RESEARCH REPORT

Video Gaming Behavior
Department of Cognitive Sciences

i

TABLE OF CONTENTS

INTRODUCTION

Since Atari adapted the first home gaming console in the late 1970s, video gaming has become a mainstream pastime, now reaching all ages, races, genders, and income levels. Today, this immensely popular form of entertainment occurs on home consoles from several major gaming companies, on computers of all types, and increasingly on mobile devices.

In the past few years, video game spending and time spent playing video games has increased significantly, with the Entertainment Software Association (ESA) noting an increase in the number of adult gamers in the U.S. from 75% in 2020[1] to 80% of U.S. adults in 2021.[2] The ESA is currently one of the only purveyors of information about video gaming habits and preferences. However, even less information is publicly available regarding video gaming behavior. Recent research from the Cognitive Sciences Department at AnalyticsIQ adds additional key information about the who, what, when, why, and how of video gaming behavior.

---

[1] https://www.theesa.com/resource/2020-essential-facts/

[2] https://www.theesa.com/resource/2021-essential-facts-about-the-video-game-industry/

OUR METHODOLOGY

In November of 2021, our research team conducted a large nationwide survey of adults who play video games.[3] They were queried about when and how often they play video games, their preferred games and devices, as well as the type and value of their gaming subscriptions and in-game purchases. The survey took approximately 10 minutes to complete, and all respondents were compensated for their time.

---

3) Survey sample demographics | Gender: 48% men, 51% women | Race: 69% White, 13% Black, 8% Latinx, 6% Asian, and 4% Other race groups | Age Range: 18 – 95 years old (median = 52) | Age Generation: 20% Gen Z, 22% Millennials, 20% Gen X, and 38% Baby Boomers | Employment Status: 45% Full-Time Employed, 35% Unemployed, 11% Part-Time Employed, and 10% Students | Education: 1% No Degree, 29% High School Graduate, 20% Assoc. Degree, 35% Bachelor's Degree, 12% Master's Degree, and 3% Doctorate-Level Degree (Note: A weighted sample was used here with U.S. population averages for Age Generation as the guiding metric.)

TIME OF DAY: WHEN DO GAMERS PLAY?

When asked about when their gaming primarily takes place, unsurprisingly, weekday evenings and weekends were the most popular times reported. Just under half the sample said they play video games during the weekdays, and about a third said that late night is a preferred time for gaming. See Graph 1.
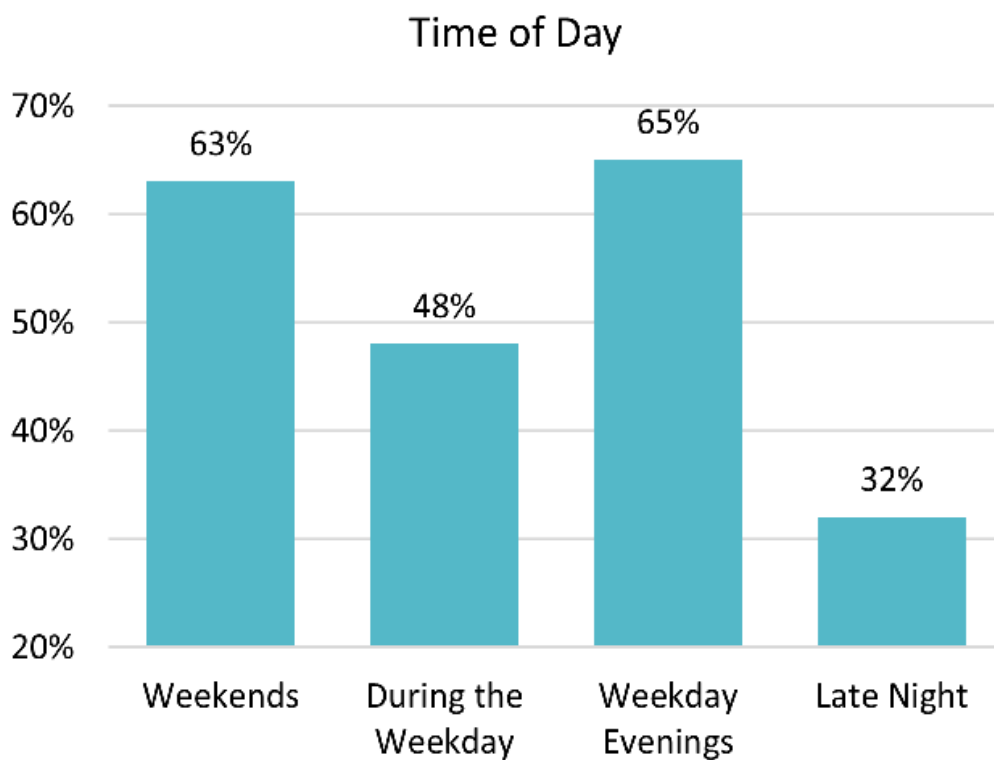
Time of Day

Graph 1. Survey respondents were asked which times of day they most often play video games. Percentages reflect the proportion of people who reported gaming in each day-part category. Weekends and weekday evenings are the most common time of day for game play.

AnalyticsIQ

"While it's only the third most popular time to play video games, mid-weekday game play is primarily comprised of people who say they are unemployed (~50%). In fact, playing in the middle of the weekday is the highest recorded time of day for those who are currently out of work. And although late night game play is mostly made up of people who are employed full time (~41%), it ranks highest for those who are full time students."

AnalyticsIQ

DEVICE TYPE: HOW DO GAMERS PLAY?

Device type preferences further our understanding of video gamers' unique inclinations. In fact, half of all survey takers told us they have a single device preference (~49%), whereas about 40% favor two devices, and the final 11% prefer all three device options equally. Among those with a single platform preference, mobile devices (58%) took top favor, followed by PC (23%) and then consoles (19%). Of those with a dual-device preference (39%), PC + Mobile was the population favorite (47%), whereas Mobile + Console came in second (34%), followed by Console + PC (19%). When taken together, mobile devices are the primary and preferred location of all gaming behavior (arguably because of their portable and versatile nature). See Graph 2.

Device Preference

- PC — 30%
- Console — 26%
- Mobile — 44%
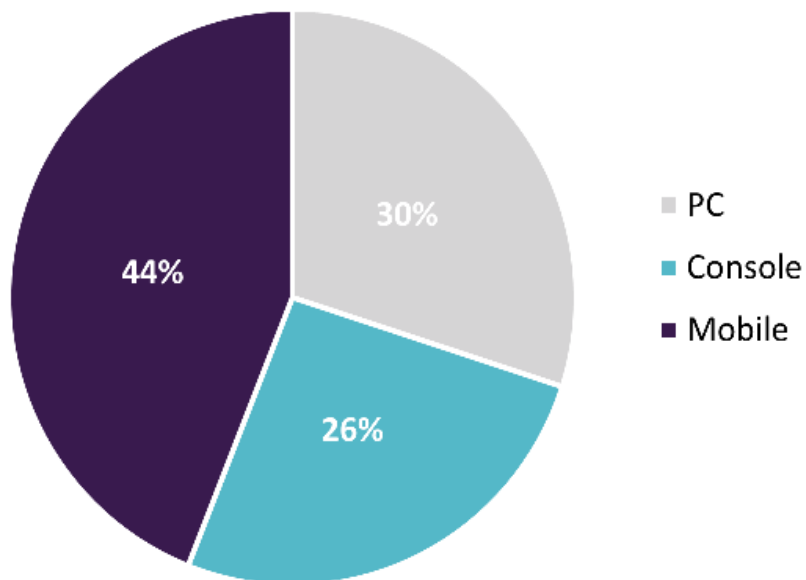
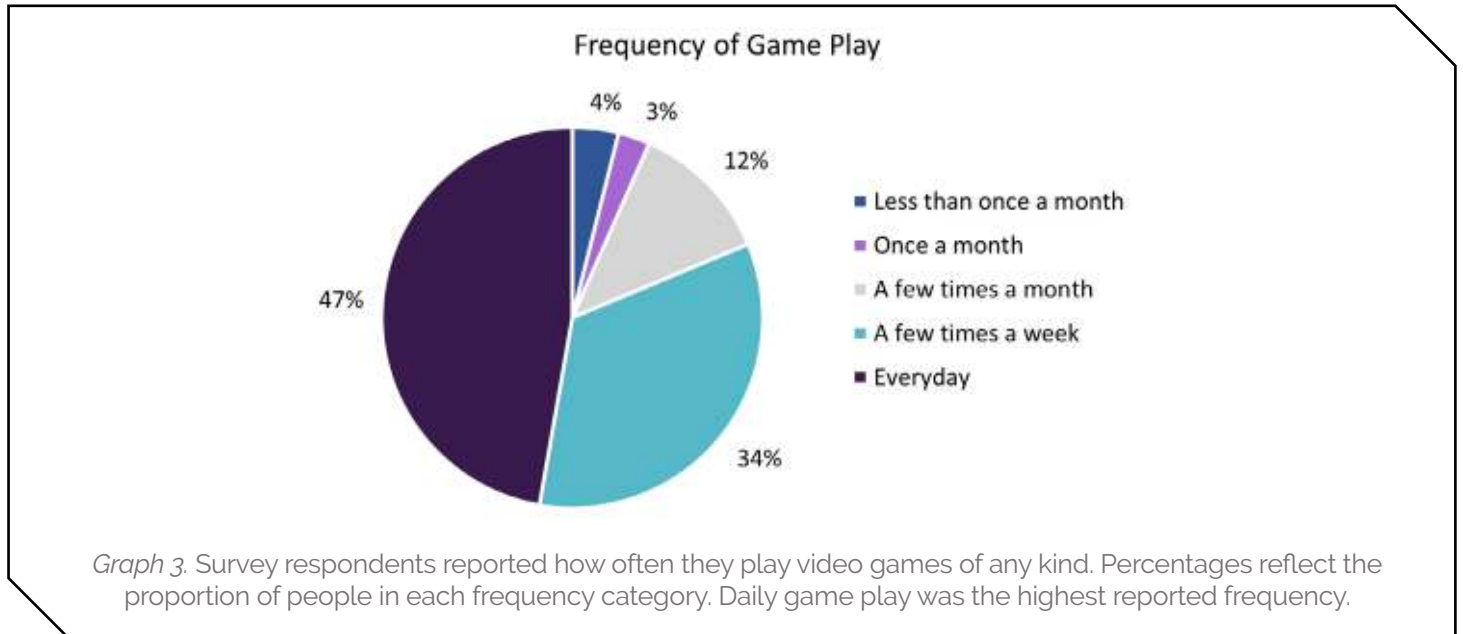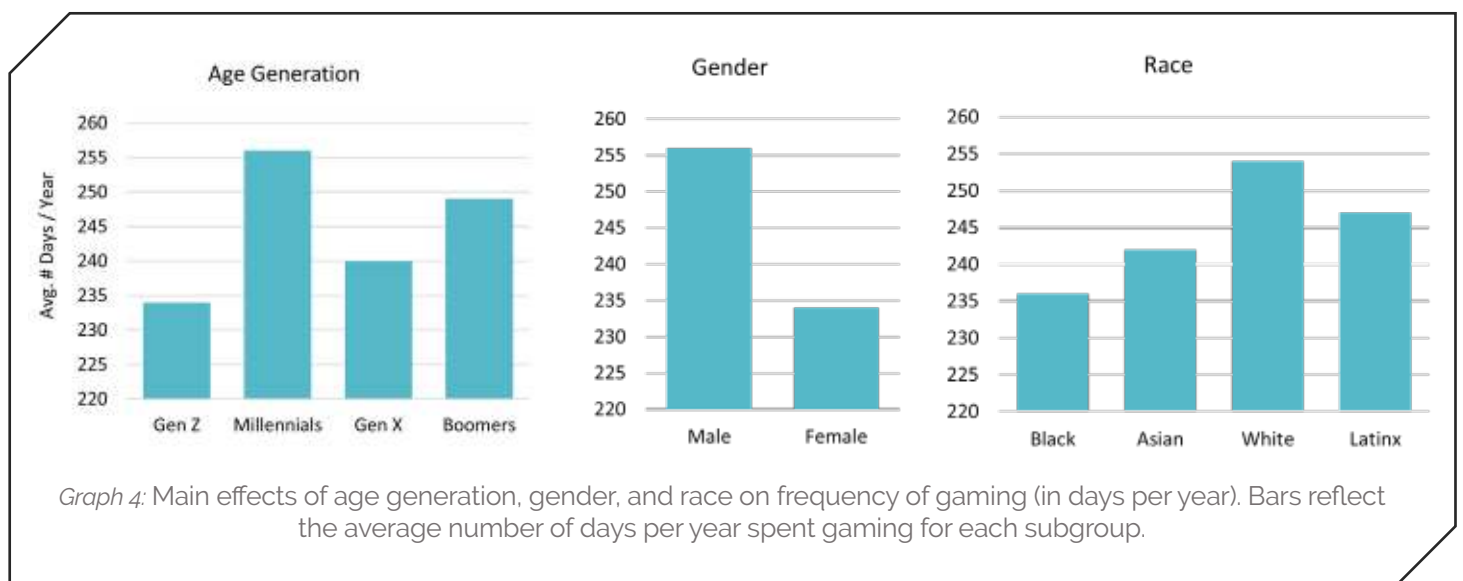*Graph 2.* Survey respondents identified which gaming platforms they prefer. Percentages reflect the proportion of people who favor each type of device. Mobile devices rank highest among the three device types.

GAMING FREQUENCY: HOW OFTEN DO GAMERS PLAY?

The vast majority of gamers in our sample (81%) reported playing some type of video game several days a week or more, whereas the remaining survey respondents said they engaged in game play a few times a month or less (range 1-365 days per year; Avg = 247 days). See Graph 3.
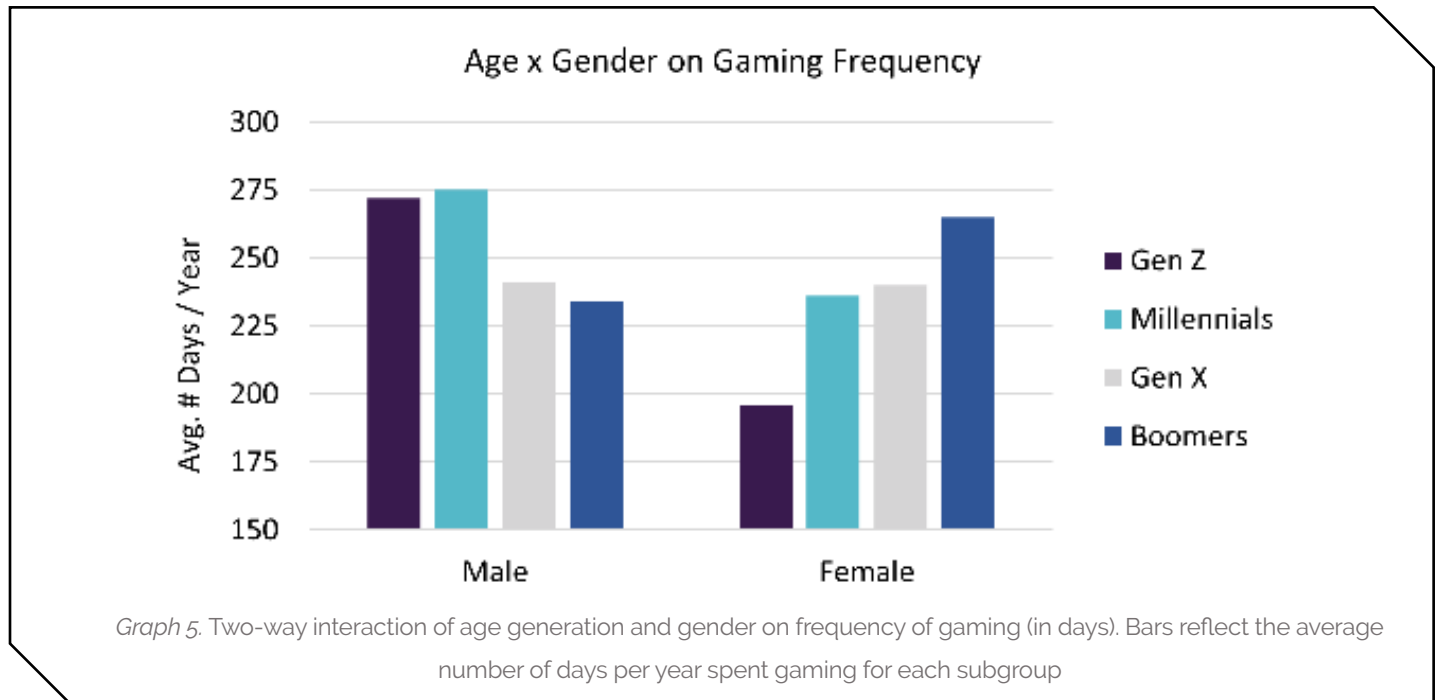

Graph 3. Survey respondents reported how often they play video games of any kind. Percentages reflect the proportion of people in each frequency category. Daily game play was the highest reported frequency.

When examining frequency of game play along demographic lines, we start to see some meaningful trends emerge.[4] Overall, Millennials and Baby Boomers play significantly more often than members of Gen X or Gen Z; men play more than women; and white and Latinx folks play more often than Black or Asian folks. See Graph 4.

Graph 4: Main effects of age generation, gender, and race on frequency of gaming (in days per year). Bars reflect the average number of days per year spent gaming for each subgroup.

---

4) A Univariate ANOVA was conducted with age, gender, and race as independent variables (IVs) and frequency of game play (in days per year) as the dependent variable (DV). Analyses reveal a significant main effect of Age, $F_{(3, 8451)} = 4.941$, $p = 0.002$, Gender $F_{(1, 8451)} = 22.78$, $p < 0.001$, and Race, $F_{(3, 8451)} = 6.06$, $p < 0.001$, as well as two significant two-way interactions (Age x Gender, $F_{(3, 8451)} = 24.44$, $p < 0.001$; and Age x Race, $F_{(9, 8451)} = 4.31$, $p < 0.001$) and a significant three-way interaction, $F_{(9, 8451)} = 2.64$, $p = .01$.

Beyond the individual effects of any single demographic factor, the cumulative effect of age and gender also has a significant impact on game play frequency. Although men generally play more often than women, an inverse relationship appears when we also consider age generation. Men play video games less often the older they are, but women play more often with age. See Graph 5.

Graph 5. Two-way interaction of age generation and gender on frequency of gaming (in days). Bars reflect the average number of days per year spent gaming for each subgroup

Further still, when race is considered in conjunction with age, the gender effect from Graph 5 takes on additional nuance among each of these demographic subgroups. Whereas older women generally engage in game play more often than younger women, this effect is most pronounced for Latina women and least pronounced for Black women (see Graph 6). For men, the age-related decrease in game play is primarily driven by Asian men (see Graph 7).

Graph 6. Two-way interaction of age generation and race identity on frequency of gaming (in days) for women.

Graph 7. Two-way interaction of age generation and race identity on frequency of gaming (in days) for men.
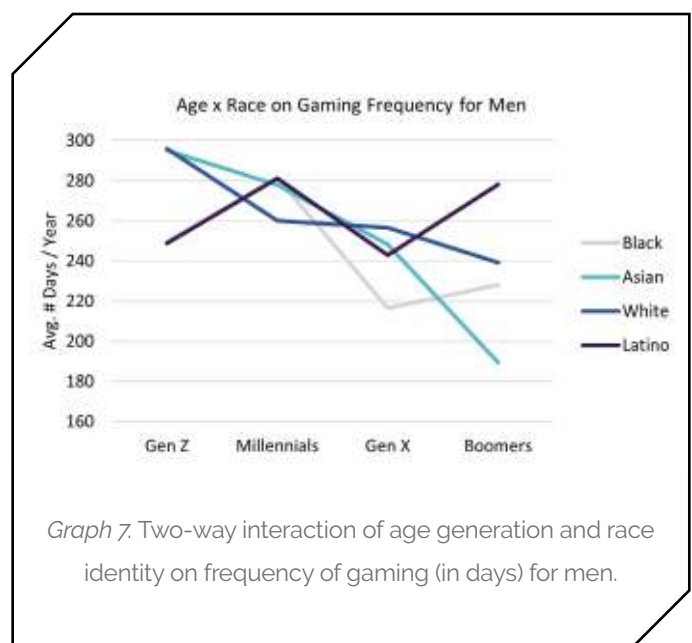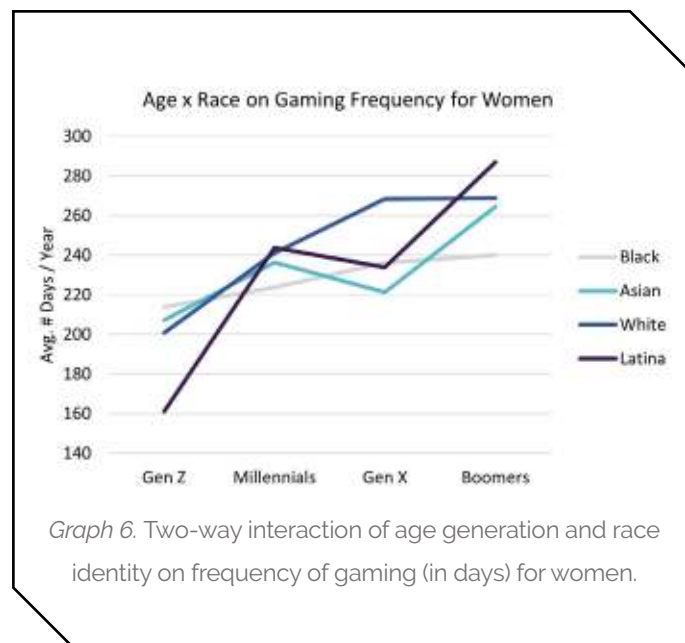
"Keep your eyes on Latinx women and men. They appear to be both trend-setting and trend-breaking groups. Latina women demonstrate the greatest increase in gaming frequency among all race groups, and they set the pace for a sharp upswing from Gen Z to Baby Boomers. Conversely, Latino men defy their other race identity counterparts by maintaining a relatively steady pace of game play between younger and older Latinos."

AnalyticsIQ

GAME PREFERENCES: WHAT DO GAMERS PLAY?

Knowing what video gamers prefer to play is just as valuable as knowing how often they engage in game play. We provided survey respondents with 16 different types of games, alongside a definition of each game category and a few specific examples underneath that category umbrella. Each game type was shown one at a time, and respondents were asked to identify if they had played each game type in the previous six months. They then identified how often they played each selected game category. Overall, our data shows that platform and simulation games are played by the greatest number of people among our gaming sample, followed by first-person shooter, fighting, sandbox role-playing, and action role-playing games (see Graph 8).

Types of Games

Photography 21%
MMO RPG 30%
Turn-Based Strategy 33%
Rhythm 34%
Narrative 35%
Digital Cards 35%
Survival 37%
Real-Time Strategy 37%
Player v. Player 39%
Sports 39%
Action RPG 40%
Sandbox RPG 40%
Fighting 42%
First Person Shooter 45%
Simulation 57%
Platform 58%

Graph 8. Survey respondents were asked what types of games they play and how often. Percentages reflect the proportion of people who reported playing each game type at any point in the past six months. Line overlay represents the average frequency that each game type is played.
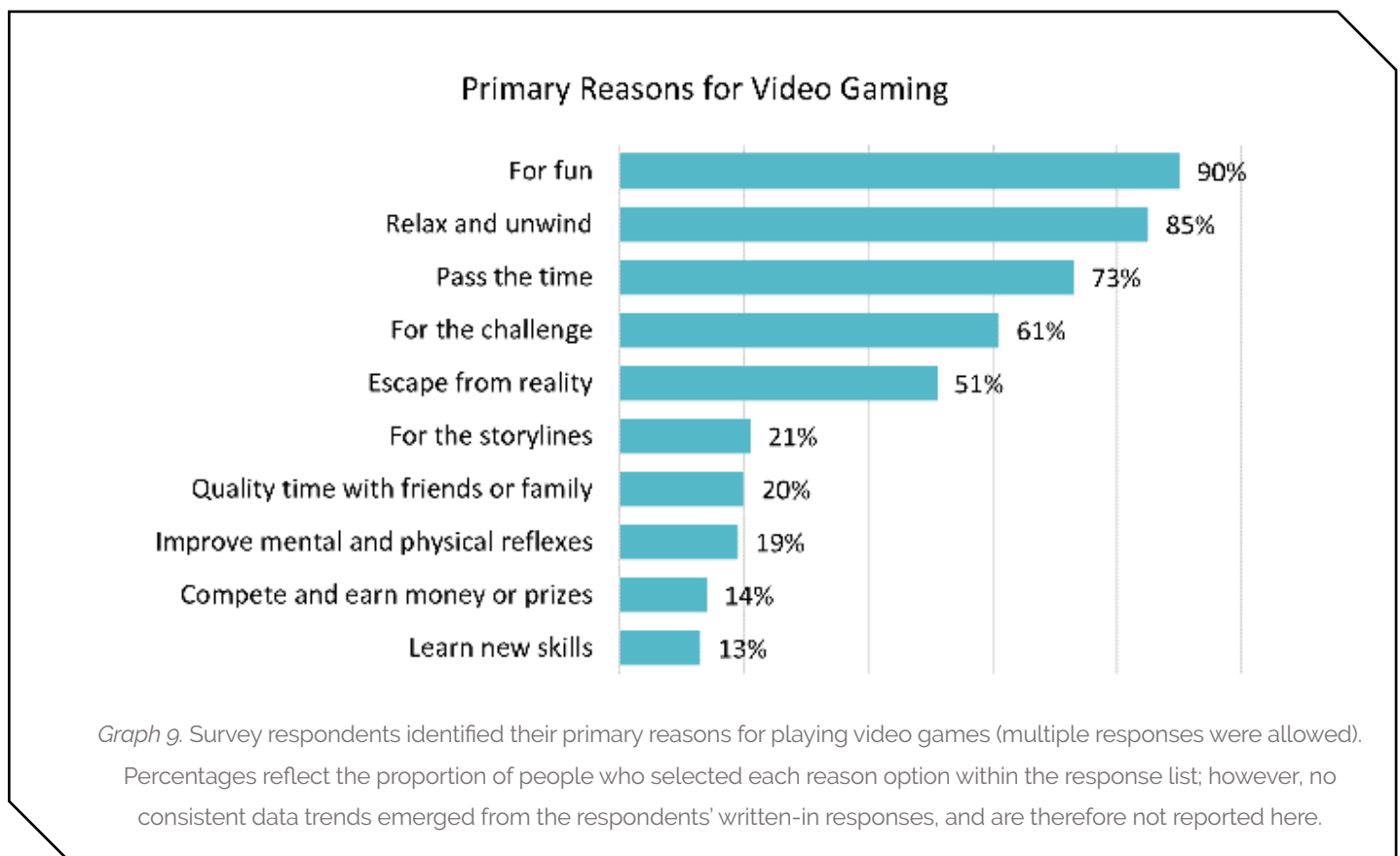
Importantly, just because more people play a certain type of game does not necessarily make it a crowd favorite. The frequency with which a person plays each type of game provides additional information that can illuminate clear consumer preferences.[5] The line overlay on Graph 8 reveals that although platform, simulation, first-person shooter, and fighting games are the most common by overall number, it is first-person shooter, simulation, player-vs-player, and action role-playing games that are played most often.

If we turn toward our demographic subgroups (which demonstrated unique trends earlier), we also observe that although the top one or two game type preferences for each subgroup mirror the overall population pattern, there are also one or two noteworthy standouts within each demographic category. Men, Gen Xers, and Black-identified folks prefer sports games; White-identified folks, Gen Zers, and Millennials instead prefer sandbox role-playing games; Asian-identified folks report a preference for massive multiplayer online games (MMO); and Baby Boomers are the only group to claim digital card games as their most frequently played video game category. Among the more niche subgroups from Graphs 6 and 7, Latina women display a preference for rhythm games, and Asian men show a clear inclination toward photography games.

---

5) Frequency was measured on a 6-point Likert scale, from 0 (never) to 5 (daily).

GAMING REASONS: WHY DO GAMERS PLAY?

One final question left to answer is that of gamers' primary motivations for playing. Survey takers were offered various response choices for why they might choose to pick up the controller, mouse, or joystick, and were asked to select all motivations that applied to them.[6] Fun, relaxation, and general pastime were the top three reasons reported by the majority of our sample (70% or more), whereas the more practical implications, like improved mental acuity, socialization, and monetary rewards, elicited 20% or less response frequency. See Graph 9 for the full list of motivations and their relative importance.

Primary Reasons for Video Gaming

Reason	Percentage
For fun	90%
Relax and unwind	85%
Pass the time	73%
For the challenge	61%
Escape from reality	51%
For the storylines	21%
Quality time with friends or family	20%
Improve mental and physical reflexes	19%
Compete and earn money or prizes	14%
Learn new skills	13%

Graph 9. Survey respondents identified their primary reasons for playing video games (multiple responses were allowed). Percentages reflect the proportion of people who selected each reason option within the response list; however, no consistent data trends emerged from the respondents' written-in responses, and are therefore not reported here.

6) Survey respondents were also given the option to fill in an answer if their unique motivation was not covered within the response list.

A MESSAGE FOR MARKETERS

These data represent a new body of research that has not yet been reported on in the gaming industry. Taken together, each piece provides unique insight into the behaviors and habits of video gamers beyond what has previously been available. The individual facets of a person's gaming preferences are as unique as they are. While examining population trends is valuable in determining the direction the gaming industry is headed, the personalization that so many consumers are seeking is possible only when we intentionally dial into each key subgroup to reveal their nuanced preferences and habits. Video gaming is no longer bound to the stereotypes of the past, and the better that gaming and platform companies are able to understand the natural evolution of this "pastime," the better they will be at honing their offerings with the precision needed to target and retain gaming consumers in this ever-changing, multibillion-dollar industry.

Have questions about this data or our research process? Reach out to **sales@ analyticsiq.com** for more information.
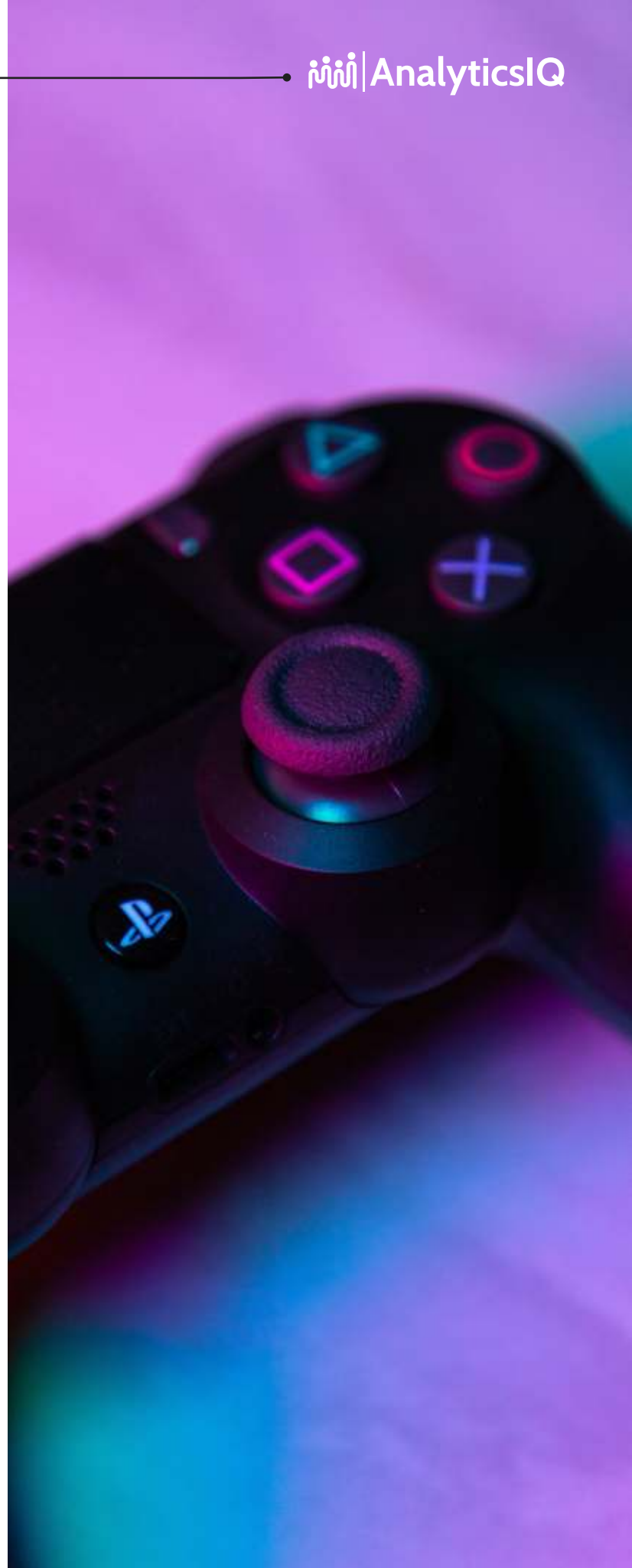
ABOUT THE AUTHORS

Dr. Sarah Cavrak

Sarah Cavrak, PhD is a Psychologist, and the Senior Director of the Cognitive Sciences Department at AnalyticsIQ, Inc. She has spent 20 years studying psychological underpinnings of human behavior, and is primarily interested in understanding the intersection between motivational dynamics and decision outcomes.

Dr. Alexandra Pauley

Alexandra Pauley, PhD is a political scientist with expertise in American and comparative politics, media effects, and political psychology. She serves as the Survey Methodologist for the Cognitive Sciences Department at AnalyticsIQ, Inc.