and is the world's top digital CCG.	• *Hearthstone* is based on the long-running *Warcraft* franchise and gives players a way to collect their favorite characters and battle with them in custom decks to achieve victory. • The game's success has caused other publishers to enter the digital CCG market in an attempt to replicate *Hearthstone*'s success.
FIFA 17 Ultimate Team	• Electronic Arts	• *FIFA 17 Ultimate Team* made $34.6M in revenue in September and October 2016 after *FIFA 17's* September 2016 launch.	• FIFA Ultimate Team[1] is a card-based system that ties into the actual play of a soccer match in the *FIFA* video games. • Players pursue the top athlete cards to create the best team and then compete in matches. • Users can buy, sell, and trade athletes much like a real soccer GM, and players stats are always changing based on real-life performance.
Magic Duels	• Wizards of the Coast	• *Magic Duels* earned $6.5M in revenue from January to September 2016.	• *Magic Duels* is a casual and more accessible version of the physical card game *Magic: The Gathering*. • Wizards of the Coast made several changes to previous digital versions of *Magic* after the success of *Hearthstone*. For example, *Magic Duels* is a persistent title and will not be replaced by a different game in the near future. Players value being able to build up card collections.

[1]Because *FIFA Ultimate Team* is a mode within a separate, non-CCG game, SuperData does not count the title in its estimate of the total digital CCG market.

MARKET OVERVIEW: VIRTUAL ITEM WAGERING

Legal actions in 2016 have dramatically changed virtual item wagering

Opportunities for virtual good betting have shrunk and developers actively avoid the practice.

Virtual goods wagering takes on different forms, such as in-game currency betting and skin betting[1] on events.

- In 2016, the title that popularized skin betting, *Counter-Strike: Global Offensive*, limited the practice after developer Valve faced legal pressure. Some skin betting sites continue to operate and allow users outside the U.S. to access their services.

Company	Relevant games	Key figures	Description
CSGO lounge.com	• *Counter-Strike: Global Offensive, Dota 2*	• This website averaged over 30M views per month before Valve prohibited skin betting. It now averages 13.0M visits per month.	• CSGO Lounge was the most recognizable name in skin betting before Valve shut down the practice. They now focuses on letting players trade skins. • The site now allows betting of a site-specific virtual currency. This can be spent to promote users' skin trade listings on the site.
(Big Boi Bets)	• *RuneScape*[2]	• The site averages around 40K visits per month and over 5.0M hands of poker played have been played.	• Big Boi Bets provides players of *RuneScape* (a popular Massively Multiplayer Online Role-playing game) with a way to gamble their in-game currency on games of virtual poker. • Players can theoretically turn their winnings into real money by taking their won in-game currency and then selling it on a third-party site.
CSGOFAST.COM	• *Counter-Strike: Global Offensive*	• CSGO Fast average 3.5M monthly web visits from August to October 2016, after Valve had already cracked down on skin betting.	• This is the biggest operational site that currently offers skin betting after the shutdown of the other major sites. • Players can bet skins on game types like roulette. • They can also buy currency site-specific currency, or exchange skins for currency. This currency can be gambled with and used to purchase skins.

[1]Skin betting is where players gamble in-game cosmetic items (skins) on matches or other popular games of chance. These skins have real world value (some skins are valued in the thousands) based on rarity and demand. Skins are easier for players to bet because players sometimes receive free skins during regular gameplay. | [2]The developer (Jagex) has banned in-game gambling in their Terms of Service, but there is nothing against using third party websites to gamble their currency.

Publishers are now avoiding all possibilities of gambling in-game

Valve's court appearance has set a precedent, and no other company wants to be next.

In May of 2012 Valve released skins for *Dota* 2, and in August 2013 Valve released *CS:GO* skins.

CS:GO Lounge and Dota 2 Lounge gained significant traction from users. These sites facilitated trading skins but were the main hubs for gambling skins on eSports matches.

A U.S. court order issued against Valve on October 4, 2016, alleged involvement in the benefit of illegal third-party skin gambling. Valve immediately removed the option for players to access skins remotely in the U.S.

The fallout from this has left many companies taking measures to protect themselves from accusations that they are enabling unregulated online gambling.

***Rocket League* creator Psyonix has opted to not to let their in-game items be sellable for real money.**

- Psyonix cited third-party gambling sites as the reason for limiting how in-game *Rocket League* items can be transferred.

***EVE Online's* gambling ring, "I Want ISK," has been phased out by publisher CCP.**

- The *EVE* Terms of Service were updated in fall 2016 to prohibit the gambling of in-game currency. The publisher recently confiscated the in-game assets of all players involved in virtual item wagering.

Activision Blizzard has taken a controlled approach to cosmetic rewards in *Overwatch*.

- Players can purchase loot boxes containing a random assortment of cosmetic items. However, they are unable to resell or trade them.

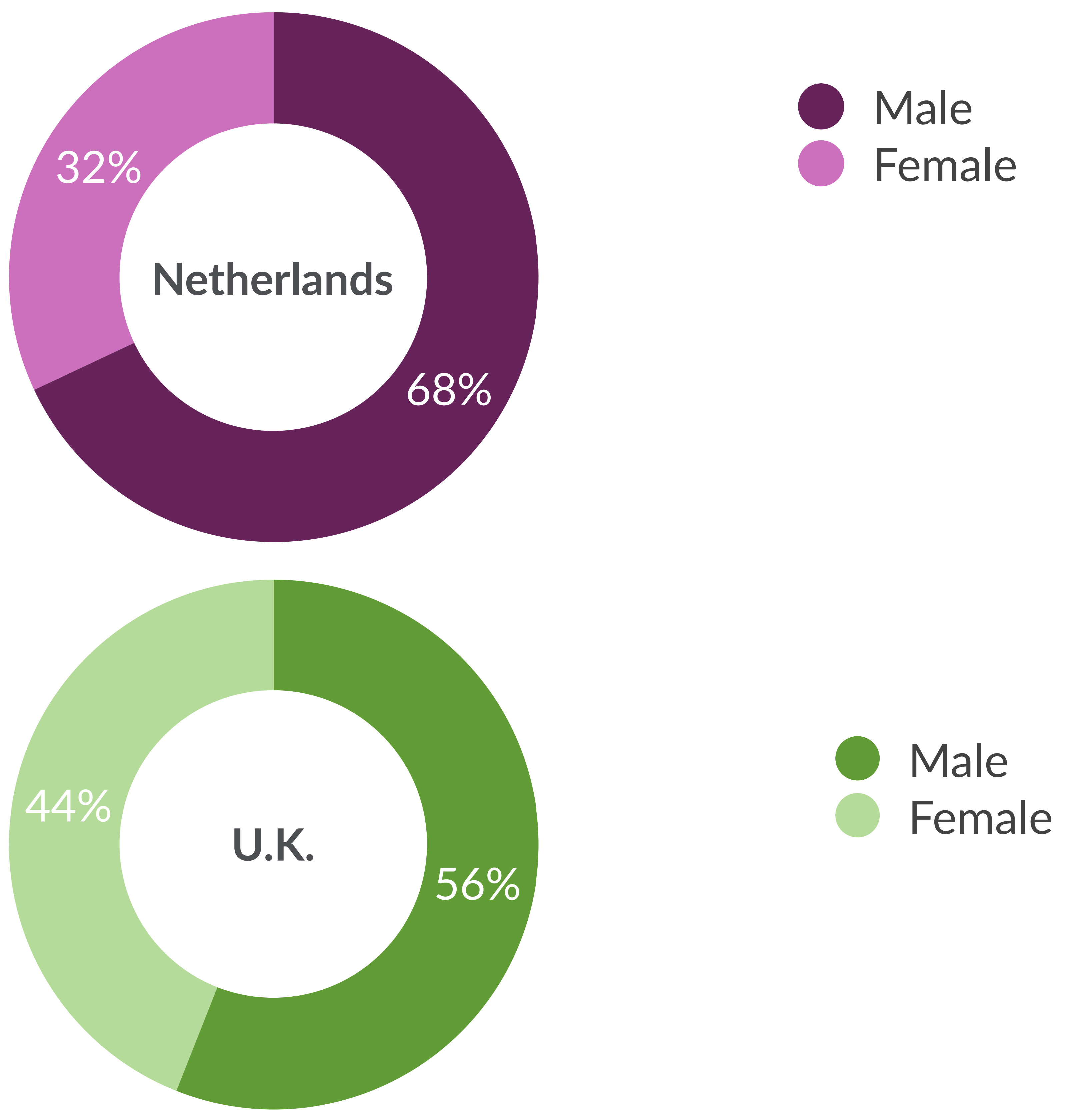
SOCIAL CASINO DEMOGRAPHICS

Sixty-eight percent (68%) of Netherlands social casino players are male

Social casino players in both the U.K. and Netherlands are predominantly male .

- European markets stands apart from the U.S., which has a mostly female social casino audience.

Social casino player gender[1]



[1]SuperData Survey Question: Which of the following best describes you?

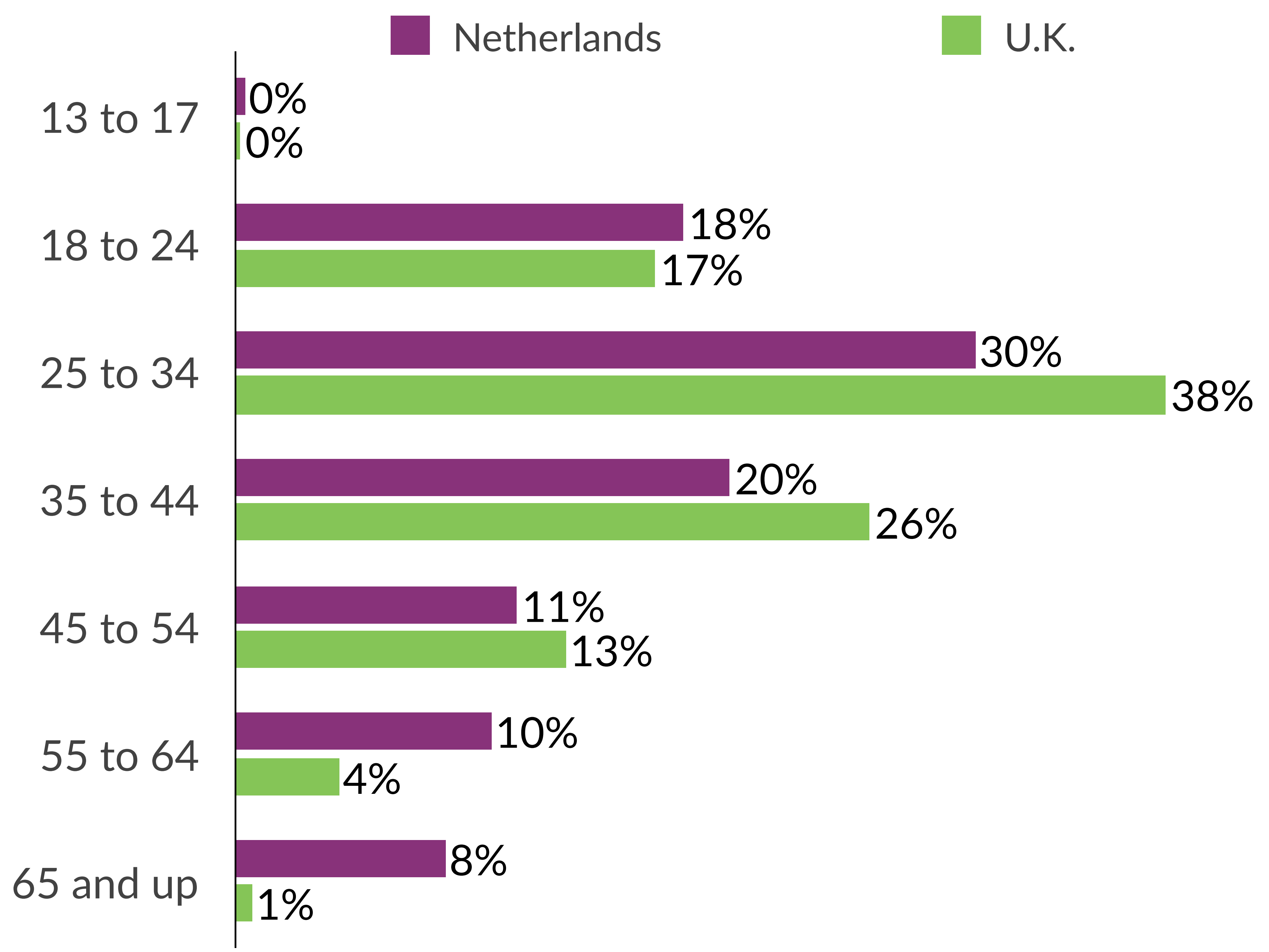
SUPERDATA

Dutch social casino players are 38 years old on average

Dutch social casino players are three years older on average than their U.K. counterparts (38 versus 35).

- Eighteen percent (18%) of Dutch players are 55 and up.
- In the U.K. social casino games have less appeal to older players, and only 5% of British players fall within the 55 and up age bracket.

Social casino player age[1]



[1]SuperData Survey Question: How old are you?

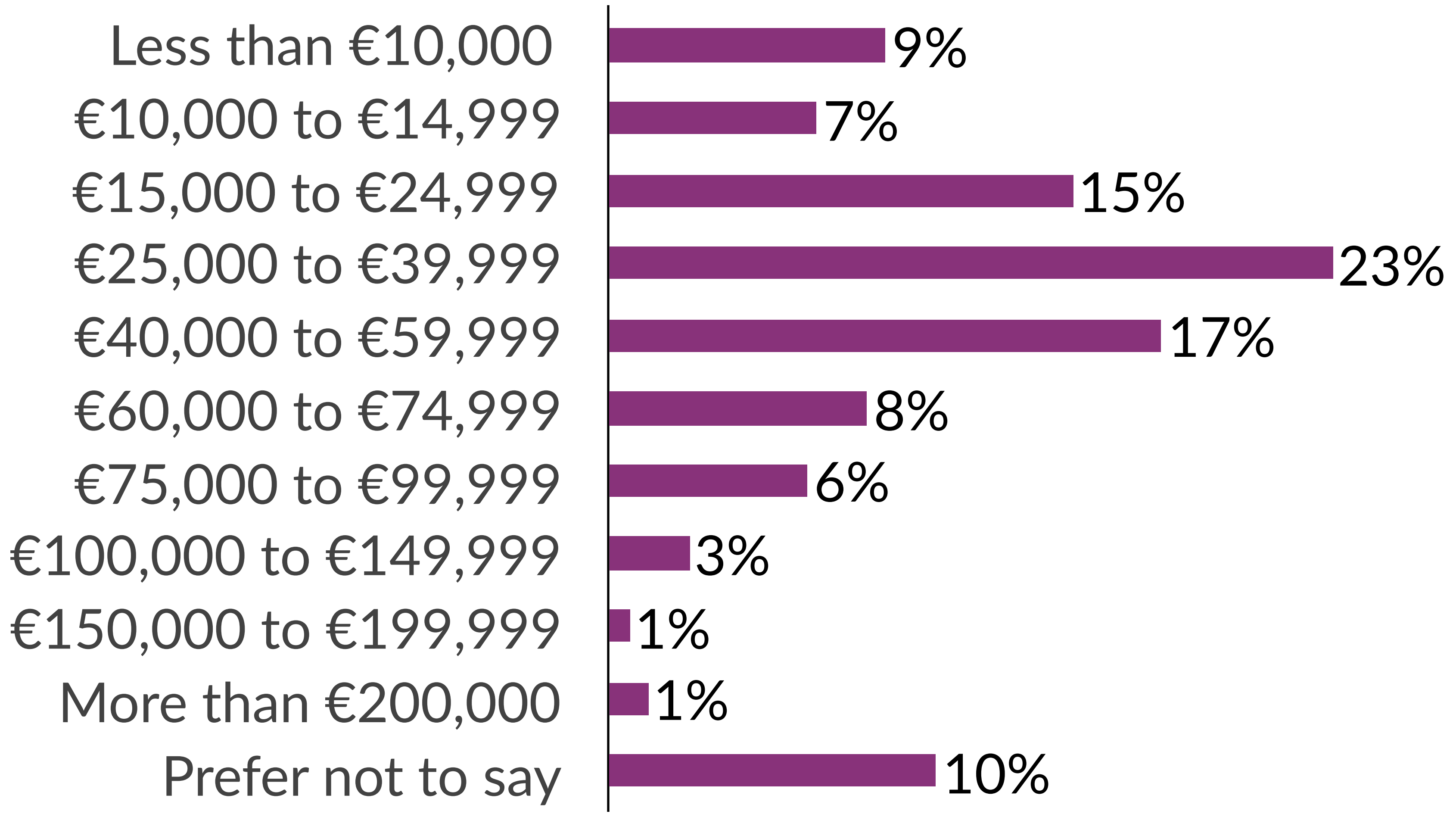
SUPERDATA

Netherlands players make roughly €6K more annually than those in the U.K.

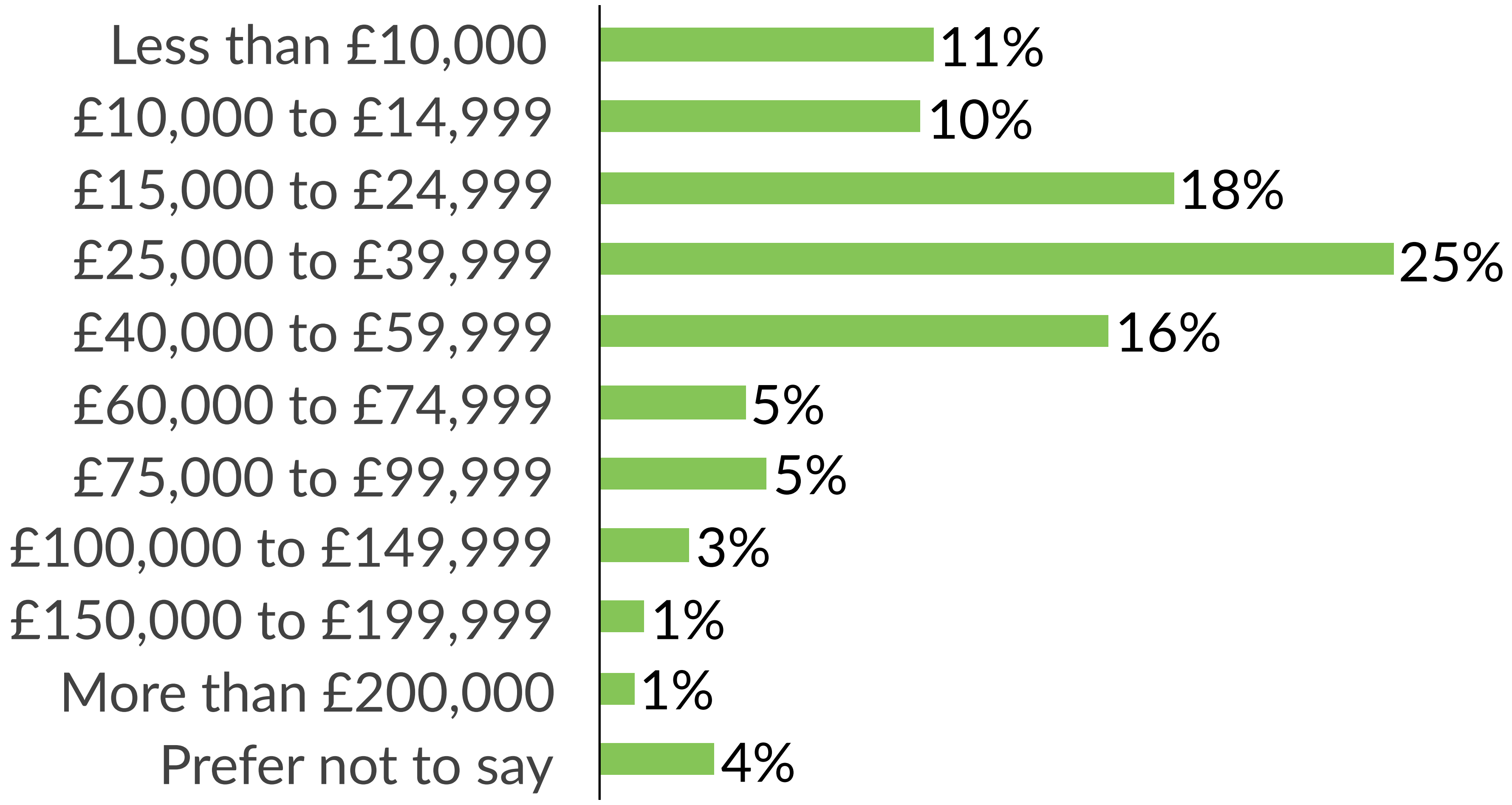
Social casino players in the Netherlands have an average annual income of €41K compared to €35K in the U.K.

- Players in the Netherlands are further along in their careers, which contributes to them having a higher average income than their U.K. counterparts.

Netherlands social casino player income[1]



U.K. social casino player income[2]



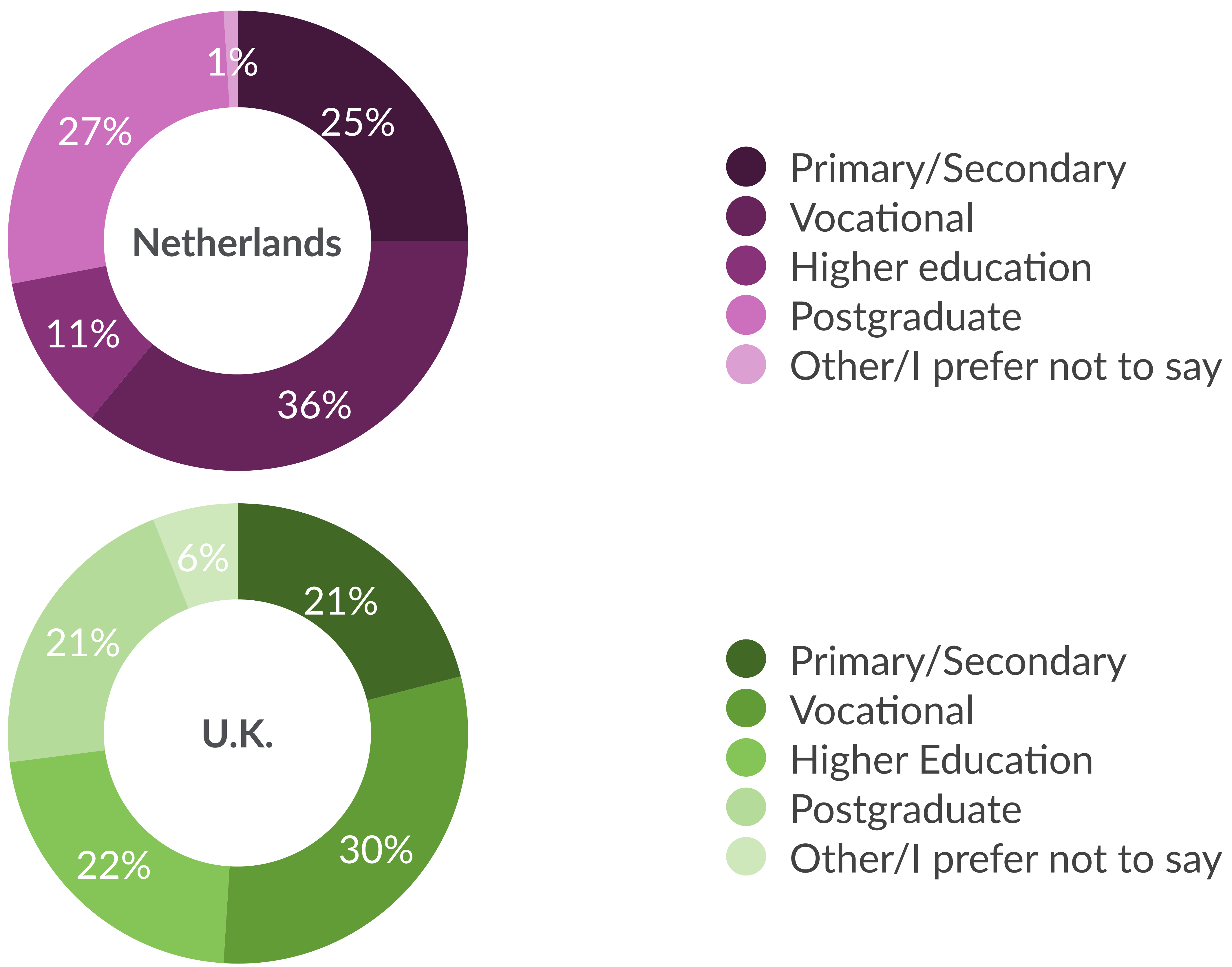
[1]SuperData Survey Question: What is your own yearly income? | [2]Results are shown in British Pounds.

U.K. social casino players are more likely to have a university degree

A greater share of U.K. players than those in the Netherlands have a postgraduate degree or a degree at an institution of higher education (43% vs 38%).

- Education levels are higher among the U.K. social casino player base partially because this audience is more heavily female than the Netherlands social casino audience.
- In the U.K., women graduate from university at higher rates than men.

Highest education level[1]



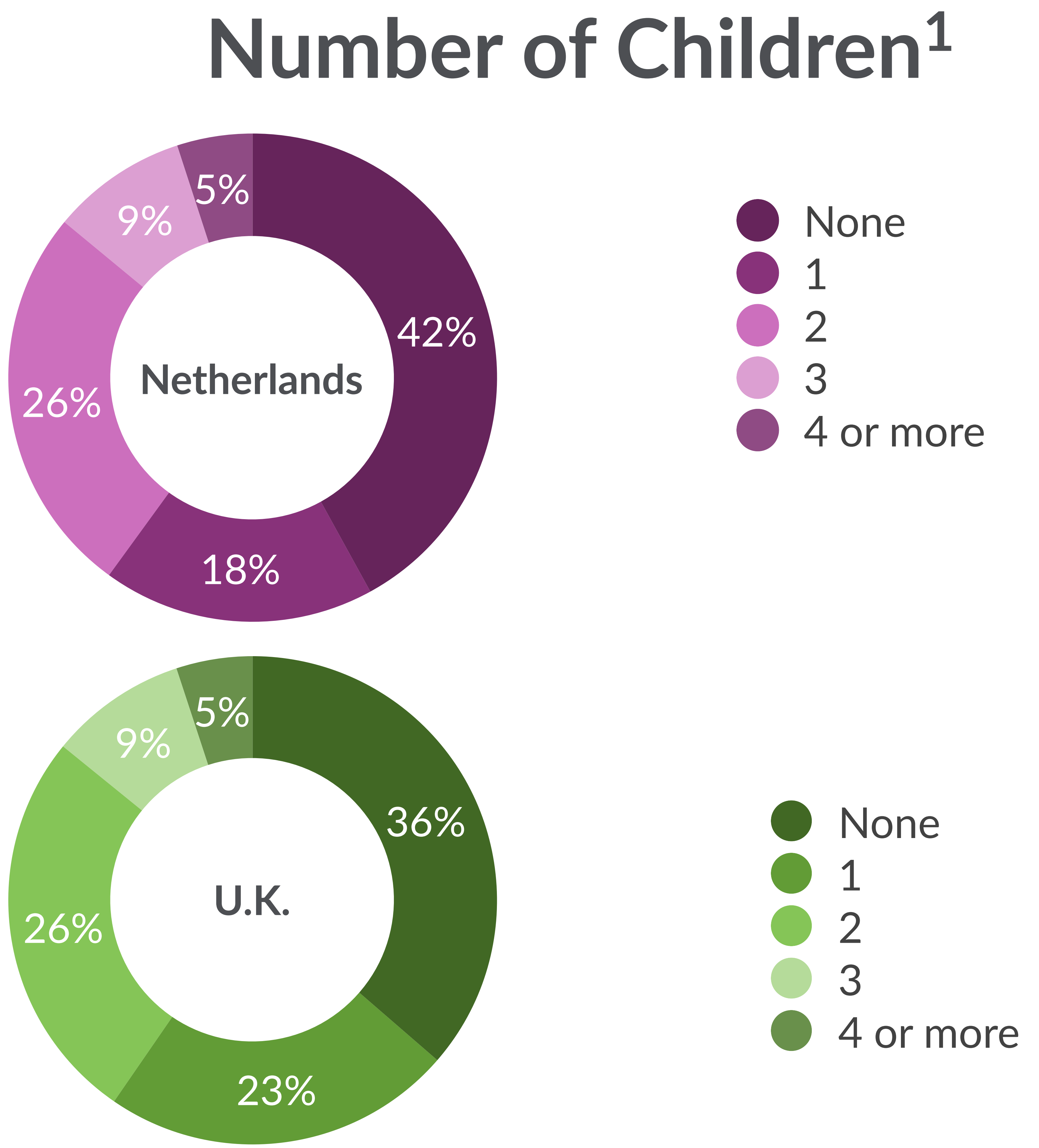
[1]SuperData Survey Question: What is the highest level of education you have completed? | Education levels are defined as follows: Netherlands: Primary/Secondary Education: Basisonderwijs, HAVO / VWO, MAVO (MULO, ULO); Vocational: VMBO, LBO, MBO; Higher Education: Wetenschappelijk onderwijs (universiteit); Postgraduate: HBO; Other: Geen opleiding, I prefer not to say; Other, please specify. UK: Primary/Secondary Education: Early Years, Primary Education, Secondary Education; Vocational: Further Education; Higher Education: Undergraduate, Postgraduate; Other: I prefer not to say; Other Undergraduate; Other, please specify.

SUPERDATA

Forty-two percent (42%) of Dutch social casino players have no children

Dutch players are more likely than their British counterparts to not have any kids.

- Dutch players' comparative lack of children (combined with their higher average earnings) means they have more disposable income to spend on entertainment like games.



[1]SuperData Survey Question: How many children (if any) do you have?

SUPERDATA

GAMBLING-RELATED GAME HABITS AND SENTIMENTS

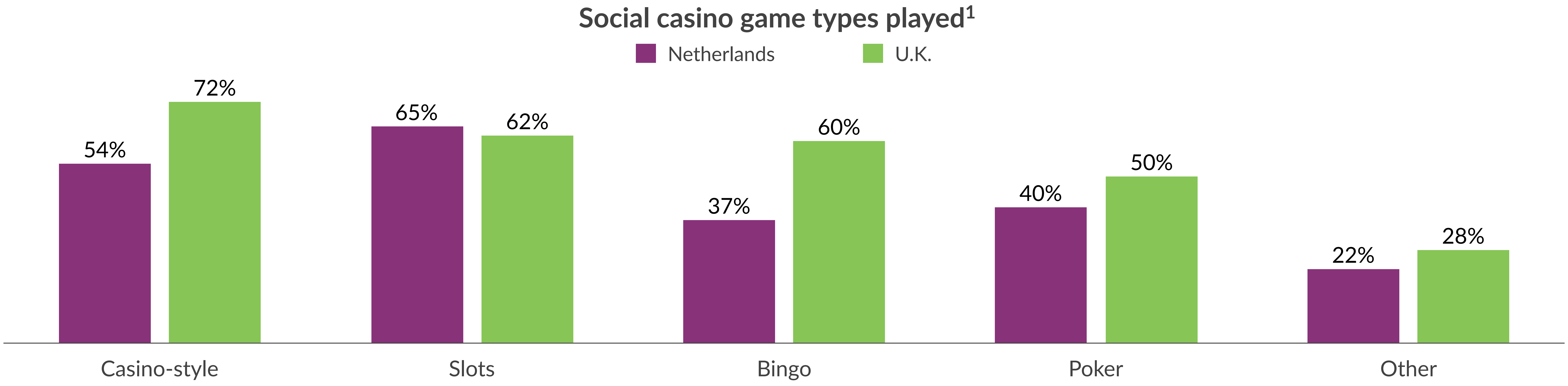
Slots are the top social casino game genre in the Netherlands

Sixty-five percent (65%) of Dutch social casino players play slots games.

- Much like in the U.S., the dutch social casino market has shifted away from casino-style games (which contain a variety of different game types) to slots-only games. Slots games offer a more focused experience and are better-suited to playing in short spurts.

Social bingo is 64% more popular in the U.K. as the Netherlands.

- Real-life bingo is growing in popularity in the U.K. as bingo halls become trendy social spaces.



[1]SuperData Survey Question: In the three months, which types of social casino games did you play?

In the Netherlands, interest in casino-style games declines strongly with age

Among 25-34 year olds, 67% play casino-style titles; this drops to 46% among those 55 and up.

Netherlands social casino game types played (by age)[1]

Age	Casino-style	Slots	Bingo	Poker	Other
13 to 24	54%	61%	28%	56%	0%
25 to 34	67%	61%	39%	52%	3%
35 to 44	58%	69%	34%	45%	2%
45 to 54	51%	68%	38%	35%	2%
55 and up	46%	66%	42%	27%	4%

U.K. social casino game types played (by age)

Age	Casino-style	Slots	Bingo	Poker	Other
13 to 24	64%	49%	60%	50%	1%
25 to 34	75%	66%	67%	51%	1%
35 to 44	75%	63%	56%	50%	1%
45 to 54	69%	60%	59%	48%	0%
55 and up	69%	71%	49%	46%	0%

[1]SuperData Survey Question: In the three months, which types of social casino games did you play?

Interest in casino-style games is lowest among those earning less than €15K

Casino-style titles attract players with high spending power.

- The desktop versions of these games have the highest average spending of any kind of social casino game.
- Casino-style players play a game continually to unlock new content like new slots machines. In contrast, players of other genres are more likely to switch between a range of free titles in order to earn rewards of daily free currency. This lets them keep playing for free.

Netherlands social casino game types played (by income)[1]

Income	Casino-style	Slots	Bingo	Poker	Other
Less than €14,999	43%	64%	31%	51%	2%
€15,000 to €24,999	55%	70%	41%	33%	5%
€25,000 to €39,999	53%	56%	42%	46%	1%
€40,000 to €59,999	62%	70%	30%	43%	0%
€60,000 to €74,999	86%	81%	33%	38%	0%
€75,000 to €99,999	N/A[2]	N/A[2]	N/A[2]	N/A[2]	N/A[2]
More than €100,000	N/A[2]	N/A[2]	N/A[2]	N/A[2]	N/A[2]
Prefer not to say	47%	68%	45%	26%	4%

U.K. social casino game types played (by income)[1]

Income	Casino-style	Slots	Bingo	Poker	Other
Less than £14,999	62%	71%	66%	43%	1%
£15,000 to £24,999	74%	61%	61%	49%	0%
£25,000 to £39,999	75%	59%	61%	50%	1%
£40,000 to £59,999	81%	67%	53%	58%	0%
£60,000 to £74,999	N/A[2]	N/A[2]	N/A[2]	N/A[2]	N/A[2]
£75,000 to £99,999	N/A[2]	N/A[2]	N/A[2]	N/A[2]	N/A[2]
More than £100,000	N/A[2]	N/A[2]	N/A[2]	N/A[2]	N/A[2]
Prefer not to say	N/A[2]	N/A[2]	N/A[2]	N/A[2]	N/A[2]

[1]SuperData Survey Question: In the three months, which types of social casino games did you play? | [2]Accurate share not available due to small number of respondents in this income group that participates in the activity.

Dutch players with vocational degrees are the most likely to play slots games

Netherlands social casino game types played (by education)[1]

Age	Casino-style	Slots	Bingo	Poker	Other
Primary/ Secondary	54%	62%	38%	40%	4%
Vocational	53%	72%	40%	34%	2%
Higher Education	63%	60%	33%	57%	0%
Postgraduate	53%	58%	33%	52%	1%
Other/Prefer not to say	N/A[2]	N/A[2]	N/A[2]	N/A[2]	N/A[2]

U.K. social casino game types played (by education)

Casino-style	Casino-style	Slots	Bingo	Poker	Other
Primary/ Secondary	67%	70%	65%	48%	0%
Vocational	70%	60%	60%	45%	1%
Higher Education	77%	55%	60%	52%	0%
Postgraduate	81%	64%	54%	51%	1%
Other/Prefer not to say	N/A[2]	N/A[2]	N/A[2]	N/A[2]	N/A[2]

[1]SuperData Survey Question: In the three months, which types of social casino games did you play? | [2]Accurate share not available due to small number of respondents in this education group that participates in the activity.

Amateur eSports play sessions average 90 minutes in the Netherlands

Netherlands

Gambling-related activity type	Average weekly sessions[1]	Average time per session (minutes)[1]
Social casino	4	51
Digital CCG	4	56
Wagering virtual items	3	55
Amateur eSports	4	90

U.K.

Gambling-related activity type	Average weekly sessions	Average time per session (minutes)
Social casino	3	52
Digital CCG	4	78
Wagering virtual items	3	53
Amateur eSports	3	80

Amateur eSports have longer average play sessions than any other type of gambling-related game.

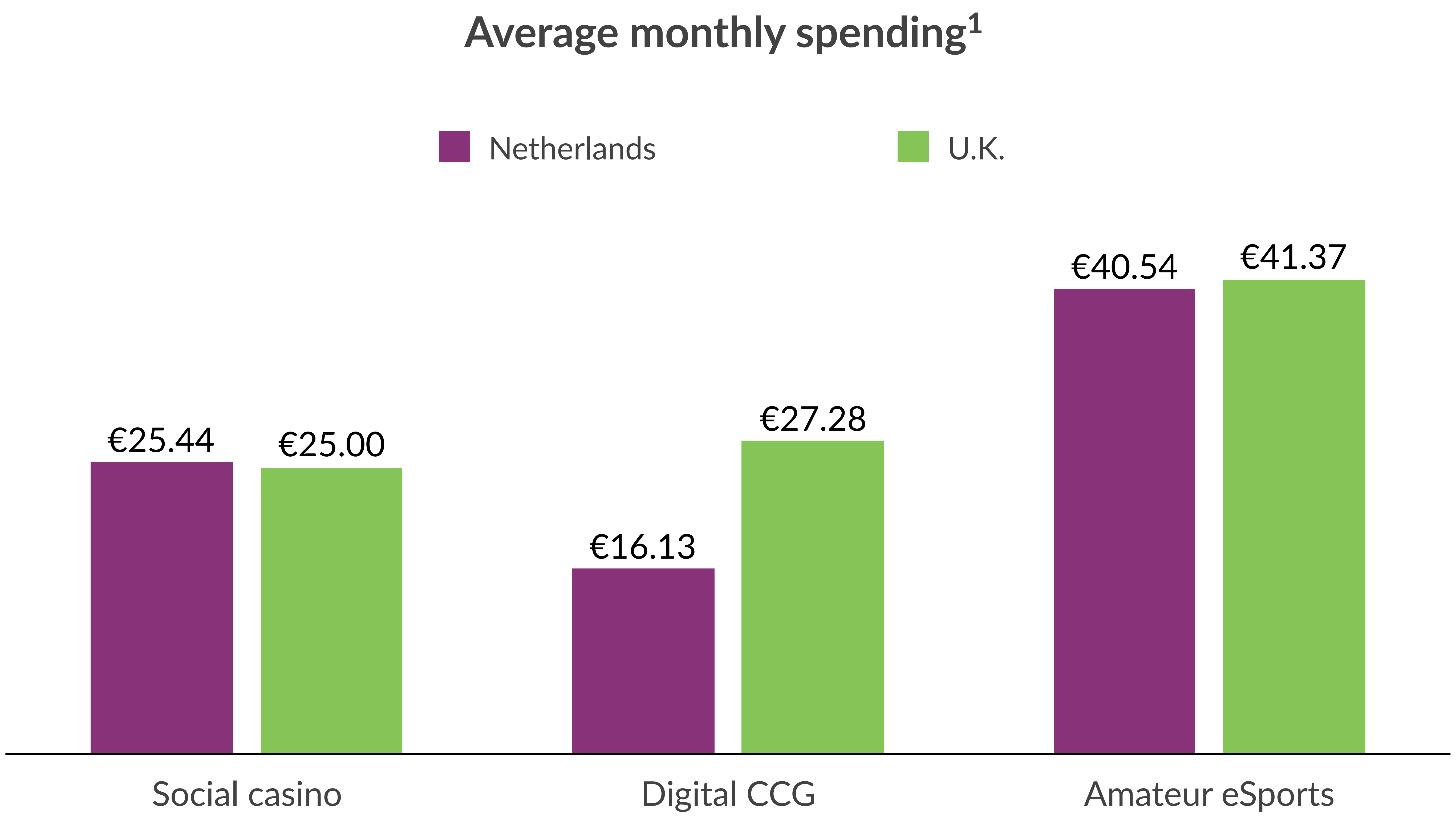
- Matches in competitive games like *League of Legends* last roughly 45 minutes and require players' undivided attention.

Digital CCG users play an average of four times a week in both the Netherlands and U.K.

- CCGs like *Hearthstone: Heroes of Warcraft* incentivize players to in frequently to complete special daily missions, which can reward free in-game currency.

[1]SuperData Survey Question: How often do you usually … ? | [2] SuperData Survey Question: On average, how long do you … in a single sitting?

Amateur eSports attract the highest spenders in the Netherlands and U.K.



Average monthly eSports spending in the Netherlands is 59% higher than social casino spending and 151% higher than digital CCG spending.

- If players want to win real money in an amateur eSports event, they generally have to pay a tournament buy-in fee.
- Since amateur eSports players have a chance to win their entry money back, they are open to paying more upfront to play.

[1]SuperData Survey Question: In the past three months, how much money did you spend on ... ?

SUPERDATA

Social network ads are the top way social casino players hear of new games

Netherlands

Gambling-related activity type[1]	#1 discoverability method	#2 discoverability method	#3 discoverability method
Social casino	Ads on social networks (40%)	Friends and family (36%)	Ads in apps and mobile games (30%)
Digital CCG	Friends and family (57%)	Ads on social networks (56%)	Ads in apps and mobile games (50%)
Wagering virtual items	Ads on social networks (50%)	Ads in apps and mobile games (48%)	Friends and family (41%)
Amateur eSports	Friends and family (59%)	Ads in apps and games (55%)	Ads on social networks (49%)

U.K.

Gambling-related activity type	#1 discoverability method	#2 discoverability method	#3 discoverability method
Social casino	Ads on social networks (56%)	Ads in apps and mobile games (51%)	Friends and family (43%)
Digital CCG	Ads in apps and mobile games (58%)	Ads on social networks (56%)	Friends and family (55%)
Wagering virtual items	Ads in apps and mobile games (57%)	Ads on social networks (55%)	Friends and family (46%)
Amateur eSports	Friends and family (61%)	Ads on social networks (60%)	Ads in apps and mobile games (57%)

Digital advertising in apps and on social networks is now a more common way for players to discover new gambling-like games than through word of mouth from friends and family.

- Because digital CCGs and amateur eSports are often played with friends, users are more likely to discover new games via word-of-mouth recommendations.
- In contrast, playing social casino games and wagering virtual items are less social activities, so players are more likely to be introduced to these game types through advertisements.

[1]SuperData Survey Question: How do you usually hear about new…?

REAL-MONEY GAMBLING HABITS AND SENTIMENTS

SUPERDATA

Among British gamblers, 46% play in U.K.-based online casinos

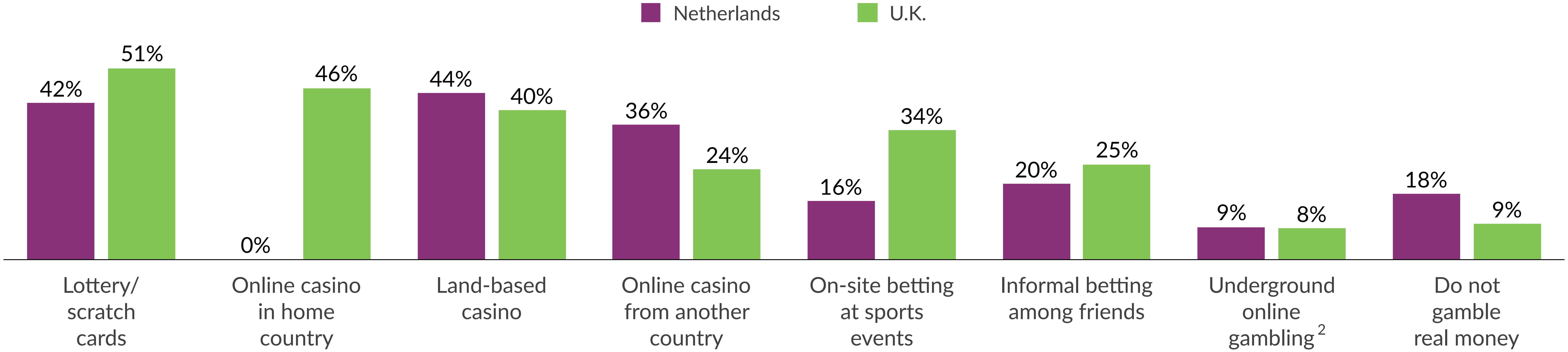
In the U.K., online casinos located in the country are the second-most-popular form of real-money gambling behind lottery or scratch cards.

- In the Netherlands, land-based casinos and online casinos from other countries are more popular than the are in the U.K., since Dutch gamblers do not yet have an accessible local online casino.

Dutch consumers who make the effort to gamble are more devoted than their British counterparts.

- Dutch players wager an average of €88.23 a month, compared to U.K. players who wager an average of €72.31.

Gambling activities[1]



[1]SuperData Survey Question: In the past three months, which of the following types of real-money gambling have you participated? | [2] In the survey, this was described to respondents as "Unsanctioned/underground online casinos/betting sites."

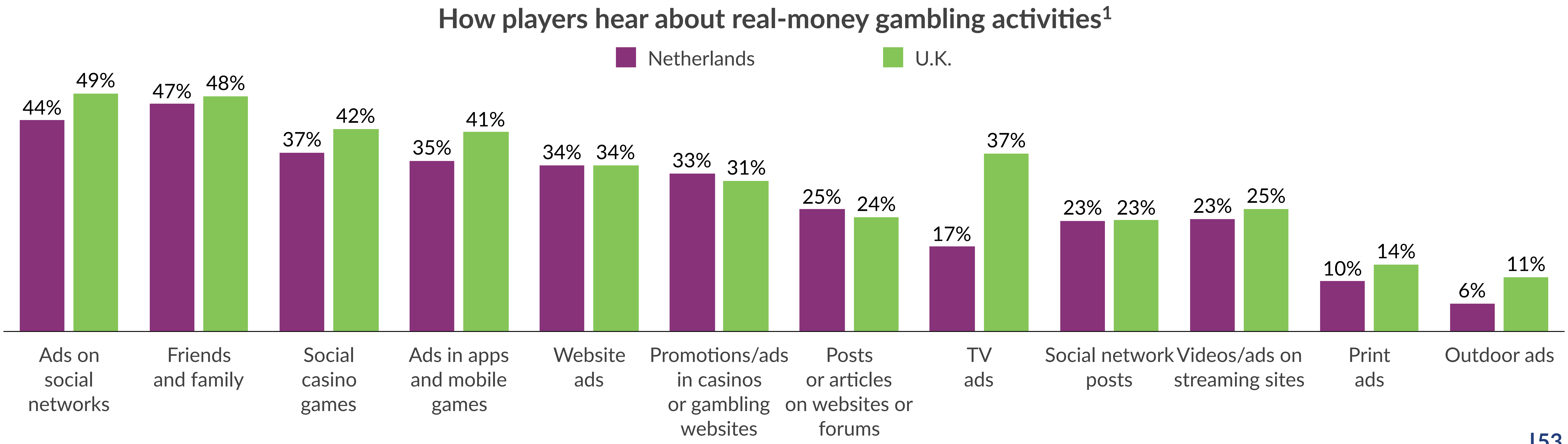
How players hear of gambling activities is similar in the U.K. and Netherlands

Thirty-seven percent (37%) of Dutch gamblers and 42% of British gamblers hear about real-money gambling through social casino games.

- Social casino games are powerful marketing tools for real-money gambling brands.
- A growing number of social casino developers like GAN and GreenTube Pro focus on building social casino apps for regional casinos who want to promote their brand but do not have the resources to build their own games in house.

More than twice as many U.K. gamblers hear about gambling via TV ads than their Dutch counterparts.

- As a result of fewer restrictions on gambling content on television, U.K. viewers are far more likely to be exposed to gambling ads.



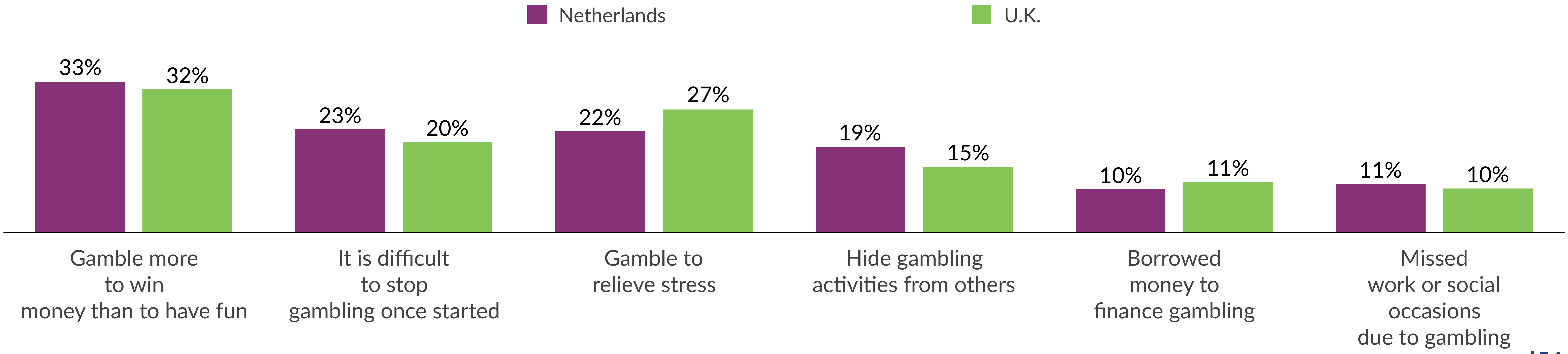
[1]SuperData Survey Question: How do you usually hear about the real-money gambling activities you participate in?

Gambling for monetary gain is the top potential problem gambling behavior

Sixty-five percent (65%) of Dutch gamblers and 62% of British gamblers have some form of potentially problematic gambling behavior.[1]

- The potential problem behaviors of Dutch and British consumers are less closely aligned when it comes to gambling-style games.
  - The share of Dutch gamblers who play social casino games to relieve stress stands at 28% where U.K. gamblers come in higher at 39%.
  - Similarly, 41% of U.K. CCG players have difficulty stopping playing, compared with 26% of Dutch CCG players.

Real-money gambling activities and attitudes[2]



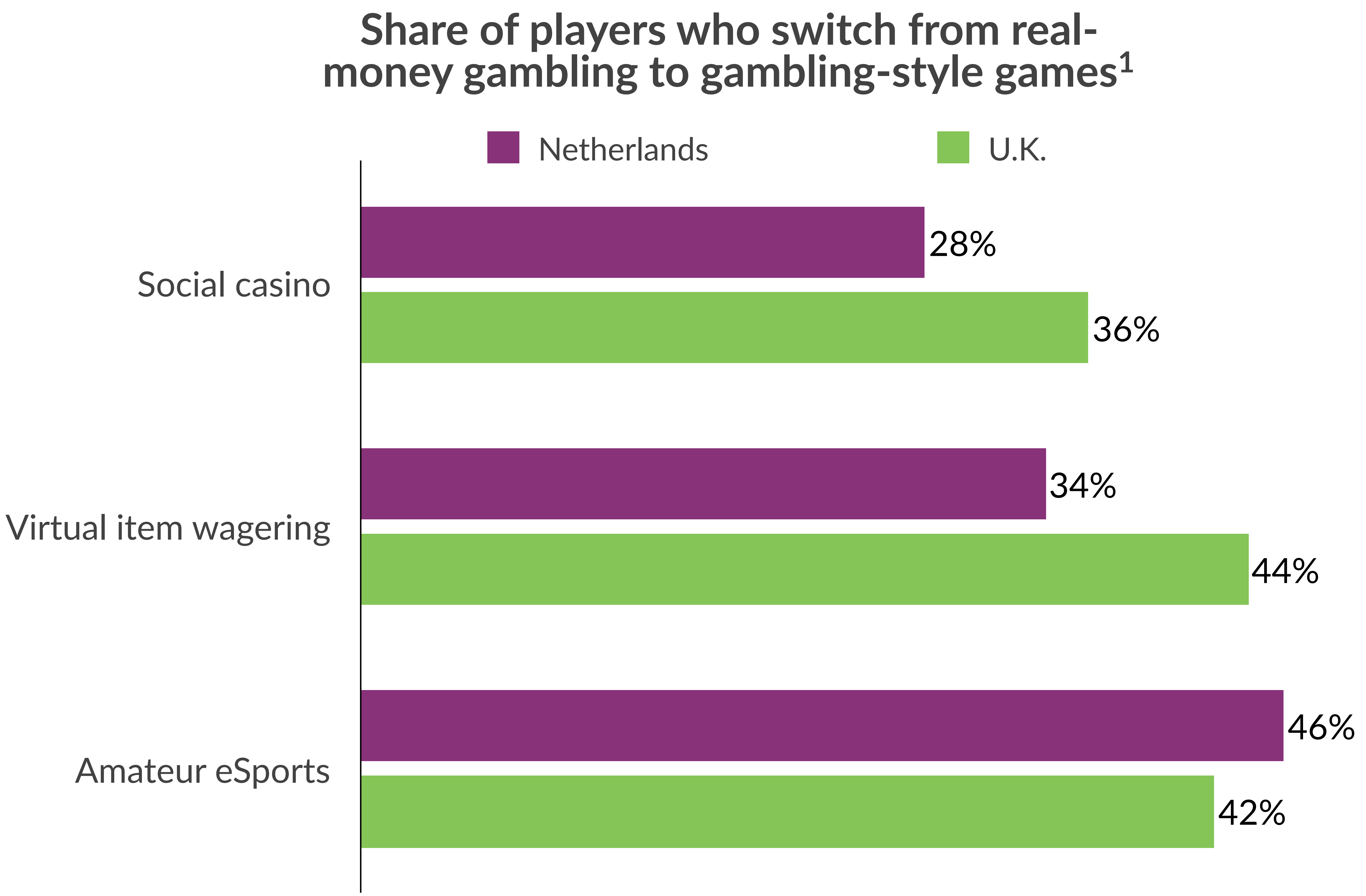
[1]Problem gambling behavior refers to the activities listed on this slide. | [2]SuperData Survey Question: Which of the following statements do you agree with?

GAMBLING AND GAMBLING-STYLE GAME OVERLAP

Forty-six percent (46%) of Dutch eSports bettors try amateur eSports

Dutch players value testing out their out skills and are the most likely to move from eSports betting to playing amateur eSports.

- Roughly two thirds of eSports bettors in the U.K. and Netherlands try amateur eSports because they find it more fun if their own gaming skills determine whether they win or not.
- Online amateur eSports are also a more social activity than eSports betting. Fifty-six percent (56%) of Dutch players try amateur eSports because their friends and family play.



[1]SuperData Survey Question: Have any of the following every applied to you? [Gone from real-money gambling to virtual gambling] | Social casino: Switched from real-money gambling to playing a social casino game. Virtual item wagering: Switched from wagering real money to wagering virtual items. Amateur eSports: Switched from betting on eSports to playing amateur eSports.

Players 55 and up are least likely to move from real gambling to social casino

Netherlands share of players who switch from real-money gambling to gambling-style games (by age)[1]

Age	Social casino	Virtual item wagering	Amateur eSports
13 to 24	28%	24%	48%
25 to 34	33%	38%	43%
35 to 44	34%	44%	57%
45 to 54	23%	19%	N/A[2]
55 and up	24%	31%	N/A[2]

U.K. share of players who switch from real-money gambling to gambling-style games (by age)

Age	Social casino	Virtual item wagering	Amateur eSports
13 to 24	40%	50%	49%
25 to 34	53%	42%	46%
35 to 44	33%	42%	36%
45 to 54	32%	46%	N/A[2]
55 and up	29%	N/A[2]	N/A[2]

[1]SuperData Survey Question: Have any of the following every applied to you? [Gone from real-money gambling to virtual gambling] | [2]Accurate share not available due to small small number of respondents in this age group that participates in the activity.

Playing without risking money is the main reason players turn to social casino

Netherlands reasons for switching from real-money gambling to virtual gambling[1]

Gambling-related activity type	#1 reason for switching	#2 reason for switching	#3 reason for switching
Social casino	I like playing without risking real money (65%)	My friends/family play the social casino version (33%)	Wider variety of social casino games available (25%)
Virtual item wagering	Virtual item wagering is more fun/exciting (56%)	I got better odds when wagering virtual items (44%)	It is easier to find virtual item wagering sites (33%)
Amateur eSports	It is more fun when my skills determine if I win or not (63%)	My friends/family play online amateur eSports (56%)	It is easier to find ways to play online amateur eSports (32%)

U.K. reasons for switching from real-money gambling to virtual gambling

Gambling-related activity type	#1 reason for switching	#2 reason for switching	#3 reason for switching
Social casino	I like playing without risking real money (58%)	My friends/family play the social casino version (35%)	Wider variety of social casino games available (29%)
Virtual item wagering	Virtual item wagering is more fun/interesting (59%)	I don't like risking real money (41%)	I got better odds when wagering virtual items (36%)
Amateur eSports	It is more fun when my skills determine if I win or not (69%)	My friends/family play online amateur eSports (50%)	It is easier to find ways to play online amateur eSports (41%)

In both the U.K. and Netherlands, over half of those who move from real-money gambling to social casino do so because this lets them play gambling-style games without risking real money.

- Thirty-three percent (33%) of Dutch players move to social casino to play with their friends and family. Young players are especially interested in playing social casino games to socialize: 41% of those under 35 move to social casino games to play with others.

[1]SuperData Survey Question: What are the reasons you have gone [from a real-money gambling to a virtual gambling game or activity]?

U.K. players are the most likely to go from virtual wagering to real betting

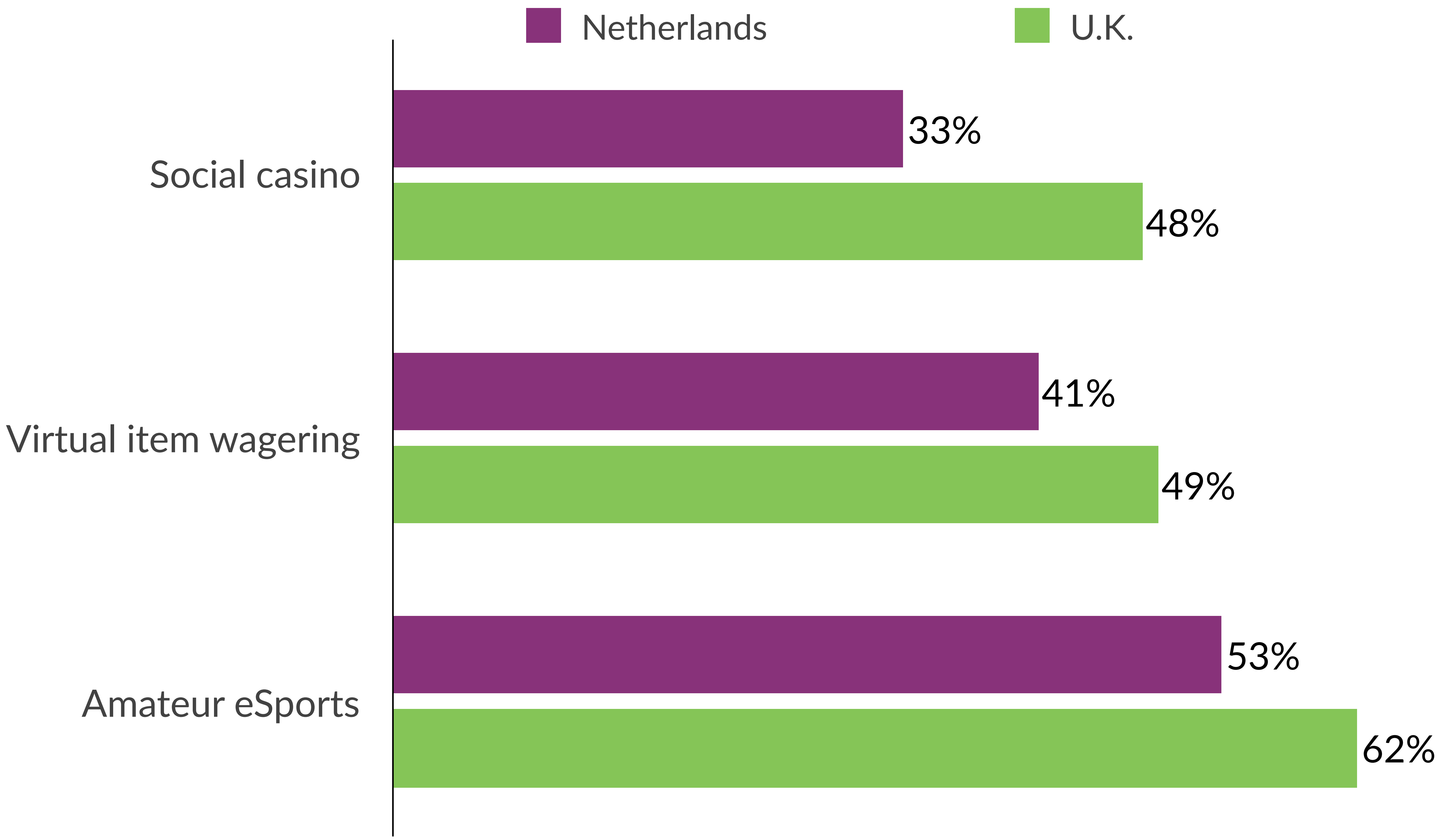
Roughly half of U.K. players transition from social casino games or virtual item wagering to real-money gambling.

- The excitement of gambling with real money is the top reason why players in both countries try real-money gambling, but British players are more able to make the transition due to the greater accessibility of real-money gambling.

Amateur eSports have the greatest likelihood of introducing players to real-money gambling.

- Seventy-six percent (79%) of Dutch players who move from amateur eSports to real-money eSports betting do so because they believe competitions are more fun to watch when money at stake.

Share of players who switch from gambling-style games to real-money gambling[1]



[1]SuperData Survey Question: Have any of the following every applied to you? [Going from virtual gambling to real-money gambling] | Social casino: Switched from playing a social casino game to real-money gambling. Virtual item wagering: Switched from wagering virtual items to wagering real money. Amateur eSports: Switched from playing amateur eSports to betting on eSports.

Roughly half of Dutch social casino players age 13 to 24 move to real betting

Interest in moving from social casino games to real-money betting is highest among players 13 to 24 in the Netherlands.

- Only 24% of Dutch players 55 and up have switched from social casino games to real gambling.
  - A smaller share of these players switch have switched than their younger counterparts because most players 55 and up experienced real-money gambling long before social casino games existed.

Netherlands share of players who switch from gambling-style games to real-money gambling (by age)[1]

Age	Social casino	Virtual item wagering	Amateur eSports
13 to 24	51%	46%	51%
25 to 34	44%	40%	53%
35 to 44	27%	39%	57%
45 to 54	26%	48%	N/A[2]
55 and up	24%	35%	N/A[2]

U.K. share of players who switch from gambling-style games to real-money gambling (by age)[1]

Age	Social casino	Virtual item wagering	Amateur eSports
13 to 24	52%	31%	56%
25 to 34	53%	55%	66%
35 to 44	42%	58%	58%
45 to 54	52%	46%	N/A[2]
55 and up	26%	N/A[2]	N/A[2]

[1]SuperData Survey Question: Have any of the following every applied to you? [Gone from virtual gambling games/activities to real-money betting] | [2]Accurate share not available due to small number of respondents in this age group that participates in the activity.

Players move to real-money gambling due to the excitement of risking money

Netherlands reasons for switching from virtual wagering to real-money gambling[1]

Gambling-related activity type	#1 reason for switching	#2 reason for switching	#3 reason for switching
Social casino	Playing with real money is more exciting (80%)	Wider variety of real-money games available (31%)	I played the social version to practice for the real-money version (27%)
Wagering virtual items	Playing with real money is more exciting (76%)	Wider variety of real-money games available (39%)	Playing with real money is easier to understand (34%)
Amateur eSports	Competitions are more fun to watch with real money (77%)	Not good enough to win money by playing amateur eSports (40%)	It is easier to find ways to bet on eSports competitions (34%)

U.K. reasons for switching from virtual wagering to real-money gambling

Gambling-related activity type	#1 reason for switching	#2 reason for switching	#3 reason for switching
Social casino	Playing with real money is more exciting (74%)	I played the social version to practice for the real-money version (31%)	Wider variety of real-money games available (27%)
Wagering virtual items	Playing with real money is more exciting (80%)	Playing with real money is easier to understand (45%)	Wider variety of real-money games available (40%)
Amateur eSports	Competitions are more fun to watch with real money (77%)	It is easier to find ways to bet on eSports competitions (38%)	Not good enough to win money by playing amateur eSports (27%)

Four out of five Dutch social casino players who switch to real-money gambling do so because they believe risking real money is more exciting than social play.

- Excitement is the main reason for switching from gambling-style games to real-money wagering across all age groups in both the Netherlands and U.K.

[1]SuperData Survey Question: What are the reasons you have gone [from a virtual gambling game to real-money gambling]?

DEFINITIONS

Terminology

- **Digital games:** Games and additional content downloaded and played on a digitally-capable device such as a smartphone, tablet, PC/Mac, console or handheld gaming device. This does not include physical copies of games.
- **Free-to-Play/Freemium (F2P):** Offering a game, product or service free of charge (such as software, web services or other) while charging a premium for advanced features, functionality, or related products like virtual goods and services.
- **Monthly Average Users (MAU):** The number of users who log in and play a game at least once over the course of a month, including trial and free users. Users can be counted more than once within a particular game if they log in through multiple accounts, or within a particular genre/category if they log into multiple games.
- **Pay-to-Play (P2P):** Requiring a purchase or subscription in order to gain full access to a game, product or service, while sometimes also charging a premium for virtual goods or additional content.
- **Platform:** A specific combination of hardware and software in order to play a certain game category. E.g., console, PC, smartphone, handheld gaming device, etc.
- **Revenue (category or genre definition):** Defined as: MAU or MUU x Conversion x ARPPU. The sum of revenue generated by full-game sales and/or in-game purchases.
  - **Additional Content Revenue:** Defined as: MUU x Additional Content Conversion x Additional Content ARPPU. Total digital sale of map packs, expansions, premium content, and vanity items.
  - **Digital Revenue:** Defined as the sum of all Full Game Revenue, Microtransaction Revenue, Subscription Revenue, and Additional Content Revenue, each where applicable. Revenue generated from downloadable content.
  - **Subscription Revenue:** Defined as: Subscriptions x Average Subscription Fee. Revenue generated from digital subscription fees.
- **Segment:** A game category that has requirements unique to other categories. E.g., Social, Mobile, MMO, PC, Console, etc.
- **Virtual Goods:** In-game items or game-related services, such as a virtual currency or temporary subscriptions that enable or enhance game play.

Game platforms

- **PC:** A desktop or laptop computer with the capabilities to install and run video games.
- **Console:** A device that connects to a television in order to allow for video gameplay. Newer generations of consoles (2005 and after) allow for media consumption outside of video games such as downloaded and streaming television, movies and music. E.g., Nintendo Entertainment System (NES), Sega Genesis, PlayStation, Xbox 360, PS4, Wii U.
- **Smartphone:** Mobile phones with computer-enabled features such as data storage, high-speed Internet access, media playback, and email capabilities. Support third party application integration. E.g., iPhone, Samsung Galaxy, HTC, Nokia Lumia, Amazon Fire Phone.

Genres

- **First-person Shooter (FPS):** Games centered on weapon combat from a first-person perspective. E.g., *Battlefield*, *Call of Duty*, *Halo*.
- **MMO/MMOG:** Massively Multiplayer Online games that can involve both persistent and/or instance-based worlds in which users can interact in real-time with one another within a simulated environment. These games often include an independent virtual economy and employ free-to-play monetization mechanics, subscriptions/premium accounts or a hybrid of both.
  - **Multiplayer Online Battle Arena (MOBA):** Similar to Strategy games, these are MMOs in which two teams focus on strategic planning to destroy each other's bases. Players control a single character and fight in discrete battles along lanes but, unlike in Strategy games, they do not harvest or manage resources. E.g., *League of Legends*, *Heroes of Newerth*, *Dota 2*.
- **Sports:** Games that simulate sports gameplay. E.g., *FIFA*, *Madden NFL*, *NBA 2K*.

Geographies

- **Asia:** Bangladesh, Bhutan, Brunei, Burma, Cambodia, China, East Timor, India, Indonesia, Japan, Kazakhstan, Kyrgyzstan, Laos, Malaysia, Maldives, Mongolia, Nepal, North Korea, Philippines, Singapore, South Korea, Sri Lanka, Taiwan, Tajikistan, Thailand, Vietnam, and all other Asian regions where available
- **Latin America:** Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, French Guiana, Guatemala, Guyana, Mexico, Nicaragua, Panama, Paraguay, Peru, Puerto Rico, Suriname, Uruguay and Venezuela
- **North America:** Canada and the United States.
- **Europe:** Azerbaijan, Albania, Andorra, Austria, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Macedonia, Malta, Moldova, Monaco, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, Russia, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Turkmenistan, Ukraine, United Kingdom, Uzbekistan, Vatican City
  - **EU5:** France, Germany, Italy, Spain, and U.K.
  - **Eastern Europe:** Belarus, Czech Republic, Poland, Russia, Turkey, and Ukraine
  - **Western Europe:** Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Monaco, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and U.K.

Geographies, cont.

- **Rest of World:** Middle East and Africa
  - **Africa:** Algeria, Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Djibouti, Egypt, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Ghana, Guinea, Guinea-Bissau, Ivory Coast, Kenya, Lesotho, Liberia, Libya, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mayotte, Morocco, Mozambique, Namibia, Niger, Nigeria, Republic of the Congo, Reunion, Rwanda, Saint Helena Ascension and Tristan da Cunha, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, South Sudan, Sudan, Swaziland, Tanzania, The Gambia, Togo, Tunisia, Uganda, Zambia, Zimbabwe
  - **Middle East:** Afghanistan, Armenia, Azerbaijan, Bahrain, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Pakistan, Palestine, Qatar, Saudi Arabia, Syria, United Arab Emirates, Yemen
  - **Oceania:** Australia, Cook Islands, Fiji, Kiribati, Marshall Islands, Micronesia, Nauru, New Zealand, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu

EVERYTHING ELSE

SuperData Research

SuperData provides relevant market data and insight on digital games and playable media. Founded by veteran games industry researchers, SuperData covers the market for free-to-play gaming, digital console, mobile, PC downloadable, gaming video content and eSports.

Monthly analyses and industry reports using digital point-of-sale data. Using digital point-of-sale data received from publishers, developers and payment service providers, we base our analyses on the monthly spending of 37 million paying digital gamers worldwide.

Understand what people play, connect to and spend on. Our research combines transaction-level data with qualitative consumer insight. Our leadership team has experience spanning across major research firms, including NPD, Nielsen, DFC Intelligence, Comscore, Experian, Jupiter and Forrester.

A next gen approach for next gen entertainment. Our customer base includes legacy publishers (e.g. Activision/Blizzard, Ubisoft), digital-only publishers (e.g. Nexon, Tencent, Wargaming), media companies (e.g. Google, Coca-Cola) and industry service providers (e.g. PayPal, Visa, GameStop).

Contact

Director, Research & Insights
Stephanie Llamas

Research Manager
Carter Rogers

Business Development Manager
Giancarlo Chaux
giancarlo@superdataresearch.com

VP, Product & Business Development
Sam Barberie
sam@superdataresearch.com

SUPERDATA
401 Park Ave. South, 10 FL
New York, NY 10016
(646) 248-5241
www.superdataresearch.com
Twitter: @_SuperData

www.superdataresearch.com

