ESPORTS OPPORTUNITIES FOR RURAL SCHOOLS AND ISPS

Report by the NTCA Innovation and Business Opportunity Committee

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Esports offer growing opportunities for rural broadband providers. Esports can help increase community engagement; support important youth programming; encourage students to pursue career-enhancing technical education; augment talent pipeline development; and drive revenue-generating opportunities for locally operated rural internet service providers (ISPs). Rural ISPs can promote and host esports, including working with local schools and colleges to develop programs and events. Many vendors offer solutions to assist esports promotion, including turnkey gaming platforms, tournament management and "plug and play" packages to help local schools and ISPs create esports initiatives.

This Issue Brief presents an overview of esports and opportunities they provide to students, schools and rural ISPs; appendices include common issues to explore when creating esports programs and tournaments, as well as information on health welfare for esports athletes.

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About NTCA–The Rural Broadband Association: NTCA represents more than 850 independent, family-owned and community-based telecommunications companies providing voice and broadband services in rural areas. NTCA's members build and deliver connectivity and operate essential services in rural and small-town communities across the United States. For more information, please visit www.ntca.org.

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MODULE 1 - INTRODUCTION TO ESPORTS

What are esports?

Esports are multiplayer competitive video-platform games played either virtually or "in-person." Esports are distinguished from gaming by their play in front of spectators. A draft state bill in North Carolina that would provide production tax credits for esports events defines esports as "multiplayer video game competition, particularly between professional players, individually or as teams, organized by an amateur, collegiate, or professional organization, institution, or association. . . "[1]

What type of games are played in esports?

Esports include several types of games, including:

Sports Simulators: These include video versions of traditional sports including football, soccer, hockey, basketball and other games.

Sim Racing: Sim Racing is a subset of sports simulator games and is typically played on specialized equipment that includes steering wheels, shifters, pedals and other devices as opposed to keyboards and controllers.

Fighting Games: These games are typically video representations of boxing, mixed martial arts (MMA), or other two-player games in which characters interact within a confined space.

Real Time Strategy: RTS games feature simultaneous planning as players acquire resources and build virtual cities, bases or other structures.

Multiplayer Online Battle Arena: MOBA games are a sub-genre of RTS in which teams play against each other to destroy or overtake the opposing teams' resources. League of Legends is a popular MOBA game, with approximately 150 million registered players worldwide[2] and an average of a more than 10 million players daily.[3]

First-Person Shooter: FPS are weapons-based games, often in virtual battlefields including historic, mythological or sci-fi settings. These games are typically not included in high-school esports programs.

Battle Royale Games: A subset of FPS, Battle Royale games are "last player standing" games played solo or in two- or four-person teams, and typically include a shrinking battlefield, forcing players into close quarters confrontations.

PAUL BUNYAN COMMUNICATIONS (BEMIDJI, MINN.)

Paul Bunyan hosts the Gigazone Gaming Championships, an entirely free-to-attend and free-to-compete community-based esports and gaming competition. The program features several tournaments and attracts more than 4,000 participants. The event showcases the company's IT and web development team, and is bridged with the TechXpo job fair. This exposes a growing regional audience to technology innovation and enables participants to identify pathways that fuse their technical skills and enthusiasm with high-demand and successful careers.

The Electronics Software Ratings Board (ESRB), a not-for-profit, self-regulatory association, oversees a ratings system that can help parents and schools identify game suitability for different audiences. While ESRB is not a governmental regulatory body, many content creators have adopted its ratings guidelines and many retailers enforce age and ID requirements at point-of-purchase sales. Additionally, many console manufacturers will condition licenses on the creator's acquisition of an ESRB rating. ESRB ratings include E-Everyone; E-10+; Teen; M-Mature 17+; A-Adults Only 18+; RP-Rating Pending; and RP-Likely Mature 17+.

WHO IS GAMING?

Gamers

24% are younger than 18 years old

36% are between the ages of 18-34

13% are between the ages of 35-44

12% are between the ages of 45-54[4]

These numbers correlate to rural U.S. populations, where nearly 60% are age 15-to-54.[6]

Esports Spectators

50% are between the ages of 25-41

26% are between the ages of 16-24

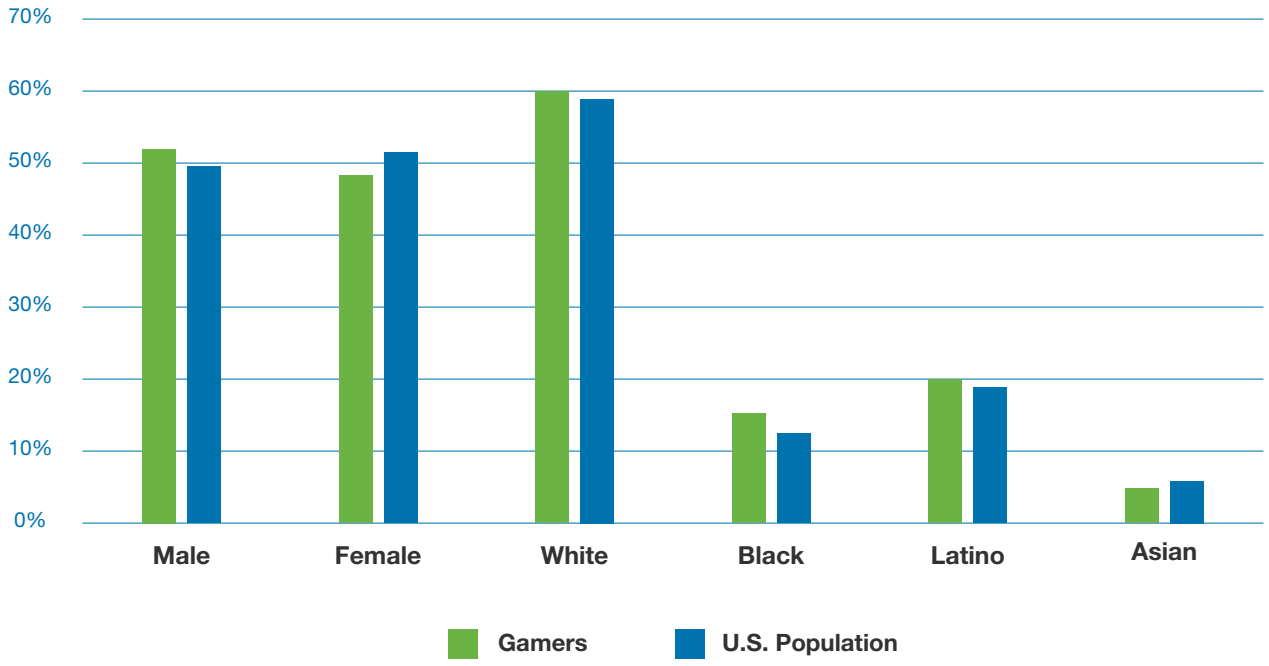
20% are between the ages of 42-56[5]

The average age of a team esports player is 22 years old.[7]

Globally, esports viewing in 1Q24 was 128% higher than 1Q19 and 61% higher than 1Q20; livestream viewing increased 10% from 1Q23.[8]

52% of gamers play on consoles; 43% on PCs; 36% on mobile and console; 60% on more than one device, which can include smartphones, tablets and virtual reality (VR) headsets.[9]

DIVERSITY IN GAMING LEADS TO A DIVERSE TALENT POOL



Source U.S. Census Bureau, Entertainment Software Association.

What is the market value of esports?

U.S. esports market value is estimated by various sources to be between $349 million to more than $500 million; this includes anticipated revenues from sponsorships, media rights, merchandise and ticketing, sponsorships and streaming.[10] Global value is estimated by various sources between $1.72 billion to $1.88 billion.[11] Gaming and esports grew at 14% CAGR (compounded annual growth rate) between 2017 and 2022, and are expected to grow at 8% CAGR through 2026.[12] The fastest increasing segments between 2020-2030 are projected to accrue from sponsorships and media rights,[13] reflecting growing interest in esports.

PRIZE POOLS EVIDENCE GROWING INTERST IN ESPORTS

The international prize pool for Dota 2, a five-on-five game that is considered one of the most difficult to play, is $273 million (reflecting an average of $4.6 million for each of 59 tournaments); the total prize pool for Fortnite is $95 million (reflecting an average of $1.5 million for each of the 63 tournaments).[14] By way of comparison, the prize pool for the World Series in recent years has been approximately $65 million (divided between the two league champions, with players and each team each receiving awards),[15] while the 2023 NBA Finals had a prize pool of approximately $27 million distributed across 12 categories based on conference and playoffs record.[16]

Colleges are also recognizing explosive growth of interest in esports: Harrisburg University of Science and Technology in Pennsylvania's capital city offers more than 15 esports players up to full-tuition scholarships as well as a housing stipend;[17] the University of Utah and University of Texas at Dallas offer esports scholarships. The University of Arizona offers a minor in esports, and The Ohio State University esports program hosts teams from several of its colleges and medical center. In 2020-2021, U.S. colleges awarded more than $16 million in esports scholarships.[18] At the high school level, esports programs increased 500% from 2018 to 2019;[19] the National Education Association reports that more than 8,600 high schools nationwide have esports teams.[20]

ROUND-UP:

Esports values are increasing year-on-year both globally and domestically. Gamers represent a diverse set of demographics. Colleges and universities are devoting significant resources to esports, evidencing market demand for and interest in this broadband-enabled activity.

MTA SOLUTIONS (PALMER, ALASKA)

MTA Solutions provides high-speed internet service to Eielson Air Force Base in Fairbanks, Alaska. MTA employee and U.S. service veteran Alex Medvedev pioneered Nightwatch, a gaming community for airmen. Nightwatch features tiered online gaming experiences for novice and skilled users and participates in statewide gaming tournament hosted by MTA. Two of the base's three teams finished in the top six, and the other took second place.

A survey of Ohio University students revealed that gaming is enjoyed across a wide range of academic interests. Of nearly 800 surveyed students, the following majors and academic disciplines were identified:

• College of Arts and Sciences	24%
• Engineering	18%
• Business	17%
• Communications	11%
• Technical and Applied Studies	9%
• Education	6%
• Health Sciences and Professions	5%
• Fine Arts	4%
• Osteopathic Medicine	3%
• Honors Tutorial College	2%
• Graduate Students	1%

Source Jeff Kuhn, Ohio University (2021)

Schools in Native American regions are developing esports opportunities alongside efforts to curate representation of American Indian and Alaska Native communities in games.

Creators of Never Alone (Kisima Ingitchuna) consulted with Alaska Native elders when developing the puzzle completion game; the multi-chapter game is partially narrated in Inupiaq. At the collegiate level, the College of the Muscogee Nation launched an esports program in 2023, and San Diego State University works with Project Quipu to investigate video gaming engagement in Tribal communities. Kansas State University hosted a seminar in 2024 exploring the use of esports in Native American classroom instruction.

MODULE 2 - ESPORTS IN RURAL SCHOOLS

Why are esports important for rural ISPs?

Esports depend on reliable high-speed and low-latency networks. In the past five years since the National Federation of State High School Associations included esports alongside traditional sports such as basketball, volleyball, football and track, thousands of U.S. high schools have created esports teams.[21] Bandwidth needs can be expected to increase to not only meet the demands of more gamers but also the technical requirements of more sophisticated games. These can be anticipated to drive demand for higher capacity services resulting in higher ARPU (average revenue per user) and higher Net Promoter Score (NPS) scores (NPS refers to a scale rating of how likely a user is to recommend a good or service to a friend).

What benefits do students gain from esports?

Esports offer benefits that are similar to those gained through participation in traditional sports and extracurricular activities. At a most basic level, esports provide an environment for competition where success relies on teamwork and communications. Like other varsity programming, it is a place to learn the twin skills of winning humbly and losing gracefully. Leadership, communication, collaboration and high-pressure problem solving are among skills that students can build and take forward with them to other educational endeavors and the workforce.[22] These opportunities can be especially important as technology becomes more ingrained in many industry sectors including agriculture, health care and manufacturing.[23]

In addition to the skills acquired in team sports, generally, esports production requires mastery of other skillsets, including but not limited to, IT support; event organization; marketing and promotion; and broadcasting.

NORVADO (CABLE, WIS.)

Norvado leads several initiatives introducing students to careers in technology and telecommunications. The company hosted "A Day at Norvado," which included inviting students to company headquarters to spend the day working with employees in technology, management and customer-facing operations, and then convened for interactive breakout sessions. Norvado also supports esports, recently awarding a $30,000 grant to Phillips High School to build a competitive esports team and facility. Additionally, this year, Norvado sent the Phillips High School esports team wearing Norvado jerseys to participate in the Paul Bunyan Communications Gigazone Gaming Championships esports tournament in Bemidji, Minn., and provided customers (primarily students) and employees free entry in Fiber Frenzy, a statewide Rocket League tournament to supported by the Wisconsin State Telecommunications Association and its affiliated companies.

Academic offerings can be coordinated to esports through CTE (career and technical education) programming. For teachers and administrators, esports can be a platform to bridge the "relevance gap," which refers to a perceived gap between academic lessons and life needs. An esports league in Orange County, Calif., incorporates STEM, CTE

and social and emotional learning (SEL) in league programming.[24] Esports offer students an opportunity to learn about technology and gain life skills in an environment that is both challenging and relatable. In college settings, esports are viewed across a spectrum of disciplines, including "business, sports science, cognitive science, informatics, law, media studies and sociology."[25]

Champions seeking to incorporate esports at the high school level may encounter resistance from administrators who are not familiar with esports.[26] However, evidence of benefits from participation in extra-curricular activities, generally, paired with the technical, organizational, teambuilding and decision-making skills fostered by esports can help overcome initial skepticism. Moreover, the increasing interest of university systems in esports should encourage middle and high school administrators to view esports favorably.

Potential barriers may include funding; scheduling after-hours gaming events at school; and recruiting teachers/advisors. Nevertheless, these and other benefits can encourage rural ISPs and schools to collaborate toward creative solutions. Rural ISPs already participating in esports have identified the availability of college scholarships as an incentive to build high school esports programs. They have also cited instances in which students who are not engaged in traditional varsity athletics or other extracurricular activities find their place in esports and engage skills that prepare them for further education or the job market.[27] These observations are consistent with findings that students who engage in extra-curricular activities often reflect greater engagement with their school[28] alongside decreased likelihood of alcohol or substance abuse.[29]

A paper published by the University of California – Irvine enumerates perceived benefits for high schools and students. These include:

School engagement - "Program leaders saw their programs engaging students who are often otherwise disengaged in traditional sports, extra-curricular activities, and even school itself."

Academic and professional skill development - ". . . over time, participating students became skilled 'managers, analysts, streamers, and casters' for their teams and clubs. Such roles required not only technical and professional skills but also 'teamwork, communication, leadership, self-efficacy, [and] self-esteem.'"

Interest-driven learning – ". . . esports programs may be effective vehicles for learning academic content . . . students take an avid interest in the topic already, one which naturally lends itself to connections to disciplinary knowledge and skills."

Social and emotional learning – " . . . the development of self-awareness, social awareness, relationship skills, self-management, and responsible decision-making . . ."

Co-ed teams – "The unique opportunity for co-ed team building was viewed as a particularly exciting prospect given the limited opportunities for students of different genders to collaborate and compete in traditional athletics."

Source: Reitman, J.G., Cho, A., Steinkuhler, C., "The Rise of High School Esports: A Landscape Analysis of U.S. Programs," University of California – Irvine at 13, 14 (https://connectedlearning.uci.edu/wp-content/uploads/2022/09/A-Landscape-Analysis-of-High-School-Esports-in-the-United-States.pdf) (visited May 28, 2024)

IOWA COMMUNICATIONS ALLIANCE (DES MOINES, IOWA)

In an effort to reach younger Iowans and promote rural ISP networks, the Iowa Communications Alliance (ICA) live-streamed an online Rocket League tournament in April 2024. The all-virtual tournament featured 41 teams sponsored or hosted by a rural ISP member of ICA. At least one member of each team was required to live in a house served by an ICA member company. The competition was free to enter and open to participants aged 13 and older; most players were high school and college students. More than eight hours of matches were live-streamed that weekend, and the four top place teams split a $7,500 pool.

What marketable skills and career paths are acquired through esports?

Many esports programs set academic requirements for players, similar to standards for traditional varsity sports teams. Like varsity sports, esports bolster soft skills including communications, leadership, problem-solving and team building. Esports also cultivate technical skills in software, hardware, network design and cybersecurity.

While the average age of a gamer is 33, the average "go pro" age for esports is 16-18 years old, with an average retirement age between 22 and 24 years of age.[30] These ages correspond roughly with typical graduation ages from post-secondary education, a time at which many esports players will enter the job market. "Esports graduates" can transition to careers in technology, development and entrepreneurship. Their familiarity with technology and the need for secure, fail-safe broadband networks foster skills that are useful in cybersecurity applications, including efforts to address hacking, malware and other threats. Other esports graduates transition to careers in content creation. Esports is also a launch pad for careers in game design, coding, hardware development and refinement, marketing and promotions, and broadcasting.[31] In one study, "aircraft pilots" and "air traffic controllers" accounted for more than 40% of professions correlating to skills developed in esports, including visual perception and processing, attentional control, processing speed, cognitive output and specialized communication.[32] Beyond the tech industry, esports skills can help open doors for fields such as healthcare, education, agriculture and other sectors that rely increasingly on IoT connectivity. Esports are an arena in which skills for the long-term can be built.

Esports generate marketable skills

- **Network/hardware proficiency**
- **Digital literacy**
- **Broadcasting/shoutcasting**
- **Soft skills**
  - Leadership
  - Teamwork
  - Problem solving
  - Team building

What benefits do esports offer to rural students in particular?

Esports can be particularly beneficial in rural areas where outlets for social and other team-building opportunities might not be as broadly available as in larger urban centers. Additionally, the broad and diverse social universe of online gaming can flatten social barriers by bringing together people who might be unlikely to interact with each other in person, or who might not have the opportunity to meet in smaller communities. Sixty-one percent of gamers say they have met people they otherwise would not have met,[33] 43% of gamers play with friends they know only through online connections[34] and 83% of players state that gaming creates a sense of community.[35]

Gaming among young women can help develop interest in technology and hardware/software development. A recent Gallup survey of men and women born between 1997 and 2011 ("Generation

Z") found that 85% of males are interested in at least one STEM field while 63% of females are interested in at least one STEM field. Men were nearly twice as likely as women to have an interest in computers and technology, and more than twice as likely be interested in careers in engineering.[36] Esports can be an on-ramp to introduce students to technology in a fun and relatable way, and can help bridge the relevance gap by connecting esports-related skills to regular and CTE coursework. Esports correlate to STEM interests. Nationally, approximately 18% of post-secondary students in 2019 pursued degrees in STEM disciplines.[37] In contrast, approximately 60% of esports athletes report pursuing STEM degrees or careers in esports.[38]

ROUND-UP:

Esports build critical technical and soft skills. Esports enable students from different demographic and geographic communities to meet and interact with each other. Moreover, esports can be a relatable and enjoyable way to introduce students to technology education, leading to productive careers.

BUTLER UNIVERSITY (INDIANAPOLIS)

Butler University created an esports program in 2017. Originally a student-led initiative, the program now features an NCAA Big East varsity program that competes in 13 gaming titles. In 2022, the private university with an enrollment of about 5,500 students opened Esports Park, a 7,320 square foot facility to connect competitive and recreational esports with educational and career opportunities. The facility features more than 50 gaming stations and supports virtual reality gaming. The university also offers an interdisciplinary esports communications minor, drawing on courses in production, marketing and business; electives include courses in leadership, media analytics and multimedia graphics; the program is housed within the College of Communication. Butler counts among its supporting partners software and content development firms as well as a not-for-profit sports technology organization. The Esports Park also provides space for youth STEM and esports camps.

CASSCOMM (VIRGINIA, ILL.)

CASSCOMM encountered mild resistance when first approaching area schools, but persisted and partnered with a local school that agreed to be a test district. Company personnel met with the principal, a teacher who would volunteer and lead the students, and the school athletic director who would help administer the program. CASSCOMM donated a gaming console, controls and two games to get the program started. Program organizers also met with a local university that has an existing esports program. Initially, 14 students signed up to participate in the "Esports Club," which would meet during lunch or study halls since the district had not yet assigned a payroll or stipend funding for the program. The school hosted its first tournament for students several weeks later, with CASSCOMM donating gaming jerseys for participants. CASSCOMM is working with a third-party gaming platform provider to offer esports more widely throughout its customer service base, and the school is now working with a scholastic esports association.

MODULE 3 - BUILDING A LOCAL ESPORTS PROGRAM

What benefits do esports offer to rural ISPs?

Online gaming requires high-bandwidth connections and low latency. In fact, ping and latency are more critical than upload/download speeds. Active support for esports can encourage new subscriptions and upgraded accounts, and provide a basis for invaluable word-of-mouth advertising, which can be more valuable than traditional media buys. Rural ISPs report successful talent recruiting from their gaming communities.

Data requirements (per hour)

• Rocket League	40MB
• League of Legends	45MB
• Overwatch 2	135MB
• Call of Duty: Warzone	160MB
• Valorant	200MB

Source Jeff Kuhn, Ohio University, citing Choros (2021)

How do I get started?

Many states have local esports associations, and inquiries to national associations can also help identify local partners. A local esports association or scholastic partner can offer guidance and help with management, including program design, compliance and coaching development. These organizations can be valuable partners to help organize local competitions and tournaments, including guidance on marketing and community promotion.

Introductory conversations with schools can focus on the anticipated growth in both the broadband and esports industries and the increasing use of broadband across many industrial sectors. Companies are encouraged to gather examples from their own communities, such as healthcare providers engaging telehealth or local businesses that rely not only on internet connectivity but also a skilled tech workforce for success.

A next topic for discussion can be the value of soft skills gained by participation in varsity sports, which includes a description of the communications, leadership, teamwork, planning and team building skills that are necessary for, and developed by, participation in esports. These skills are complemented by the technology skills obtained in gaming, and examples including cybersecurity, hardware repair and installation, and digital literacy.

PTCI (GUYMON, OKLA.)

PTCI hosts the Gigaverse esports tournament. The program features multiple games and attracts both local and out-of-state teams. The tournament includes a cosplay contest and a "bring your own" console section for gamers. PTCI also donated funds to a local school's esports and STEM program, including renovation of an esports facility that is used for regional tournaments, professional staff development and state testing. PTCI develops in-house talent for shoutcasting and other skills for tournaments and gameplay, and is introducing at its PTCI STEM Camp for youth an esports station including shoutcasting, streaming, production, graphics and more.

These conversations will likely turn to the costs of participation, and the costs of esports as compared to other varsity programs are favorable. Esports arenas can be constructed from existing space with light modifications, and moreover can be configured as mobile units for shared space. Some school esports programs have started with donated and/or refurbished equipment and subsequently purchase new equipment as demand and participation grow.

ROUND-UP:

Esports market value is increasing year on year. High schools and colleges are increasingly offering esports programming that helps students acquire technical and life skills. Rural ISPs can leverage esports to build community connections as well as improve ARPU and NPS scores. Esports programs can be introduced within reasonable costs and rely on ISP or vendor expertise.

APPENDIX A - TOURNAMENT HOSTING

ISPs that are interested in hosting their own tournaments can rely on internal staff, outside vendors or a combination of both. Baseline questions will include:

Tournament Design

- Will there be entry or participation fees?
- How will financial arrangements be managed?
- Will the tournament be played in elimination brackets, Round Robin or Swiss?
- What type of staffing will be necessary prior to and during the tournament?
- Will the tournament be open only to amateurs or professionals?
- Who is the target audience – middle and/or high school students; college students; open enrollment; post-college players?
- What game is most suitable for the target audience? (This may contemplate ESRB ratings.)
- How will tournament organizers monitor and respond to participant inquiries?
- Who will draft tournament rules to ensure fair play and consistency? (Rules should address substitute players; contingencies for technical problems including service interruptions and disconnects; forfeitures.)
- How will rules be disseminated to participants?
- How will disputes be managed, and who will be the final arbiter?

Marketing and Recruiting

- How will the tournament be marketed and promoted? (This may include the construction of a microsite, landing page and dedicated marketing channels.)

- Will the host rely on Slack or Discord, or other communications channels? (Slack is a chat-room based communications channel that is designed for professional settings; Discord is often perceived as a chatroom for gamers. Both offer free versions as well as options to customize user experience. Slack can be compared to Microsoft Teams, while Discord combines livestreaming with chats. Slack is perceived as a business channel, while Discord is generally perceived as a gaming channel.)

Technical Specs

- Will the event be live, streamed or both?

- How will event announcers and broadcasters be recruited?

- Will players use consoles or PCs?

- How many stations will be set up, including back-up units?

- What other furnishing might be required, such as monitors, gaming chairs, headsets, mics and other equipment?

- Will live tournament venues feature a “big screen” (or screens) for spectators?

- Does the venue have access to sufficient bandwidth?

Legal Considerations

- Will there be a prize pool of cash or tangible prizes?

- Do any legal requirements or restrictions affect the host’s ability to distribute prize money?

- Will it be necessary to execute licensing agreements for game play?

School-related issues

- Will the school host esports as an extracurricular club or varsity team?

- Will supervision and/or coaching be provided by volunteers, paid advisors or staff?

- Will the school or ISP survey students to gauge interest?

- Does the program contemplate intramural and/or league play?

- Who will coach the teams?

APPENDIX B – ADDRESSING HEALTH AND TRAINING OF ESPORTS ATHLETES

Summary: Like other varsity sports programs, esports implicate manageable risks of physical injury. However, current research and data indicate that proper attention to physical training, nutrition, rest and conditioning (similar to protocols engaged for traditional field and arena sports) can mitigate the likelihood of injury and promote player health.

The perception of esports as relatively sedentary as compared to traditional field sports can invite questions as to the health or academic benefits of participation. At the same time, documented esports injury rates can lead people to be cautious of engagement. This Appendix will explore questions regarding player physical and mental health and explain how, similar to other varsity sports programs, proper training and attention to nutrition, rest and conditioning can mitigate risks for esports athletes. Specifically, this section will address, among other issues, positive youth development (PYD) and general health and physical activity (PA) of student gamers.

A 2022 study reported findings drawn from seven esports programs, relying on surveys of 188 students (120 male, 68 female) and comparing esports participants (the test group) and non-esports participants (the control group). The study found that "esports participation did not have a negative impact on any health or psychological factors," and that "students enrolled in their respective school esports program did not differ from those who did not in self-regulation, growth mindset, PYD, perceived health and PA and sport behaviour."[39]

The widely accepted value of youth sports programs and the benefits they confer for PYD, including such life-skills as teamwork, communications and problem-solving, are a proper analogue for esports. Extra-curricular activities, generally, are found to result in higher attendance and graduation rates; increased self-esteem; and improved academic achievement, including higher grades in core math and reading courses.[40] A study in Iowa found higher self-esteem scores among students participating in extra-curricular activities.[41]

The comparatively sedentary nature of esports as compared to other sports implicates concerns for physical health. A school district in Kansas requires esports participants to exercise and engage in nutritional eating; both practices are monitored and reported to teachers.[42] These standards are not unlike academic or other requirements imposed on many student athletes. A recent research report stated, "While improved regular physical activity can address the negative health outcomes, [it] can also improve performance . . . a short bout of high-intensity cardiovascular exercise prior to playing the video game League of Legends improved performance by 17%."[43]

Esports injuries fall into several broad categories, including eye fatigue; neck and back pain; and musculoskeletal injuries arising from repetitive fine motor actions. Disrupted sleep patterns are also noted due to late night gaming and practice.[44] However, it is not clear that the rate or intensity of esports injuries is higher or more severe than physical injuries arising out of participation in traditional field or other sports. Current recommendations include incorporating regular physical exercise and nutrition protocols into esports programs, as well as the assignment of health coordinators and ergonomic specialists to assist with proper physical positioning and conditioning. One article concludes, "It is clear that although esports and gaming can be a positive experience for cognitive and social health, it is also a field that is requiring new protocols in sports medicine."[45] These protocols would be similar to those that are common in other varsity sports to ensure student health.

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