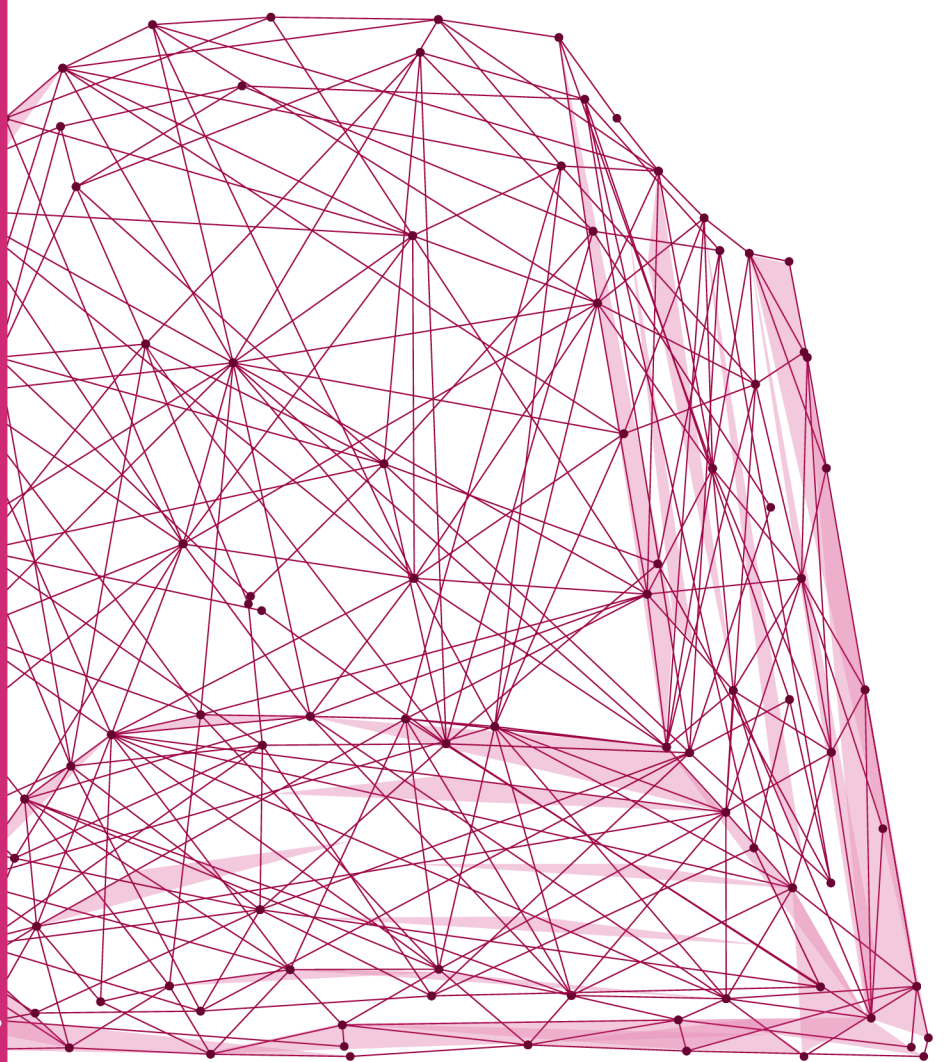
RR.2.2019

Qatar Foundation
مؤسسة قطر
wise
world innovation summit for education
مؤتمر القمة العالمي للابتكار في التعليم
من مبادرات مؤسسة قطر
An Initiative of Qatar Foundation
1804
OHIO UNIVERSITY

GLOBAL SPORT DEVELOPMENT SYSTEMS AND ATHLETES' ACCESS TO EDUCATION



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Contents

ACRONYMS

AAD	Aspire Academy Director of Education (Qatar)
BOA	British Olympic Association (UK)
BPA	British Paralympic Association (UK)
BUCS	British Universities and Colleges Sport (UK)
CAS	The Court of Arbitration for Sport
CCPR	Central Council of Physical Recreation (UK)
CEO	Chief Executive Officer (All)
DACE	Director of Athlete Career & Education (USA)
DCCE	Director of Coaching & Coach Education (USA)
DCMS	Department of Culture, Media & Sport (UK)
DCP	Director of Collegiate Partnerships (USA)
DfE	Department for Education (UK)
DiSE	Diploma in Sporting Excellence (UK)
DNH	Department of National Heritage (UK)
DOE	Department of Education (USA)
DOS	Director of Sport, Bath University (UK)
DSD	Deputy Sport Director-Aspire (Qatar)
ECB	England & Wales Cricket Board (UK)
EDNCYS	Exec. Director, National Council of Youth Sports (USA)
EDQOA	Exec. Director Qatar Olympic Academy
EFL	English Football League (UK)
EIS	The English Institute of Sport (UK)
EPL	English Premier League (UK)
EU	The European Union
FA	The Football Association (UK)
FIFA	Fédération Internationale de Football Association
FTTM	Full-time Training Model (UK)
GTO	Ready for Labor and Defense Fitness Program (Russia)
HMG	Her Majesty's Government (UK)
HP / HPS	High Performance / High performance Sport (Russia)
HTM	Hybrid Training Model (UK)

IAAF	International Amateur Athletics Federation
INSEPS	National Institute of Sport and Education, Senegal
IMF	International Monetary Fund
IOC	International Olympic Committee
JOSOOR	Josoor Institute Qatar
LFE	League Football Education (UK)
LPSD	La Lettre de Politique Sectorielle de Développement des Sports
LTAD	Long-Term Athlete Development (USA)
NAIA	National Association of Intercollegiate Athletics (USA)
NCAA	National Collegiate Athletic Association (USA)
NDPB	Non-Departmental Public Body
NGB	National Governing Body of Sport
NSF	National Sport Federations
ONS	Office of National Statistics (UK)
PCA	Professional Cricketers Association (UK)
PTTM	Part-time Training Model (USA)
QGF	Qatar Gymnastics Federation
QNTDOO	Qatar National Teams Director of Operations
RFU	Rugby Football Union (UK)
RLFL	Rugby League Football Limited (UK)
RLPA	Rugby League Players Association UK (UK)
RPA	Rugby Players Association (UK)
SE	Sport England (UK)
SSP	Sport Science Program-Qatar University
TASS	Talented Athlete Scholarship Scheme (UK)
U.K.	United Kingdom
UKS	UK Sport (UK)
UN	United Nations
USOC	United States Olympic Committee
WADA	World Anti-Doping Agency
WCPP	World Class Performance Plan (UK)

Foreword

At least since the ancient Olympics the feats and achievements of elite athletes have sparked a universal fascination across the ages, stirring fundamental human emotions around our will, not only to survive a brutal existence, but to excel. Rome's mega-star athletes from the classical era awed the masses just as today their modern-day descendants do with dazzling skills in a myriad variety of sports. As communities and societies we are captivated by a crowded calendar of truly global competitions, with their spectacle of national pride lavished by commercial glamor.

Sports and well-being in education and learning was established early among the key, multi-sectoral interests of WISE research. We welcome this fruitful contribution and we look forward to further explorations in this vital and compelling sector of education.

Our colleagues from the Ohio University have placed the elite athlete at the center of the maelstrom, more pressured than ever to perform, to win, and to bring home medals. Yet with all their devotion to pushing the limits of human endurance, and to scoring victories, most elite athletes face uncertainties once they leave formal competition. Particularly those from countries of the Global South who have pinned their dreams of glory to success in elite sport find themselves struggling in the real world. The research raises concerns about the 'sportsmanship' of the systems that produce our elite athletes, but often lack educational pathways for career development and life-long support.

The report introduces the constellation of key sports organizations in each of five countries, and focuses on how these societies and their governments use education to address the challenges elite athletes face during their development, and post-career. It examines the role and involvement of commercial interests in elite sport competition. The country studies –of the United Kingdom, the United States, Russia, Senegal, and Qatar– reveal a striking variety of approaches and structures for the recruitment, development, and support for top athletes in life-long education and career goals.

These approaches range from the outward non-involvement of the U.S. government in athletics and sport, to the close integration of sport and government in Russia –a deeply ingrained carry-over from the Soviet system. Yet for all the countries studied, whatever the channels of support for elite athletes, success on global stages reflects an investment with hoped-for abundant returns in

national pride, prestige, and status.

The recent federal lawsuit in the United States alleging bribery in college admission may carry implicit warnings for elite athlete education. As the research finds, the original objective of mass participation in sport and exercise –building sound minds and bodies— has devolved to a focus on the revenue generating talents of victorious athletes and teams who brought home medals. It suggests a need for sports educators and administrators to be alert to flaws that emerge from systems increasingly enmeshed with moneyed corporate influences, and vulnerable to fixations on national prestige and status where the operative dynamic veers toward 'pay to play'.

The perils and pressures for athletes can be severe. It may not be hyperbole to suggest that the demonstrated health risks of American football –concussion, cognitive and emotional problems, even suicide— now take second place only to the 'fight to the death' contests of Rome's gladiators. Such realities dramatize the pressures and tensions within sport systems whose mission includes the physical-emotional well-being of athletes.

The progress and attention these countries have made and given toward improving systems of support for athlete education outshines the sharp differences in their approaches. Most hopefully, the authors advocate for the empowerment of athletes who, after all, are most directly and personally impacted by systems and processes. They are entitled to the unalienable right of having their voices heard and heeded.

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EXECUTIVE SUMMARY

This research explores elite sport development systems and aspects of educational attainment and opportunities for elite athletes in n a variety of national sport development systems. The countries analyzed for this project are the United States, the United Kingdom, Russia, Senegal, and Qatar. These were selected by the researchers because of the heterogeneous social-political contexts, the diverse histories in relation to sport and education, and the expectation of a variety of approaches toward elite athlete development and education attainment. The objective of this research is to compare and contrast the examined systems to ascertain best practices and approaches for elite athletes to gain a viable education experience and career development for life after formal competitive sport.

Often in elite sport development; the primary focus is on training, performance, and the ultimate bottom line of victory. Top performance at an amateur, professional or international level in sports can be a great revenue source for several stakeholders ranging from sponsors, media distributors and the athletes themselves. Often the total preparedness of the elite athlete, the sound mind along with the sound body, become competing entities with athletic achievement winning out as the priority. Pursuing education options during peak athletic development years while providing a source of income and/or national pride can be deemed at best a secondary endeavor. Thus, many countries, including the five examined for this report, have taken on a more methodical and focused approach to elite sport development and education and career options for the elite athlete as part of a total country plan.

Sport and sport development often are used by countries to advance goals or non-sporting objectives such as a healthier citizenry, tourism, better workforce, national pride and international status. This is clear when the researched country systems use sport development as a cornerstone for economic development and investing in sports capital because of these ancillary benefits. These can materialize due to a greater emphasis on not only elite development, but also expansion of mass participation and recreational opportunities since so few people are recognized as elite. The ostensible benefits of sports participation are wide ranging but as noted in this report, sport development cannot overshadow education attainment and career progression outside of the athletic space for any athlete regardless of classification.

The research involved a detailed review of literature in each country to present appropriate structural context for the empirical work. The primary research involved several interviews with key stakeholders involved in the sport development and/or education systems within each country. This empirical work was conducted to provide an increased understanding of education and career options for the elite athlete. The interviews focused on reviewing practices and commonalities in various global economic and socio-cultural conditions.

A comparative research analysis was conducted to identify and understand aspects of the research systems. Research was conducted at three levels of analysis: macro, meso, and micro levels. The macro level of analysis includes elements of socioeconomic, cultural, governmental and other state organizational support for national sport development systems. The meso level includes law, policy, and infrastructure services that enable sports programs. The micro level consists of operation, processes and methods for development of individual athletes. The micro level is primarily where education fulfillment for elite athletes is managed although the macro and meso levels impact how important education is with regard to sport development in the areas of governmental policy, organizational (NGB or Olympic Committee) support and funding options and alternatives.

The diversity of the systems presented some interesting findings but also opportunities for improving access and education programming for elite athletes worldwide. For example, the United Kingdom and Russia were

similar in governance and organization of sport development in that education and sport development are largely two separate entities. This is in contrast to the United States where elite sport development is largely grounded in the existing primary, secondary and higher education (university) model. Qatar and Senegal presented two relatively young sports development systems each within the frame of a National Sports Policy and governmental ministry much like those of the U.K. and Russia.

Among this study's most significant recommendations to improve education attainment for elite athletes across the spectrum of national sport development models include, at the macro level, recognizing the national and governmental context of education and sport, and how this context shapes elite sport development and education support for elite-level athletes. The researchers recommend continuing high-level research in this space to aid development of stronger policies for the education support of elite athletes. At the meso level, best practice suggestions include reviewing, developing, and implementing evidence-informed policies that formalize and clarify the commitment to elite sport and education support for elite athletes. Countries should also integrate organizational structure at the national level for publicly funded coordination of athlete education as part of long-term athlete development and wellness. There are anchors for this in the systems identified in this project, but improved availability of resources across the spectrum is critical to fund comprehensive athlete education.

Other meso level considerations that should be explored to improve education access for elite athletes include support and resources for teachers, coaches, parents, and athletes specifying the knowledge, skills and abilities to be taught at each level of athlete development over the long-term. In addition, in many countries, such as the United States unlike in Europe, infrastructure issues limit access to sport development and education attainment. Where this exists there needs to be a country plan that increases infrastructure so that travel from home and training facilities to school, college and university is convenient for athletes. Another area that is problematic in many of the systems is having broad based input on policy and organization from key stakeholders including athletes, coaches and NGBs.

From a micro level perspective, focusing mostly on elite athlete development inside and outside of the sporting spectrum, several best practices can be implemented. We find that identifying and developing talent are strong points for the systems examined. They are evolving processes; countries should continuously research and evaluate the needs of elite athlete. With regards to the whole person, countries should implement systems to ensure that all athletes receive the support and resources needed for success outside of sport in their education and career development. This can include specialized programs of study tailored to the athlete. Well-developed organizational structures that focus on education or athlete development and that provide integrated support such as sport academies, Olympic training centers and other national systems for supporting athletes exist now in the U.K., the US and Russia.

Since athletes often want to have careers in sports after competing, whether in coaching or administration, organizations can focus on education access in related areas such sport medicine, teaching and coaching, media and sport management. Much of this infrastructure exists at universities worldwide, but expansion online and in other special education formats that cater to the training schedules of the elite athlete are recommended. Many athletes want jobs and careers outside the sports space; sport ministries and NGBs need programming that leads to other education and sport programs beyond the sports industry. Many good examples exist such as the IOC partnerships with Hilton hotels and other programs that assist athletes with education, life skills, and employment should be adopted in all countries.

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INTRODUCTION

CHAPTER ONE

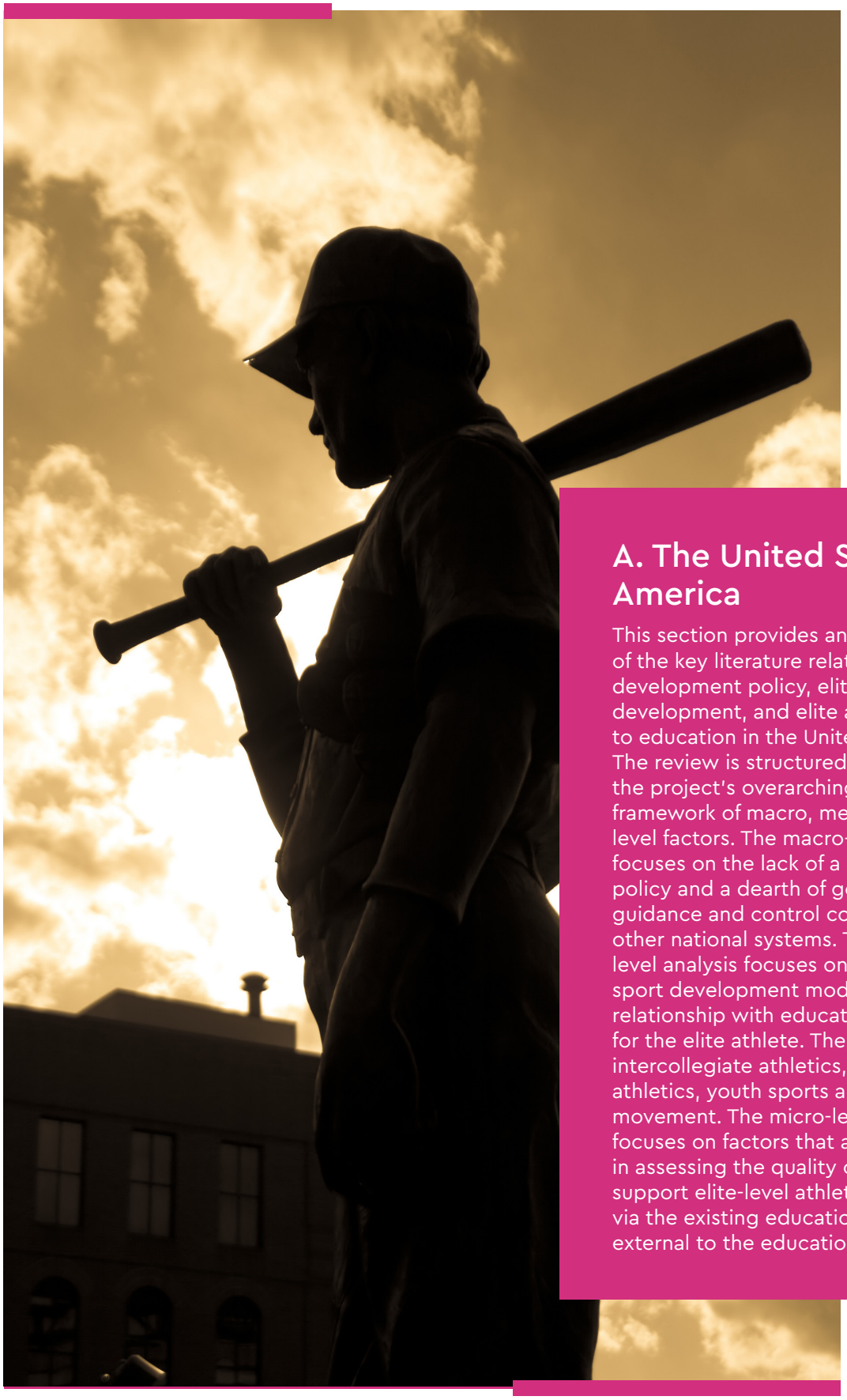
The main goal of this research is to examine various elite sport policy and development systems in the USA, Europe, Russia, Africa and the Middle East, and to assess specific policies and support programs for the ongoing education of elite athletes. On the sport policy and development side, throughout modern history and to the present day, each country and/or region has had its own systems and organizations for sports and sports development whether in mass-participation or elite sports. Elite sporting success is frequently regarded as a critical and valuable resource for its capacity to help achieve a wide range of non-sporting objectives (Green & Houlihan, 2005). Elite sports are usually international in nature; international comparative research between nations and regions is an effective method in which one variable is analyzed to assess international competitive success and other areas surrounding the elite sport development space (Sparvero, Chalip & Greene, 2008). The pressurized environment of elite sport development does not always align well with an individual's education or career goals and aspirations. An examination of sport development systems worldwide can illustrate the steps that nations are taking to address such challenges.

There have been relatively few comparative studies compiled on elite sport development and education access in the current literature. Countries such as Qatar and Saudi Arabia have made sport mega events and elite sport success cornerstones of their national plans. Such growth may be – at least partly– due to the recognition of its soft power benefits – both at home and internationally. Previous research on elite sporting success notes that categorization as a resource valuable for its flexibility and its capacity to help achieve a wide range of non-sporting objectives (Green & Houlihan, 2005). These include a healthier citizenry, tourism, improved workforce, national pride, and international status. This is clear when countries vie for major sport events and invest deeply in sports capital improvements as Saudi Arabia has done as part of its Vision 2030 campaign.

Thus, governments have become more willing to prioritize elite sport development through substantial financial investments and an increasing institutionalization of elite sport systems (Bergsgard, Houlihan, Mangset, Nodland, & Rommetvedt, 2007; Green & Houlihan, 2005). Elite sport, however, is a meritocracy reached by only a few; many talented athletes pursue the vision without reaching this rare status. Moreover, the majority of those who do make it generally have relatively short sports careers. This reality underlies the concern of athletes and emboldens calls for attention to athletes' rights, particularly regarding access to ongoing education support.

These issues form the central focus of this research. This comparative research project analyzes elite sport development systems in five diverse countries. It discusses historical issues, current concepts, and examines best practices for sport development and elite athlete access to education in each region. The research considers applicable practices that can benefit all of the analyzed systems. The five countries considered are Qatar, the United States, Senegal, Russia, and the United Kingdom. Each system is reviewed in interviews with major stakeholders in various subsets of the national system. These subsets vary by country and include professional sports, intercollegiate and interscholastic sports, and Olympic sports. These elite athlete systems of the five countries are analyzed with the macro, meso and micro level through the work of scholars including Green (2006), Green & Houlihan (2005), and Smolianov and Zakus (2008). While some of the definitions of macro, meso, and micro level segmentation for sports development vary slightly among the scholars, the levels are split between macro level of analysis; that includes elements of socioeconomic, cultural, governmental and other state organizational support for national sport development systems. The meso level includes law, policy, and infrastructure services that enable sports programs. The micro level consists of operation, processes, and methods for development of individual athletes.

CHAPTER TWO



A. The United States of America

This section provides an overview of the key literature relating to sport development policy, elite athlete development, and elite athlete access to education in the United States. The review is structured according to the project's overarching theoretical framework of macro, meso and micro-level factors. The macro-level analysis focuses on the lack of a national sports policy and a dearth of government guidance and control compared to other national systems. The meso-level analysis focuses on four distinct sport development models and their relationship with education attainment for the elite athlete. The four models are intercollegiate athletics, interscholastic athletics, youth sports and the Olympic movement. The micro-level analysis focuses on factors that are significant in assessing the quality of education support elite-level athletes, whether via the existing education process or external to the education system.

Macro level of sport development

Reed (2018) states that the United States does not have a comprehensive national sports policy or a government sports ministry as most other countries. Ridpath (2018) and Sparvero, Chalip & Greene (2008) detail and explain that the United States does have several decentralized organizations from youth to professional sports with dozens of governing bodies that often vary in rules and structure from state to state and organization to organization. In essence, even with National Governing Bodies (NGB), a national Olympic Committee (USOC) and other defined sport development systems, the approach to sport development and access to education in the U.S. for elite athletes is fragmented; access and mass participation for non-elite athletes is not prioritized. The bulk of the work and development for many sports in the United States is through the various public and private school systems. Nevertheless, even this decentralized approach to sport development has not inhibited international competitiveness. The United States is the runaway leader in total Olympic medals awarded since 1896 (nearly 2,500 medals, of which almost 1,000 are gold) (Smolianov, Zakus & Gallo, 2014). The sport development system appears to be working when benchmarked against international success. But can the current system sustain the same level of competitive excellence over the long-term, and is access to sport and recreational opportunities being eroded?

The United States, despite over a century of athletic success domestically and internationally including world championships and Olympic medals, still does not have a comprehensive or cohesive approach to sport development and education in the elite athlete space. The lack of a national sports policy and national sports ministry, coupled with the reality that the education system itself is the core locus of elite athlete development, makes sport in the U.S. an interesting study. Sports development in U.S. essentially exists in silos primarily within the education system. It often focuses on elite development and on winning rather than access to a viable education. While school-based athletics were initially intended to be about physical exercise and mass participation to enhance the vision of a sound mind and body, it quickly morphed into elite athlete development, revenue generation and winning, specifically at the intercollegiate level which is a primary feeder system for professional sports teams in the U.S. (Ridpath, 2018). Despite education based sports with education as the priority and certain academic eligibility requirements in place for authorized competition, it can be argued that access to a viable education can be limited in the United States because of an enhanced focus on winning and revenue generation.

The education-based sports model (EBS) for elite athlete development, as it exists currently, is primarily found in the United States. While other countries such as Russia, or in its former configuration as part of the Soviet Union, have long possessed elite athlete boarding schools that focus on athletic development, the U.S. has its elite sport development system grounded primarily in the existing public and private school enterprise (Metsä-Tokila, 2002; Ridpath, 2018). In Europe it was determined that the public sector and existing sport organizations should bear responsibility for educating elite athletes rather than the public education system as it evolved in the United States (Metsä-Tokila, 2001a, 2001b). The objective of combining education with elite athletic development, or at least having access to education opportunities, has primarily been to provide athletes with a viable education to make the transition from a sporting career to another career or vocation easier. (Carlson, 1991; Eriksson, 1989; Metsä-Tokila, 2001a). Education, especially higher education, has become more highly valued not only by elite athletes, but also as a primary factor in social mobility for all. It is difficult to establish a viable career path without a suitable and marketable education (Metsä-Tokila, 2001a: Metsä-Tokila, 2002). The United States may seem

to have the best of both worlds, but elite development and competitive success can easily impede an athlete's education attainment and goals.

Governance and organization

Meso and micro levels

Two of the most popular and widespread sports development models are the European sports club, a system that has roots and anchors worldwide, and the American education-based sport development model. In the latter, development at the elite level for many sports is primarily grounded in the existing primary, secondary, and higher education systems. Collectively state budgeted primary and secondary schools, colleges and universities, and municipal parks and recreation systems (typically available to youth below age 12, and as an alternative to primary and secondary school sports) are central to producing the talent to keep U.S. athletes in a prominent spot in elite sports worldwide. The education system also essentially provides many professional sports organizations in the U.S. a no-cost athletic development system that the professional leagues have no obligation or need to finance (Smolianov et. al, 2014).

The U.S. federal and state government structures delegate elite sport development to for-profit, non-profit sport organizations, and public and private education systems. From the standpoint of elite sport development, the system is somewhat chaotic and disjointed (Sparvero, et al., 2008). It is difficult to compare elite development and education access because the education system is the foundation of U.S. high-performance sport; no European local sport club tradition and infrastructure exists that is directly comparable in the United States (De Bosscher, De Knopp, van Bottenburg, Shibli & Binghamd, 2009). Sports in European and other countries are largely organized through nonprofit, mainly local and grassroots clubs that exist under local and regional sports federations that are ultimately governed by a national sports policy and a National Sports Ministry via existing federal and state government structures (Reed, 2018; Ridpath, 2018). A pyramidal structure exists in the European model with more public resources and infrastructure forming the foundation. This enhances access and opportunity at the lower levels while costing less, yet effectively at the top of the pyramid or the high-performance level. Most sports development in the United States, by contrast, indicate an inverted pyramid where less money is spent at the grassroots level and more resources are directed at the elite level of sports (Reed, 2018). Even with typical participants at the lower level of sports participation from either primary or secondary schools, those programs are not as resourced nor intended to be participatory or inclusive. Often these programs, even at the lower levels, focus on high performance and elite development (Reed, 2018; Ridpath, 2018). Even college and university-based sports outside the commercialized National Collegiate Athletic Association (NCAA) Division I level focus primarily on winning contests rather than participation opportunities and academics.

Funding sources of sports development in the U.S. correlates somewhat with government funding through tax subsides as in Europe, at least to an extent, though more indirectly. Although not channeled through a specific government function such as a sport ministry, most municipalities, individual states and public and private organizations all contribute to U.S. elite athlete development through various funding mechanisms. Like any sports endeavor, U.S. sports derives income from earned revenue streams: ticket sales, corporate sponsorships, donations and media agreements. While certain segments of sports development do receive government funding, where funding mechanisms differ is within the level of competition. Funding for scholastic sports is different from intercollegiate athletics and markedly different from funding for community-based, Olympic programs and professional sports.

U.S. intercollegiate athletics

Macro, meso and micro levels

Any discussion of U.S. sport development must include the scholastic and higher education apparatus that is the primary vehicle for developing elite athletes in many sports at all levels. Most sports currently practiced in the United States initially derived from the intercollegiate athletic space and later expanded into other areas such as professional, Olympic and interscholastic sports. In the early days of U.S. higher education, faculties and administrators had not planned for anything as frivolous as organized athletics. The concentration was to be solely on academics, but students increasingly clamored for recreational activities that would offer a respite from the daily rigors of academic life (Chu, Segrave, & Becker, 1985). Many faculty members recognized that this was actually beneficial to the academic progress and success of the students (Falla, 1981). Whether it was a rowing regatta between Harvard and Yale in 1852, or the first "football game" between Rutgers and Princeton in 1869, these little-noticed and yet very competitive events were the precursors to today's popular, multibillion-dollar industry of intercollegiate athletics which rivals professional sports in popularity and revenue generation (Staurowsky & Abney, 2011).

The differences in sport development and education access in the U.S. is really a question of who desired to control students who were developing and or continuing games from the old world on college campuses in the United States. In the early days of sports in the United States, circa mid to late 19th century, the differ¬ence between a professional and a non-professional athlete was not as obvious at it may seem, but the distinction became important for those participating in school-based sports and later helped define the separation of education and professionalism in sports participation and athletic development.

The term "amateur" was not established as a mecha¬nism to have athletes participate in sports without compensation. It was used to distinguish the working class from the upper class and maintain a social separation in all areas of life, including recreation (Miracle & Rees, 1994; Sawyer, Bodey & Judge, 2008). This was the beginning of amateurism moving away from the original intent and fully separating school-based sports from professional sports in the United States. Bylaw 12.01.1 in the NCAA manual states that "only an amateur student-athlete is eligible for intercollegiate athletics participation in a particular sport" (NCAA 2017-18, p. 57). While this rule is current and the requirement has not changed for over a hundred years, the sports development model we now see in the United States has changed exponentially in structure and financing. The same tenet of amateurism largely still applies to scholastic sports; indeed, the concept of amateur-ism has remained stagnant. Because of this environment, compensation for participation and other benefits and revenue streams, as well as the status of education-based sports in U.S. has changed dramatically to the extent that the long-term marriage of elite athlete development and education in U.S. is frayed, if not broken. Equal education access for elite athletes in U.S. is not what it seems when compared to access for non-elite athletes. The focus is on athletic achievement rather than academic efficicacy (Gerdy, 2006; Clotfelter, 2013 Gurney, Lopiano & Zimbalist, 2017; Nixon, 2014; Ridpath, 2018; Sack & Staurowsky, 1998, Sperber, 1990; Zimbalist, 1999).

Interscholastic athletics in the U.S.

Interscholastic athletics for students in the sixth grade of primary school and above (typically age 12 and older, including students from middle to high school) developed almost on a parallel path with intercollegiate athletics. Interscholastic athletics began with students who wanted physical activity and competition as a respite from the rigors of academics. Sports were also becoming popular

at colleges and universities. The attraction to sports naturally caught on at the primary and secondary levels. School leaders felt they had little choice but to impose some semblance of control over this burgeoning aspect of education. Faculty began to supervise and assist in organizing contests, establishing eligibility rules and coaching faculty at schools (Sawyer, et. al, 2008). Eventually the education system recognized positive outcomes from competitive sports such as teamwork, exercise, problem solving and a better overall student experience as sports allowed students to step away from academics and clear their minds. The games became popular; as in college sports, high schools sports began to promote and even exploit the fact that elite athletics were in the system to stay.

Macro, meso and micro levels

Unlike intercollegiate athletics, interscholastic sports in the U.S. are governed by state associations and not on a national level (Hums & McLean, 2013). There is a National Federation of High Schools (NFHS), but it is a national service organization that serves primarily as a rules of game writing and publishing organization. This does not mean there is no governance at the national level per se; it means establishing consistent rules of the games, along with education programming, officiating codes, and coaching standards, among others. It is not oriented only to athletics but provides services to debate teams, cheerleading and spirit squads, and school bands. (Hums & McLean, 2013; NFHS, 2018). The real regulatory power and authority of interscholastic sports rests with individual states and local school districts to govern participation of member schools including championships, length of seasons and competitive eligibility such as age limits and academic requirements (Hums & McLean, 2013; Sharp, Moorman & Claussen, 2010; Wong, 1994). A major issue facing public schools in the U.S. is the 'pay to play' system that many are implementing to help cover funding shortfalls and preserve existing sports (Ridpath, Husted, Hite, Snodgrass, & Grant, 2016). Public schools are funded primarily by public tax dollars; adding an additional regressive tax to pay for sports participation, once fully funded by existing tax structures, has hurt participation.

In addition to public schools there are private schools that are funded by tuition, fees and outside donations. Many are faith based. How these schools are regulated varies by state. Often the private school has superior athletic resources, higher income families and a decided competitive and academic advantage. Many public schools are restricted by geographic boundaries, although that has been relaxed in many states in recent years. Private schools have no such restrictions and can often attract better athletes to their school, even lower income ones who can find subsidies and scholarships to fund a private education and athletic access. Some states combine governance and championships among private and public schools, others such as New Jersey, have separate systems. For those states that have kept private and public school sports together, private schools have dominated the competition in most sports (Cook, 2015).

U.S. youth sports

Macro, meso and micro levels

Youth sports in the United States are governed several different ways. There is not a national governing body and most states will delegate all governance down to the municipal and/or non-profit and private level (Hums & McLean, 2013). Public sport governance primarily exists in city parks and recreation departments, sports leagues and state games (individual state Olympics for athletes18 and under). Not all states have these types of festivals however. U.S. youth sports typically fall at the ages under 14 for most participation opportunities. Many youth then typically transition to the interscholastic system, usually around seventh grade. This is not set in every state and one can play in a separate youth system that is governed outside of the education space through the age of 18. The differences in

governance, organization, and goals between the 14 and under youth sports programs and older groups, however, can vary widely state to state. Typically in youth sports, mass participation is more prevalent at the younger ages and more specialized, elite development includes the older ages. More elite, traveling teams are options today in the U.S. rather than traditional competition at local levels. Most participatory options in youth sports do come with a cost for participation. Some are publicly subsidized through tax dollars, and private and corporate donations, while many are fully funded privately through fees and donations. Arguably the youth sports complex in the U.S. has blossomed more into an elite development and exclusivity based on income and zip code, and from a desire to compete at the intercollegiate level and procure athletic scholarships. American higher education is expensive; an athletic scholarship can defray much if not all of those expenses. A cottage industry has exploded in the U.S. as many young men and women chase college scholarships and potential professional riches, despite the slim chances of success. This has pushed many young people out of the existing interscholastic systems into expensive youth sports leagues ostensibly to enhance their chances to compete at the next levels. The consequences of charging for school sports participation and the costs of access to outside youth programs has also caused many kids to be inactive and often unable to participate in sports. American youth are less physically active due to these financial challenges (State of Play, 2018).

Olympic sports

Macro, meso, and micro levels

As mentioned, the United States has had a long and successful run in the modern Olympic Games, particularly in the summer Olympics. While the U.S. has fared admirably in Winter Olympiads, many Winter sports like skiing, speed skating and bobsled are not overly popular competitive sports when compared to boxing, track & field and basketball. In the U.S., the United States Olympic Committee (USOC) "governs, manages, promotes, and liases within and outside the United States for all activities of the Olympic, Paralympic and Pan American games" (Hums & McLean, p. 261). The mandate to govern all three of these major global sports events was directed via the Ted Stevens Amateur Sports Act signed

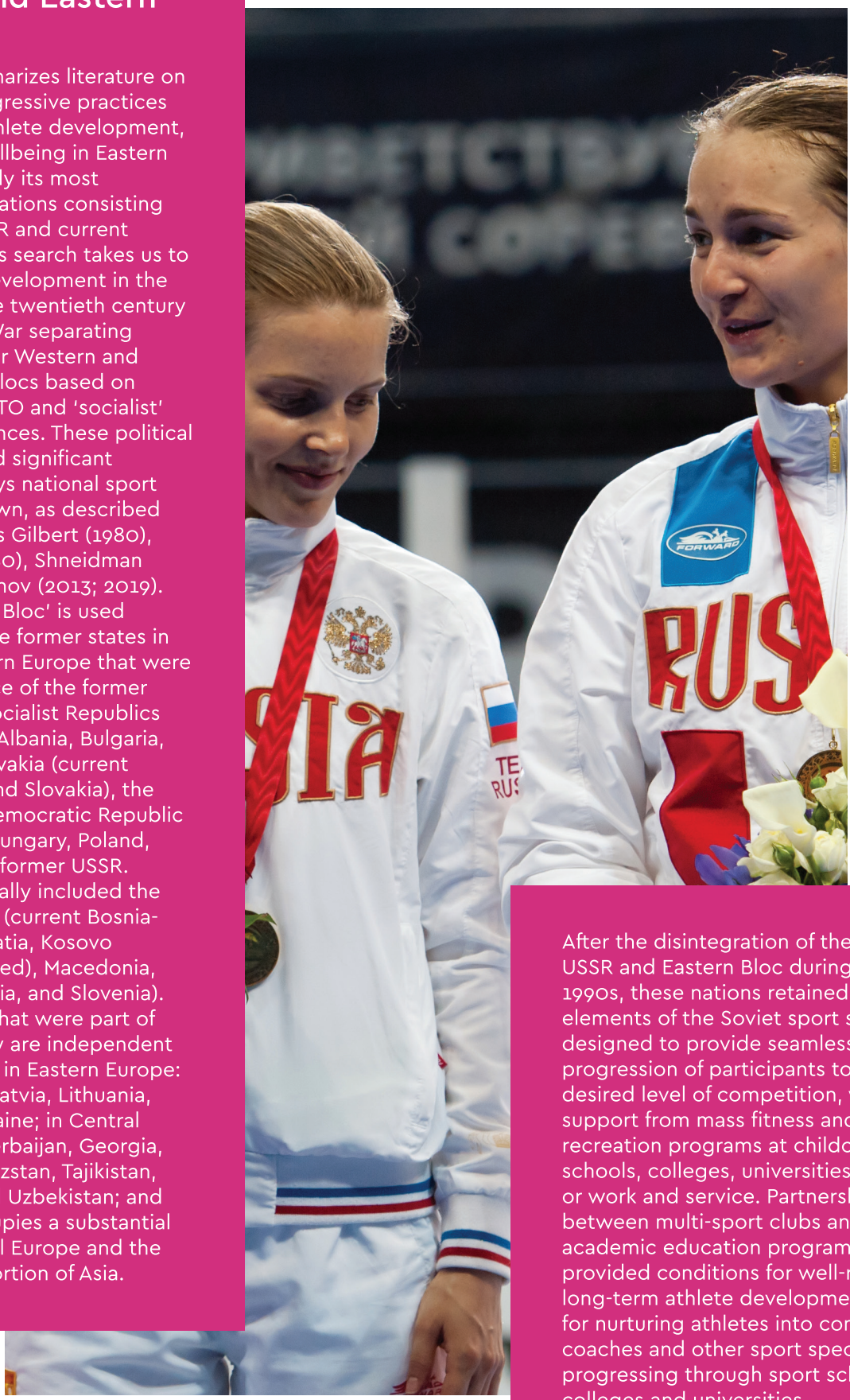
into law in 1978. The USOC either oversees or is in partnership with numerous organizations that provide the athletic capital for the U.S. national teams. These organizations include 39 national sports governing bodies (NGBs), six Pan-U.S. sport organizations, five affiliated sports organizations such as USA Roller Sports and USA Rugby, 20 community based organizations such the Amateur Athletic Union (AAU) and the YMCA, four main education based organizations including the NCAA, NFHS, NAIA and NJCAA and the four branches of the United States Armed Forces (Army, Navy, Air Force, Marines) (Hums & McLean, 2013).

Even with this success and organization, the USOC is still the only worldwide National Olympic Committee (NOC) that is privately funded; other countries are largely tax supported and overseen by government (Leslie Klein, personal communication). As with other sport development silos, Olympic sport must use private funds and sponsorships to fund its operations and National Governing Bodies (NGBs). The total budget for the USOC is over $500 million, generated through sponsorships, endowments, advertising and licensing revenue (Hums & McLean, 2013; Sawyer et. al., 2008). Consequently, it is difficult for the USOC to sponsor education programs in addition to the vast sporting infrastructure it must support. The USOC must rely on partnerships with the existing sports education development structure in the U.S. while still providing some education opportunities for its athletes at the elite level. Considering some of the drawbacks of being a privately funded non-profit organization, the USOC does an admirable job connecting with its partners and providing some of its own education opportunities that can better prepare athletes for life after elite competition.

American sport development faces constant challenges for effective education attainment and competitive success. The question today is: Can U.S. sport development continue on a trajectory of competitive success with these competing entities? Despite overwhelming success in the more commercially popular sports of men's basketball and football at all levels in the United States, the ongoing drive for more revenue and success is eroding the primacy of education for athletes. Many other sports face reduction and/or outright elimination. Will the model that has arguably served U.S. so well for over 100 years be changed, or does it need to be changed? History would show that sport development systems need to evolve; perhaps it is time for the United States to look to the lifelong development of the elite athlete, including reasonable education attainment, rather than the short term gain of fleeting competitive success.

B. Russia and Eastern Europe

This section summarizes literature on effective and progressive practices related to elite athlete development, education and wellbeing in Eastern Europe, particularly its most successful sport nations consisting of the former USSR and current Russia. Our study's search takes us to the rapid sport development in the second part of the twentieth century during the Cold War separating Europe into former Western and Eastern political blocs based on the 'capitalist' NATO and 'socialist' Warsaw Pact alliances. These political developments had significant impact on the ways national sport systems have grown, as described by authors such as Gilbert (1980), Riordan (1978; 1980), Shneidman (1978) and Smolianov (2013; 2019). The term 'Eastern Bloc' is used here to refer to the former states in Central and Eastern Europe that were under the influence of the former Union of Soviet Socialist Republics (USSR) including: Albania, Bulgaria, former Czechoslovakia (current Czech Republic and Slovakia), the former German Democratic Republic (East Germany), Hungary, Poland, Romania, and the former USSR. This bloc also initially included the former Yugoslavia (current Bosnia-Herzegovina, Croatia, Kosovo (partially recognized), Macedonia, Montenegro, Serbia, and Slovenia). The 15 republics that were part of the USSR and now are independent countries include, in Eastern Europe: Belarus, Estonia, Latvia, Lithuania, Moldova, and Ukraine; in Central Asia: Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan; and Russia which occupies a substantial part of continental Europe and the entire northern portion of Asia.



After the disintegration of the USSR and Eastern Bloc during the 1990s, these nations retained many elements of the Soviet sport system designed to provide seamless progression of participants to any desired level of competition, with support from mass fitness and recreation programs at childcare, schools, colleges, universities, places or work and service. Partnerships between multi-sport clubs and academic education programs provided conditions for well-rounded long-term athlete development and for nurturing athletes into competent coaches and other sport specialists progressing through sport schools, colleges and universities.

Macro-level of Russian and Eastern European sport development

Eastern Bloc countries with different macro-level conditions, such as population sizes and GDP levels, pioneered sophisticated concepts broadly adopted including mass Czech fitness festivals, efficient East German sport facilities and athlete development conditions at the meso-level, as well as advanced Bulgarian, Romanian, and Russian training and periodization methods and long-term Hungarian athlete nurturing at the micro-level. The governments have been leading social and organizational focus on sport development in Eastern Europe, particularly during the Cold War period, as well as transparent support and resource distribution based on both number of participants and on their achievement of LTAD stages. Specific fitness and competition requirements has been a key factor in reaching both mass participation and world-class performance by athletes from across regions, not just capital cities. Policies supporting free or heavily subsidized sport coaching, facilities, equipment and sport-related education in each town of Eastern Europe produced high performance (HP) results and high levels of mass participation in small countries and peripheral regions with lower GDP. This includes the most expensive sports such as modern pentathlon, which includes shooting, fencing, swimming, equestrian, and running (Gilbert, 1980; Riordan, 1980; Smolianov & Zakus, 2008). Some of the most advanced sport infrastructures of the USSR have been developed not in Moscow and not even in Russia, but, for example, in Tashkent, Uzbekistan, where the first Soviet multi-sport boarding sport school was created in 1962 on the model of similar schools pioneered several years earlier in East Germany (Riordan, 1980). The boarding sport school in Bishkek, Kyrgyzstan (then Frunze, Kirghiz Soviet Socialist Republic) was opened in 1968, also before such schools were offered in Moscow and St Petersburg (then Leningrad) in 1970s (Riordan, 1980). These specialized sport schools are one of the most important best sport education practices borrowed by the world from Eastern Europe. These schools were integrated with sport colleges and universities in each regional center of the USSR and further advanced in twenty-first century Russia.

Ownership types in sport organizations, particularly professional sport teams, have become diverse in Eastern Europe since 1990, from private and publically traded companies to state or government owned and organization owned. As many as 25 percent of Russian premier league football clubs in 2004 combined ownership of municipal or regional governments and oligarchs (Pochinkin, 2006), and at least half of German clubs must be owned by members or fans (Bundesliga, 2017). The balance between investments into mass and elite sport is becoming harder to maintain in capitalist Eastern Europe, even in Russia where the population of 144.5 million and economy with GDP of $1.578 trillion (in 2017) are more controlled by the federal government and the president, and where the socio-economic model could be labeled as 'state capitalism'. Economic control has also been difficult as the wealth held offshore by Russians is estimated to be three times larger than official net foreign reserves, and could be comparable in magnitude to total household financial assets held in Russia (Novokmet, Piketty & Zucman, 2017). Nevertheless, Russia's state ownership in strategic areas of the economy, including over 30 percent of the world's natural resources estimated at $75 trillion and making Russia the world's largest exporter of natural gas (Paltsev, 2011), the country's federal budget is able to support better systems of education and sport. The country's leaders are trying to revive the USSR successes in these industries. To support healthy physical activities for all, the Russian president asked to redirect public funds toward mass sport from professional teams subsidized through public companies (lenta.ru, 2016).

Eastern European and Russian Olympic committees search for new financial sources in capitalist conditions. The Russian winners of the 2012 Olympic Games received between $500,000 and $1 million from the federations alone before any endorsement money. The Russian Olympic Committee counted on the rich to reward winners. The head of the Summer Sports Association, managing $30 billion,was asked to give every winner $1 million (Johnson, 2012). In preparation for the 2008 Olympics, the government guided the country's ten richest business executives in aiding various sport projects and donating $12 million to the Fund for the Support of Olympians (Schwartz, 2008). Russian corporations increasingly finance sport, devoting over $1 billion to the 2014 Sochi Olympics. The Russian gas and oil company Gazprom donated $130 million to the country's Olympic teams to prepare for the 2012 London and 2014 Sochi Games (RT, 2010).

In the Soviet Union, lotteries were tailored to both financial and promotional needs of sport, best practice inherited by the Russia and partly borrowed by many successful sport nations. In Sportloto numbers represented particular sports, with 50 percent of revenue going to prizes and 50 percent to sport. The Russian Olympic Committee gave medals to celebrate Sportloto cash winners (Sportloto, 2005). The USSR and Russian HP sport systems are deeply integrated with a broad range of organizations, from army and government to trade unions and businesses, the key macro-level best practice. Russia is striving to stimulate sport development through all possible mechanisms, including now best capitalist practices such as federal tax deductions for individual sport related spending, as done in Canada and considered for adoption by the US government (Spence, Holt, Dutove & Carson, 2010; Von Tigerstrom, Larre & Sauder, 2011).

As in Eastern Europe, Russia has been particularly impacted by frequent wars; preparation for military fitness and involvement of the military in sport development has been important. Sport developed largely within the armies of Eastern Europe, including commercial and relatively independent soccer, ice hockey, and basketball as well as all other Olympic disciplines. Centralization, rational organization, competent personnel, and effective system of training, education, and competitions as well as creative application of best global practices spread from the army to the entire Russian sport system (Pochinkin, 2006).

In the 1920s, the Soviet national government established the National Physical Culture Department with regional and local branches, and scientists and coaches were commissioned to construct uniform mechanisms for all to participate in recreation and sport and cooperate with other national departments, most importantly, education and health. This structure, from the 1920s in the USSR and from the 1950s in the rest of Eastern Europe, created a comprehensive sport system and education of athletes and sport personnel seen neither before nor after the existence of the socialist Eastern Bloc. Because of 'capitalist' reforms, in 1990s the systems of education and sport lost much of their public funding. As a result, all types of instruction and control weakened, leading to increased corruption, to less caring treatment of athletes and to mass drug abuse scandals.

Corruption and doping are critical issues for societies and sport in Eastern Europe today. Many oligarchs who took control of the professional teams previously owned by state industries for public good now use these clubs for profit. The transition from public socialist to private capitalist ownership in the Eastern European soccer and other popular sports has created less fair league conditions and introduced more corruption, crime, and violence (Salzman, 2015; Pochinkin, 2006). These trends had, of course, negative influence on education and nurturing of athletes. Corruption characterizes different socio-economic sectors, including education and sport. The decades following the dissolution of the USSR in 1991 brought new freedoms, accompanied by commercialization and criminalization

of sport. In 1996 a new law increased punishment for bribery among participants, coaches, referees, managers, and organizers of sporting events. Offenses such as influencing a game outcome led to a fine of 500 times the minimum salary and up to six months in prison (Pochinkin, 2006). In 2010-2011, fines for giving or taking bribes increased to 100 times the amount of the bribe. Education of athletes in these conditions has become more challenging but vivid, including such additional efforts as posters on walls of sport universities detailing the harm and punishment associated with corrupt activities. As with the fight against corruption, anti-doping policies have yet to produce results in the new capitalist conditions of Eastern Europe.

The Russian performance at the Olympic Games during the 2010 to 2018 period was influenced by drug scandals. Subsequently, Russia adopted stricter penalties for doping violations, cooperated more closely with event organizers and regional sport authorities, became actively involved with such international organizations as the 16-country Anti-Doping Working Group within the European Council, and introduced new courses aimed at prevention of doping at schools and universities, as well as anti-doping television programs. New stricter Russian laws remove coaches and officials who violate anti-doping rules and punish them with fines and imprisonment for coercing young athletes into doping (CBC, 2016; Giles, 2017). All these measures are to improve education of athletes.

Meso-level of Russian and Eastern European sport development

The organizational principles inherited by present-day Eastern Europe from the former monarchies of the region and the Eastern Bloc continue to guide governmental leadership of scientific, education, and medical support aimed at maximizing mass fitness and elite sport performance. Gilbert (1980), Matveev (2008), Platonov (2010), Riordan (1978, 1980), Shneidman (1978) and Smolianov (2013, 2019) described the best practice infrastructures of Eastern Europe providing lifelong paths in sport from grassroots to professional careers and ensure expertise of all involved with sport, as summarized below.

Education and harmonious development of all citizens had been priorities of sport traditions in Eastern Europe. From 2007, all sport-related organizations and activities in Russia are guided by federal law on physical culture and sport, which is based on the following principles:

- Free access to sport for physical, intellectual, and moral development of everyone, and consecutive connection in physical education across ages
- Unified nationwide legislation, combining top-down state or public and bottom-up organizational regulations in compliance with international agreements
- State or government guarantees of sport-related rights to citizens, prohibition of discrimination and violence, assistance to persons with disabilities and other groups requiring special social protection, and provision for safety of participants and spectators
- Interaction between federal or national and local governments in the field of sport and between sport authorities and federations, and development of all types and components of sport as a social and educational voluntary activity.

Similar laws are being enacted across countries of Eastern Europe. In

2008, the Russian Sport Ministry was strengthened with a higher status and broader responsibilities, employing 220 administrative staff in the head office and 310,974 coaches and other sport specialists across the country. Physical education increased from two to a minimum of three times a week with a revitalized GTO (Ready for Labor and Defense) fitness activity program required and rewarded in all Russian schools –a strong policy without peer globally. The Sport Ministry has committed to reach the following goals by 2020:

- Forty percent of the overall population, 20 percent of disabled individuals, and 80 percent of students participating in sport
- Encourage everyone to exercise three to four times, or six to 12 hours a week
- Ensure that 45 percent of all organizations have sport clubs
- Employ 360,000 qualified public coaches and other sport professionals
- Place within the top three in all future Olympics and Paralympics by total medal count.

The growing subsidizing of sport activities and infrastructure require additional sport personnel drawn largely from HP athletes educated in sport schools, colleges and universities. Education of athletes as sport pedagogues competent in medicine is important for achieving public health and education goals through an increased number of regular sport participants in Russia. Its population grew from 25 million in 2011 to 43 million in 2015, and is intended to reach 70 or 100 million (Sport Ministry, 2012, 2017). The increased investment in sport, education and healthcare after 2000 showed its first positive effects: from 2009 through 2011 for the first time since the economic reforms started in 1992, the number of Russians diagnosed with alcoholism and drug addiction decreased (Inchenko, 2014). To continue this trend, education of athletes is tailored to social needs with expansion into such specializations as event organization and youth development.

Making sport facilities, programs, and professional instruction available to all at no or minimal cost, the USSR government had been allocating increasing amounts of money to sport that reached $2.2 billion annually in the 1970s. In comparison, the Russian federal sport budget was only $680 million in 2009, although it increased to $1.8 billion in 2011, $1.7 billion in 2012, $1.6 billion in 2013, and $1.3 billion in 2014 in the run-up to the 2014 Winter Olympics and Paralympics in Russia. The national sport societies, or networks of community and organizational clubs, have provided affordable conditions for all from first steps to HP in most Olympic sports across Eastern Europe. These are financed and managed by the army (e.g., Russian SKA and Serbian Red Star clubs), police, and security forces (e.g., German, Ukrainian, Romanian and Russian Dynamo clubs), as well as trade unions of key industries, from agriculture and manufacturing to transportation and education. This best practice policy of integrating sport within functions of all possible organizations involved citizens as participants and in the management of sport through the multisport societies. These sport societies lost their strong governmental support in Eastern Europe, so they have privatized some of their assets and operations since the 1990s, devoting fewer resources to harmonious development and education of athletes and putting more costs and responsibilities on the shoulders of parents. To share resources fairly and to provide nurturing education progression from junior tournament participation to success at world-class events, amateur and professional competitions in each sport have been managed in integration and governed by one national federation in most of Eastern Europe. Attempts to create independent profitable leagues and teams are increasing (Pochinkin, 2006), leading to less integrated and more chaotic competition schedules detrimental to gradual progression and systematic education of athletes. Eastern Europe countries continue to show best practices in integration of recreational and elite sporting events. A tournament for fans, held

at the 2018 FIFA World Cup in Russia, brought together 200 football supporters from 16 countries who played and lived together (Smirnova, 2018) and encouraged healthy mass football participation and sport education especially when it was combined with football clinics and special events for young players from sport schools and schools for disadvantaged youth.

To ensure a continuation of athletes' careers, national governments in Eastern Europe support and direct the education, certification, and rewards of sport personnel. Coaches enter special sport universities and progress after graduation through five certification stages. Many successful sport countries adopted a Soviet-style government-funded network of sport universities, particularly in Eastern Europe. In Poland, the University of PE in Warsaw enrolled 6,500 students and employed 400 academic staff in 2013 to educate PE teachers, coaches, and specialists in physiotherapy, recreation, and tourism, and to serve as a center of sport science and training. Similar universities exist in the Polish cities of Cracow, Gdańsk, Katowice, Poznań, and Wrocław. The greatest variety of degrees (55) are available at Russian State University of Physical Education, Sport, Youth and Tourism in Moscow. The role of coaches in the system of Russian athlete development and education is detailed in the case study section.

Mass youth participation and physical education is linked with HP through a six-stage hierarchy of sport schools with boarding schools/colleges at the top. Regular school visits by coaches as a policy to identify young people's aptitudes for particular sports and to invite them to clubs and specialized sport schools was part of the development of all subject-specializations in the USSR, including networks of specialized math, physics, and languages schools.. The public sport schools connecting mass and elite sport and supporting LTAD developed in 1950 through the 1970s across the USSR were emulated in Eastern Europe, China, and Cuba in the twentieth century (Riordan, 1980; Smolianov & Zakus, 2008). In the twenty-first century it spread across the world to countries such as Australia, Belgium, Canada, Finland, Germany, Italy, the Netherlands, Singapore, Sweden, and the United Kingdom (BBC, 2004a, 2004b; Davies, 2008; Way, Repp, & Brennan, 2010; Wynhausen, 2007). National sport organizations and public departments of education, health and sport could further understand and utilize best practices and policies of the former USSR and the current Russian sport schools.

The best-known policies of integrated sport training and education found in the former German Democratic Republic and the Soviet Union in the 1960 to the 1980s, particularly in elite sport schools, have been adapted in many countries, mostly thanks to governmental leadership (Bravo & Smolianov, 2016). The Russian Sport Ministry rules and subsidizes most sport facilities and programs, supporting 164,000 centers in an attempt to integrate mass and elite sport. The following public institutions provide education and sport services to potential elite athletes across each region of the country:

- 3,559 Children Sport Schools
- 1,038 Olympic Reserve and High Performance Schools
- 55 Elite Sport Boarding Schools-Colleges
- 14 Sport Universities.

Further details about this pyramid of sport schools, colleges and universities are provided in the case study section of this report. The smooth progression and freedom to choose from the variety of sport schools with different levels of training intensity is a unique practice. Sport universities play a central part in forming sport hubs necessary for systematic sport development. The following comparison demonstrates how Soviet practices of 1980s are being repeated and advanced in the twenty-first century. Two sport hubs developed in different historical, political, and socioeconomic conditions serve as models for the integration of facilities and programs. The first hub was built in Moscow before 1980 Olympic Games and the second in London leading to

2012 Olympics. In Moscow district of Izmailovo, a sport hub was established near the Russian State University of Physical Education, Sport, Youth and Tourism and Sport School-Olympic College №1. Working with multiple partners, NGBs commissioned top coaches to develop and operate the facilities as regional or national training and education centers for all levels of participation. The hub's water sports center comprised of a 12-pool facility for swimming, diving, water polo, and synchronized swimming with two beginner "frog" pools, two 12-meter pools for learners, four 25-meter (including one outdoor) and four 50-meter (including one outdoor) pools, a performance laboratory with equipment such as a multi-speed transparent 'treadmill pool, indoor and outdoor gyms/fields, saunas, medical and anthropometry facilities, restaurants, conference halls, offices, a hotel, and a school with a sport stream/cohort in each grade, and a sport boarding school/college fully devoted to training and education of Olympic hopefuls and sport specialists.

The second, a U.K. hub, has in its center the partnership of British Pentathlon and the University of Bath (U.K.), utilizing a full spectrum of public and private partners. British Pentathlon became one of the U.K.'s most successful sports since 2000, after the country employed Jan Bartu, a coach from the former Czechoslovakia who previously directed the Mexican and the U.S. pentathlon using his comprehensive Eastern European sport education and athlete development experience. Jan Bartu was employed to direct all aspects of British Pentathlon from athlete development to competitions, facilities and financial partnerships. An important feature of both hubs was the integration of sport facilities and programs with their cities' socioeconomic, and particularly their education infrastructure. Both hubs have been part of historical and recreational tourist destinations conveniently connected by public transport with the center of London and Moscow. Both hubs attempted to attract everyone to sport by giving children the same standard of recreational facilities and coaching used by elite athletes, inspiring community participation while producing world records (Bath Sport, 2011; Smolianov & Zakus, 2009).

Micro-level of Russian and Eastern European sport development

Eastern European sport scientists have been developing methodologies for guiding lifelong participation of all in fitness and sport. Everyone is encouraged to pass the GTO fitness tests from 1931 in Russia. Before individuals compete in a specific sport, they are expected to achieve given GTO results in mandatory and optional tests including: running for various distances, long and high jumping, pull ups, push-ups, rope climbing, ball throwing, skiing, swimming, hiking, and shooting, as well as theoretical and practical knowledge of health, physical culture, sport and defense. Compared with fitness programs globally, the unique options of GTO include minimal cost to participants, a knowledge test, and serve as a starting point for athlete education. The GTO includes gender-specific recommendations for 11 age groups from six to 70+ years that guide lifelong fitness. It manages a variety of sports making the program fun and personalized; it is considered an example of best practice in sport programs (Keating, Smolianov, Liu, Castro-Piñero, & Smith, 2018; Smolianov & Smith, 2019). The GTO webpage (http://www.gto.ru/) offers high-quality videos with audio and text instructions supported by interactive instant messaging or texting and voice assistance by trained operators.

GTO test scores are a criterion for high school, college, and university graduation. In addition, GTO tests are part of fun festivals and competitions for everyone. In Moscow, for example, between 2011 and 2015 over 1.5 million residents attempted to pass GTO requirements. The number of people who regularly exercised increased to over 3 million, and 450,000 people were taking part in multisport community competitions for all ages and abilities every year (Vinogradov, 2016).

After passing the GTO tests as a foundation of athlete development and education, participants progress through three junior, three senior, and four master ranks in 143 sports. Each rank requires specific results against such criteria as seconds or meters as well as victories in competitions at certain levels. This ranking system integrated with GTO fitness program, detailed for adoption in any country by Smolianov and Smith (2019), is world's most advanced mechanism for guiding healthy long-term athlete development (LTAD), to monitor performance, and to ensure a proper distribution of public resources (Keating et al., 2018; Smolianov et al., 2014; Smolianov & Smith, 2019). The emphasis on preparing and testing for GTO as part of educating HP athletes in Russia's sport colleges is exemplified in the case study section. In the twenty-first century, LTAD guidelines focused on age-appropriate training have been implemented by national governing bodies of most sports in Canada and other English-speaking countries such as Australia, New Zealand, the United Kingdom, and South Africa; in 2009 they were introduced in the United States (USA Hockey, 2010). These guidelines, authored by Balyi (2001) from Hungary, stem from the USSR and Eastern European sport development approaches outlined by Riordan (1980) and Shneidman (1978). Modern theories of training, particularly periodization, pioneered by Matveev (1964, 2008) from Russia, were further developed and applied by Bompa (1983, 2009) from Romania, Platonov (1988, 2005) from Ukraine, and other sport scientists and coaches. However, the integration of LTAD with mass fitness testing, emphasized by Matveev (2008) has not yet been fully applied in any country.

To support LTAD in Eastern Europe, government sport officials provide recommendations on most aspects of athlete development based on scientists' advice (Riordan, 1980; Smolianov, 2019; Sport Ministry, 2012 & 2017). The guidelines for coaches include such criteria as the minimum starting age for each sport and uniform training and education curricula, as detailed in the case study section. Another distinct sport management feature of Eastern Europe is that since the early 1970s, groups of scientists in pedagogy,

medicine, psychology, physiology, biomechanics, biochemistry, and engineering have been consulting the national teams for improved athlete performance, health and education. In 2012, the Russian Sport Ministry supported the summer Olympic sports with 41 scientific groups, the winter sports with 15 groups, and Paralympic and other special-needs sport activities with 26 groups. In addition, it coordinated 98 sport conferences in 2011 (Sport Ministry, 2012 & 2017). In 2014, Moscow's sport university attracted over 900 participants from 17 countries to a congress entitled Nation's Health: A System of Lifelong PE as a Foundation of Public Health; it published two, 600-page volumes of 370 presented research papers. Student athletes played active roles as presenters, participants, and organizers of such events, particularly through the Annual International Conference for Students and Young Researchers. All these resources are important for high quality athlete education.

The current Russian sport university programs, which use the same curriculum and textbooks across the 13 insitutions similar to the Russian State University of Physical Education, Sport, Youth and Tourism, teach coaches the HP talent selection as part of long-term development and education; the first promising results may appear after five to seven years of training. HP level is reached after eight to 11 years, and stable results are attained after 12-18 years and show a decline later on. According to Nikitushkin, Kvashuk and Bauer (2005) and Platonov (2005), pools of participants in each sport should be gradually reduced through the levels of training and competition by coaches who are taught to use anthropometric, medico-biological, pedagogical, psychological, and sociological tests. In addition, Russian sport authorities offer a $2,000 genetic test based on the scientist-led analysis of blood and hair resulting in recommendations to athletes, coaches, and parents on the right sport, specialization within the chosen sport, as well as optimal training and lifestyle programs, family relationship counseling, and other preparation strategies (Zigmund, 2007).

Russian coaches are instructed to use the following seven stages of long-term development, education and selection of athletes in preparation for HP competitors, detailed by Platonov (2005):

1. Beginner stage—starting at seven to 16 years of age depending on the sport with 15-20 teaching sessions determining predisposition for the sport, followed by one and one half to four years of training to benchmark initial performance level and acquire first competition experience
2. Initial basic stage with two to three years to improve and achieve planned results
3. Special basic stage to achieve planned norms and places in main competitions, with 50 percent of participants selected to the next stage
4. Preparation to HP stage to achieve high places in key competitions and world rankings, with 50 percent of participants selected to the next stage
5. Maximum realization of abilities stage to achieve the highest places in key competitions and world rankings, with 50 percent of participants selected to the next stage
6. Retention of HP stage to retain the highest places in key competitions and world rankings
7. Gradual decrease of performance stage holding high places in key competitions and world rankings.

Each stage requires specific education content as part of athlete development to ensure a healthy lifelong participation in sport, a harmonious lifestyle and productive sport or health-related career that benefits the community. As instructed, the coaches have not culled underperforming athletes. After acceptance into a specialized sport school, college or university, one would stay until graduation regardless of performance. Clubs subsidized athletes of all levels, especially in the former USSR. In the twenty-first century,

education and sport in capitalist Eastern Europe became more commercial and less inclusive.

Russian sport schools, colleges and universities continue to provide HP athletes with skills and knowledge necessary for becoming coaches and other specialists who develop athletes and HP sport as a leading force for mass sport participation and socio-economic and technological advancements, ultimately benefiting everyone (Matveev, 2008; Riordan, 1980; Bravo & Smolianov, 2016). The ability to develop children into athletes demands working with parents and physicians, requiring scientific competencies and knowledge of best global practices, especially in the fast-developing technologies detailed by Smolianov, Schoen, Norberg, Dion, Smith and Calpino (2018) and Smolianov and Smith (2019):

1. General fitness as part of LTAD, particularly testing and development of aerobic fitness, muscular strength and endurance, and flexibility
2. Sport specific coaching, especially periodization of training and rest including such personalized approaches based on advanced medical monitoring technology as cybernetic periodization, autoregulation and parametric training
3. Restoration and medicine, including variable, sequential air modulated compression and massage equipment, handheld vibration therapy, neuropriming, dry needling, cupping, balneotherapy, water and heat treatments
4. Nutrition, such as micronutrients, molecule refinement, immune strengthening/antibacterial/anti-inflammatory and bioactive foods, separation and cross-enhancement of different foods and integration of bioactive substances and adaptogenes
5. Psychology, particularly biological self-regulation skills and improving symbolic learning techniques, virtual and augmented reality, biofeedback and neurofeedback
6. Equipment and facilities for high altitude and other simulations, multi-purpose compound exercises, as well as integrated hubs of multi-sport facilities and infrastructures which benefit both HP athletes and mass participants.

The Eastern European systems of athlete education exemplified in the case studies are designed to provide both theoretical and practical knowledge of the advanced athlete development methods listed above as the best practice beneficial for successful and healthy HP and mass participation sport. Better athlete education is important in understanding new technologies and in forming managerial philosophy on artificial performance enhancement, especially dangerous molecular and atomic applications. As Eastern Europe continues to borrow the best international HP solutions, and as coaches from the region head the national teams of various countries, the two athlete support approaches merge and find the optimal balance between highly specialized Western-style advisors and the multi-faceted Soviet-style coach (featured in the case study section) servicing athletes day and night. Instructional methodologies prescribing lifelong healing and recreational activities for those leaving specific sports are being developed and are expected to advance in Russia and internationally (Smolianov, 2005). The highest level of sport specific training and restoration, competition methodology, and cross-disciplinary science competencies are required in order to operate world class athlete service and coordinate numerous partners surrounding HP athletes, from various training and therapy specialists to school, college and university pedagogues, family, employers, sponsors and media. The Russian sport system continues to advance meso-level policies and infrastructures for these micro-level conditions that warrant regular monitoring in the ongoing search for best practices.

C.United Kingdom

This section provides an overview of the key literature relating to sport policy in the United Kingdom (U.K.). The structure follows the project's overarching theoretical framework focusing on macro, meso and micro-level factors. The macro-level analysis will focus on the state-society relationship as well as three key issues that are known to directly correlate with sport performance and elite-level success: population, the economy, and the depth of sporting tradition (Stamm & Lemprecht, 2001). The meso-level analysis emphasizes national sport policy in the U.K., specifically elite sport, and the discrete changes in sport policy over the past 30 years. The micro-level analysis considers both previous research on micro-level variables that are known to affect elite athlete perceptions of performance, as well as present literature that frames consideration of other micro-level factors critical in assessing the quality of education support for talented and elite-level athletes.

Importantly, the U.K. refers to the union of four nations: England, Scotland, Wales and Northern Ireland. It represents a constitutional monarchy with a parliamentary democracy, although each of the four home nations have a devolved administration with varying levels of decision-making authority (Cabinet Office, 2018). As a result of these arrangements sport policy and governance in the U.K. exist across two tracks. On one track, school and community sport policy are subject to devolved arrangements meaning that England, Scotland, Wales and Northern Ireland create and implement bespoke policies and programs that are specific to their nation. These arrangements are observed by the Department of Culture, Media and Sport (DCMS), the U.K. government department responsible for sport, who work alongside the devolved powers in each home country. The DCMS also direct policy responsibility to school and community sport in England. The Scottish Parliament, the Welsh Government, and the Northern Ireland Assembly (the delegate powers in each home country) delegate primary responsibility for sport to their respective home country Sports Council (Sport Scotland, Sport Wales and Sport Northern Ireland). The DCMS delegates responsibility to Sport England. On the other track, elite sport policy encompasses the entire United Kingdom. Policy is led and developed by the DCMS who delegate leadership responsibility to U.K. Sport. These specific structural arrangements for sport in the U.K. and the policy that flows from them are examined in closer detail in the following sections.

Macro-level considerations

There has been considerable debate in the U.K. as to whether the policy process at the macro-level is accurately characterized by pluralism or corporatism (Coalter, Long & Duffield, 1988). Whilst this is primarily a point of initial theoretical interest, it holds genuine practical relevance insofar as it reveals the distinct power relations between the state and society, thus enhancing our awareness of who is involved in policy, what role they play, how they come to be in privileged positions, and whose interests they serve (Marsh & Stoker, 1995). In the period before the creation of the national Sports Council (1972), the general administration of sport and oversight of National Governing Bodies of sport (NGBs) was seen to be an area of pluralist interest. In this period, it was deemed acceptable to provide arms-length assistance but inappropriate for the state to direct through explicit policy or strategy (Coalter et al., 1988). From the new right conservative administration of 1979 to the present day, the government have pursued a more directive, neo-liberal approach with an increased emphasis on managerialism and the market-based influences of quality, devolution, delegation, contracts, performance measurement, and audit and inspection (Rose, 1996). Clearly, such approaches represent corporatist tendencies. Sport policy in the U.K., however, has become increasingly specialized with the advent of sub-sectoral policy network or advocacy coalitions for school sport, community sport, and elite sport (Harris, 2013) reflecting a wider array of highly specialized actors than would be expected in a corporatist representation of state-civil society mediation (Green, 2005). Thus, state-society mediation in the U.K. more closely reflects neo-pluralism, acknowledges a wide range of interests whilst accepting the privileged position of corporations and the emphasis placed upon commercial practices (Connolly, 1995; Held, 1996).

Alongside a brief discussion of the state-society relationship, it is important to be explicit about the status of the three variables that help to predict fifty percent of the variation in the success of countries at the Olympic Games: national population, the economy, and the depth of sporting tradition (Stamm & Lemprecht, 2001). On the first issue, the U.K. population increased to an estimated 65.1 million in 2015 with projections estimating steady and continual growth beyond 70 million people by 2026 (ONS, 2018). This growth is explained by three issues (i) an ageing population (i.e. life expectancy is growing), (ii) the relatively high population growth in the U.K. population during the baby boom era of the 1960s, with this population having children in the late 1980s, thus reflecting earlier growth, and (iii) the direct effect of net migration having increased the population by on average 250,000 people per year between 2004 and 2015 (ibid, 2018). It is important to note, however, that on this latter issue, such growth is likely to play a limited if any role in elite-level success in international sport. In short, the U.K. represents a densely populated, mid-size country, ranking the twenty-second most populous worldwide and the third largest population in Europe, after Germany and France (UN, 2018).

The fifth largest economy in the world, the U.K.'s GDP in 2017 was $2.622 trillion, with significant year-on-year increases in real growth since 1982 (with the exception of 1991, 2008 and 2009) (International Monetary Fund, 2018). Alongside this growth, there has been a considerable rise in government debt from 43.1 percent to 82 percent of GDP comparing 1982 to 2017 with the most substantial double-digit increases recorded between 2009 and 2011 (ONS, 2018). On June 24, 2016, the U.K. held a referendum regarding the country's membership of the European Union. The voting population decided to leave the European Union (51.9 percent voted to leave; to 48.1 percent voted to remain). The impact of this decision, known as Brexit, on critical economic measures such as GDP, currency, government debt and

spending, whilst not fully understood, is generally viewed to be problematic. Moreover, the implications for public policy and public spending in areas of valuable but nonetheless discretionary sectors of public expenditure (such as sport) are likely to be challenging.

The final macro-level issue of concern relates to the depth of sporting tradition. Whilst the U.K. has a long and deep tradition in sport, it is one that was largely dominated by processes of bureaucratization and a commitment to traditional ideals of amateurism. In terms of bureaucratization, through the late 1800s and early 1900s, the U.K. was the birthplace of a number of National Governing Bodies of sport, the likes of which were transported to other nations and eventually into International Federations in order to allow the governance of sport across national boundaries and promote the coordination of international competition. The U.K. was also the center of a movement - through the Wenlock Olympian Games, the Liverpool Olympic Festival, and the ideals of the Corinthian spirit and the ostensible virtues of Arnold's ideas of integrating athletics into public schools - that contributed to de Coubertin's inspiration for a modern Olympic movement (MacAloon, 1984). The U.K. was a founding member of the IOC and is one of only five nations that has competed in all Games from 1896 to the present day (along with Australia, France, Greece, and Switzerland) (Grasso, Mallon & Heijmans, 2015). However, despite the important influential role of the U.K. in the development of the Olympic movement and its central role in the birth of many modern sport forms, the U.K. was a relatively late adopter of systematic and methodical approaches to elite sport development. This was largely due to a deeply set cultural commitment to ideas bound up with the notion of the gentleman amateur and the Corinthian spirit and reinforced by the general disdain for any approach that did not conform to such ideals (Green & Houlihan, 2005). These cultural and institutional norms were only gradually undermined by the sustained failure in international competition (Green & Houlihan, 2005).

Meso-level considerations

Historically, from the nineteenth century through the post-war period of the twentieth century, government intervention in sport in England has been 'haphazard and ad hoc' (Coghlan, 1990; Green, 2003; Houlihan, 1991; 1997; Roche, 1993). The persistent themes of 'paternalism, defense of privilege, fitness of the nation's youth, social control and international prestige' underscore the sport-politics relation during this time (Green, 2003: 120). More recently, in the aftermath of London 2012, the government's most recent sport strategy, Sporting Future: A New Strategy for an Active Nation (HM Government, 2015). This strategy clearly provides a broader philosophical sport for development view underlining expectations that sport will deliver on a number of outcomes including (i) physical and mental wellbeing, (ii) individual, social and community development, and (iii) economic development (HM Government, 2015). The actions and outputs detailed in the strategy articulate further change in the policy priorities for sport. Gone is the artificial separation of school and community sport, the school-based target of increasing the number of young people accessing five plus hours of P.E. and sport per week and the aspiration to increase mass sports participation by one million people. Youth sport is now combined with community sport with the objective of getting 'more people from every background regularly and meaningfully taking part in sport and physical activity, volunteering and experiencing live sport'. This includes a strong emphasis on increasing participation in sport among under-represented populations and on the use of sport as a vehicle to address wider social objectives (HM Government, 2015: 18). The actions and outputs for elite sport accentuated both sporting success at the domestic and international level as well as leveraging the impact of major sports events. The third and final strategic priority relates to the governance structures of sport and specifically the creation of a more productive,

responsible and sustainable sports sector (HM Government, 2015). This strategic area is interesting in the current international and domestic sporting context as it explicitly addresses a number of the deepest and darkest of governance failures that challenge the integrity of elite sport development: anti-doping regulation (e.g. WADA, IAAF and the Russian Doping Scandal), athlete safety (i.e. child protection, safeguarding athletes, e.g. The Football Association), athlete welfare (i.e. mental health and elite sport), and the governance structures of both national and international sporting federations (e.g. British Cycling, FIFA).

Micro-level considerations

For the purpose of this study, the micro-level literature will focus on aspects that illuminate the athlete experience. More specifically, this section will address issues of direct concern to the athlete, including athletes' view of critical success factors, athlete rights, the education support for elite athletes in Europe, and a final sub-section demonstrating the relationship among macro-, meso-, and micro-level factors.

Critical success factors: the athlete perspective

Over the past decade we have seen a growing interest in the macro- and meso-level analysis of success factors in elite sport (c.f. Andersen & Ronglan, 2012; Bergsgard et al., 2007; De Bosscher et al., 2008; De Bosscher et al., 2015; Digel, 2005; Green & Houlihan, 2005; Houlihan & Green, 2008), and at the same time a general hiatus in the work focused on micro-level analyses such as those of athlete or coach experience with success. This is surprising, particularly in the U.K.-context given the significance of resources and expertise that have been allocated to elite sport development and the resultant growth of a systematic support program for athletes. Initiatives included in this support program include generous scholarship funding for full-time elite-level athletes, funding for athletes showing potential for future international-level success, world class coaching through both overseas recruitment and a nationwide coach education program supported with mentoring and leadership opportunities. In addition, the program includes support for medical and sport science, sport analytics, bespoke sport-specific talent identification and development programs aligned with the principles of the LTAD, and world class facilities for training and competition supported by investment from the National Lottery Fund. Elite and talented athletes in the U.K. have never before received this level of financial support and political prominence. At the same time, there is a lack of up-to-date research relating to the elite athlete experience.

What we do know from various research done some 15 years ago is that elite athletes tend to agree that the personal dedication and motivation of the athlete is what they themselves consider the most critical factor for success (Gibbons et al., 2003; Duffy et al., 2001; De Bosscher et al., 2008). Other important factors consistently cited as critical are: the support network around the athlete (parents, family, friends, coaches, etc.) and the quality of coaching (Gibbons et al., 2003; Duffy et al., 2001; De Bosscher et al., 2006). In addition, Gould and colleagues (1999) examined the range of factors that varied between Olympic sport teams that either met or exceeded expectations compared to those who failed to meet expectations. Reinforcing the research presented above, they found that having high levels of motivation and commitment, the support of family and friends, and the quality of preparation were some of the most notable differences between the teams that met or exceeded expectations and those that did not meet expectations. Additionally, the researchers underline other important micro-level considerations including (i) well-developed competitive plans and routines, (ii) taking proactive action on team cohesiveness issues insofar as the team stays together, the environment is carefully managed and any problems or stressors are dealt with openly through dialogue,

(iii) an intentional level of comfort and a growth mindset in regards to competing before crowds, (iv) a systematic and well-rehearsed mental routine that had been developed through a sustained mental preparation program, and (v) the coach-athlete relationship as it extends beyond quality of coaching and to the more nuanced world of relationships and focusing on cultivating an open, mutually respectful, and performance focused relationship among coaching staff and athletes (Gould et al., 1999). This latter issue is not without its practical challenges given the patterns of power that underpin coach-athlete relations (e.g. the coach as team selector as well as tactician, etc.) and the micro-level politics that characterize any high-intensity relationship (Potrac & Jones, 2009). Such problems are best negated by the time-consuming yet highly rewarding practice of cultivating a positive performance environment. This requires an approach that goes beyond normative rational development with political and senior leadership commitment to the change process, where managers can manage upwards, where interactions can and should question aspects of practice, and where genuinely challenging but supportive environments can flourish (Collins et al., 2013). Such approaches demand mutual respect and a clear demarcation of roles and responsibilities; once implemented, they can deliver both immediate and longer-term goals which enhance both performance outcomes and reinforce the agents' commitment to the process (Collins et al., 2013).

Athlete rights

Alongside (and integral to) the attention given to cultivating effective high-performance environments is the concern about elite athlete rights, especially young athletes. These concerns are twofold: (1) the protection of (in particular young) athletes from commercial pressures which could erode their access to vocational or education development and lead to significant problems following retirement from sport, and (2) the issue of fairness of competition across countries where some nations may enable the exploitation of athletes including limiting young people's access to education, and other nations may build talent development models around the education system (Aquillina & Henry, 2010). The first concern is primarily a moral obligation and one which the international sport system has a duty to manage and regulate whilst also ensuring that the vocational and education needs of athletes are fully understood and met. The second concern, whilst also an ethical one, is primarily a legal issue that requires nations in contexts such as Europe to conform with EU legislation on issues such as unfair competition.

Of key import in the discussion on athletes' rights is the autonomy of sport whereby sport governs itself free from government interference under the traditionally accepted yet recently more challenged notion of lex sportiva. Alongside autonomy, sport is a meritocracy, an especially competitive arena where only the best of the best get to compete at the highest levels, resulting in very small percentages of athletes continuing to the Olympics or to the professional level (Donnelly & Petherick, 2004). For those athletes that do progress to those levels, it is important to underline the relatively short career of most athletes at the elite-level. Consequently, the autonomy of sport and the sheer competitiveness of the environment have contributed to an institutional norm in which we generally accept the very few protections afforded to elite athletes (i.e. limits on training or competition, health and safety regulations, enforcing the time committed to compulsory education in line with Article 26 of The Universal Declaration of Human Rights, etc.) (Donnelly & Petherick, 2004). This in turn reinforces the notion that the elite sport system has tended to dehumanize athletes in their pursuit of success 'effectively excluding any concern for individual moral reasoning or political autonomy in the developing athlete as a performance machine' (Brackenridge, 2004: 324).

We hope that the future of elite sport governance extends beyond sporting outcomes. Sport, especially Olympic

sport, has a social responsibility and a moral obligation to nurture cultures and to pursue strategies that are not only highly effective in identifying and developing talent, but equally effective in maintaining appropriate policies and support systems to meet the education needs of young athletes (Aquillina & Henry, 2010). Against the backdrop of numerous elite sport ethics scandals (e.g. the Russian doping scandal, FIFA, USA gymnastics, British cycling, etc.) there is clearly much work to do in improving integrity and developing a principle-led approach to elite sport development. Although beset by problems elsewhere (from putting geo-politics above fairness for athletes to bullying Foundation Board members), WADA has presented a draft Charter of Athletes' Rights consisting of 16 articles including clean and fair sport, equality of opportunity, protection of health, corruption-free sport, and a right to education. Whilst such approaches are to be welcomed, they must represent genuine attempts to drive a change in culture. Simply employing counter-strategy to create the illusion of change will reinforce previous failures and will likely intensify the view of athletes as mere pawns in political games. At the domestic level, the U.K. are attempting to methodically examine issues regarding athletes' rights through the recently published Duty of Care in Sport Independent Review led by Baroness Tanni Grey-Thompson (Grey-Thompson, 2017) which includes education alongside six additional key thematic areas of concern. While the report itself has symbolic importance in that the government are making the issue of athlete welfare a priority, the more notable issue relates to the willingness and ability of key stakeholders to act upon the numerous recommendations the report contains.

Education support for elite athletes in Europe

The elite sport systems of nations across Europe are varied, as is the state of education support for elite athletes. Clearly, education support is not solely an issue of responsibility for government, sport, or athletes. Indeed, athletes themselves point to the range of people and organizations who play a role in helping them manage their dual-careers as athlete and student (Aquilina, 2013). The policies and programs providing education support to elite athletes across Europe are unique to each country, underlining 'the variability of response in national systems to the demands placed on elite young sportspersons' (Aquilina & Henry, 2010: 29). Nevertheless, while there is variation, there are also common characteristics to allow for a nation-based typology, which sets out four typical approaches to education for talented athletes: state-centric regulation, the state as sponsor/ facilitator, National Sport Federation (NSF referred to elsewhere as NGB) as intermediaries, and the laissez faire type (Aquilina & Henry, 2010).

In conclusion, Aquilina and Henry identify three critical features of education support for elite athletes across Europe: (i) the variability in the role of the state from a strong, hands-on approach to virtual laissez faire (2010), (ii) the apparent growing intervention in the education support offered to elite athletes – perhaps to lessen the worries of life after athletics as much as a concern for the welfare and rights of the athlete, (iii) that the variation in state responses across Europe means that there is variation in the rights of citizens and athletes; this has implications for the European Union in terms of both the EU's willingness to intervene and the range of measures that could address such inequalities (Aquilina & Henry, 2010). It is also appropriate to add to this list of features the recent consensus across Europe on the notion of support for dual careers (Campbell, 2018).

The European Union has led in this matter to 'safeguard the moral, education, and professional interests of young sportsmen and women'

(Commission of the European Communities, 2007: 6), and culminated in the development of a network whose primary purpose is to support European athletes in combining both high performance sport and education. [1]This network plays an important role not only in supporting elite athletes but also in providing a collective voice for elite athletes in lobbying governments, sport, and higher education institutions to do more to meet the education needs of young talented athletes.

The relationship between macro-, meso- and micro-level factors

Micro-level factors, as well as macro and meso-level factors, play a direct role in contributing to a nation's elite sport success. A variety of empirical work focused on elite athletes tells us that systematic, close attention to the micro-level environment can help individuals and teams to succeed. Developing a reflective orientation that is squarely focused on the needs of elite athletes is likely the most effective approach in supporting peak performance. Such factors, however, are nested within, and not separate from the meso-level policy environment, which in turn is nested within the broader socio-economic and political landscape of each nation state. In other words, the sport policy of each country and the specific policies and programs targeting education for elite athletes is influenced by broader state politics such as the welfare regime of each country (Houlihan & Green, 2008).

In Esping-Andersen's notable work identified three types of welfare regimes: liberal, conservative, and social democratic (1990). Liberal regimes include countries such as Australia, Canada, the U.K., and the U.S.A.; they are characterized by the dominant role of the market with limited state intervention. Principal norms of liberal states include freedom of thought, the rule of law, individual rights, and transparent system of government. Conservative regime types, including countries such as Belgium, Germany, and Italy, are characterized by the central role of the family and the subsidy role of the state (Esping-Andersen, 1990). A strong emphasis is placed on a social security system and the provision of private-sector driven welfare remains limited (Esping-Andersen, 1990, 1990). The social democratic regime type includes the Nordic countries and emphasizes the central role of the state in financing and organizing welfare benefits such as free-to-access education, healthcare, childcare, and family support. Such systems are typically premised on relatively higher taxes and wealth redistribution, allowing for a more equal society, at least in regards to income inequality.

It is important to note that much of Esping-Andersen's work was based upon the nature of state regimes in the 1980s; much has changed since then, and it is prudent to apply the typology cautiously. Additionally, typologies represent ideals; variations in a typology are to be expected, such as in the characteristics of a regime type, and the dominance of certain interests within each country, and forces that underpin them (e.g. the U.K. has since the late 1990s developed an exceptionally strong elite sport lobby with strong social democratic tendencies, although P.E. and school sport remains weak with more traditional liberal tendencies). Alongside these issues, it is apposite to consider the influence of external stakeholders on national sport policy-related issues, particularly stakeholders such as International Federations and other international structures (WADA, IOC, CAS, professional players associations). While the influence of these stakeholders may be limited, the interconnected nature of international sport governance, nations' growing interest in gaining political capital through sport, and the power and prestige that comes with mega-sport events are all factors that have helped international agencies gain greater influence in domestic sport policy.

[1]Further details of the EAS network and their aims and objectives can be found at www.dualcareer.eu

D. Senegal

Within Senegal's 196,722 square km resides a population of about 15 million (World Bank, n.d.). Senegal has a young population, with a median age of 18.1. Life expectancy is 67.5 years. The nation's gross income per capita is $2,384; the gross domestic product is $16.37 billion. Besides French, all Senegalese speak one or more local languages. Wolof has emerged as a lingua franca, and this auxiliary language remains the most widely spoken language in Dakar, the capital city.

Senegal is ranked 164 out of 189 nations, according to the UNDP Human Development Indicators. It is considered a developing nation with challenges common to young nations with a colonial past with limited economic resources. Andreff and Szymanski (2006) argue that developing nations often have a lower sport participation than developed nations. Additionally, the financial resources allocated to sports are limited.

Macro level

Like most Francophone countries, Senegal inherited a specific form of organized sport well-established among the elite, the nature of which was determined by the colonial administration's policies and direct involvement. Bernadette Deville-Danthu (1997) and Bouchet and Kaach (2004) describe how the French colonial heritage influenced the macro structure of sport in Francophone countries such as Senegal. Bouchet and Kaach (2004) define the French model (in which private support goes along with government intervention in sport and physical education) as the model adopted by Francophone countries after independence. As discussed in the following sections, private actions and government interventions define the sport model in place in Senegal. Bouchet and Kaach (2004) indicate that the sport systems are extremely centralized and government-controlled. Furthermore, those authors maintain that the centralized characteristic of organized sport is revealed by the emphasis on the government's role in training, facility building and development, and top management of the overall sport politics. Loum (2004), discussing the case of Senegal, argues that the Ministry of Youth and Sport has the authority to veto the organization of any competition. This mixed structure, inherited from the French model, continues to evolve but remains strongly driven by the government's vision and authority.

Sport development in Senegal does not emerge distinctively as a concept. In fact, with the exception of football, elite athlete development continues to rely on amateur clubs, federations, and governance. Nevertheless, the policy document developed by the Ministry of Sports (MoS) elaborates its sport vision from "mass" sport to "elite and performance" sport. These policies posit the government as the central driver of the national sport policy, with an increased delegation of operational authority to privately run associations, clubs, communities, and federations. The following sections present the key areas of focus presented in a 2015 policy document entitled "Sports Sector Development Politics Document" (La Lettre de Politique Sectorielle de Développement des Sports) (LPSD).

Meso and micro levels

French colonization played a role in the development of the early years of the elite athletes' development in Senegal. In fact, prior to the independence, the colony of Senegal was one of the colonial territories participating in the Francophone West Africa Cup (AOF cup). Deville-Danthu (1997) reports that one of the most important sporting events was the organization of the AOF cup, regrouping all the territories from 1948 until independence in 1960. These games contributed to the emergence of the first elite athletes who competed for France before the independence of Senegal in 1960. The athletes who represented Senegal in the early years of independence in the 1960s and the Tokyo Olympics in 1964 emerged from the colonial sport system established by France.

In sports such as basketball, Senegal became a dominant nation in Africa. In fact, the women's basketball teams won eleven African champion titles since the first competition in 1966. As the most successful collective sport team, the Leones of Senegal (Lionnes du Senegal) participated in two summer Olympics and eight FIBA Women World Championship. The men's basketball team won five African Championships, and participated in three summer Olympics and four FIFA world championships. The most spectacular Senegal sporting performances on the world stage are the FIFA World Cup quarterfinal in 2002 and a track and field silver Olympics medal in 1988 in Seoul, South Korea by El Hadj Amadou Dia Ba on 400-meter hurdles.

Basketball and football are the most preeminent international sports with continental titles, world championships, and Olympics participations. Basketball and football players are well represented in various top football and basketball leagues in Europe. The 2018 FIBA international basketball migration report indicates that Senegal, with 36 elite players, is the first exporter of basketball players in Africa. In the 2018 Centre World football expatriates global study (CIES, 2018), 189 Senegal players play in various elite football leagues globally. In fact, despite the limited trophy and medal wins since its independence, Senegal's elite athletes have consistently emerged to reach continental successes, particularly playing in top European football and American college basketball competitions. The following discussion presents the organizational structures and policies in place for athlete development.

Sport in the "Emerging Senegal" project

In the national vision for "2035 Emerging Senegal," sport is positioned as a central development component toward creating Senegal's future. According to the government, it will be "a sport system accessible and successful that contributes to the social and economic development of Senegal" (Ministère des Sports, 2015). Sport is such a priority that it is included in the nation's first pillar of national Economy and Social Politics (PSE). Because it contributes to the health and well-being of the population, it must be part of youth physical and intellectual education. With a ten-year schedule (given a mid-term evaluation after the first five years), the LPSD idea is to build an accessible sport system that contributes to the sustainable economic and social development of Senegal by 2025.

The LPSD defines four strategic goals:

Strategic Objective 1:

Construction and rehabilitation of sports infrastructures and the development of sport activities

1. Build a new, modern sport infrastructure, and rehabilitate the existing one
2. Promote sport for all, both in schools and leisure
3. Improve the internal representation and performance of Senegalese athletes

Strategic Objective 2: Human resources and human capacity development

1. Improve training curriculum, and develop a new profile for sport technicians
2. Train a larger number of sport technicians and administrators
3. Develop new competencies in sports administration to pilot and manage sport
4. Train and recruit high- and mid-level administrators

Strategic Objective 3: Reinforce sports' contribution to the economy

1. Promote the professionalization of sports associations and organizations
2. Promote leisure sports as an economic avenue for employment and wealth-creation opportunities
3. Improve Senegal's sport capacity in hosting sporting events capable of supporting the tourism and affiliated sectors

Strategic Objective 4:

Modern approach to sport governance

1. Promote innovative approaches to sport financing
2. Develop dynamic communication systems and reliable data systems to support the needs in evaluation and assessment
3. Plan, monitor, and evaluate with results-driven methods

The LPSD is a comprehensive document with a SWOT analysis of strengths, weaknesses, opportunities, and threats. It addresses the current challenges of sport in Senegal while setting up ambitious objectives for sport development. Their goals incorporate the ideas of elite sport development, mass participation, and professionalization of sport. Throughout the LPSD is a clear desire to develop a sport industry that can contribute to the national economy and support employment. The following section is a description of what is currently in place in Senegal for sport activities and development.

Structure and organization of sport and key stakeholders in Senegal

The structure and organization of sport is determined by the government and Ministry of Sports (MoS). Sports policies are defined by the President of Senegal. The MoS which establishes national priorities is responsible for driving the policies under the guidance of the prime minister, who coordinates overall governmental activities. The state then appeals to the private sector, such as sporting associations, to assist in delivering sport policies (MoS Advisor 1, 2018). The model is government control, with a delegation of power to private entities such as federations, individual associations, clubs, and sports academies. As a consequence, the sports federations have exclusive power over their sport and have national control of any activity related to their sport. For instance, the Senegalese Football Federation is in charge of all forms of football played in the country, such as beach football or futsal. The federation structures its activities by creating regional and departmental leagues, professional leagues, and divisions. Each federation or association has the autonomy to create its own texts and policies in conformity with the legal framework of the MoS.

The government provides funding to the all registered federations and associations. It covers all the expenses related to national teams' preparation and participation in an international tournament. Subsidies from international sport governing bodies, and sponsors support the government's effort in national team preparation and participation in regional, continental, or international competitions. This dual contribution can produce challenges when government funding is estimated insufficiently, late, or poorly managed by the various bureaucracies. The government also has the responsibility to build competitive sport facilities. The vast majority of sizable stadia and arenas are built by the government and host federation competitions. For example, in 2018 two arenas, for indoor sports such as basketball,

handball, volleyball, and wrestling opened in Dakar. They are both fully funded by the government. The wrestling-exclusive arena is the first facility built to host wrestling events (a sport considered, with football, as the most popular spectator sports in Senegal). Furthermore, the training and education of coaches, sports administrators, technicians, and human resources personnel depend on the government's institutions and programs. Because a decentralization law was passed in 1996, municipalities received an official mandate to contribute to the development and management of local sport and physical activities (Ministère Des Sports, 2015). Although the MoS operates through delegation of authority to the federations, its role is primary in funding, facility building, policies, rules, training, and human-capacity development. It is therefore difficult for the Senegalese to envision sports development without the government.

Federations and associations

By 2018, the MoS had 58 registered federations validated according to its conditions and rules. One such rule addresses the formation of clubs and associations. To be registered and affiliated with a federation, all clubs must be multi-sports (with, at least, teams in football, basketball, handball, and swimming). Having a club with multiple sports, however, is not always feasible. According to a MoS official, there are many clubs that might have only a football section, so the rule is not always enforced (MoS Director 2, personal communication 2018). According to the official, the federation's bylaws must comply with the ministry's rules. But federation rules remain flexible enough to allow a federation latitude to settle the allocation of votes in the formation of its governing board (2018). Football in Senegal, which has fully registered professional leagues, has a decentralized structure. Two professional leagues are officially distinct from the federation, which delegates power to a special governing body to run both leagues. Professional league governance does not have a direct link to the MoS. The football federation is the only entity directly affiliated with the MoS. For each sport, only one federation is affiliated to the MoS and can receive annual subsidies for their activities.

Sport associations with an independent special status do exist, distinct from the federation mode. These structures are called "National Committee of Management" (Comite National de Gestion, CNG), and have the mandate to run a specific sport with limited oversight by the MoS. Wrestling, water sports, and equitation are among the sports run by a CNG, not by a federation. Their governance depends on a committee, with its independent bylaws from the general framework provided by the MoS. They are elected like the federations, and they are nominated for a four-year renewable tenure.

Other federations and associations directly under the Ministry of Sport

The National Olympic Committee (Comité National Olympic, CNO) directly depends on the MoS to prepare elite athletes for,African games, for the Olympics, and other international competitions. The CNO has no governing role in the national federation. However, the CNO (through the International Olympic Committee programs) assist and support both elite athletes' training and human-capacity building, such as coaching education for international competitions. The CNO is also called "the federation of the federation" (MoS Advisor 1 personal communication, 2018) because of its role in bringing all the Olympic sport federations together to prepare and participate in the Olympics and in the African Games. Special Olympics are also represented in Senegal. They depend on the MoS as a federation and, like other federations receive subsidies for their activities, although largely to support their participation in international competitions. The Special Olympics, with more than 3,000 registered athletes, are a large federation with consistent participation in international competitions.

Schools and universities in Senegal

The Union of Associations of Universities and Schools Sports (Union des Associations du Sport Scolaire et Universitaire) (UASSU) is the governing body of all the school and university sport competitions. The UASSU, under the Ministry of Education, is a parallel sport development ground for talent search and training athletes for local clubs and national teams. Many of the early sporting elite of Senegal, until the late 1980s, were discovered in the UASSU national competitions ("Sport Festival"). These included El Hadj Amadou Dia Ba, who won the silver medal for the 400 meter hurdles at the 1988 Olympics in Seoul, South Korea.

According to a MoS official, a few private schools (such as Collège Sacré Coeur and College Saint Michel, with boarding school) and public lycée (such as Lycée Delafosse, Lycée Cheick Seck, and Lycée Lamine Gueye) were the growing grounds for multiple-sport elite athletes (personal communication, director 2, 2018). Lycée JFK, for girls only, developed a first generation of basketball players such as Kankou Koulibaly and Aya Pouye, who both won several African basketball championships.

Of course school sport has always been important to organized sport in Senegal. From independence in 1960 until 1999, each school's physical education teacher was an employee of the MoS (MoS director 2, personal communication, 2018). The technical management of sport in school was linked to the MoS, although operated by the Ministry of Education. In 1999 the physical education teachers became part of the Ministry of Education. The government established two committees: the Committee for School Sport Management and Governance, whose members are appointed by the MoS; and the National Committee for University Sport (sport in higher education), whose members are appointed by the MoS. Most of the members of these committees are physical education teachers (MoS director 2 personal communication, 2018).

The Army and Corporations

Like the schools, the army remained a sporting ground connected to the main sport structure run by the MoS, but as an association. The Association of Armed Forces (ASFA) has always been an active participant in various championships and a provider of athletes for basketball, handball, volleyball, and track and field national teams. The army also organizes its own inter-battalion national championship, independent of the MoS and the federations. The federation of corporate sport is a multi-sport federation affiliated with the MoS, with their own governance, competitions, and activities. They also receive some subsidies from the government.

The sport governance and development model in Senegal is largely focused at the amateur level, with a critical role taken by clubs, associations, and federations. These groups are amateur, with benevolent administration and patrons occupied by their own professional activities. They operate with an important autonomy but are limited in funding and often rely only on MoS subsidies for their activities and to support the training of coaches and administrators. This model represents major challenges across all the levels of the proposed model (p. 74) for analysis and comparison of national high performance (HP) athlete education systems.

E. Qatar

Qatar occupies a peninsula located in the south western Arabian Gulf. It shares its only land border with the kingdom of Saudi Arabia, with Bahrain to the west, Iran to the north, and the United Arab Emirates to the east. Qatar's national day, 18 December, commemorates the unification of the Qatari tribes under the leadership of Sheikh Jassim bin Mohammed bin Thani (HISTORY OF QATAR, 2018). It gained its independence from the British on 3 September, 1971 (Turner, 2002). The head of state is a member of the Al-Thani family, and holds the title of Emir. Qatar has a total population of about 2.6 million (2017), of which a large majority are non-Qatari expatriates; some 310,000 are Qatari citizens who are mostly Sunni Muslims. Qatar's economy is largely based on the export of liquefied natural gas (LNG). The country's GDP in 2015 reached $166.9 billon (Trading Economics, 2018).

Macro level

Hosting the Fifteenth Asian Games established Qatar as a sport destination (Amara, 2005), while focusing on providing a high standard of luxury for visitors (Qatar Secretariat for Development Planning, 2008). Qatar's main focus is developing the tourism sector, evident in the constant and rapid change within the country (Qatar General Secretariat for Development Planning, 2011). The country's visiters are 60 percent corporate, and 40 percent leisure travellers (Turner, 2002). The national strategy focuses on promoting Qatar as a tourist destination, in addition to the benefits of hosting international sport events. Numerous infrastructure development projects are ongoing, as well as those in education, social development, and cultural heritage. Qatar is home to several globally recognized brands and concerns, such as media channel Al Jazeera, Bein Sports, Qatar Airways, and others. In recent years, Qatar has won several bids to host international sport events, with the 2022 Football World Cup (FIFA) being the most prominent (Akkawi, 2010). Qatar hosted the Asian Games in 2006, the Handball World championship in 2015, among others. Qatar won the bid to host the International Association of Athletics Federations (IAAF) World Championships in Doha in the Autumn of 2019.

Qatar's National Vision 2030 calls for substantial investment in supporting healthy lifestyle through sport. Beyond organizing and hosting international sport events, Qatar is investing in the preparation and improvement of athlete performance for success on the international stage. These efforts are seen in schools, federations, and in the principal sport academy, Aspire, that aims to develop the best young Qatari athletes. Investing in sport is one of the government's key pillars toward achieving its vision (Qatar Secretariat for Development Planning, 2008).

The Qatar National Vision

Meso level

Qatar's National Vision 2030 calls for its population to become effective participants in the "economic, social and political life" of the nation (Qatar General Secretariat for Development Planning, 2008). The vision was established on the following principles:

The National Vision... reflects the aspirations, objectives, and the culture of the Qatari people. By shedding light on the future, the Vision illuminates the fundamental choices that are available to Qatari society. Simultaneously, it inspires Qatari people to develop a set of common goals related to their future (Qatar Secretariat for Development Planning, 2008).

Thanks to substantial hydrocarbon export revenues, the Qatar National Vision 2030 has focused government investment on multi-sectoral development. Its efforts include developing human capital and a skilled labor force, improving health and education systems, improving public services, and generally supporting the improvement of international development indicators. Qatar has built and sustained a political and organizational climate to encourage an entrepreneurial business sector. Placing a high value on cultural heritage and environmental protection and sustainability, the government works to balance economic needs, social development, the environment, and cultural authenticity.

Micro level

This section addresses Qatar's use of sport as a tool for development, focusing on athlete education, both in pre- and primary school levels, and in higher education and elite athletics. The case study explains the vision, structure, and management and events of Aspire, the government-funded, world-class, leading sports organization in Qatar. Subsequently, the focus will turn to the Aspire Academy, within Aspire, with a detailed analysis of its athlete development programs, including their academic development. Turning

to elite athlete development and higher education in Qatar today, the research will examine the role of various academic and non-academic institutions providing education to athletes. The case study will focus on QAED (leader), a joint venture between QFA (Qatar Football Association), Josoor Institute, and Stenden University.

Elite athlete sport development and education in Qatar

Elite athlete sport and education development are noted prominently in the Qatar National Vision 2030. As in other countries, various organizations work together toward the national agenda. In this report, the term elite athlete refers to athletes emerging from federation structures through associations and clubs activities. These federations are now usually governed and supported by the Ministry of Sport and Youth. Formerly, the Qatar Olympic Committee (QOC) was the main financial supporter of these federations. QOC controls the governance of the development of Olympic sports athletes. The Ministry of Sport and Youth has assumed the governance of the federations, and Ministry of Education and Higher Education is responsible for public education.

Aspire received the approval from the Ministry of Education and Higher Education to offer all its students a high level of education. In 2016 Aspire became an official council of international Schools (CIS) accredited educational institution (Aspire, News, 2016). Aspire Academy works to offer the best in sport development and academics for the benefit of its talented athletes. A highly ranked educator at Aspire Academy stated that the two-winged logo of Aspire reflects its philosophy: One wings represents professionalism in sport, the other represents professionalism in education. In order to fly, one needs both.

Other institutions related to elite athlete development and education

Qatar Olympic Academy (QOA), a member of the QOC, provides training sessions focusing on coaching, training, and event organizing. The QOA's approach is grounded in understanding the country's need to raise professional working standards and management in all areas of the sport development and education sector. One of the directors at QOA noted, "when it comes to elite athlete development, it is a duty to integrate Olympic values in schools, and to offer PE teachers and sport coaches with the highest level of knowledge to transmit to students". He added that students do not show a good level of sport practice in schools; without better practice, Aspire would not be able to achieve its target for selecting and preparing young students to represent Qatar.

Football is a prominent sport in Qatar, through schools, and universities, and clubs everyone has access to football pitches. Since the country is expected to host the 2022 FIFA World Cup, some adjustments were made to prioritize this sport. Football is treated differently and favored. Usually the football federations in the majority of other countries are responsible for governing this sport; in the case of Qatar, however, the Qatar Football Federation (QFA) is considered a different entity, responsible for the national team and the amateur league. Beside, of QFA , Qatar stars League management (QSL), is a different intitie responsible of delivering the professional Qatar Football league. In this way, each entity can focus on developing and providing the best in its area. At the same time, QFA and Aspire work hand-in-hand in offering national team players with the access to all state of the arts facilities, and technologies.

Josoor Institute

In December 2013, the Supreme Committee for Delivery and Legacy, responsible for producing the 2022 FIFA World Cup events, established the Josoor Institute (Josoor Institute, 2018). Its purpose is to provide training and development to support anyone interested in continuing his/her career in the sport and events management sector. Josoor works directly with organizations in Qatar to host workshops on current knowledge in the field, and participants can earn professional certificates and diplomas (Josoor Institute, 2018). Within a short time frame Qatar was able to present its case nationally and internationally, boosted by medals earned and other indicators. This success underscores how the efforts of various organizations coordinate their work for the benefit of the younger Qatari generation. In addition, the results demonstrate a decision making process that aligns support for sports with the development of the country, as well as the strong professional dedication and commitment of young Qataris.

In this report we will present two case studies on Qatar, both with a focus on the work being done for the benefit students and athletes. In the case of QFA (Qatar Football Association), we will focus on the recent bridge-building between federations and universities to support athletes in continuing their higher education degrees while pursuing their training.

CHAPTER THREE

THEORETICAL FRAMEWORK AND METHODS

This comparative research study examines athlete education related structures, processes and practices with a focus on demonstrated effectiveness and efficiency in the analyzed national sport systems. There is a particular emphasis on practices that can be used gloablly in different economic and socio-cultural conditions. The literature detailed previously suggested that our analyses examine the macro-, meso- and micro- levels. These structures are used as independent variables to investigate literature and organizational documentation in the analyzed countries, following the key parameters used by comparative international studies on elite sport discussed more fully below and in the literature review. There is no perfect model for international comparative sport analysis, particularly focusing solely on high performance sport (HPS) (De Bosscher et. al, 2010). The most recent attempts include studies by academic researchers such as Bauman (2002), De Bosscher et al. (2010), Digel (2002), Green and Oakley (2001), Houlihan and Green (2008), Platonov (2010), Ridpath (2018), and Smolianov & Zakus (2008).

Mainly, comparative HPS models focus on descriptive explanations of the selected ingredients (usually sport policies) that are deemed to contribute to successful performance in international sport. These models are validated through case studies of countries that have demonstrated international sporting success. HPS systems are dynamic, complex, and varied in design (Sotiriadou & De Bosscher, 2013). This is due to the ever-changing sport environment and the cultural and political dimensions; these need to be considered in a comparative research study (Digel, 2002; De Bosscher et. al, 2010).

This study's theoretical framework is based on the agreement among such authors as Bravo, Orejan, Vélez, and López (2012); De Bosscher and associates (2006); Digel (2005); Fetisov (2005); Platonov (2010); and Smolianov and Zakus (2008, 2009), who stressed the foundational role of broad sport participation leading to the development of elite athletic performance.

This process of developing participants from recreation to HP involves macro-, meso-, and micro-levels of policy and support, all considered in this research, as adapted from Green and Houlihan (2005), De Bosscher et al. (2006), De Bosscher, Shibli, Van Bottenburg, De Knopp and Truyens (2010), scholars who focused on sport policy analysis. They referred to the macro level as the social and cultural context (including consideration for GDP, population, and state-society relationship); the meso level focused on sport policies; and the micro level related to the individual athletes and their close environment.. The model of De Bosscher at al. (2006, 2010) was used for an international comparison of the sports policy factors leading to international sporting success in 15 nations (De Bosscher, Shibli, Westerbeek & Van Bottenburg, 2015).

The current study's theoretical framework also incorporates models of sport development. One model by Smolianov and Zakus (2008) defined the macro-level as socio-economic, cultural, legislative, and organizational support for a national sport system by the whole society and the state; the meso-level included infrastructures, personnel, and services enabling sport programs; and the micro-level consisted of operations, processes, and methodologies for development of individual athletes. This model was used to evaluate and advance both mass and elite parts of sport systems in the USA (Smolianov, Zakus & Gallo, 2014) and Netherlands (Zeeuw, Smolianov, Dion & Schoen, 2017), Russia (Smolianov, Bravo, Vozniak & Komova, 2014), Nigeria (Kaka'an, Smolianov, Koh Choon Lian, Dion, & Schoen, 2018) and Zambia (Smolianov & Musunsa, 2018). The Zambian study assisted the country's Ministry of Youth, Sport and Child Development with a systematic national sport development plan. In the US, the research results published in Managing Sport and Leisure International Journal were used by USA Rugby to develop a multi-million dollar plan that helped to bring rugby back to the Olympics and recognize USA Rugby as an official National Governing Body under the United States Olympic Committee.

King (2009), whose concept was also used in the proposed model, examined policies and governance in local communities at the "macro and meso" levels of sport development: such macro-level influences on policy as public attitudes towards sport, health and education policy communities and central government, and meso-level relationships and resources for organizations in the local sport networks. Similarly, Banjade, Paudel, Ojha, McDougall & Prabhu (2007) conceptualized governance in the management of commons by identifying macro-level as national policies, meso-level as institutions and processes shaping the social and environmental outcomes, and micro-level as community user groups. The theoretical frameworks used by Rad, Ganjouei and Hazaveh (2014) and Wicker (2012) are based on the concept of sport participation as influenced by internal or micro factors (associated with individual such as available time, income, ethnicity, gender) and external or macro factors (sport spaces, parks, gyms, and programs). We used this concept to define our model's macro- (external) and micro-(internal) levels.

Our research also integrated Al Mofarreh's definitions of the three levels (2016): macro (governmental), meso (school), and micro (teachers, students and administrators). Reflecting the variations in the use and application of the three levels, Johnson (2013) investigated only two levels of policy influence on science education reform: macro-level (federal and state) policies which result in the creation of micro-level (district and school) policies. Similarly, Barasa, Molyneux, English and Cleary (2015) attempted to set healthcare priorities at the macro (national) and meso (decentralized health systems and health facilities) levels. In other socio-economic fields, Dunlap, Johnson, Kotarba and Fackler (2010) investigated the impact of macro-level social forces, such as economic trends, employment, housing, homelessness, and effectiveness of public education on micro-level consequences such as poverty, alternate occupations, and drug dealing. Bergström and Dekker (2014) studied human resilience in the context of inter-connected health and social systems, and referred to the macro-level as societal, meso-level as organizational, and micro-level as related to processes and individual action. This perspective is also incorporated in the theoretical framework of the current study.

Our framework borrowed from business researchers Kim, Wennberg and Croidieu (2016) who analyzed entrepreneurship mechanisms embedded within complex social structures through macro-institutional and micro-individual characteristics as well as meso-level social structures. At these intermediate levels social groups, associations, and other collectives operate between the two ends of the institutional spectrum, a concept based on five other studies which linked country-level (macro) characteristics with individual-level (micro) outcomes of entrepreneurial actions (Kim et al., 2016). Jeurissen (1997) studied business ethics at macro-level institutions, the market, government, cultural traditions and the like; meso-level of the organization, its structure and culture; and the micro-level of the individual in the organization.

As all known comparative models have strengths and limitations while serving various research purposes (Sotiriadou & De Bosscher, 2013), the authors of this study combined the above described models to develop a new hybrid for better understanding and comparison in elite athlete education. The new proposed model attempts to provide a balanced, even focus among the macro-, meso- and micro- levels. The De Boscher, et al. model focuses on the meso level, but most sport organizations aim to develop participants at

the micro level. Sotiriadou and De Bosscher (2017) stressed that in order for athletes to thrive, managers, coaches and sport scientists should work together, and that more multidisciplinary synergies in HP sport and supporting research are needed if we are to reach solutions based on a new understanding of complex situations. This is particularly important for our research of education as part of multidisciplinary athlete support. Following these recommendations by Sotiriadou and De Bosscher (2017), the current study is searching for useful experiences of integrating education with sport training from the athlete perspective across different disciplines and levels of our comparative model. We also add to our proposed model such macro factors not emphasized by Smolianov and Zakus (2008) and Smolianov et al. (2014), but used by De Bosscher at al. (2006, 2010) such as population and GDP.

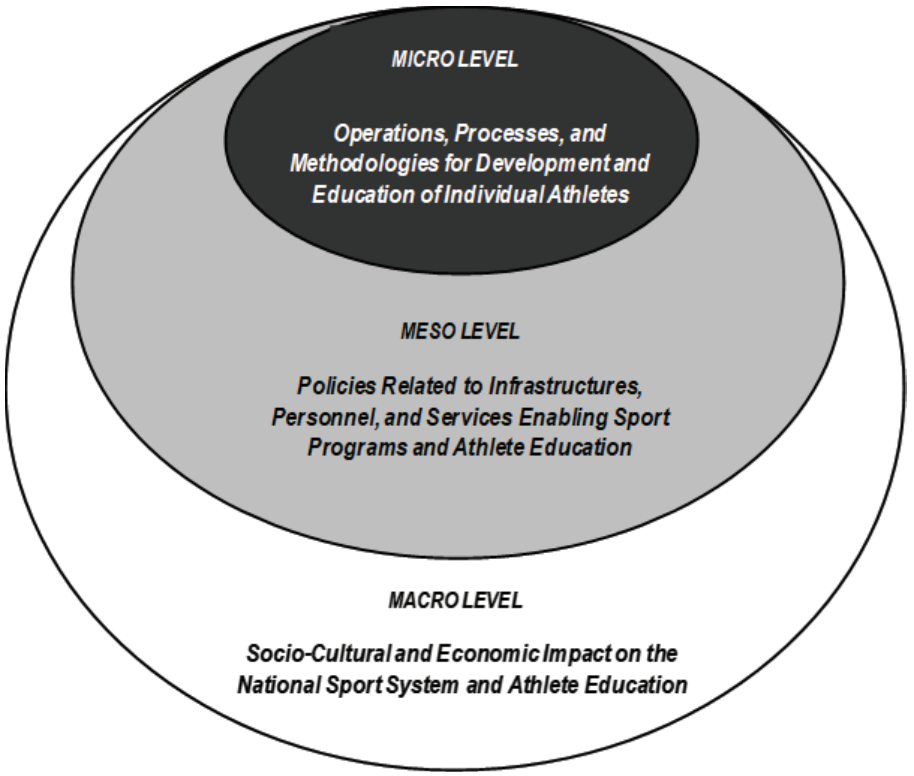
As mentioned, our proposed model stresses interconnections among the levels, such as macro-level policies used to impact healthy social behaviors (Swinburn, 2008) through regulations of advertising and marketing, school provisions, retail offerings, and taxes and levies (Swinburn, 2008) which directly and indirectly influence sport development at meso- and micro-levels. When the education of athletes, their involvement and preparation as competent devoted sport specialists and role models is integrated, this can ultimately help reach goals of supporting agencies and contribute to macro-level socio-economic success. Good national health and fitness increases general effectiveness and productivity, with positive results for social capital, community development, and commercial objectives –as well as more success in international competitions, and national pride.

HP elements overlap at different levels (De Bosscher et al., 2006). The interdependency, magnitude and hierarchical relationship of sport and society are expressed by the positions and sizes of the circles of our theoretical model depicted in Figure 1.

The model's macro-level refers to social and economic issues, state-society relationship, histories and other major broad national factors which influence sport development and athlete education. Meso-level refers to state policies enabling sport development infrastructures, while micro-level refers to operations and processes related to athlete education. Our meso- and micro-level analyses focus on the specific issues of athlete education. For example, a review of policy on athlete education would involve meso-level analysis. An examination of the specific programs, particularly pedagogical and administrative methods of athlete education, would represent micro-level analysis.

The micro-level requires identifying talent and gradually developing participants into high performers, integrating training with education for long, healthy athletic careers and productive lives after elite competition. The hierarchical pools of HP athletes demand access to sophisticated and scientifically based multidisciplinary performance, career and lifestyle support, particularly education that builds upon sport skills and allows athletes to give back to community after their formal sport career is over. Effective functioning of the micro-level requires policies on such meso-level infrastructure to be easily accessible with conveniently connected facilities as well as coaching integrated with education specific to each age and level of participation. A key meso-level policy area relates to education of athletes through a system of incrementally intensified competitions to seamlessly prepare athletes for major events. The proposed model also implies that policies related to education, scientific, medical, philosophical, and promotional support of sport programs are developed at each level of participation. Policies are needed for advancement of education and accreditation as well as scientific, methodological and other support to all sport specialists. Through these policies HP athletes should be provided with all education conditions to prepare for these roles.

Figure 1. Proposed model for analysis and comparison of national HP athlete education systems



Effective meso-level policies result from multiple partnerships in order to obtain sufficient resources, exchange expertise, and achieve common goals to influence the environment of mass and elite sport, particularly mass media, sponsorship from businesses as well as direct and indirect support from the state or government and from overall society. These are areas in which policy may direct the type and nature of organizations required for a holistic sport delivery system. For an efficient, long-term functioning of all these elements, funding and structures of mass and elite sport systems must be balanced and integrated. This relies on legislative, ideological, and government inputs.

Successful sport systems receive significant macro-level social support for effective meso-level programs and facilities for the general public and for HPS. These are developed through integration by a nation'a government departments, the Olympic Committees, National Governing Bodies (NGBs), and clubs. These systems further rely on balanced power between the government on one side, and NGBs, training centers, clubs, and communities on the other. Other needs include:

- PE and sport integrated at childcare facilities, schools, and universities
- A pyramidal system of sport clubs for each participation level with a dual goal of maximizing participation and developing excellence
- Progressive participant and coach rewards for fitness and elite performance
- A high number of dedicated well-trained, professional coaches at all levels
- Subsidies and incentives for recreational and elite sport ensuring diversity and access, a full spectrum of sport related activities funded for both recreation and excellence in all appropriate age groups at meso- and micro-levels

The above summary of the model is based on the desired three level practices presented in our model are exemplified by such authors as De Bosscher et al.

(2015); Gilbert (1980), Matveev (2008), Platonov (2005 & 2010), Riordan (1978, 1980), Shneidman (1978), Smolianov (2013, 2019), Smolianov and Zakus (2008) and Smolianov et al. (2014) and reflected in the literature review and case studies of this report.

METHODS

This study consists of descriptive quantitative secondary data and quality assessment. The survey questions used for interviews were approved by the Ohio University Institutional Review Board (IRB). This project was approved for research involving human subjects. Identifying the population for the study was deliberate and purposeful, to ensuring that the participants had significant experience in their specific sport development systems. According to Sotiriadou & De Bosscher (2013), in past comparative sport models, authors' views may be influenced by their own national context, the history of their sport systems and what they are trying to achieve. This could explain why some models give more emphasis to macro-level aspects such as partnerships or financing, while other models focus more on meso-level factors such as coaching expertise or micro-level practices such as post-career athlete support. Comparative models are challenged by constant innovations introduced in the attempt to provide maximum support of HPS. Therefore, a progressive comparative framework should be flexible enough to encompass the similarities and differences of sport systems and to deal adequately with unique and innovative strategies (Sotiriadou & De Bosscher, 2013).

Studies reviewed used either predominantly quantitative (e.g., De Bosscher et al., 2006) or qualitative (e.g., Houlihan & Green, 2008) approaches, some without a specific comparison frame (e.g., Platonov, 2010). In this study, a semi-structured, open-ended qualitative analysis tool was used along with quantitative data to produce the descriptive portrait. This included a literature and documentation review followed by structured interviews with research-based questions and responses. All interviewees were asked the same questions, although the sequence could vary slightly depending on the interview. Again, the first step was for the researchers to examine athlete education structures, processes, and practices that led to demonstrated effectiveness and efficiency in the analyzed national sport systems, with a special emphasis on practices that can be used globally in different economic and socio-cultural conditions. Using the theoretical framework outlined above and the interview schedule a minimum of three experts in each country were interviewed. All participants agreed to allow their interview(s) to be recorded (Kvale & Brinkmann, 2009).

These experts included, by region/country:

Russia/Eastern Europe

- Sport ministry executive who was a Sport University alumnus/a
- Two Olympic training center executives who were Sport University alumni
- Two current and two former national coaches who were Sport University alumni
- Sport University department head who was a Sport University alumnus/a
- Three sport school and college executives and alumni
- Former Chief Physician of Complex Scientific Groups servicing USSR national team athletes.

United States of America

- NCAA Division I Director of Athletics
- USOC Director of Athlete Career and Education Services
- USOC Director of College Relations
- USOC Director of Elite Sport Development
- Executive Director of the National Youth Sports Council.

United Kingdom

- National Manager, Talented Athlete Scholarship Scheme, DCMS
- Strategic Lead, Talent and Performance, Sport England
- Head of Sport Delivery & Performance, BUCS
- Director of Sport, Bath University
- CEO, Professional Players Association.

Senegal

- Ministry of Sport (MoS) administrators
- Directors and founders of the main football academies
- The director of the National Institute of Sport and Physical Education (INSEPS) and a strength trainer for traditional wrestlers.

Qatar

- Executive Director, Qatar Olympic Academy
- Head of Sports Development Section, Qatar Olympic Academy
- Josoor Institute under the Supreme Committee for Delivery & Legacy
- Head of Department, Sport Science Program, Qatar University
- Director of Operations / Acting Executive Director of Competition & Football Development Qatar National Teams
- Deputy Sport Director, Aspire Academy
- Director of Education and Student Affairs, Aspire Academy
- Senior Officer, Aspire Academy.

CHAPTER FOUR

A. THE UNITED STATES OF AMERICA

Case study 1. American intercollegiate athletics

Introduction

Currently, most of sports development in the U.S. is essentially governed by an education system that is highly limited for athletes but arguably benefi¬cial to others. Both the U.S. and European systems produce elite athletes who go on to prominent athletic careers. Athletes navigate through the two different systems, yet many of the outcomes are similar, with education access being a primary difference. The great success of the U.S. in international competitions in many sports comes despite somewhat disjointed and decentralized sport development systems. Some have found that access to a viable education and post career planning is inadequate even with sports embedded in the schools (Ridpath, 2018). Simply put, from a global perspective, sport development in the U.S. is unique, as well as how the three level structure applies in the U.S. context (Smolianov, et. al, 2015). That a prominent part of sport development is embedded in the education system seems to indicate education access and career opportunities for athletes post competition.

However, is having elite sport development primarily within an education framework actually promoting excellence and access in both areas? Is athletic success more highly valued than academic primacy? Many athletes, notably in football (American) and men's basketball, are virtually forced into this model because of limited external competitive options to maximize their de¬velopment and potential advancement to the big-money world of pro¬fessional sports. While there are some alternative paths in other sports such as baseball, hockey and other winter sports, the education system remains the pri¬mary "feeder" for most competitive sports in the U.S. at the higher levels, notably the commercially popular sports such as showcased at the Summer Olympics. Essentially, the heavy lifting for American sports and sport development happens at the school level.

The current athletic development model is often justified be¬cause of the perception that it provides access to education and an impetus to continue one's higher education. Social mobility through the combination of sports and education is often mentioned as a benefit for minorities and other disadvan¬taged groups. For some who have not had opportunities, it can be argued, participating in athletics can lead to potentially life-altering access to education. While using athletics as a path to education opportunity sounds appealing, it does not, however, always provide the envisioned so¬cial mobility and brighter future. Many athletes find themselves in a bind: pressured to maintain their academic eligibility; they often focus on intensified training, limiting their access to quality education. An athlete's family may be counting on them as an escape from poverty if they make the professional ranks; but fewer than two percent of U.S. intercollegiate athletes make the professional ranks in men's basketball and football. Those who join these ranks often have short careers at the professional level (Manfred, 2012; NCAA Estimated Probability, 2018).

These dynamics have contributed to a situation in which senior administrators and others —highly paid coaches, conference offices, television networks, and corporate partners— control the outcomes for many athletes in the United States. With winning and generating revenue for education based sports predominant, U.S. elite athletes are often disempowered with limited academic choices. If higher education were allowed to respond the market forces of choice and competition, more sports development options would be available; and crucially, the system would be driven more directly by the needs of the athletes. Such a revolution in approach would allow colleges to disengage from the chaotic ongoing facilities and per¬sonnel "arms race" now seen under the current intercollegiate athletic system.

Interview summary

For this case study, an athletic director at a major midwestern NCAA Division I university was interviewed. The intent of the interview was to assess the strengths and weaknesses of U.S. intercollegiate athletics system and education access for elite athletes. The university's website identifies it as one of the premier research universities in the country, managing one of the strongest athletic programs. Nearly a thousand athletes compete at the highest level of intercollegiate athletic competition in the NCAA Division I. The interviewee has been a director of athletics at the NCAA Division I level for almost 30 years; he was an elite football player at the University of Notre Dame. He is well positioned to speak to the positives and negatives of the American intercollegiate athletic system, which is the feeder system of interscholastic athletics, and issues related to elite athletes' education opportunities during and post competition.

Programs for elite development/talent identification

The interview subject described the current conventional path for the elite athletes and their access to education, focusing on the younger athletes who tend to experiment with multiple sports. He noted: "At some point they begin to realize, and people begin to advise them, that it looks like they might be good in a particular sport. So somewhere in their K-12 (Kindergarten- grade 12) life, they begin to narrow their focus. They ultimately improve to the point where they may have the chance to play at the collegiate level."

The subject acknowledged significant issues with the current model of education based sport development in the U.S. He noted that the USOC is concerned that extra expenses for football and men's basketball can accumulate, prompting schools and colleges to reduce or drop other sports to preserve competitiveness in these sports. He considers this as a danger and supports alternative models of elite development in education.

In the case of the Olympics, he noted his view that

"...you are better off going through the collegiate level because of the training that you get overall.... I wish there were more options for basketball, football, and other sports where they could go and participate in sport and maybe go to the pros. At the end of day, I would prefer that there was a model outside of the collegiate model that financially provided those people a chance to develop to the point where they can change their career."

The subject believes the education model in the U.S. still works, but feels the "bubble may burst" because of costs, competitive level disparities, athlete rights movements, and external pressures such as court cases and legislative action. Sports development is skewed to the most popular and commercialized football and men's basketball, pressuring schools and colleges to save other sports from being eliminated.

Overview of macro, meso and micro aspects

Organization, governance, structure and key stakeholders

While the first 50 plus years and the last 50 years of collegiate athletics in the U.S. share many similarities such as the mentioned challenges of integrating high-level athletics with primary, secondary, and higher education, there are several marked differences. The National Collegiate Athletic Association (NCAA) is the largest intercollegiate athletics governance organization in the United States. While the lower divisions II and III exist in the NCAA, and there are other intercollegiate sports governing bodies, such as the National Association of Intercollegiate Athletics (NAIA), the National Junior College Athletic Association (NJCAA), and The National Christian College Athletic Association (NCCAA), all have similar challenges with athletic competition that is predicated on academic eligibility, even if the commercialism and perceived value is less.

The majority of athletes who progress to successful post-college athletic careers at the professional or Olympic level typically come from the NCAA's Division I, the highest level of elite athletic development. However, it is not uncommon to see outstanding elite athletes matriculate from here to the lower divisions or other intercollegiate governing bodies.

All intercollegiate athletic governing bodies in U.S. have a national office that runs the day-to-day operations of the organization. However, all of the governing bodies are membership driven and have a "bottom-up" governance structure in that the members (individual schools) run the organization through various committees overseeing rules, championships and enforcement operations just to name a few. The real power lies with the presidents or chancellors of particular institutions who sit on executive committees and approve or deny recommendations of committees below them. Intercollegiate athletic institutions, irrespective of governing body, are organized into conferences for the purposes of organizing athletic competitions. These conferences are typically regionalized and made up of similar schools with similar athletic budgets although this is not always the case. In some cases, it is advantageous to have schools in major media markets to attract more viewers and revenue streams even if it does not make sense from a regional or institutional match perspective. An example of this was when Rutgers University and the University of Maryland were accepted as new members into the largely Midwestern U.S. based "Big Ten" conference even though they are traditional eastern seaboard schools. Rutgers and the University of Maryland brought the media markets of New York and Washington DC respectively to the Big Ten and much more access to those markets.

The key stakeholders in intercollegiate athletics are many and the power of the stakeholder is dependent on the competitive level of the institution and conference it is in. Certainly, the NCAA Division I level has many key stakeholders. Ultimately, the institution's chancellor or president is responsible, with authority progressing from the athletics director to subordinate administrators and coaches. While intercollegiate athletics has formalized governance and leadership structures, the power dynamics are many. For example, television networks and other content distributors wield immense power as colleges and conferences scramble to get as much air time for its sports programs as possible, such as happened with the Big Ten. College and universities are often at the whim of rich and powerful boosters who pay for skyboxes, coach salary augmentations, scholarships, and even facilities. Since many athletic departments are mandated or encouraged to generate their own revenue or be self-sustaining financially, outside funds from boosters, sponsors, and media distribution is critical. However with that money comes access and power to make decisions even though most are not part of the official governance structure and power is more of a de facto posture, rather than formalized. At the lower levels of the NCAA and in other governing bodies, the external de facto influences are not as prevalent and the formalized governance structures have much more control.

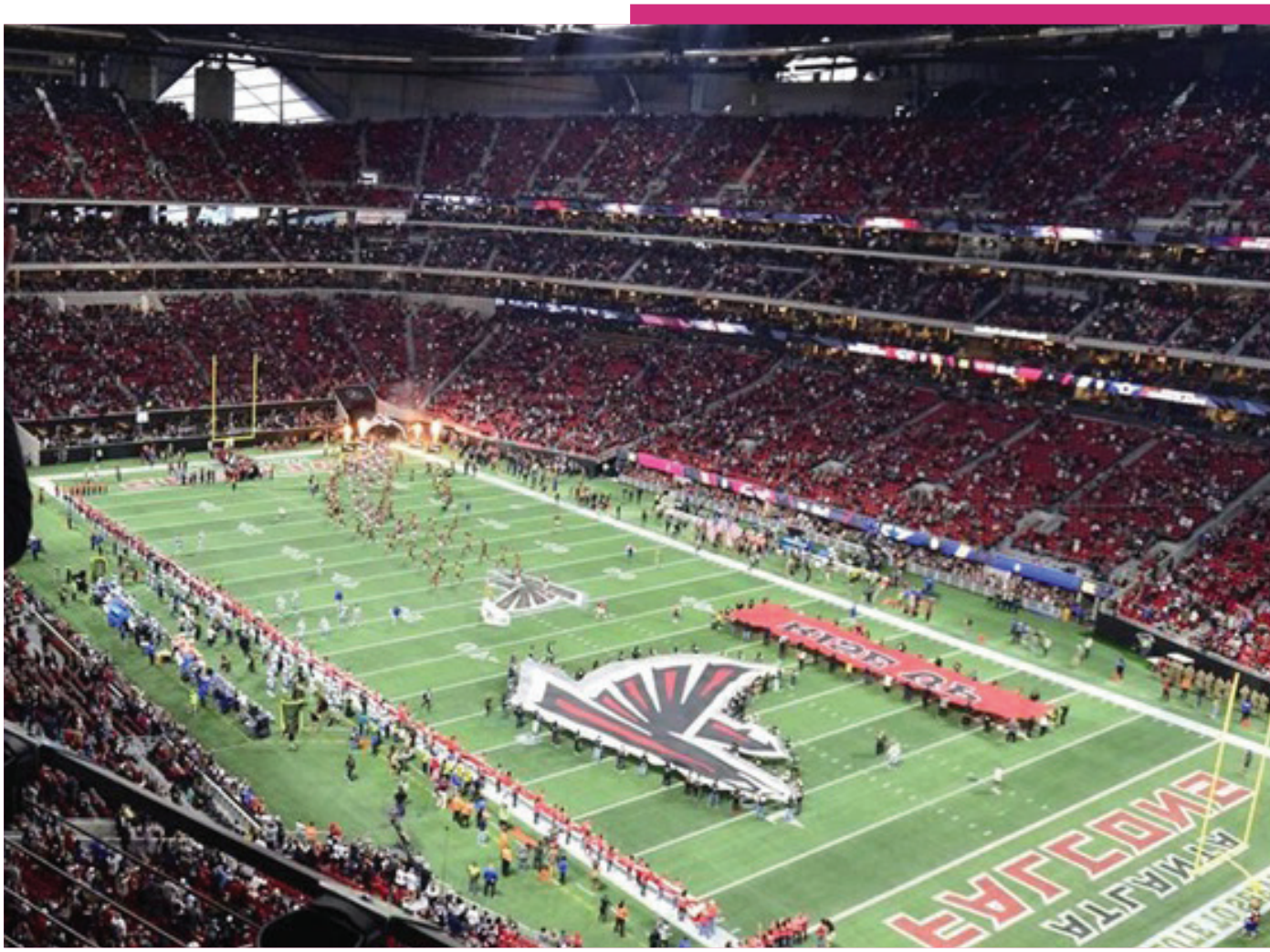
As the primary stakeholder in U.S. intercollegiate athletics, the athlete have much more power than in the past. For most of the 100 years of intercollegiate athletics in U.S., the athlete was content to play a sport for scholarship money. However, as the stakes, revenue and popularity of commercialized college sports grew, the athlete sought more rights, freedoms and access to the billions of dollars that are going to coaches, administrators and opulent facilities. The collegiate athletes rights movement that advocates more outspokenly is growing in numbers and power.

Among the objects of athlete activism includes greater access to education opportunities, revenue sharing, ability to profit from various branding, and greater freedom of movement among schools without transfer restrictions. Recent and pending court cases have given athletes more rights; whether the construct of amateurism survives, or as the interviewee says, the tipping point arrives, remains to be seen. But, it is reasonable to assume that since college sports in the U.S. are big business, it is only natural that the athletes want more of the revenues they produce. The demands of athletes organizing at the elite level of college sports may hasten the tipping point to change or even signaling the end of amateurism in U.S. college sports. It is likely that such a sea change will not significantly dampen interest in college athletics, nor the challenges of access to education and career development, but it could make the system more fair for the athlete laborer.

Resource allocation

The vastly increased revenue streams from television and other media content distributors at the NCAA Division I level have produced broad differences within U.S. intercollegiate athletics. The same revenue streams fund the national operations of NCAA Divisions II and III (Grant, Leadley & Zygmont, 2015). College sports today become highly commercialized in the context of this revenue explosion. Twelve of the 20 largest sports facilities in the world are stadia dedicated exclusively to U.S. college football; none are U.S. professional National Football League (NFL) stadia (Wright, 2017).

This is despite that the annual NFL championship, the Super Bowl, is one the biggest annual sporting events internationally. The current television deal with CBS and Turner Broadcasting for the NCAA men's March Madness basketball tournament, is $11 billion U.S., or $700 million annually to colleges and universities competing in all NCAA divisions. Revenue from tournament essentially funds the NCAA which oversees three distinct competitive divisions and manages 88 championships in several sports annually. Simply put, intercollegiate athletics in the United States is big business at the NCAA Division I level.



The funding model for the smaller intercollegiate athletic governing bodies such as the NAIA and individual athletic operations of institutions can be much different. The NAIA does not receive much revenue from multimedia rights, and relies more on member dues and corporate sponsorships to fund national operations. Most institutions do not show a profit with regard to their own individual athletic budgets. Some schools, such as the interviewee's have massive operational budgets, in some cases exceeding $150 million a year; some athletic departments are fully self-sustaining financially requiring no subsidies from the university. The interviewee's department gains a sizable revenue stream from its affiliation with the Big Ten Conference and revenue from the College Football Playoff. In addition, his school is one of the most well-known sports properties in the United States and gains millions in sponsorship and advertising sales. The institution routinely sells out its 108,000 seat football stadium and has massive revenue streams from ticket sales and donations from alumni and fans. This university is more the exception rather than the rule, however. Most NCAA institutions, even at the commercialized Division I level, rely on institutional subsidies and student fees to fund their athletic departments. The multimedia revenue, sponsorship and ticket sales pale in comparison to major intercollegiate athletic powerhouses.

Analysis

The interviewee covered the key issues with education based sport development well. The concerns of participation access, affordability, education access, athlete rights, amateurism v. professionalism, and the overriding issue of athlete education after formal competition. Interviewing a key stakeholder who benefits financially (the subject earns a base salary of nearly $1 million in addition to perks such as cars and country club memberships) from the system as it exists currently was informative and illuminating.

He indicated that the system has shortcomings and may not be working as intended; such as embracing the creation of options and pathways for athletes who may not want to advance through the current education based model. He acknowledges that while the intercollegiate athletic system has issues, he feels it is much better suited for education attainment now than it was a few years ago. Despite some optimism, this athletic director feels the system must change as it steadily attracts more money and as athletes are increasingly challenged by the requirements of their education. He acknowledges that the education based model has allowed for greater access to sports participation and elite development for women, but also feels the system must evolve a separate track for elite athlete development and education.

Case study 2. U.S. Olympic/Paralympic sport development

Introduction

As stated previously, the USOC relies largely on the U.S. education based sport development system to feed elite athletes to national teams and competitions. Some sports, such as many Winter sports, do not compete at the high school or collegiate level. Typically, private clubs or the NGBs fill the void in elite development. The main factor distinguishing the USOC and various sport NGBs from the approach of other countries is that direct government subsides, tax dollars or even lottery proceeds are not provided to fund national sports development or national teams. Funding is always an issue, but in many ways the capitalist, entrepreneurial approach of the U.S. can be effective for Olympic, Paralympic and national teams. Even with access to the intercollegiate system that ostensibly takes care of any education issue, the USOC is still very interested and involved in the education of its athletes.

This role is important especially to support education access and career opportunities for athletes in Winter Olympic sports that are not offered and/or are less popular than competitions such as gymnastics and skiing.

Interview summaries

Three interviews were conducted with officials of the United States Olympic Committee (USOC) who addressed the macro, meso and micro aspects of the Olympic and National Governing Body sport development. The subjects were the Director of Athlete Career and Education (DACE), the Director of Coaching and Coach Education (DCCE), and the Director of Collegiate Partnerships (DCP). The Director of Athlete Career and Education is a former Olympic kayaker from Vermont. She has been at the USOC for three years, but worked for over 15 years for two NGBs: USA Canoe/Kayak and USA Cycling. The Director of Coaching and Coach Education is a former men's and women's lacrosse coach for two NCAA institutions at the Division 2 and 3 levels. He also worked at USA Lacrosse for three years and has been at the USOC for almost seven years. The Director of Collegiate Partnerships is a former track and field athlete at the University of Iowa and worked in intercollegiate athletic administration at Iowa and Stanford University.

Macro aspects

In the areas of partnerships with supporting organizations and resource allocation, the DACE discussed the pros and cons of having a fully privatized funding model along with working with partners such as the NCAA and sponsors to accomplish the mission of the USOC. This included having more freedom to govern the programming without meeting governmental requirements and standards that often happen with subsidies and taxes. The DACE stated, "I think it's a challenge because all the money for any program run by the Olympic committee, on the competition side and on this current education side, our whole staff, our Olympic training centers, sending the team with the games, outfitting the team. It comes 100 percent from corporate sponsors and philanthropy."

Meso level

In competition, training, and education the USOC works to balance challenges such as how athletes support themselves financially. While the USOC and the NGBs can support training and subsidize lodging and meals during training, the individual athlete still has to bring most of the support through individual sponsorships and/or employment. The USOC has had corporate arrangements with corporations such as Home Depot and Dick's Sporting Goods to employ athletes.

Ultimately, the USOC or any NGB does not pay elite athletes a salary for competition and training, but since amateur level regulations were eliminated from the Olympic charter in the 1980s, U.S. Olympic athletes have profited from their name, image and likeness. Many Olympic athletes that compete on national teams are salaried players participating on professional teams or clubs such as NBA or NHL athletes. The U.S. also pays bonuses to athletes who win Olympic medals as most countries have done for years. From an education standpoint, the USOC has been very deliberate in creating opportunities for its elite athletes to access a productive education, whether to complete or start working toward a college degree, finish high school or learn a trade. The DACE gave an overview of the programs available. "In... sports like figure skating where there is money in the shows and [there are] endorsements and there's television, but it's not a collegiate sport," the DACE said. "So, again, those athletes often don't go to college or it's an individual choice. We're... trying to at least provide opportunities for athletes that are in these non-NCAA sports to chisel away at an undergraduate degree while they are competing and some of them it's a graduate degree as well while they're competing."

Micro level

In talent development, the USOC and NGBs rely mostly on partners, specifically the education sports space. There are sports that are primarily run by the NGBs not within the education model or in which the model is not elite enough to support Olympic sports programs. The DACE explains how an elite athlete typically moves through the existing system, and also ways to persuade elite athletes in certain sports to change to non-education based sports. The DACE stated: "I think the NCAA drives the high school, drives the club. It's really [started] from the top down because there are so many opportunities educationly and financially for athletes to get a scholarship [and that] is what I think drives a lot of the sport participation and the parental push for athletes to get into certain sports."

The DCCE adds that the U.S. system, while somewhat fractured and decentralized, has largely worked in developing elite athletes, and thus the education system has supported talent identification. It would be challenging to have a standard approach across all fifty states with sports of varying popularity. "...the US is very good at identifying early athletes. ...early identification by national governing bodies in individual and team sports have national team or development programming... [in] skill development. They've got a pathway to get you get [the athlete] better coaching and get you connected... whether [to] the junior Olympic level, the junior national level, and then the national team. ...We are not as strong with... getting those programs of development at the youth level done in a systematic approach across fifty states; it's very hard."

Key stakeholders

The primary key stakeholder in the U.S. Olympic sport movement is the athlete, with the focus on the development of that athlete toward elite level success on the world stage. The goal of success, given the U.S. private funding model, dramatically expands the lists of stakeholders. People and corporations love the association with celebrity athletes, to the winning teams, and especially the resulting boost to their own brands and social status.

It takes a massive infrastructure to create, fund and sustain national teams for international competition. Although the government is not directly involved in the USOC and the NGBs, it can have a dramatic impact such as when the U.S. boycotted the 1980 Olympic in Moscow to protest the Soviet Union's invasion Afghanistan in 1979. As the primary financial backers of the U.S. Olympic movement, corporations and the private sector have a major stake in the effort. Certainly, colleges, universities and the private athletic development sector are the major feeder systems for talent identification and development. Coordinating all of these diverse areas without a national sports policy is challenging. Nevertheless, the U.S. national teams and individual athletes still remain very competitive when compared to the rest of the world in many competitive and Olympic sports.

Analysis and critique

No doubt the United States has been one of the most successful countries in modern Olympic competition since its beginnings in 1896. Although disjointed and decentralized, the privately funded system of NGBs, using various talent identification and development schemes to sustain competitive excellence, is working as intended. In the absence of a national sports policy, it has been allowed to flourish without bureaucratic restrictions. But one has to wonder for how long this approach can be sustained and effective.

The diversity of the current system could be its eventual undoing. With the bulk of sports development grounded in an education system that is reducing competitive opportunities in many international sports, there is a real danger of inadequate talent creation for the USOC. The education sports development system in U.S. has made a choice to support commercially successful sports like football and men's basketball, while spending millions on lavish facilities and coaching salaries at the expense of many Olympic sports like wrestling, swimming and gymnastics.

While the youth sports system and the private athletic clubs have filled some of this void, it has become a class system of those who can afford the private clubs and in extreme cases as mentioned previously, those who can afford to pay and play in school based sports. As the spending on football and basketball continues to increase, and opportunities in other sports decreases, it is hard to hypothesize that the U.S. can continue to dominate in as many sports, as feeder systems are beginning to crack under the pressure of winning and revenue generation. The commercial success of intercollegiate, interscholastic, and youth sports programs may eventually force changes to the current capitalist-corporate model of sports development in the United States

Case study 3. U.S. Youth Sports

Introduction

The state of youth sports in U.S., the primary feeder system for both elite athlete development and for mass participation and recreation, is a matter of perspective: it is either booming or struggling. Youth sports in U.S., nearly a $17 billion industry, making it larger than the business of professional baseball and approximately the same size as the National Football League (Thompson, 2018). Financially, it is hard to argue that the youth sport industry is struggling. Like the interscholastic and intercollegiate systems, however, youth sports is becoming more focused on elite development rather than mass participation. Overall, that is hurting the state of health and wellness in the country particularly for children under 14 (State of Play, 2018). According to Thompson (2018), children ages six to 12 who play a team sport on a regular basis declined from 41.5 percent in 2011 to 37 percent in 2017. Since 2008, participation is lower across many sports categories, including baseball, basketball, flag football, soccer, and even baseball, the emblematic American pastime, is down about 20 percent.

The disconnect in the U.S. approach is dramatized in the gravitation away from mass participation to an emphasis on travel and elite teams where participation is often predicated on the hope of earning an athletic scholarship to attend college for little or no cost or for a chance to compete at a higher level. The reality is that there are only so many scholarships available and many do not cover all costs; moreover, there are only a few elite athletes, in a diminishing pool, who would qualify for those scholarships. As noted, even the delivery of a productive education at the college level for an elite athlete is problematic. The so-called elite and travel teams are primarily sustained by families that can afford them. Consequently, among wealthier families, youth sports participation is actually rising and trending dramatically downward for lower income zip codes and households. Just 34 percent of children from families with annual incomes of less than $25,000 played a team sport at least one day in 2017, versus 69 percent from homes earning more than $100,000. In 2011, those numbers were roughly 42 percent and 66 percent, respectively (Thompson, 2018).

Interview summaries

The interview was conducted with the executive director for the National Council on Youth Sports (EDNCYS). The NCYS is a leading advocate for youth sports in the very fragmented U.S. sport development space. It represents over 60 million boys and girls in various sports programs across the country with a mission of promoting healthy lifestyles and a safe environment for youth sports, helping strengthen neighborhoods and communities. The NCYS provides services ranging from coach education, connecting organizations with resources and tools, and corporate connections to effectively finance and manage youth sports programs. NYCS also lobbys for government legislation on youth sports issues (NYCS.org). Although the EDNYCSis new to the NCYS (in his current position for a year as of this writing), he has broad experience in the youth sports space. He served as national director for the Boys and Girls Clubs of America for 15 years. The BGCA is one of the largest non-profit youth organizations in the country. Youth sports is not its exclusive mandate, but is a large part of the operation and mission.

Macro level

In the absence of a national governing body for youth sports in the U.S., the NCYS acts as a pseudo macro level governing organization for youth sports development. While the organization is mostly advisory, it plays a useful role despite a fragmented system. According to the NCYS website (nycs.org) the mission of the NCYS is to:

- Develop and share among members and others education, information, and leadership skills
- Encourage members to promote the active participation by all youth in fun and healthy physical activities according to their interests and abilities
- Promote universal recognition that organized youth sports can develop positive attributes including healthier lifestyles, self-esteem, fair play and good citizenship

The overall management of youth and recreational sports activities in the U.S. is at the state, regional and local levels. Community-based, non-scholastic youth sports programming is by far the largest sport development unit in the country. The system is not overseen by a specific NGB, however, and oversight is made up of 25 organizations at a national level and thousands of local and regional organizations (Sawyer et. al, 2008). Many of the Olympic NGBs have a prominent role in elite youth sport development, while mass participation provisions and organization are governed and the local and municipal level through organizations like the Boys Club, YMCAs, and local tax supported recreational centers.

The NYCS interviewee stated that the mission of the NCYS was to help bring many of the diverse elements of youth sport development together to accomplish goals at the three levels, in the absence of an overall national sports policy or federal governance. He stated that the "NCYS is really looking to be the leading voice in a very fragmented youth sport space... [to] be the leading voice in providing support to organizations. We are an association of associations, so we represent some 60 million registered boys and girls in sports programs across the country. I think we have a two-tier system, one of which is this elite athlete tier and [the second] is the recreational tier and, interestingly enough, there was a time where that recreational path was the path that most athletes traveled on. [Today,] a disproportional amount of training, resources, coaching, and education is being earmarked for those in the elite space. I do think that, as we look at our model, it's clearly different from other countries where there's often a cabinet-level position from which all sport activities flow."

Meso and micro levels

At these levels, competitions are governed by numerous entities at the state and local levels. Systems of competitions can range from community leagues to city, regional, and even state championships, or state games such as the Empire State Games in New York. Volunteerism plays a major role despite that millions participate and thousands of organizations are involved in youth sport governance. Many volunteers fuel the engine that runs youth sports, from coaches, administrators, and game officials. They dedicate their time to youth sports development in exchange for little or no remuneration. The most prominent negative of this situation is the lack of coach training according to national benchmarks and standards. The executive director of the NYCS spoke to the issue of coach training or access to trained and effective coaches as a major weakness of U.S. youth sport development compared to Europe which has much stronger coaching certification and education programs.

From the micro perspective of talent identification and development, youth sports is at a crossroads: Should the focus be on mass participation and access, or on sport specialization and elite development? The NYCS interviewee, like many others who work in youth sport, expressed concerns about the direction of youth sports, given that few can afford it or have the ability, and the diminishing focus on the greater good of exercise and participation. Noting the inherent problems of affordability and access, he stated: "In our system, from a recreational perspective, there are two things that I think are happening: young people are getting squeezed from a recreational perspective because of things like No Child Left Behind[2] ...so those opportunities to participate in school are going away. And then there's... this increase in what I would call elite and 'elite lite' opportunities, where it's a pay for play engagement."

The No Child Left Behind Act of 2001 (NCLB) or Public Law 107-110 was a U.S. Act of Congress that reauthorized the Elementary and Secondary Education Act. It supported standards-based education reform based on the premise that setting high standards and establishing measurable goals could improve individual outcomes in education. The Act required states to develop assessments in basic skills. To receive federal school funding, states had to give these assessments to all students at select grade levels (No Child Left Behind [NCLB], 2002).

Analysis

Youth sports in U.S. is suffering from the same struggles as interscholastic and intercollegiate sports. Whereas education based sports were originally intended to be a supplement to education to support health goals, it has morphed into primarily elite development, passing operational costs on to the prospective athlete, in effect, to constrain the participation of many young men and women according to socio-economic status or zip code. The entire sport community needs to find a solution to the tension in the mass participation versus elite development complex. While both can exist, it is important not to value one over the other, especially in the youth sports space. There should be an examination of alternatives that identify elite prospects and mechanisms that enable those athletes to develop at the proper skill level and at the proper age. In addition, as the NYCS executive director noted, accessible and affordable participation options must also be available to youth to help combat the growing health crisis of obesity and diabetes. Many ailments can be traced to lack of exercise and poor nutritional choices.

In the U.S. youth sports model, those who can afford to pay the fees and travel for an "elite" team are considered elite; others from lower socio-economic levels who may possess elite level ability, but not financial means to pursue development and compete, may not.

As noted earlier, the U.S. is an inverted pyramid of mass participation and elite development. That pyramid needs to shift for youth sports development at the elite, mass participation and recreational sport levels. Access for all, similar to the European Sport for All model would be an excellent goal for American youth sports development. Again, the U.S. needs a more centralized approach to sport development to counter its various silos. Youth, college, interscholastic and a gentrified external club system are focused much more on elite development, although few athletes can be classified legitimately as elite. Ways to reverse the pyramid should be examined so that sports opportunities can be more accessible and affordable to all. The school system works for all levels of athletics but it should not be the only model. Options for the education of elite athlete outside the conventional education space can a better approach.

B. RUSSIA/EASTERN EUROPE

The management of sport in Eastern Europe is grounded in the philosophy of a harmonious, science-based development of each individual, and a deep dedication to physical culture and sport. This is supported in a highly integrated system led by central or federal authorities as part of national education and health policies. In the USSR and Eastern Bloc, sport was delivered with passion, original inquiry, dedication, and rigor. The nations of Eastern Europe today have inherited the following practices that appear to be useful best practices for successful sport management globally:

- Coaches qualified to prevent mass illnesses and achieve high performance
- An integrated pyramid of sport schools, colleges and universities
- Uniform guidelines for integrated mass and elite participation, regulation, and LTAD
- Uniform education and certification of athletes, coaches, and referees; and
- Integrated plans for competitions.

Overview of macro, meso and micro aspects

From the USSR and Russian practices, the following approaches can be offered at the three levels of sport development. For the mutual benefits of the macro and meso levels, the development of mass and elite sport should be stimulated, especially by mobilizing resources of education, healthcare, sport and corporate sectors for cooperation and national socio-economic and social advancement. Particularly helpful are the old USSR (and current Russian) best practices of the system of clubs and schools. This maximizes both participation and excellence, connected with sport colleges and sport universities for gradual progression of athletes as high sport performers and sport specialists who in return make their nation healthier, happier, more productive and successful in sport as well as economically and politically. The case study below details the integrated structure of sport schools, sport colleges and sport universities.

It is important to capitalize on the increasing importance of a high performance (HP) sport system in society and its interconnections with various institutions through legislative and commercial initiatives that form a sport development system. This task requires leading partners from within and outside the sport industry toward common goals and to acquire comprehensive support at the highest levels of public and private organizations.

Coaching and science should be embedded in the meso level, as well as education for all HP-related policy, personnel, philosophy, and promotional support. Optimal training and education for athletes requires a nationally coordinated system of competition across all levels of each sport, as well as among sponsors and supporting organizations. A network of sophisticated training centers should also be created with complex infrastructures for training and competition processes, including a hierarchical system of best practice for sport schools, colleges and universities, as exemplified in the case below.

At the micro level of sport, top coaching requires increasingly sophisticated and diverse preparation to operate constituents in the process of the long-term progress of athletes across multi-stages. To maximize and prolong the success of HP athletes, the highest level of sport specific, pedagogical, medico-biological, and other cross-disciplinary scientific competencies is required, as well as the ability to coordinate numerous professional and personal partners supporting athletes and to prevent participants from all possible harm. The case study below details the multi-faceted role of a best practice coach in Eastern Europe.

Russia/Eastern Europe case study 1

Role of an Eastern European coach in the process of athlete development and education

Introduction

Coaches essentially run sport systems in Eastern Europe, and even more in Russia, because they are employed by the state and rewarded according to coaches' level of education, certification, and achievements of their entrusted participants. According to the East European notion of sport as preventative medicine, the coaches assume the roles of holistic physicians as well as spiritual leaders, being well educated in biomedical and pedagogical sciences. Coaches receive help from medical doctors and scientists to nurture participants through the LTAD process, directing each participant to the sport appropriate for individual health conditions.

Interview summary

This case is based on Peter Smolianov's interviews with a Sport Ministry executive who was a Sport University alumni, two Olympic Training Center executives who were Sport University alumni, two current and two former National Coaches who were Sport University alumni, three Sport School and College executives and alumni, and one former chief physician of the Complex Scientific Group servicing the USSR National Team athletes.

Organization, governance, structure, and processes

Victor Rybakov, one of the most successful Soviet boxers in the late 1970s and early 1980s, represented the USSR twice at the Summer Olympics during his career as an amateur. He won the bronze medal at both the 1976 and 1980 Olympics. He won silver medals at the 1979 and 1981 World Cup competitions and gold medals at the 1975 and 1979 European Amateur Championships. Rybakov's amateur boxing career ended with a record of 203 wins out of 219 bouts. In 1990 he turned professional, but fought only one fight in the USA which he won in a knockout. Rybakov returned to Russia and became a successful businessman, and also served as the vice-president of the Russian Boxing Federation. Coach Boris Gitman nurtured Victor as a boxer and through school, university and Olympic contests, and finally to his corporate job.

Boris Gitman's coaching skills were passed to him by his coach in Odessa, Ukraine. Boris and his teammates loved and respected their coach, a great teacher. He had uniquely individualized approach, which he passed to Boris. Boris later studied psychology as part of his boxing coach university education, and came to understand the techniques his own coach had used to make such a deep impression. Boris's coach created a family-like group of participants who were together in joy and hardship in all parts of life. The coach, like a good doctor, detected individual peculiarities and addressed everyone's personal needs and interests. It was a loving family where there is agreement on how to bring up children and to achieve success. The coach also painted and he taught Boris to paint, integrating the visual arts into boxing and conditioning sessions. Painting provided many physical and mental benefits and was particularly stimulating when done outdoors after training in natural environment.

After competing in boxing and graduating from a sport university in L'viv, Ukraine as a boxing coach, Boris took a coaching position in the city of Magadan, Russia, at a multi-sport club, Trud (Labor) Voluntary Sports Society which was part of a national network of sport clubs integrated with sport schools. The system was supported with financial and other necessary resources by factories and other workplace organizations across the country as well as departments of education and sport at federal and local governments.

As a typical Eastern European coach, Boris was assisted by sport and education authorities to search for talented athletes by observing children at physical education classes during regular visits to many of schools. Boris discovered Victor in an orphanage in Magadan while talent scouting there. Boris helped Victor transfer to the Trud sport school near the club, and to receive room and board. When Victor showed his talent, the municipal authorities provided him with a room in the building where the boxing facility occupied the first floor and upper floors contained apartments where Boris lived. Boris and his wife took care of Victor in most aspects of his life.

Boris regularly visited Victor's school teachers and administrators to ensure Victor's successful academic progress and optimal overall conditions including special meals and assistance with homework and preparations for exams. The system did not allow Victor and other athletes to train if academic grades were not good. This practice stimulated academic development and sport achievements through a positive atmosphere of devotion to excellence, the high reputation of coaches, as well all the material and intangible benefits coaches provided to athletes. The family-like coach-athlete relations allowed coaches to serve as loved mentors to their athletes. The high level of education for coaches, similar to the U.S. masters degree, allowed them to provide a rich educational experience and guidance to their entrusted athletes.

Boris assisted Victor, after his graduation from high school, to enter a local university and arrange an individualized plan of study allowing Victor to receive his bachelor degree in education while traveling for training camps and competitions. Boris trained Victor at the Trud Voluntary Sports Society until he graduated from university and served in the army. Looking for the best training conditions, Boris traveled with Victor to the Central Sport Army Club in Moscow where Victor joined one of the world's most comprehensive multi-sport training centers. As one of the USSR national team coaches, Boris served as Victor's personal coach and prepared him to win Olympic, World Cup and professional titles. He continued to provide the full spectrum of athlete services from conditioning, health and diet, in psychology, education, and career assistance. Perhaps the most remarkable indication of Eastern European coaching approach was that after Victor's boxing career was over, Boris helped Victor find a job with Gazprom, one of the world's largest gas and oil companies and a major Russian sport sponsor.

Analysis/critique

This case is similar to many others; it illustrates the special role of the coach in Eastern Europe and helps explain why coach education is important in the micro-level processes of developing and educating athletes, particularly in finding what interests each participant and how to inspire and lead every athlete. The case also highlights the role of the coach in facilitating meso-level services to athletes, particularly education, and in attracting macro-level resources from organizations outside the sport industry. The case highlights the central role of the coach in how the whole sport system functions and progresses.

The future: concerns, opportunities, developments

The USSR provided all education free of charge, including coach preparation and ongoing training. In the new capitalist economic context, colleges and universities offered their services for payment, accepting students with lower grades and inevitably lowering entry and graduation standards, which has led to diminished levels of coaching skills and expertise. Career fairs replaced the job placement service, which had guaranteed all graduating students under the old Soviet regime professional positions according to the study specialization. Guaranteed placement is a thing of the past. Sport universities continue to provide their advanced training courses to improve knowledge of working coaches, but now universities charge for it. On the other hand, the Sport Ministry together with the federations and national governing bodies and regional governments provide increasing number of free continuous education courses to coaches: there is a special free education center at the Sport Ministry in Moscow, and federations provide free education courses for coaches as part of national conferences devoted to specific sports. Training and retraining of adaptive and disability sport coaches is also provided within the federal program "Accessible Environment".

Russia/ Eastern Europe case 2:

Case of sport schools, colleges and universities in Russia

Introduction

When asked to describe the system of athlete development and education, two respondents agreed that the Russian sports system is, first of all, the system of 'our sport schools'. The pyramidal structure of these schools is designed to ensure that all children have opportunities to enjoy sport, integrated with their overall education for harmonious development as athletes, individuals, and lifelong productive and responsible citizens. In Russia the goal of nurturing an athlete's progression from beginner to world-class sport participation is pursued by developing many recreational schools and a sufficient number of high performance sport schools, colleges, and universities across the country with constantly advancing structures, policies and processes as summarized in this case. As in the first case study, this case is based on Peter Smolianov's interviews.

Organization, governance, structure, and processes

The structural foundation of athlete development and education in Russia are 3,559 Children Sport Schools which are after-school training centers providing recreational sport instruction about three times a week with minimal initial selection requirements and fees affordable for most families and free for all members of families with three children or more, as well as for low income families and individuals with disabilities. The cost of training to parents was about $2-8 per hour or $100-300 a month in 2018. If a child is identified as potentially skilled in a particular sport, the sport school is free of charge. Children Sport schools are mostly based at sport clubs (e.g., Dynamo, subsidized through police and security forces, SKA financed by the army, and others), which have facilities in most towns across the country and provide only sport coaching, not academic classes.

Coaches teach the theory of healthy lifestyle, lifelong fitness, illness and injury prevention, and moral behavior as well as the history of sport. Starting age depends on standards developed by sport scientists. Weight lifting and wrestling can start at age ten, but gymnastics can start as early as at six years. Progression is managed by the sport specific ten-stage guidelines developed by scientists from the Research Institute of Physical Culture. Coaches advertise special open house and enrolment days at least once a year.

The next structural level of athlete development and education are 1,038 Olympic Reserve and High-Performance Schools which are highly competitive, fully subsidized government training centers operating before and after school. They partner with nearby schools where sport classes and cohorts start at 10-11AM to provide training twice a day integrated with study. Schools provide healthy sport meals twice a day according to scientific recommendations and quality controlled by coaches, initiating healthy eating as a lifelong habit and teaching what and how to eat for specific training and health objectives. Coaches work closely with teachers to ensure both sport and academic success. All services are free for those who show potential to succeed in a particular sport and for all members of families with three children or more, as well as for low-income families and individuals with disabilities.

Further, the 55 Olympic Reserve Colleges are the most comprehensive structures integrating elite athlete development with education; they are linked with sport boarding schools across all regions and fully financed by the government. Candidates to regional and national teams and outstanding talent train two to three times a day, study, live and eat three to four healthy sport meals a day. 'Open and supervised seven days a week, these colleges provide multisport facilities with such medical services as traumatology, physical exams, sport performance diagnostics and physiotherapy, and individualized school studies with additional sport curriculum to help students become healthy high performance athletes and knowledgeable sport specialists. Athletes can enter at grade two (eight years) through high school, specializing in sport and biomedical disciplines. Students can also attend three years of college to study sport related professions (coaching, massage, etc.). Sport college graduates are assisted with getting the sport related jobs or with entering universities, particularly providing special assistance with orientation and smooth transition to sport universities. Entry requirements are waved for world champions at all public universities. Many sport schools and colleges allow students with no elite status to study for payment. The cost of instructional sessions is about $6 to 20 per hour.

Moscow Sport School-Olympic College №1 includes Grades two through Grade 11, plus three years of college education with specialization in 12 sports and medico-biological disciplines. In 2016, there were 889 student-athletes. From 1976 to 2018, out of 2,648 graduates, 155 students took part in 14 Olympic Games and won 62 medals. Best practices of Olympic Education at Moscow Sport School-Olympic College №2 included the courses utilizing the college's Moscow Sports Museum, information and library center as well as the Club of Young Sports Journalists. Olympic education lessons are taught at the museum using multimedia interactive technologies and with the participation of graduates, more than 150 of whom are world, European and Olympic champions. Students are prepared to work as tour guides at sports facilities in Moscow and as sports journalists, in addition to traditional sport-related professions provided by the Russian sport colleges. At Rostov-on-Don Sport School Olympic College, students indicated a high level of appreciation and performance as they participated in the GTO (Ready for Labor and Defense) fitness program detailed earlier in the literature review section, including activities for 16 to 17 year olds such as running, pull-ups, push-ups, weight lifting, standing long jump, throwing, back extension and touching toes as well as swimming

and shooting. The student-athletes helped develop the following recommendations to those who are going to take GTO tests:

- Pay attention to physical qualities that are not a priority in your chosen sport
- Include exercises from mandatory and optional tests in daily workouts so that they do not interfere with your sport-specific training
- Contact a specialist coach to learn the correct techniques and distributing the pace over the entire distance
- Stretch 20-30 minutes daily in isometric and isotonic modes, including antagonist muscles
- Start running for 20 minutes every day and after about a week increase to 30 minutes at a moderate pace with a heart rate not higher than 150 beats per minute and then increase to 40 minutes
- Do not over train, and monitor recovery process
- For the highest super-compensation test result, a week before the test perform exercises for five sets with your maximum number of repetitions

These instructions reflect best practice for mass participation in Russia, leading to elite sport.

Finally, at the top of the athlete development and education structure, Russian government finances 14 public sport universities. Careers focused on medico-biological and pedagogical disciplines, particularly coaching in specific sports–degrees that are still unique to Russian sport universities. Moscow Sport University graduated more than 47,000 specialists in physical culture and sports since established in 1918. Today there are 450 instructors working in eight colleges in 43 departments. Departments are organized by sport and study specializations including shooting, soccer, chess, fencing, volleyball, modern pentathlon, rowing, sailing, boxing, etc. There are also such departments as sport medicine, physiotherapy, biochemistry, biomechanics, psychology, journalism, and management. To help athletes their combine competitive careers and studies, the sport universities allow an extension for completion of the Bachelor degree over eight years. The best universities provide individualized scheduling of studies and exams in integration with camps and competitions, with a mandatory presence of five weeks per semester, or 20 to 30 weeks per five to six years of studies. These best-personalized services are provided to members of national teams. There is also distance education available to further help those traveling frequently or living in other cities. Currently in Germany, the government also cares for athlete education, but it subsidizes university studies after athletes' career is over, promoting the notion of separating intense full time sport from further professional preparation. As the previous case demonstrated, Russian coaches constantly help their athletes advance education in the realization that knowledge helps elite athletes better understand and drive all aspects of their training strategies and tactics together with coaches, and maximize and prolong high performance. As with all state funded higher education in Russia, most students study at sport universities for free. Students with lower grades or no elite athlete status can be granted admission to study for payment: the cost in 2018 was $1,200 to $2,270 a year on-campus, and $620 to $1,000 for distance education, depending on specialization. Those who finish the sport colleges do not have to take a multi-subject federal school graduation exam, but still have to pass four entry exams in core study subjects except for world competition winners who have to take only one exam.

Analysis/critique

The system of sport schools integrated with networks of clubs and sport societies and supported by workplaces across the country is being revived after deterioration since the breakup of the USSR in 1990. Sports schools are to retain support from federal, regional, and municipal governments and regain support from all workplaces, and the study and sport clubs these organizations finance. Federal government and the Sport Ministry issued new policies in the 2010s to stimulate such organizational support for sport. Leaders in this support are Dynamo (police and security forces) and SKA (army) clubs. After the recent review of policies, all sport schools operate on the basis of uniform federal standards: as mentioned, children have to be ten years old to start wrestling and weightlifting, and six years old to start gymnastics. The 2017 federal policy requires coaches to educate participants about moral/ethical and healthy behavior including knowledge and skills about general and sport-specific training, conditioning, diet, ensured by the coaches' sport college or university education and update courses every four to six years.

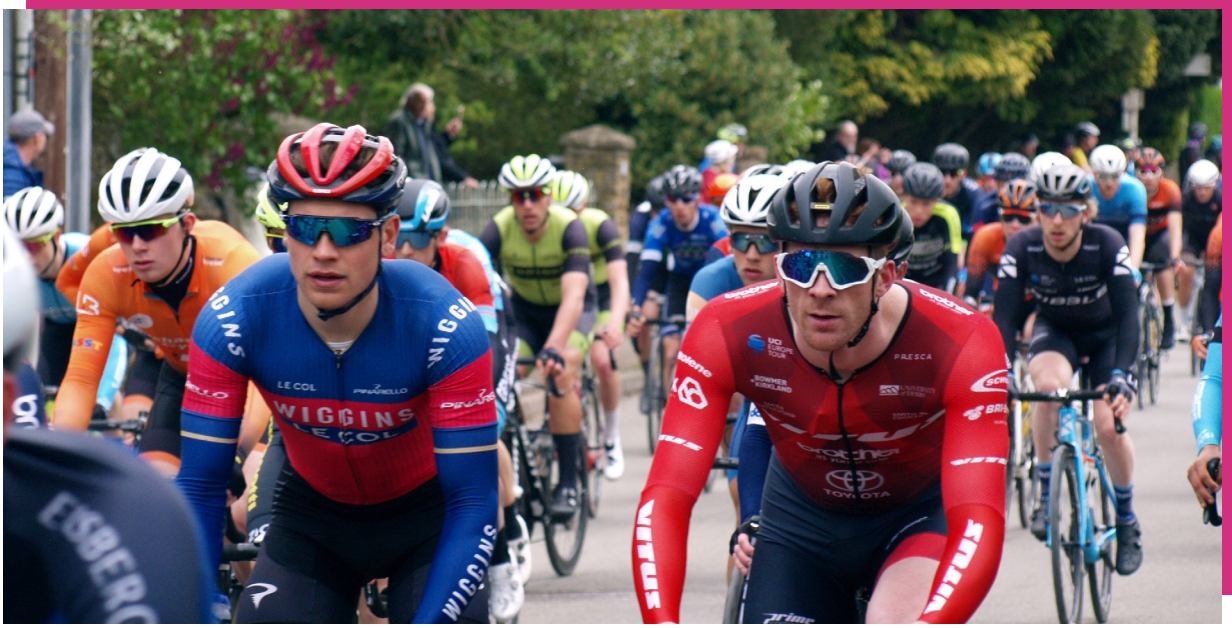
With increasing capitalism and privatization in Russia, coaches cannot visit schools in search of talented children as done in the USSR. Many schools, as in the West, do not allow coaches to attend physical education classes. Parents or children themselves have to come to sport schools or register on the internet portal of public services. As in the past, every August to September, children are invited to sports schools and selected based on tests. Olympic Reserve Colleges now accept disabled children based on new policies enforcing the equal rights of all citizens in accessing sport services. Special attention is again paid to medical and biological support. For example, each sports school and college is planned to have a mini-clinic for regular medico-biological examinations and anthropometry for better health and performance, as was done in the USSR.

The future: concerns, opportunities, developments

The following trends are noticeable in the current Russian system of athlete development and education. The Sport Ministry puts more resources into advancing quality rather than quantity: if earlier the main task was to attract children to sports, now it is the retention of participants and their transition to high performance. Focus now is on a more targeted search for talented children and their preparation for ultimate Olympic victories. To better achieve this strategy, recreational sport and fitness programs are subsidized through the education system, while the above described sport schools, colleges and universities are financed and coordinated by the Sport Ministry.

From 2016, per capita financing based on the achievement of uniform requirements, such as the ten athlete development stages summarized in the literature review, was introduced in the social sectors including sport. This was expected improve budgetary planning at all levels and the quality of services provided. The optimization should help with the following: 1) preservation of the system of organizations engaged in sports training; 2) transition to normative per capita financing when calculating the state (municipal) assignments of subordinate organizations; 3) gradual transfer of organizations providing additional education in the field of physical culture and sports, to organizations that provide more targeted preparation to sport competitions.

C. UNITED KINGDOM



A total of five interviews were conducted in the United Kingdom. The data from these interviews has been used to create two case studies representing two dominant systems of education support in the U.K. context. The first case study will address education support for talented and elite-level athletes who are not engaged directly in the four major professional sports in the U.K. (football, rugby union, rugby league, and cricket). This system is most prevalent as it addresses the needs of all sports outside the major professional sports. The second case study will focus on professional sport, specifically the education support services available to professional athletes. Each of the case studies will present the key findings from the interviews and discuss these findings against the macro-, meso-, and micro-level contextual overview included in the literature review.

U.K. Case study 1. Non-professional sport

Introduction

This case gives detailed attention to the education support system of those who are talented or elite level athletes, but not engaged in professional sport. Historically, a number of universities in the U.K. have informally offered elite student-athletes education support through special arrangements regarding programs of study and assessment. This support, however, has not been systematically organized or consistently provided across the country. More recently, the U.K. has formalized efforts and has established policies, coordinated structures, allocated resources and developed substantive mechanisms in order to pursue the vision of a world class further and higher education-based talent development program for sportsmen and women (DCMS).

Interview summary

Interviews were conducted with four senior (high managerial-level) representatives of key stakeholders involved in the policymaking and/or policy implementation of education support for talented and elite athletes in a non-professional sporting context.

- National Manager, Talented Athlete Scholarship Scheme, DCMS
- Strategic Lead, Talent and Performance, Sport England
- Head of Sport Delivery & Performance, BUCS
- Director of Sport, Bath University

The four interviews took place between early October and mid-November 2018. The duration of the interviews ranged from 45 minutes to 75 minutes with a mean duration time of 60 minutes. All interviews were conducted in accordance with the overarching methodology guiding the entire project including the set of question, recording of interviews, keynote transcription, and thematic analysis of transcripts.

Organization, governance, structure and key stakeholders

Elite sport in the U.K. is governed by a key advocacy coalition consisting of the DCMS (government), U.K. Sport, BOA, BPA, the home country sport councils and the NGBs of sport. These stakeholders are primarily responsible for making policy including the development of strategy and the allocation of resources at the national level. The World Class Performance Plans and the talent pathways are central to the process of organizing, governing and implementing elite sport policy. The ownership of the WCPP and talent pathway is each NGB of sport who is responsible for defining and articulating this in specific terms for their sport. The street-level providers and implementers of elite sport policy (i.e. those who work alongside NGBs of sport in the doing of policy) include the English Institute of Sport, professional and voluntary sports clubs, and further and higher education.

In recent years, the education sport system including education support talented and elite athletes has been subject to considerable change with a formalized approach to education support partly modeled after the U.S. system, with clearer structures and clearly delineated functional areas of responsibility across different stakeholders. That said, the U.K. system will always remain different (in terms of size and resources) from the U.S. based college system primarily due to the dominance of club-based sport development in the U.K., the lack of commercial, political, or historical power of college athletics in the U.K., and the crowded professional sport space dictated by football (soccer), rugby (union and league), and cricket. Nevertheless, college sport in the U.K. has become formalized over the past decade, resulting in a more professional, more organized and consistent approach to education support for elite athletes in the U.K. As Duncan Truswell from Sport England commented: "from a political and policy standpoint, it is clear that the country is passionate about elite sport and passionate about providing proportionate support to elite sportsmen and women."

The system of governing education support for elite athletes in the U.K. is a collective enterprise "involving a number of key stakeholders including the DCMS, British Olympic Association (BOA), British Paralympic Association (BPA), British Universities and Colleges Sport (BUCS), U.K. Sport, the English Institute of Sport (EIS), the Home Country Sports Councils, NGBs of sport, and both further and higher education institutions" (DCMS). Within this collective system "there are those that are responsible for making national-level policy (DCMS), those responsible to nationwide coordination (TASS, U.K. Sport, NGBs of sport) and those responsible for implementation and actually providing the support to the athlete (EIS, further education, higher education)" (DOS, Bath University). In short, the system of governance in the U.K. aligns with the National Sport Federation as an intermediary type, although there is evidence of greater formalization and moves toward more direct state intervention particularly through the work of state sponsored initiatives such as the Talented Athlete Scholarship Scheme supported by the Department of Culture, Media, and

[3]Further education typically offers pre-university qualifications including A' levels, and standardized qualifications in vocational areas of work such as sport. Traditionally, further education caters to 16 to18-year olds. Higher education offers undergraduate and postgraduate degrees. Traditionally, higher education caters to students aged 18 and over.

Sport or the Winning Students initiative supported by the Scottish Parliament (discussed further below). Further, the system of governance reflects the fragmented and pluralist nature of sport governance in the U.K. This has resulted in what can be best described as "an a la carte menu of opportunities that are available to talented and elite athletes based upon their age and their skill level" (or more specifically their place on the NGB talent pathway) (BUCS).

Key programs for elite development

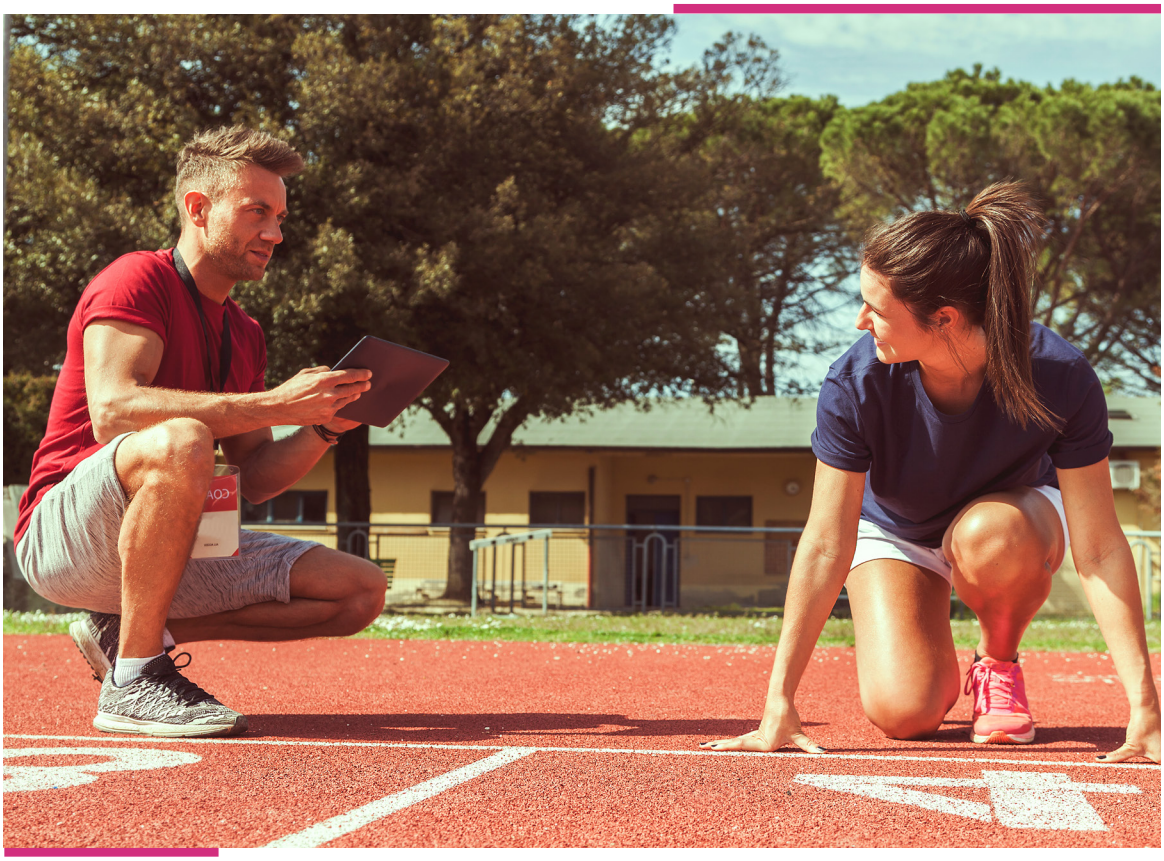
There are two dominant performance pathways for elite development in the U.K. context. One is centered on competing for the home country (i.e. Commonwealth Games and some international sport-specific competitions – football, rugby, cricket) the other is U.K.-based (Olympic/Paralympic Games and the majority of international sport-specific competitions).

As detailed in the literature review, the NGB of sport is specific to each home country (e.g. England Athletics, The FA, Swim England) and for some sports there is an overarching U.K. wide NGB who works with all home country NGBs of sport (e.g. U.K. Athletics, British Swimming). Despite the dual tracks, it is ultimately the NGB (both home country and U.K.-wide) is responsible for the managing the talent pathway for all athletes involved in their sport. Obviously, this requires a more resources, coordination and communication than would be the case in single nation-state countries with only one representative NGB per sport. Alongside the NGB of sport, home country Sport Councils (e.g. Sport England) and U.K. Sport are responsible for providing funding, guidance and strategic support to NGBs of sport particularly on matters relating to grassroots development, talent development, facility planning and development, and good governance. More specifically, the primary role of U.K. Sport is to strategically invest funding to maximize the performance of U.K. athletes in the Olympic and Paralympic Games and the global events that precede them. Of central importance to this process is the sport-specific talent pathways as it not only identifies the position of every talented athlete against the sport's pathway but this position on the pathway dictates the level of support and resources that are invested in each and every athlete.

The key programs that align to the talent pathway are varied and bespoke to each sport. All funded sports are responsible for developing a World Class Performance Plan with each sport-specific plan detailing the precise programs that will be delivered to support an athlete's progression along the pathway. Alongside the World Class Performance programs, U.K. Sport directly funds athletes through an Athlete Performance Award, which helps to pay for both sporting and living costs (DCMS). There are two levels of award that are allocated to Podium athletes; Band A which provides up to £28,000 ($36,884) or Band B which allocates up to £21,500 ($28,319) both allocations are annual, per athlete awards that are committed over each Olympiad (an annual award committed for a four-year period). Band A athletes are typically medalists at the Olympic Games or Senior World Championships or gold medalists at the Paralympic Games or Senior World Championships. Band B athletes have a minimum of a top eight finish at the Olympic Games or Senior World Championships or gold medalists at the Paralympic Games or Senior World Championships. In addition to this, U.K. Sport and the English Institute of Sport provide a number of support programs that complement the NGB World Class Performance Programs and the APAs, including talent scouting campaigns, world class coaching and leadership clinics, sport science and medicine support, warm weather training and acclimatization, international competition schedules, bidding for major sport events, athlete development programs, access to high performance training facilities, and athlete lifestyle support.

Support programs for access to education attainment

Four key programs offer education support to talented and elite athletes in the U.K. These programs are led by a range of different agencies, have differing priorities and goals, are funded through different sources, and provide varied levels of support to athletes.



Analysis: What are the key issues and hot topic issues?

The three major pressing issues confronting elite sport in the U.K. today are Brexit (the departure of the U.K. from the European Union), athlete welfare, and nationwide decisions regarding the funding of elite sport. The U.K. is currently faced with the macro-level implications that flow from the decision to exit the EU. There are clearly concerns about how this decision will affect research funding, the central funding that flows to higher education, as well as the implications that may come from no longer being part of the European Council for sport or the European-wide lobby for education support for elite athletes. The issue of athlete welfare, whilst a global concern, is one that is dominating elite sport governance in the U.K. with Parliamentary sub-committee enquiries and independent investigations into duty-of-care issues and how such issues can be appropriately addressed. Education for elite athletes is firmly embedded within the debate on athlete welfare concerns and thus will likely keep the issue relatively high on the political agenda, at least up to and including the next Summer Games in 2020. The final major issue of concern at this time is the funding review of elite sport. This review will set about evaluating how funding for elite sport should be allocated post Tokyo 2020. This is a contentious issue not least due to the uncompromising method of allocating public funds, particularly based solely on criteria that relate to winning medals without any consideration of the sports size or resources. It is also viewed to be contentious insofar as the myopic attention to winning and the 'No Compromise' ethos that has underpinned numerous medal wins for Team GB. It is also viewed by some to reinforce the problematic culture of sport whereby athletes are dehumanized, seen merely as machines, resulting in numerous accusations from athletes of harassment and bullying. Thus, sport administrators and politicians are left with a dilemma of how to cultivate a funding formula that drives success in terms of sport performance whilst also respecting and addressing the welfare and broader rights of the athlete.

Analysis: What works particularly well?

The interviewees identified several factors they considered important or critical to the success of the education support programs for elite athletes. First was the growing financial commitment of government and individual universities – in the context of austerity and severe cuts in public expenditure – to the education for elite athletes . Linked to this was the sense that such programs providing young athletes with appropriate lifelong support were ethically the 'right thing to do', and that this together with the public support for Team GB helped to leverage and secure political commitment (LTPSE). The sport-education partnership was a recurrent theme in which the strength of relationship was based upon the varied skills-set and resources that partners can offer (BUCS). The benefit of such partnerships are that they are a win-win; they allow universities to enhance their sporting programs while allowing sport to utilize academic programs and resources for the benefit of athletes (DOS, Bath University). This is generally viewed as a result of the combined commitment from the investment of partners in the principle of better education for talented athletes (DCMS). The final points reiterated the value of each partner in contributing to the establishment of best developmental environments in sport in the U.K. (BUCS), and the additional commitment of higher education in investing in high quality sport infrastructure (DOS, Bath University). This is motivated not solely by supporting elite athletes but also by the institutions' ability to leverage such developments for future student and student-athlete recruitment purposes.

Analysis: What are the challenges inherent in the system?

The primary challenges identified by the interviewees were largely controllable factors that could be addressed through a change in policy, leadership or management practice. All respondents noted, however, the complexity of the U.K. and the NGBs, were an inherent structural challenge that made the work of sport and education more challenging. Unsurprisingly, although funding was considered a critical success factor, the respondents all identified proportional funding as a systemic challenge. Funding allocations to elite sport development are relatively high compared with those for general education support. Ultimately, "the funding is pretty limited really when you think about the millions allocated to U.K. Sport..." and at the same time "the cost of education remains high and the majority of the costs must be met by the student" (DOS, Bath University). Some partners also commented on the difficulties that come with collaborative efforts. While there is much benefit in the partnership, there are particular challenges associated with coordinating activities, especially competition programs between NGBs of sport and BUCS (Jenny Morris, BUCS).

There is also a tension among partners in settling on the delineation of roles and responsibilities. The dominance of certain sports over others was also noted, particularly those on the Olympic or Paralympic program and those where the U.K. have strong winning potential. Sports that aren't well positioned or not supported by a World Class program tend to lose out. Often, there is nothing

for those athletes, despite their full commitment. (DCMS). Elite sport also faces the overarching challenges in attracting top athletes and coaches, and providing high-quality facilities with optimal support services across the country. Geography is always a factor; some benefit more than others (LTPSE). Annual evaluations of program success reflect another challenge. The data clearly show, for example, that male athletes are more successful than their female peers in terms of staying in the program, completing studies, and progressing on the talent pathway. The reasons for this are not conclusively established, and are being examined in ongoing research on program effectiveness.

The Future

The range of challenges and opportunities for elite sport on the horizon have been identified in the themes presented above. The U.K.'s exit from the European Union (Brexit) poses, of course, the most prominent set of challenges for higher education and sport. Othert challenges include re-balancing the principal-agent relationship, restoring power to athletes and assuring that the myopic focus on elite sport development is replaced by a more nuanced approach that considers a broader concept of excellence, with a core focus on athlete welfare.

The Duty of Care Independent Report presents a major opportunity for the key stakeholders in elite sport development, particularly for athletes. The report sets out several important themes centered on athlete welfare, including the perspectives and views of athletes themselves, equality, mental health and safety, education, and transition. It develops numerous recommendations these theme (Grey-Thompson, 2017). There are seven specific education-related recommendations ranging from information dissemination to the evaluation and retention of student-athletes on the talent pathway.

While these education-based recommendations may be unremarkable, the fact that the government have commissioned an independent report on athlete welfare and that education occupies a central place in the report is striking and bodes well for the sustained attention to education issues related to talented athletes. In addition, the ongoing consultation on future funding strategies for elite sport development in the U.K. (post Tokyo 2020) presents an opportunity to revisit elite athlete education in anticipation for Paris 2024 and beyond.

U.K. case study 2. Professional sport

Introduction

Focusing on the professional sport system in the U.K., this case study examines the policies, structures, and programs available only to professional athletes, or are formally recognized as an integral part of the professional sport infrastructure (i.e. academies and centers of excellence). The professional code is also distinguished by its focus on a small number of professionalized sports. In the U.K., the sports generally deemed professional are: football (soccer), rugby union, rugby league, cricket, golf, tennis, darts, snooker, and horseracing (PPA). Darts, snooker, and horseracing are reasonably healthy commercialized in the U.K. They have a relatively large, traditional following in live spectatorship, TV audiences, and generate considerable revenues through gambling.

The system of performance development and the policies and programs providing education to athletes (and coaches) are unique to each sport. This case study provides a general overview of professional sport with a focus on football, rugby union, rugby league, and cricket. It also provides an overview of the youth development systems embedded within professional sport, and education for young athletes who are part of these systems. The focus is on football, which is the most comprehensive and well-developed of all professional sport systems in the United Kingdom.

Interview Summary

One interview was conducted, supplemented with a range of secondary sources. The interview, with the CEO of the Professional Players Association, was conducted in accordance with the same overarching methodology guiding the entire project including the question-set, recording of interviews, keynote transcription, and thematic analysis of transcripts. The secondary sources used are cited and included at the end of the paper.

Organization, governance, structure and key stakeholders

The majority of professional team-based sport leagues in the U.K. (football, rugby, cricket) are based upon a pyramid structure whereby clubs can move up and down league structures, based primarily on their performance. For example, professional soccer in England has 92 clubs playing in the top professional leagues (English Premier League, EFL Championship, EFL Division 1, EFL Division 2). There are 20 clubs in the Premier League and 24 clubs in each of the three leagues beneath. These professional leagues are underpinned by hundreds of clubs playing semi-professional football at the national, regional and county-level. For these clubs there is a pathway to allow a team to gain promotion into the full-time professional league structures (some clubs in the lower leagues operate full-time and pay their players as full-time professionals). The majority of the 92 professional clubs have a comprehensive youth development system (academy or center of excellence) that underpin the first team, providing coaching, education, and lifestyle support (see elite development, below).

There are two codes of professional rugby in the U.K., rugby union and rugby league. Rugby Union in England was an amateur sport until 1995, meaning that there was no formal national league structure (a sign of professionalization). Professionals (paid athletes) were not permitted. The recent professionalization of the sport resulted in a formal, pyramidal league structure which has in turn attracted greater commercial opportunities including significant broadcasting rights deals and corporate partnerships. The professional league structure for Rugby Union includes two full-time professional leagues, the Premiership and the RFU Championship, each with 12 clubs. Underpinning these two leagues, are three national leagues (National League 1, National League 2 North and South, and a regionalized

National League 3). As in football, there are hundreds of rugby clubs competing in regional and county-based leagues beneath these five divisions, all of which have pathways, via promotion, into the professional league system. The majority of rugby union clubs competing in the Premiership have academy structures to support the development of young rugby players including integrated education support (RFU, 2018).

Rugby League has been professional since the late nineteenth century (payment of athletes was a primary reason for the division of rugby into two codes). There are three professional leagues: Super League (12 clubs), Championship (14 clubs) and League 1 (12 clubs), with the possibility of promotion and relegation between the leagues via the end of season play-offs. This league structure is underpinned by a number of clubs competing in regional leagues. There is no consistent youth academy model parallel to the professional clubs, although the NGB Rugby League Football Limited (RLFL) are beginning to develop a new county-based academy system (i.e. academy players will be selected for, train with and represent their county of origin or residence).

The structure of cricket has become more complex due to the recent expansion and adaptation of the game from first-class county cricket to the one-day game variant, and 20-20. This paper focuses on first-class county cricket and minor counties cricket, as these are the preeminent U.K.-based structures for professional cricket. The county championship consists of two divisions. Division 1 consists of eight counties; Division 2 has a total of ten counties. Three counties are promoted from Division 2 and three displaced from Division 1 at the end of each season. While counties do have youth development programs, these are not integrated with any wider education support programs.

The concept of network governance best represents the governance of each professional sport with the network involving the NGB of sport (e.g. FA, RFU, RLFL, or ECB), the league organization (e.g. EPL/EFL, Premiership, Super League, County Championship), and the teams (e.g. Manchester United, Saracens, Leeds Rhinos, Sussex). In addition to these organizations, the professional players unions have an increasingly visible role in representing their members (PPA); this especially interesting considering the overall decline in trade union influence in the U.K. in the post-Thatcher era. Furthermore, associations such as League Football Education (LFE), a network of professional football clubs outside the Premier League, play an important role alongside the professional players trade union, the Professional Footballers Association (PFA), in providing coordinated support for all professional footballers outside the Premier League.

These sport-specific player representative structures are further supported, as is common across international sport governance, a network of supra-national (European) and international sport-specific associations (e.g. FIFPro – the international professional football (soccer) players union) as well as a network of generic player associations at the national (e.g. Professional Players Association), surpa-national (EU Athletes) and international levels (World Players Association).

Key programs for elite development

All professional sports detailed above have academy structures, or some variant, with the key purpose of developing young athletes and building the pool of future professional athletes. Although all sports have youth development structures, some are broader (in terms of the numbers of athletes involved) and more comprehensive (in the services they offer) than others. This paper provides an overview of the key programs in the elite development of academy footballers, primarily as this is the most recognized and well-developed network of youth academies in the country. As mentioned in case study #1, it is important to note that the talent pathway for each sport varies and that the programs that form part of the talent pathway are unique to each sport.

As well as developing more and better home-grown players, the Premier League claims that the academy system helps young players maximize their potential in football, education and life through their elite player performance program (2018). This program for the academy system is based on three phases: foundation (under nine to under 11 years), the youth development phase (under 12 to under 15 years), and the professional phase (over 16 years). Players can join or leave at different ages or phases of development (Premier League, 2018). A number of program elements such as hours of coaching per week, the coaching curriculum, the competitive games program, and the education and welfare program also vary according to the category of academy. Each academy is independently audited every three years and categorized according to the standards of coaching, evidence of player development, and their capability and record in providing access to a full-time education program (Premier League, 2018).

Open and supervised seven days a week, these colleges provide multisport facilities such medical services as traumatology, physical exams'. It should read: 'Open and supervised seven days a week, these colleges provide multisport facilities with such medical services as traumatology, physical exams,

The classification of each academy and the phase of the performance pathway provide clear requirements regarding the hours of coaching, the coaching curriculum, the competitive games program, and the education program that players will access. The Premier League advise that these criteria are not merely guidelines but regulations that are strictly enforced by the league through regular inspection and review.

The support that supplements on-field training and competition includes athletic development, lifestyle and psychology programs to enhance the knowledge, skills and understanding needed professional football both on and off the field (Premier League, 2018). The league has instigated the performance clock concept in which each club is responsible for providing academy players with regular feedback about their development. It is essentially a record of achievement detailing each player's personal performance data including number of hours played, the analytical data from all games played, hours of coaching the player has received, education progress, health and fitness data (Premier League, 2018). This data is used to review the progress of each player on a regular basis, examining key issues including progress against pre-established targets and factors that have prevented a player from meeting expectations, and sets performance targets. The review involves the head coach for the year group, the head of education, the club's sport scientist and any other relevant academy staff. In addition, reviews are conducted with parents twice a year to discuss performance reviews in detail with parents (up to the age of 16).

Support programs for access to education

This sub-section provides an overview of the education support programs that are in place for academy players as well as detailing the more general support available through the professional players associations. The Premier League states that the education program of academy players is a core component of the academy program (Premier League, 2018). There are three specific education models: the part-time training model (PTTM), the hybrid training model (HTM), and the full-time training model (FTTM). The delivery of these models per academy varies according to the academy category and the development phase of players. At the foundation level (under nine to under 11), only the PPTM and HTM can be delivered. The PPTM can be delivered by all academies and the HTM can be delivered by category 1 and 2 clubs only. At the youth development phase of development (U12-U16), the PPTM can be delivered by all academies, the HTM can be delivered by category 1 and 2 clubs only, and the FTTM is provided through category 1 clubs only.

In the PTTM, players attend school full-time and attend the academy in the evenings, at weekends, and during holidays. Academies have a regulatory and moral duty to keep in regular contact with the school, provide reports on progress, and monitor overall progress to ensure that the football program is not adversely affecting their progress at school. In the HTM, players are released from school to attend the academy for part of the weekly timetable; the hours of commitment to the academy depend on the age of the player and the specific academy program. Agreement must be reached between the school, the academy, and the parents of players.

The education progress of players should be regularly reviewed and the academy have a duty to provide extra help to ensure that the time away from school does not adversely affect academic progress. The academy is also responsible for providing education at the club to compensate for the time away from school. In the FTTM, players receive football and education programs through the academy. The academic program is delivered by a local school, in partnership with the academy. The club is responsible for making a detailed assessment of each player's educational needs and is expected to work closely with previous and new schools to ensure that the curriculum meets both government requirements and the academic abilities of each player. For the FTTM, clubs are expected to extend the registration of players so that is lasts up to the end of secondary school education (16 years in England). The FTTM is a full-time program requiring residential arrangements whereby players will live away from home in a club boarding home, boarding school, or stay with a local host family.

At the professional development phase (U17-U23), academy players between 16 and 18 years must take an education component as part of their full-time scholarship program. Players are referred to as scholars during this phase of development. As part of their scholarship, players will pursue an apprenticeship in football (training and competition), an academic education program that commonly includes the Diploma in Sporting Excellence (DiSE), and a Player Care and Lifestyles program. The DiSE is a credit-bearing diploma that enables students to pursue a focused education in sport performance with modules of study in psychology, nutrition, strength and conditioning, wellbeing, health and safety, career development, media, communication skills, lifestyle, tactical elements of sport, and technical elements of sport. To enter the DiSE program, scholars must have completed their General Certificate of Secondary Education (GCSE) qualifications (age 16). Finally, for those over 18, clubs work with the professional players trade union, The

Professional Footballers Association (PFA), to provide support for players who wish to pursue education opportunities although such provision is based on an "as needed" approach rather than being part of a standardized plan that is offered to players.

In addition to the education programs offered by football academies, professional player associations play an important role in providing a system of support to professional athletes (PPA). The range and extent of support provided by the professional association varies considerably by sport and is influenced by the financial power of the association as well as the collective bargaining agreement between the sport and the professional players association (PPA). For example, the PFA have a large and well-resourced education department with an overall aim to provide guidance for the provision of education and vocational courses, in preparation for a second career for all former and current registered members of the PFA (PFA, 2018). To support this aim, the PFA offer a range of further and higher education programs delivered with a range of education institutions, that provide grants and other funding support, board member support (for ex-players who transition into soccer governance), and a more general transitions support workshop that aims to help professional footballers transition to life after football. The workshop gives particular attention to the athlete identity and how this affects transition, strengths aligned to career options, reassessing finances, and player wellbeing (PFA, 2018).

The professional player associations for rugby union, rugby league and cricket provide similar support services. The Rugby Players Association provide courses, financial assistance, and transition support (RPA, 2018). The Rugby League Players Association is a part of the GMB Union with over 600,000 members; it offers education support and training, career guidance and a range of financial and legal services to current and ex-Rugby League players, coaches and support staff (GMB Yorkshire, 2018). The Professional Cricketers Association runs a multi-faceted personal development and welfare program accessible to all current and former professional players. The program aims to improve performance of current professionals through easing

and minimizing potential distractions, and to better prepare them for life after formal competition (PCA, 2018). The program encompasses specialist guidance (skills development, personal welfare, transition support, experiential learning opportunities, etc.), education courses, funding and personal development scholarship awards, career awareness and education support, and a transition camp to support retiring professionals (PCA, 2018).

Underpinning this support, the Professional Players Association provide a collective national voice for professional athletes. It promotes, protects, and develops the collective interests of these players through advocacy, representation and partnership work with supra-national and international associations (Simon Taylor, Professional Players Association). While this does not necessarily translate to direct provision of education programs or services, it does provide an important channel for athletes to ensure that such issues are on agenda of the powers responsible for governing national and international sport.

Analysis: What are the key issues and hot topic issues?

As with non-professional sport, Brexit and athlete welfare are the two major concerns confronting professional sport in the United Kingdom. The increasingly commercialization and globalization of the EPL, in addition, is dominating professional sport. One of the implications of this dominance is the impact on the long-term commercial viability of other professional team sports. While these sports are not at risk of imminent failure, the dominance of the EPL and the Matthew effect that flows from it (i.e. the rich get bigger and richer, the poor get poorer) suggests that any attempts by other professional sports to grow and further develop, while not impossible, are immediately challenged. Another hot topic related to the EPL is the impact that a globalized league, with talented athletes recruited from all over the world, has on the development of home-grown talent.

This is an emotional issue in the U.K., with some fans committed to the idea of leveraging free-market principles to assemble the highest quality league possible, while others are concerned about the impact that such practices may have on the ability to develop a competitive British national team.

Analysis: What works particularly well?

It is important to stress the clearly normative point concerning resources and services. Those with the greatest resources, such as the English Premier League, can best afford resources for the most comprehensive programs, including residential, integrated elite sport and education within an environment offering world class coaching, world class facilities, and world class competition. According to the Players Professional Association, the other aspects of the education support program that work well are the individualized planning and one-to-one support for athletes, that the program is driven by the athlete, not the government or some other agency, and that the network, including the sports-specific association and the Professional Players Association, are objective in fighting for the rights of the athlete (PPA). Finally, it is clear that a range of multi-stakeholder partnerships are emerging among clubs, higher education and player associations toward formalizing education support for professional athletes. While this may once have been about the market and opportunism, it now seems linked to ensuring that the holistic needs of the athlete are being addressed to both respect and nurture the welfare of the athlete and to prevent mental health problems among professional athletes after they leave formal competition.

Analysis: What are the challenges inherent in the system?

Another challenge involves a tendency among some athletes to exclude or distance themselves from further education support once they turn 18. "This is a particular concern among 18 to 19-year olds who really do not know better but feel that they know enough to ignore the advice of those around them" (Simon Taylor, Professional Players Association). Obviously, this is a high-risk strategy in the football academy environment where only a small fraction of the 12,000 boys in the system are offered a professional contract with the club (Conn, 2017). But highly motivated young men may not be ready or willing to fully absorb this reality, with the result that many do not take their education as seriously as they should (Rumsby, 2017). Evident stakeholder efforts to provide a high quality and highly effective sport performance and education environment for young people often seem to mask the reality that many young academy players lack genuine focus on education and fail their GCSE exams (Rumsby, 2017). A range of ill-conceived programs and poorly implemented projects contribute to this unfortunate trend. Although empirical work to test such claims is difficult given the power and control of Premier League clubs over academies, current data suggests that the current system may be less effective, and less athlete-focused than the Premier League would have us believe (Conn, 2017; Rumsby, 2017; Platts & Smith, 2009).

The future

The issues with the greatest impact on the future of education in professional sport in the U.K. are Brexit, athlete rights and welfare, and the mandate and work of the World Players Association. Brexit-related issues include, among others, the focus on immigration (bringing players from other countries) and freedom of movement of employees. Both issues have until the present been regulated by EU law; their future enforcement is dependent on the outcome of the troubled Brexit negotiations. Failure to appropriately address these issues will carry significant and problematic implications for clubs in the U.K. as regards doing business with overseas clubs, recruiting overseas players (professionals or academy players) and potentially impeding the free movement of players once their contracts expires.

Premier League and other stakeholders appear to take seriously issues of athlete rights and wellbeing or welfare, such as addressing physical, psychological and emotional problems. There remain significant gaps, however, both in the proportional amounts of funding invested in this area (as a percentage of the funding allocated to professional sport), and the extent to which professional athletes have a legitimate voice in the governance of elite sport and over the range of services for professional athletes. There may be less public sympathy in this area for professional athletes because of their generous pay and seemingly luxurious lifestyles. The majority of professional athletes, however, are not wealthy and live modestly.

Clearly, there is growing unrest among athletes and others at the lack of consideration for athletes' voices in the decisions taken by the leaders of international sport governance. This is undoubtedly a turbulent time in sport governance; the future is likely to bring renewed opportunity for structures such as the World Players Association and others to asume a more prominent platform to ensure that athletes' voices are heard and respected.

D. Senegal

Case study 1. Football academies

Introduction

This case explores the football academy model in Senegal and that country's education provision for their young elite athletes. Football academies are defined by Darby et al. as facilities or coaching programs designed to produce football talent (Darby, Akindes, & Kirwin, 2007, p. 148). Since the early 1990s, the number of academies has mushroomed across Africa. Diambars Academy is considered the first academy in Senegal. Their first two promotions of young football players started their elite footballer training in 2003. Since then, several residential academies have emerged with the clear desire to develop elite football with globally competitive players.

As MoS Advisor 1 (2018) explained, a ministerial decree mandated that all football academies offer academic or vocational education to all their trainees. The government (Ministry of Education) can then assist academies in providing qualified and certified teachers to the school. The section that follows presents education data fundamental to the macro level of elite athlete development and education.

Education context

The secondary education system in Senegal is crucial to the development of successful athletes and citizens. Although the United Nations Development Program and the World Bank indicate that Senegal's youth have a high primary-education enrollment (83.1 percent), only 48 percent of students go on to secondary school sport sheds light on the motivation behind the choice of this particular group.

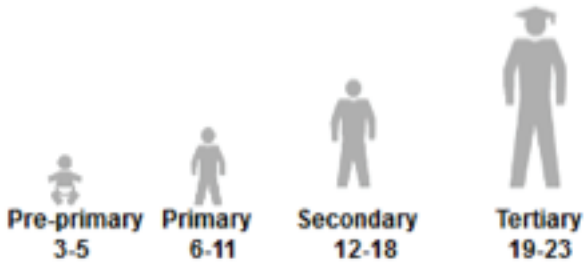


Figure 2: Official school ages by level of education (UNESCO UIS, 2016)

Figure 2 (UNESCO, 2016) illustrates school categories by age. Youth who attend secondary school range in age from twelve to eighteen, but only around half of that age group actually go to secondary school. In this study, the discussion on athlete development will focus on the secondary school age group. The section addressing education and sport sheds light on the motivation behind the choice of this particular group.

	Total	Male	Female	Year
School life expectancy ISCED 1–8 (in years)	8.97	8.56	9.39	(2017)
Percentage of repeaters in primary	1.41	1.51	1.31	(2017)
Survival to the last grade of primary	56.89	57.32	56.22	(2016)
Gross intake ratio into the last grade of primary (percent)	60.19	54.72	65.78	(2017)
Primary to secondary transition rate	72.98	75.28	71.02	(2016)

Table 1: Progress and completion in education (UNESCO UIS, 2016) education (UNESCO UIS, 2016)

Tables 1, 2, and 3 are indications of the high dropout level in the education system in Senegal, and provide context to understanding the demographics and education of the population. Table 1 (UNESCO UIS, 2016) shows that only 56.89 percent of students survive to the last grade of primary school. Of that group, 72.98 percent transitioned to secondary school. As this review details, sport schools offer education to youth for the improvement of Senegal generally, and in its international sports performance.

Yet this system leaves behind talented athletes not in school and those who drop out of high school (Table 2). A quality education for all prospective athletes depends on the effectiveness of the education system as a whole. Table 3 details the current low numbers of young Senegalese who attain secondary school. For a more intimate view of Senegal's sports and education, interviews were conducted with sports administrators and others involved with football academies and sports institutes.

	2017
Out-of-school children	
Total	628,099
Female	257,466
Male	370,633
	2017
Out-of-school adolescents	
Total	690,532
Female	318,098
Male	372,434

Table 2: Out-of-school children and adolescents (UNESCO UIS, 2016)

	2017
Gross enrolment ratio (percent)	
	45.42
Female	47.43
Male	43.45
Net enrolment rate (percent)	
Total	37.1
Female	38.87
Male	35.36

Table 3: Student enrollment in secondary school in 2017 (UNESCO UIS, 2016)

Interview synopsis

Ten in-depth, semi-structured interviews consistent with the overall protocol defined for the countries covered in the study interviews were conducted. The wresting strength trainer, who gave a portrait of wrestlers in the Senegalese sport development context, was asked unique questions. The method was tailored to the specificity of Senegal as an African nation with a lower GDP and economic indicators very different from the other countries in the study.

The founders and CEO of the four most successful football academies in Senegal were the key respondents. Open-ended questions explored the history of the academy, the recruitment processes, the education of the young players, and their post academy options. Other interviews consisted of conversations with senior directors and advisors at the MoS. They provided the essential information for a current understanding of the country's sport system, as well as education systems in place for sports development and athlete education.

Talent identification and development

Talent identification at the four academies is conducted through short trials. The geographical target and the network in place to conduct the first screening of the young candidates may differ from one academy to another; nevertheless, the approach is very similar and consists of organizing football tests for youths aged twelve to thirteen to select the best sixteen to twenty players who will work with the academy for four to five years.

Talent detection and recruitment is a several-stage process that relies on a network of small private, individual football programs called 'football schools.' In these programs, kids in a neighborhood are coached by a volunteer on public playgrounds or other accessible facility. The schools and the coaches represent scouts connected to the communities and to the youth who play football wherever an open space is available.

To broaden the search for talent, academies involve several thousands youths through their network of football schools and the volunteer coaches. Director Academy 2 of Institute Diambars said that their recruitment will screen three to five thousand twelve-year-old players across the country (Director Academy 2 personal communication, 2018). Generation Foot has network of 20 to 50 recruiters to ensure country-wide screening. Director Academy 1 of Generation Foot has an additional regional network for talent detection to screen five to ten thousand youth annually. The Aspire Dream Academy, which started in 2007 over six African countries, screened more than 500,000 youth every year (Director Academy 3 personal communication, 2018). A.S. Sacré Coeur, a school, has a similar process with a focus on Dakar. It has a network of scouts, mostly in the south. Its director, argues that Dakar, with a population of 4 million, is already an exceptional source of talent (2018). He says that in addition to the tests, they have an ongoing screening system in place that allows the academy to identify talented players.

Football academies have developed their own talent detection infrastructure with scouts throughout Senegal and beyond. In his 2018 book The Away Game, Sebastien Abbot describes how Aspire Dream Academy makes sure that talented young African players are found, recruited, and developed. Unlike other systems described covered in this report, youth sport (specifically, youth football) in Senegal is not structured for children eight to 13 years. Which children show aptitude? The answer cannot be determined without organized screening and testing. Because the country lacks a national youth football system with teams and regular competitions, the recruitment effort has to rely on football schools and a large number of scouts to detect the talent needed for the residential elite training programs. The geographical target of the talent recruitment often determines the magnitude of the scouting infrastructure.

Education and football academies

Once young players are recruited by an academy, they attend the academy boarding school where they learn to play football while pursuing their education. Director Academy 1 (2018) believes that education is the priority. The other directors of the academies interviewed for this study also emphasized the importance for providing a quality academic or vocational education to their players during their time at the academy. The education is provided directly by the academy itself with its certified teachers; in the case of Generation Foot, education is through a partnership with a local school. Nevertheless, Generation Foot is in the process of building a school. The Aspire Academy partnered with a private school with an additional customization of the curriculum. Director Academy 3 (2018) relates that because of his academy's regional and continental recruitment, the players' initial education was in English or French. A special program was put in place to make sure English-speaking players studied in English but also learned French. Certified teachers in the academies ensure an academic standard and an education equivalent to the Senegal national norm. Despite the compliance to national education standards, there are challenges. For example, players entering the academies often show a range of education levels; this will be addressed more later. Furthermore, the topic of graduation rates is an open concern.

According to the Director Academy 2 (2018), the right age and the student's football talent are the primary recruitment factors for an academy:

Recruitment is equalitarian, with simple criteria. Age and football skills come first. There are no other criteria. Any other criteria could be discriminatory. Some of the kids could be excluded if we used education level or financial means. These criteria would have excluded young players. We force ourselves to not have any education criterion.

Similarly, Director Academy 3 (2018) said:

We received kids who have never been to school at thirteen. I have... [an] example of a kid who had never been to school. His mother used to sell peanuts at the gate of the school—but he wasn't in school. When we were conducting our screening, his neighborhood friends asked him to join the tests. We end up selecting him. His mother couldn't afford to send him to school; the father was in Mauritania, maybe working for the fishing industry. But what was sure, their income level could not allow their child to be in school.

Director Academy 2 and Director Academy 3, while describing the importance of education in their

academies, also raised a major challenge: providing a quality education when the first criterion of recruitment is athletic ability. Additionally, leaders of the academies consistently highlighted a social factor –that there could be an opportunity for a youth regardless of his or her socio-economic background. Education is essential to the training of the young player, but not the main recruitment factor.

Education in Senegal is mandatory from age six to 16. All the players recruited should be schooled by the academy and enter secondary school when recruited. However, as previously mentioned, when students are selected to start their academy journey, not all of them have been consistently schooled to be eligible for secondary education. Although students are in the same age group, their education level is uneven. The age group targeted for recruitment corresponds to the end of primary school and the beginning of secondary school. Only 57.32 percent of male students in primary school continue to secondary school. Considering the context, recruitment exclusively on academic qualification would exclude more than 40 percent and reduce the talent pool. Football academies integrate the reality of the education system to make sure they fulfill their education mission; teachers work hard to address the challenge of managing multiple levels of students recruited. The academies have students who finish high school when graduating from the academy. Director Academy 1 (2018) stated that "two out of three of the players successfully passed their baccalaureate, but we want to do better with a 100 percent success." His hope is optimistic. But academic success stories are often promoted to demonstrate the commitment to the education of the players. Undeniable education success stories are highlighted by the Diambars Institute,

which has alumni in college in Senegal, the United States, and France. Director Academy 2 notes:

Once we recruit the players, our objective is to have them get their baccalaureate. For those who pass their baccalaureate, even if they get a professional contract, we give them a scholarship for college in Senegal up to a masters. Nevertheless, when a player knows that he cannot make it to the baccalaureate, it can be a problem. A few who couldn't see themselves' finishing high school may become defiant toward school. One told me, "President, do you see me with the baccalaureate?" He has now a masters in management. Many will persist and succeed, but we still have those who will not.

Aside from the success stories, graduation rates are not available and would have a limited significance in evaluating the overall academic success of the players enrolled in the academies. The uneven entry level of players' education makes it dfifficult to evaluate success on baccalaureate results. Football skills had been the main recruitment criteria; education success is accessed case by case, as explained by Director Academy 3:

The player whose mother was selling peanuts at the school gate is a typical case where evaluating his success couldn't be academic. He is very unlikely to pass his baccalaureate. We try to school them the best possible... [and] to push them through school. Some respond very well and succeed; while others, despite all our effort, will not succeed. We are conscious about the situation and really try our best. They can't pass the [middle school national exam] but learn to read, count, and speak French, English, and Spanish with our Spanish coaches. We emphasize the value of learning, especially the languages, which can be useful for a career in Europe. That motivates them, because it's aligned with their football-career dream.

Despite academic successes, according to Director Academy 3 and Director Academy 2, fewer than ten percent of the players will effectively graduate with a professional contract. The academies recognize the challenge that those students without a contract and an academic baccalaureate pose to their model. Vocational training is an option mentioned by two directors. But for the Diambars Institute, this option remained a difficult element to validate.

We try to put the kids in vocational schools and try to explain to them its value. Unfortunately all our attempts to provide vocational training opportunities were a failure. We tried to start a gardening program... but the players did not get involved. We tried a video production training section to train them to become video producers, cameramen, etc., but only one or two continued the training. We also started a screen printing shop, but no one got involved. The players think that even after not having a professional contract, they can still succeed... the dream of being professional football players is too strong. (Director Academy 2, 2018)

It is possible that vocational option is not viable. The best trajectory may be to stay in school and finish high school. Vocational training is always a possibility when they are older. But as long as reality is delayed, vocational training is not attractive; they see themselves as professional football players, on track to a glamorous life of the professional football players they see on television with million euros contracts. It is an image that the successful players and the media sell to vulnerable youth.

Football academies discussed in this study present an original model of football and education. Once recruited, schooling is need-based, according to the student's academic level. Consequently, the education outcomes are not constant. Success can depend on their past education and their individual willingness and motivation to receive an education along with their football dream. With the exception of the Diambars Institute, vocational education is not fully integrated in the academies and remains an undervalued education option for the young players dreaming about a successful European career.

The football academies, with a professional development model, represents the main structure for elite athletes. Academies have a legal mandate to educate players while they pursue their athletic training. Successful athletes emerge from the academies who are contracted across Europe in the top football clubs.

One iconic player, Sadio Mane, an alumnus of the Generation Foot academy, plays for FC Liverpool in the English Premier League, in a significant professional contract. Fewer than ten percent of the players from the academies have achieved this success. Many questions remain about the whole system of recruitment and education. Of the many students who fail to get a contract, and cannot continue in higher education, how will they move ahead toward good jobs? In some ways, the questions are relevant across the whole of Senegalese society.

Macro-meso-micro intersections beyond the football academies

Other academies, such as the basketball academy Sport for Education and Economic Development (SEED) in Thiès and the newly implemented NBA academy in Saly, are not legally obliged to provide education to their players. According to MoS Advisor 1 (2018), while the SEED academy and the NBA academy are two functional basketball academies with education, the ministerial decree does not yet apply to them. MoS Director 3 mentioned that she was asked by a club president to assist in providing vocational training to a few young female basketball players who dropped out of school (MoS Director 3 personal communication, 2018). The request is an indication that there is a need for vocational training for athletes in nonprofessional structures. MoS Director 3, the director of training and development for the MoS, acknowledged the necessity to create a vocational training system. She wanted to include the ministries of training and employment to support the education needs of many athletes who did not complete their secondary-level education but are registered with the federations and associations affiliated with the MoS. This challenge is prevalent in wrestling, the most popular sport in Senegal.

According to a strength trainer with long experience with many elite wrestlers, literacy challenges are prevalent in the wrestling world (Strength trainer, 2018). Young wrestlers in quest of a professional career (which will consist of one or two yearly high-priced fights) often come from rural areas where they have not been schooled. Aware of the education challenges, the ministry has developed a framework to address professional education for the teachers and training needs for the athletes. The sport system (with few formal professional elite programs except the football professional leagues 1 and 2, the football academies, and two basketball academies) has limited offerings for athlete development and education. Newly identified sport and sport-affiliated professions that can offer employment opportunities are included in the options to be considered by the MoS for athlete professional development.

Case study 2. Training and education of sport management

How sport is governed in Senegal influences the country's capacity to develop the well-trained and quantitatively sufficient technical personnel needed for the development of elite players. The MoS oversees training and development for federations and associations. According to the director for training and development at the MoS, "We organize coaching training when requested by the federations and our sports directors working in the regions and departments" (MoS director 3, personal communication 3, 2018). She said that a training institution for coaches does not exist.

There are two main ways coaches are certified, however. The first certification track is through the National Institute of Sport and Physical Education (INSEPS) and the Center for National Popular and Sports Education (CNEPS). These are national physical education teacher-training institutions. They offer a coaching certificate according to the graduate's sport specialization and degree. CNEPS physical education teachers are trained to teach in primary and middle schools. They finish with a coaching license level 2. INSEPS physical education teachers are trained to teach in high schools, in higher education, and are taught how to administer sport institutions. These graduates have the highest recognized coaching license, license level 3. They must obtain two years' coaching experience to have their licenses validated by the MoS.

The second license track for coaching leads directly from the federations. These licenses are often organized in collaboration with the discipline's international or continental governing bodies. The MoS (on federation demand and according to budgetary availability) then provides logistical support with sport facilities and evaluation. Because all certificates must be endorsed and accredited by the MoS, the evaluator is critical. These certificates are delivered by the discipline's international governing-body trainers, and the certificates are recognized and endorsed by the MoS. In football, license 1 and license 2 are coupled with the Confederation of African Football Federations (CAF) licenses 1 and 2.

A third coaching licensing approach is through the MoS. These licenses are organized on demand by the federations or the regional and departmental sports administrations. The ministry and its technical staff organize these trainings and deliver licenses for initiation, level 1, and level 2. MoS Director 3 summarizes challenges facing the three MoS coaching education and training offerings. According to her, there was a limited emphasis on coaching education. She argued that according to a 1973 policy, only six or seven federations had the mandate to train coaches (MoS Director 3 personal communication, 2018). Training coaches was clearly not established and required by the MoS. For the training led by the international federations, the MoS is confronted with a quality control problem:

The trainings with international federations are often no longer than one week. It is not realistic to have license 1 or license 2 training in one week. We are often invited to the opening and closing ceremonies. But since training is a federation prerogative, we cannot intervene. (MoS Director 3 personal communication, 2018).

The frequency of the training is another challenge highlighted by MoS Director 3. The training led by international federations depends on these federations' training calendar, which is not specific to Senegal and furthermore is organized in multiple countries. For instance, the CAF licenses in football haven't been organized for more than a year and a half, while CAF is revising their curriculum and content (MoS Director 3 personal communication, 2018).

The concept of coaching education was identified in the Sports Sector Development Politics Document (La Lettre de Politique Sectorielle de Développement des Sports) (LPSD) as one of the main elements of the 2025 national sport development vision. But in actuality there are

structural and financial challenges inherent to a sport process with limited emphasis on training. Many experienced coaches never received formal certification training; and in some cases, these individuals have limited formal education. But their valuable experience cannot be dismissed. The MoS is working on possibilities to validate their experience with a license before licenses become a requirement for all federations. In football, where a license is already mandatory to coach a pro league club and youth national teams, very little reinforcement is in place. Relationships often work better than rules. The MoS is pointed in this positive direction, but so far not much has been accomplished (MoS Director 3 personal communication, 2018).

In regards to training, few sectors of sports have a formal, systematic approach. The INSEPS (in collaboration with the Center for International Education in Sport, CIES, in Neuchatel, Switzerland) has launched a sport administration post-graduate degree. According to Director 1, the director of INSEPS, the need for trained sport administrators is real, but countries are confronted with labor market reality, similar to traditional social sciences degrees from the universities (Diop, 2018). Other professional education related to sport, such as athletic training and sport medicine, is not in place. Individuals with medical credentials and an interest in specific sport disciplines will support the needs of federations and clubs.

Despite the challenges, the Training and Sports Development office of the MoS is developing plans to better support sports development programs with adequate training in a wide range of sectors. The documents produced intend to develop training for the whole sports industry in Senegal by identifying professions directly involved in sports activities, and those supplying services to support these. Two final reports are useful milestones: the feasibility study of the National Plan for the Training of Sports Actors (Plan National de Formation des Acteurs du Sport, PNFAS) and the Project for the Promotion of Sports and Sports Associated Professions. These comprehensive documents access the needs in human resources and the relevant trainings needed to fully support and develop sport in Senegal. Sport governance in Senegal is a mixed model (government and private) with a stronger directional, strategic, and funding role for the government through the MoS. The model, common in developing countries, was initially designed for amateur sport and strongly relied on both volunteer management and patrons to support individual athletes, clubs, and associations. As previously stated, national sports policies and laws are detailed in the information of the MoS, the LPDS, and the government of Senegal. Sport is financed through the federations and associations. The national teams are organized when there are any international competitions. The daily management of sport, clubs, associations, federations, and athlete development are delegated to private entities and associations.

Federations, therefore, represent the core structure for sports development. Professional sport is not established in Senegal, with the exception of football with professional structures and two divisions. Sports development is left to an amateur infrastructure. Although building a professional sport system is mentioned in the LPDS, athlete development fully depends on clubs and associations. Other stakeholders of the sports system in Senegal (such as the schools, the army, and the navétanes) are all contributors through their associations; but members will fall under the federations with either registered teams or by the double affiliation of their athletes. For instance, the basketball, handball, and volleyball teams are affiliated with their respective federations and regularly participate in the federation competitions. MoS Director 2 posits that the army men's basketball had been a great supplier of elite players. The Dakar University Club (DUC) and more recently the Institut Supérieur d'Entrepreneurship et de Gestion (ISEG) (both higher education institutions) are affiliated with multiple federations and consistently participate in the national competitions. They also supply national teams with elite athletes.

Macro and meso challenges for sport development and education

Outside the football academy system, the education of athletes depends exclusively on national education which has no specialized provision for elite athletes engaged in their sports. This challenge is magnified when the traditional education system has to manage athletes with limited literacy.

Sport governance is built on the club system; it remains amateur, with no responsibility for education. With the exception of the football academies, the micro- and meso-level of athlete development does not include education. The sports system currently relies on a functioning national education system. Therefore all amateur and elite athletes depend on the general education system. Recall that the LSPD promotes an increased professionalizing of clubs and associations (Ministère des Sports, 2015, p. 26). Consequently, the micro- and meso-level require reinforcement to better HP athlete development. As such, in the LSPD plan, workable solutions for athlete education must be required for all youth who engage in professional sport training as already required for football academies. The MoS report, "Feasibility Study of the Project 'Promotion of Sports and Sports Related Professions'" (Ministère des Sports, 2016, p. 7) emphasizes a necessarily close collaboration between the MoS and the Ministries of Education Professional Training. This element for the future of Senegal cannot be overlooked. All of the stakeholders interviewed in this study believe in the education and professional training of athletes. The combination of sports and school was often discussed and raised as a valuable route for Senegal.

Mitigation of the macro-level challenges

To mitigate the existing education challenges in athlete development, a sport-school project has been sketched by the MoS that would provide a more systematic training to elite athletes enrolled in schools. This education could be academic or vocational. For the sport-schools academics, rather than sports, would be the primary criteria of enrolment, thus limiting the numbers of athletes without some level of education. MoS Director 2, a strong advocate for sports in schools, believes that the sports schools development and the revival of the Union of Associations of Universities and Schools Sports (Union des Associations du Sport Scolaire et Universitaire) (UASSU) will improve the development of Senegal's elite athletes, with a subsequent gain in the overall performance of Senegal in international competition. This approach positions education at the core of the Senegalese sport system. How would this model integrate talented athletes of the unschooled population or those who drop outs of high school? How would the school-based elite training school become part of the professionalization of sport clubs and associations (as requested by the LSPD)? Despite the academies' dedicating specific resources to the players' education, these schools are confronting problems. Football academies will continue to have difficulties in overcoming the existing challenges inherent to the education system in Senegal.

Regardless of the sport model and system in place, as mentioned in this report, successful HP athletes' development depend on macro factors. In a developing country like Senegal, the challenges at the macro-level limit the development of a well-articulated sport and education system that fully supports participation in competitions, and elite athlete development as seen in the other countries studied in the report.

E. Qatar

Case study 1. Primary and secondary education

As with many other countries, sport development in Qatar is introduced at the level of schools, clubs, and federations. As part of their education students have access to sports through the school physical education (PE) curriculum. Clubs and federations provide further sports experience. With sport, including elite sport development, as a major pillar of the country's development, Qatar created the Aspire Academy, part of the Aspire Zone, the only academy providing both education and coaching of potential elite athletes. Moreover, Qatar Olympic Academy (QOA) has introduced Olympic Day, when students visit governmental schools (gender segregated), providing sessions to students and instructors on how to integrate the values of the Olympics in sport lessons. The executive director at QOA (EDQOA) remarked:

Our visit to schools has been ongoing since 2010. The idea behind this program is to provide workshops for students at their different levels.

The program is structured as a one-day visit to schools. We have two teams: one related to female and the other male.

The QOA also provides workshops to develop skills in the PE schools sessions. These workshops vary from a day to a week in length, depending on need. The EDQOA added:

Our main objective at the academy is to help improve the level of PE at schools while focusing on the Olympic values. It is important that students develop their level of physical activity while respecting each other through spreading the Olympic values.

Macro level: The Aspire Zone

In line with the Qatar 2030 Mission and Vision, Aspire Zone Foundation (AZF) was founded in 2008, with a major national role in sport development and facility management (Sulayem, O'Connor, & Hassan, 2013). Its stated mission is to develop sports champions, while managing high-level sporting events and maintaining infrastructures in sport. The mission of AZF, commonly known as Aspire, is to liaise with Qatar 2030 by promoting healthy lifestyles and developing the sports sector in Qatar. AZF is the umbrella organization

comprising Aspetar, a FIFA accredited sports medicine and orthopedic hospital, Aspire Logistics, which handles events and facility management (Sulayem, O'Connor, & Hassan, 2013), and Aspire Academy, the only one in Qatar that identifies potential athletes while delivering schooling through the secondary level.

AZF, through Aspire Academy, is unique in providing sports training, education, and medical services to develop student athletes (Sulayem, O'Connor, & Hassan, 2013). Aspire is partner to the Qatar Olympic Committee (QOC); the two organizations signed a three-year initiative to create a framework unique to Qatar entitled 'kun riyadi' [be an athlete]. It follows the model of the Athlete Development Pathway (ADP) to produce a new generation of Qatari sporting champions (Sports Reporter Doha, November 2016). As mentioned by the president of the QOC HE Sheikh Joaan bin Hamad Al Thani:

"Producing world-class Qatari sporting champions is a fundamental part of Qatar's vision for sport. While Qatar has made considerable progress on the sporting field in recent years..., we are keen to build on this success and continue to increase the performance of our athletes across a wider range of sports."

(Sports reporter Doha, November 2016).

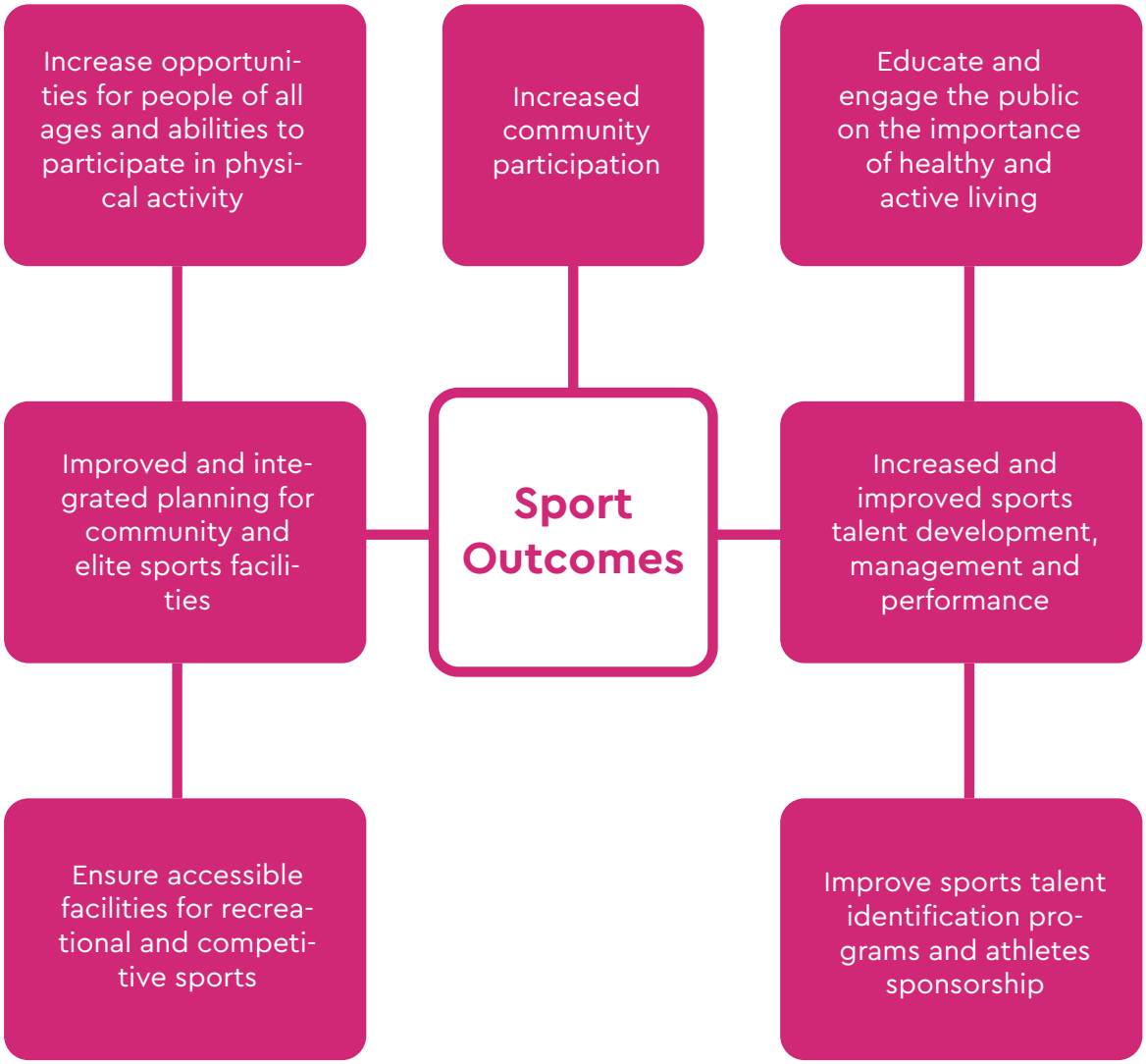


Figure 3: Outcomes of the sport sector (Qatar Olympic Committee, 2011).

Following international standards and best practices, Qatar has built a system for grassroots development of sports at every level. The Aspire Academy director of Education and student affairs (AADOE)reinforced the objectives of this project, which seeks to improve the level of athletics in Qatar. Within all its departments Aspire will be working hand in hand to implement this remarkable initiative As the AAD mentioned:

"....such an ambitious project will have a significant and positive impact on athletic development for generations to come. It will hone our athletes' talents, enabling them to achieve their maximum potential from [a] young age throughout their careers."

(Sports Reporter Doha, November 2016).

Accordingly, this project contributes to the objectives of the Qatar 2030 Mission and Vision, focusing conjointly on the outcomes of the sport sector strategy.

Hosting the 48th Artistic Gymnastics World Championships (2018) at Aspire, the president of the Qatar Gymnastics Federation (QGF) stated that the event could launch Qatari gymnasts to elite levels:

"Yes, it can be a breakthrough for our gymnasts... and it will also help Qatar gymnastics in many ways. It will be motivating for our gymnasts when they compete alongside the likes of Simone Biles and Kohei Uchimura. Competing at this level will definitely improve their game and boost their confidence.... The event will also attract young kids to this sport which will be a huge boost for Qatar gymnastics. We are optimistic that we will reach these goals."

(Hussain, October 2018).

The QGF's statements are aligned with Qatar 2030 Mission and Vision on the important role of physical activity and sports as a foundation of good health and enjoyment for all, and in inspiring lives. (Qatar Olympic Committee, 2011). Using sport development and awareness as part of Qatar's strategy of increased visibility focuses on four pillars: 1) direct investment in the sports industry; 2) hosting major sports events; 3) elite sport development; and 4) sport diplomacy (Amara, 2013).

Aspire Academy meso level

Since its inception, Aspire was able to deliver on various levels. The Academy was founded in 2003 with just 31 football players born in 1989 and 1990, and in grades 7 and 8. Recently, the number has reached 289 students from diverse fields of sports. For instance, the first graduating group in June 2008 (Figure 4) consisted of 23 student athletes from various specialties.

Figure 4 (Source: The Aspire Academy)

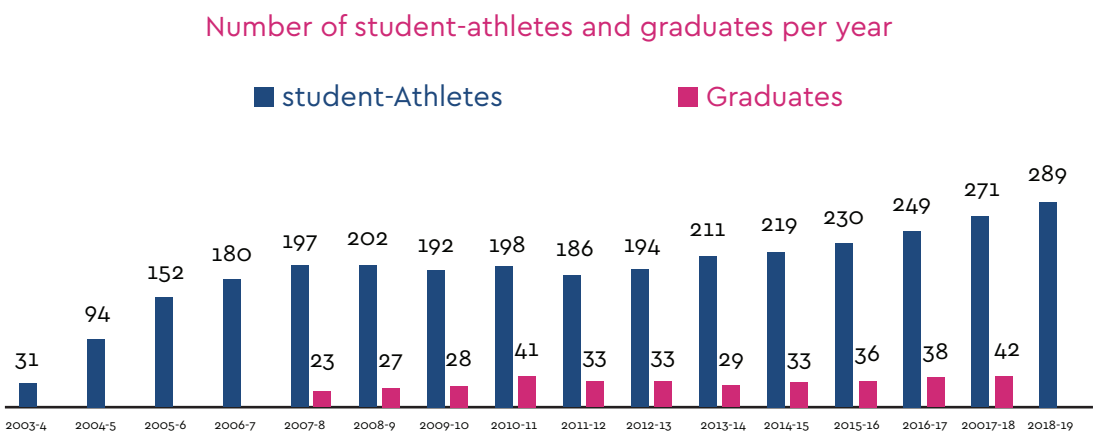


Figure 4: Number of student-athletes and graduates per year

Although the government funds Aspire Academy, and it provides a similar curriculum to any school in the country, when first established Aspire had to convince students and their parents to join the academy. The AADOE explains:

At Aspire we count on the athlete and parents. Since this approach is new in the country it created a lot of stress to the student. Being a part of the Aspire family, and in order to develop them becoming elite, it requires traveling, attending camps outside the country. Therefore, the academy was the solution for the parents and the students. We inform the parents that we are responsible [for] the education of [their] child. Through our career university networking we assist and support student athletes to qualify for university.

Aspire Academy offers state of the art facilities both for teaching and education the AADOE added:

What makes us different is that all our facilities exist in the same place; even shooting exists in the basement of Aspire Academy. Furthermore, only one other academy is similar to us (Singapore sports school), with a small difference that our students do not pay and fees to join, which is not the case in Singapore."

Taking into consideration Qatar's population, Aspire operates within a small talent pool compared to other nations. Given the numbers, the result achieved so far can be considered impressive,for instance, the majority of the Qatar Footbal national team players, graduated from Aspire Academy . Aspire was able to highlight its talents nationally and internationally through the number of achievement of its current and graduated students. For instance, the first indicator for Aspire was the performance of its Junior National Team, summarized in Table 4.

Year	Achievements	
2014	Champion U19 Asian Football Confederation (AFC) Championships	Football
2015	U20 FIFA World Cup representative	
2016	4th place U23 AFC Championships	
2018	3rd place U23 AFC ChampionshipsChampion U19 Asian Football	
	Top 4 U19 AFC Championships	
2019	U20 FIFA World Cup qualifier	
2012	Bronze Medal, London Olympic Games	Athletics
2012	World Junior Record IAAF World Junior Championship	
2014	Gold and Silver Medal, Athletics, Asian Games	
	Gold Medal, IAAF World Junior Championships	
2016	Silver Medal and 4 Academy Athletes at Rio Olympic Games	
	Gold Medal, IAAF World Junior Championships	
2017	Gold medal and 3 Academy Athletes, IAAF World Championship	
2018	Gold Medal, Youth Olympic Games, Athletics	
	Gold and Bronze Medal, Asian Games	
	Silver Medal, 2018 IAAF World Junior Championships	

Table 4: Qatar Aspire Academy sports accomplishments since 2012, November 2018

Aside from the results, Aspire was able to show in a short time, it is important to highlight the participation of its student athletes to the senior national football team. In 2017, the percentage of Aspire athletes joining the team was 58 percent, compared to 16 percent achieved in 2013-2014, 24 percent in 2014-2015, 23 percent in 2015-2016 and the 35 percent in 2017-2018. For the first time, this year the Qatar national team won the Asian Football League (AFC) Asian Cup games. These successes reflect, at least regionally, Aspire's leadership in developing elite athletes to a high level. Many high-level professionals in athlete development are required in such an achievement, but they would not be effective without students showing high level performance. The Deputy Sport director (DSD) at Aspire Academy, noted that:

without students we could not reach our objectives. Therefore... we should go back to the basics: the first level where the students are introduced to sport. We are talking about schools. In Qatar the majority of schools have three different phases where the students are introduced to sport. The first is the class of physical education, the second is the pre-school activity, and the third one is the Olympic day." (Fareed, H. 2018, November 7).

Micro level: Aspire's Academy education and elite athlete development:

Aspire Academy talent identification approach

Aspire developed a program, Talent Identification (TID), that works in close cooperation with the QOC, and the Supreme Education council (SEC) to seek school students who show potential to become elite athletes, and offer them academic sporting scholarships at Aspire. Once these athletes are identified, they are placed into specific programs developed and managed by Aspire professionals, and tailored to their natural talents.

The TID's main responsibilities are to organize, coordinate, and administer a mass nation-wide screening to identify potential sporting talent; follow and evaluate the screening of athletes nominated by federations seeking to join Aspire; and conduct tests on the students within the Aspire talent center programs. The program starts with a mass screening of students, applying valid and reliable testing protocols. Many factors should be considered in the process, related not only to fitness levels and physiological aspects, but including neurological, and sociological elements. Since the program's launch in 2004, it has scanned some 22,000 male, and almost 13,000 female students from 192 schools in Qatar. The mass screening starts with the bronze level, designed to identify the top five percent of school boys each year; it targets students in Grades 6 and 7.

The program now includes both public and private schools, opening the opportunity for all male Qatari students. The bronze stage was completed in collaboration between the Ministry of Education and Aspire. The staff of the TID visits individual schools and oversees the assessment administration. After the test, the selected bronze stage students are invited to Aspire for the next silver stage. Testing at this stage is more complex and provides more accurate measurements.

The Aspire coaches in this stage interact directly with the selected students, and to provide them with observation and feedback. The students who complete the silver stage of evaluation, testing, and performance progress to the final, gold stage.

Around 25 percent of the silver stage students reach the gold stage. In this stage, the students are invited to spend two days at an Aspire mini-camp, organized by TID staff and coaches. Smaller groups are formed depending on the strengths of the students. The camp is intended to provide a better understanding of each individual athlete and concentrate on their physical talent, skills, work ethic, ability to learn, etc. Prior to the gold camp, the potential student athletes could participate in a six to eight week training program with Aspire coaches. During the gold stage, the students go through three assessments. The first is academic, revealing a better understanding of abilities and to assess needed extra academic support. The second is focused on sports science to analyze and measure required features; the third is designed to measure physical capability.

The Aspire TID also tests the students nominated from the federations; they attend the silver stage at Aspire. Importantly, all students with potential must go through the same phases. The success of the TID program in measurement, evaluation, and recruitment of potential talent notwithstanding, Aspire pursues continual improvement in the process –including ways to improve the health and well-being of students and the Qatari community at large through sports. Physical education and fitness levels at schools remains problematic. As the deputy sport director of Aspire noted, the level of physical performance of the students before reaching Grade 6 in the majority of the schools is still below global averages. This tends to restrict the numbers of students able to progress through the bronze phase, and poses challenges to the Aspire TID mission.

Aspire education

Aspire Academy follows the curriculum provided by the ministry of Education and Higher Education, and is more flexible than other schools in accommodating coaching for elite athletes. The AADOE explains:

We are an institution that follows the same academic year applied in other schools. Our objectives are not... winning or losing, our main interest is to focus on the education of these students. ...no other institution in the country is similar to us, so we are challenging ourselves. We prepare our students to be champions in life not only in sport.

Furthermore, the AADOE notes that the academy continually follows up with its students, advising them on their higher education goals.

From the beginning of the academy, we created career consulting. We start approaching students starting from Grade 9. ...students perform some electronic exams or interviews, with his parents as well, to make sure that we provide them with all information needed to help him in choosing his career. ... When the students leave Aspire we follow up with them and supporting them [in their university studies]. ... we have only had positive feedback from our [graduates], and that explains the level of education provided at Aspire Academy. Students entering universities do not feel on the education level different from others.

Aspire also considers the injured athlete, depending on which year from the career of the student the injury happened.

For the injured students in Grade 11 and 12, we provide emotional support. But if the injury is at the beginning of the student's career, it will put him in a difficult situation regarding his colleagues. At Aspire, we have a difficult program combining [academics] and sport development. Therefore, we advise the student and his family to go back to conventional schooling. … such decision is not made easily. Instead, it is based on the results that we receive after the injured student is treated at Aspetar. … we monitor all our students for performance. [If] the student is below the level of his peers, we give him special focus and follow up to help him attain the desired level. He is given two years to catch up with colleagues. In case the student does not reach the requirement, we advise the parents to send the child back to regular school.

Analysis

Aspire respondents explained key issues the academy faces in recruiting students for the program. There were two general areas of concern. The first related to the level of students before the TID process was introduced; the second one is related to higher education. The Aspire TID program developed a program called Multi Sport Skill Program (MSSD) including physical education and after-school sports practice for students ages four to 14 to teach movement skills to improve physical performance and support success in any chosen sport. As noted earlier, to encourage a direct positive impact in developing students physical skills, Aspire TID teams visit schools, provide instructors and PE teachers with workshops on methods for lesson delivery, and hear feedback from students. This pedagogic strategy increases the number of students prepared to progress through phases before attending Aspire.

Additionally, there were several attempts by Aspire and universities in Qatar to support graduates in continuing their higher education studies. Aspire asked universities to understand the situation of these athletes and be flexible with them since they have responsibilities on a national and international level. We will elaborate further on the higher education within the second case study, and precisely the case of the Qatar Football National Team.

Case study 2. Higher education (Josoor & QNFA)

Introduction

Elite athletes who spend most of their time training and competing internationally remain concerned about their life after competition, and look to education and a university degree for future job security. The subsequent case will focus on the approach made by the QFA (Qatar Football Association) to provide football players with opportunities to continue their education. Aspire Academy's graduating athletes face the challenge of managing their academics and their training, and need flexibility attending classes. According to the head of the Sport Science Program at Qatar University (SSP), most universities in Qatar have attendance regulations that do not accommodate athletes' coaching and competition regimes.

Qatar University allows a rate of 25 percent for absences from classes offered mostly during the day. There are several Memoranda of Understandings (MOUs) between sports organizations and education institutions on developing more opportunities for elite athletes in higher education. ...there is still a need to activate these MOUs effectively. Aspire graduates willing to join university programs still face the same challenges relating to attendance and the type of delivery that would accommodate their commitments as elite athletes --training, travelling with the team.

(Head of the Sport Science Program, Qatar University)

Macro level

The higher education system in Qatar does not have a strategy to adequately accommodate athletes within their programs. A high level of flexibility is required for athletes to be able to continue their studies. The AADOE expounds:

Universities in the Arab world in general have a problem in accommodating elite athletes. They need to understand that this player is representing the country, and therefore some flexibility is required with course delivery. There were some attempts within Qatar University, and we hope that the university will now seriously take up this agenda.

Micro level

Institutions provide a variety of certificates and degrees that indirectly or directly target elite athletes in Qatar. The Qatar Olympic Academy delivers certificates and diplomas for administrators and practitioners working in sport. One program is related to those athletes reaching the age of retirement. The QOA executive director said:

Our program with the International Olympic Committee targets players before they decide to retire. Different subjects are offered on a daily basis for one week giving the athletes a variety of options and ideas in the field where they would like to continue their career.

Additionally, the Academy offers a diploma in sport management. This diploma is endorsed by the International Olympic Committee. Moreover, the Academy offers an executive Masters in Sports Law. The AADOE further explains:

It is a one-year executive Masters. To join the program the students should have a university degree. The program is delivered in cooperation with Lieda University and the Court of Arbitration for Sport (CAS). This program would help in developing the sports-related legal knowledge locally and in the Gulf region.

The QOA is an academy under the umbrella of Qatar Olympic Committee. Apart from the sport management program, the athletes do not have any other choice of fields in higher education. Jossor institute and the Qatar Football Association (QFA) are working to overcome this challenge. They proposed a new project allowing athletes to continue their higher education.

Meso level

QAED program

As repeatedly noted, elite athletes face a challenge of access to university and to progress in their career objectives. With the situation unresolved in Qatar, some institutions have sought to find solutions hoping the situation will soon change. The position of the QFA is unique, given that Qatar will host the 2022 FIFA World Cup matches. As a federation, QFA worked under the umbrella of the QOC previously, as well as with the Ministry of Sport and Youth, like other sport systems all over the world. The Qatar Stars League (QSL) is another partner of QFA in governing football that manages and prepares the football leagues. Each of the 17 professional clubs in Qatar has its own academy for youth development. There is a program for football development provided and supervised by QFA, according to the Qatar National Team director of operations and acting executive director of competition & football development (QNTDOO). Like any other federation, the QFA is trying to provide solutions for problems its athletes face, particularly the issue of continuing their higher education. QFA signed MOUs with institutions achieve faster results. Within the higher education system, The QNTDOO clarifies:

We have an MOU with Qatar University, which still needs to be activated. It is the same problem in other cases with elite athletes. For instance, some of the football players are participating with the national team in the Asian Cup, so they are absent from their classes at the university.

The QNTDOO added:

We have a new program, QAED (Qatar Athlete Education), with a different university, developed between QFA and Josoor institute, which has structured a professional platform. The program provides athletes with the opportunity to continue their higher education while pursuing their professional careers. There is a certain flexibility from the university's side, to give the player the possibility to do both.

He continued, explaining how the idea for program evolved from addressing various issues.

First, [there is the issue of] the large number of Qatari players dropping out of football by the age of 18 because they needed to pursue their studies, or they chose to enter the army or police force, or look for a more secure job. Second, when the football industry looks for leaders, it looks for people who have a deep experience in football, and at the same time are educated. Third, it is not ethical to use our players in football, and send them back to the society without the right tools to be productive and give back to society. Therefore, we [established] QAED to offer these players the opportunity to pursue a university bachelor degree, after their athlete careers, providing them the chance to grow and develop outside of sports as any person in the society.

The QNTDOO explains further:

Two years ago we launched QAED with the idea to approach the university to be more flexible with our football players. The program is in international business, conducted in English. Today, we have 15 students registered. The elite athlete students will have flexibility in attending classes. They will be excused from class only if they have training or a match or are recovering from injuries. For that the athlete will get a letter from QSL explaining the circumstances of the absence.

The future

The idea of the QAED program is to be a platform, transferable among several universities, giving the athletes a choice from several programs. The QNTDOO states that:

We hope to award our graduates with a diploma in governance as they will be our new leaders. Today we are starting with a bachelor degree, which is not currently being offered by Qatar University. But Qatar University is our main university and I hope we will get there.

Today the QAED program is for football players, but in the future it will be accessible to all athletes with access to several universities. The QNTDOO further stated:

I hope that in the future the QAED platform becomes applicable with many universities, where athletes willing to continue their degrees from all education levels can choose from a variety of programs. I am hoping that Josoor Institute will push this project and apply it to all athletes from different sports, so we can create a benchmark for elite athlete education globally.

Analysis and conclusion

The respondents described the main issues elite athletes face regarding their education. Physical education is not a priority in schools, limiting students' chances to fully develop their well-being and sports. It is important to make quality physical education mandatory in all private and public schools, and to increase the frequency and duration of these sessions. A more competitive strategy should be implemented linking schools and clubs within a national program, offering exposure to more sports activities and competitions that would support their preparation as future potential athletes. Further, the number of female athletes representing the country in sporting events should be increased. It is important that they participate fully as competitive elite athletes. Aspire Academy currently offers its program to male athletes exclusively. A similar program for female Qatari athletes could be established, increasing the chances of winning medals in international competitions.

As regards the paramount challenge for elite athletes in access to higher education to support their careers and contributions to society, there are several further observations to make. The flexible education offered by Aspire using technology should be implemented for their higher education such as Qatar University. Technologies such as distance learning, video conferencing, and online systems would give students full access to lectures and content. Supplemental supervision would ensure that students are provided with same quality as regular students attending the university. Moreover, Aspire provides online exams for students who are out of the country on a sports mission. Interestingly, the online infrastructure already exists at Qatar University, which uses the same e-system for delivering lectures and even exams. University students have access to all the materials needed for courses, but as regards the strict attendance policy, lecture schedule, and the mandatory in-person exam attendance remains a limitation. A special, flexible program at the university level can easily be offered in Qatar to athletes representing the country without sacrificing their training and performance.

The MOUs signed among the various entities are helping improve communications. A national program now needs to be established to sustain the success of elite athletes, and to ensure that every organization is taking responsibility in participating, engaging, and delivering for young Qatari athletes. These steps for improvement would support future elite athlete performance, but also their future career transitions. The attempts made by QFA and Josoor Institute (QAED) are important first steps in helping athletes pursue and earn their university degrees. Further innovative approaches should be pursued to build confidence among athletes that they can securely and fully continue their sporting career while not neglecting their higher education goals.

The main concern is flexibility. The QFA and Josoor Institute initiative, specifically for football athletes, will require more time to understand the results of the process. Potential outcomes for other elite athletes have not been explored. They continue to face the same issue, the false choice between continuing their studies and their careers as athletes. The Josoor Institute collaboration with QFA could replicated with a similar approach with larger institutions like Qatar University, or Hamad bin Khalifa University (HBKU). Qatar's educators can recognize the value of providing elite athletes the opportunity to join any program across all disciplines, without being limited to certain programs.

On the macro level, the presence of Qatar in Asia means it competes with China, Japan, South Korea, and others. Qatar's small population perhaps explains its focus on a few sports rather than a broad investment in many. Despite attempts made in sports such as fencing and beach volleyball, the strategy implemented needs to be modified to rationalize resources. Today's focus on specific sports is correlated to return on investment; but in the future changes may be needed in a strategy to win more medals.

In this regard, options may be considered, including either to bring athletes from outside (naturalizing them), or preferably, to invest in homegrown athletes. Such athletes, of course, require the security of an education that can lead to viable career options. Additionally, elite sport as a career can also be accepted, socially and otherwise, as an option. Without the security of education access, parents might pressure their children to pursue other livelihoods, believing that elite sport is insecure.

The challenges mentioned lead to the meso level, reflecting elements of education system organization, including elite talent identification. The system should convince and encourage all stakeholders in education to accommodate elite sport development. Education in Qatar is currently in a transition, driven by the initiative of Josoor Institute and QOA to formalize accommodation; and some private universities are beginning to tap the elite athlete demographic.

CHAPTER FIVE

OVERALL CONCLUSIONS AND RECOMMENDATIONS

There are systems in place for elite athletic development and national team success in these five countries. Elite sport success is considered an important cornerstone of national development and sustainability. These countries recognize the need to provide adequate educational opportunities for elite athletes to better prepare them for their post competitive life. However, it is also clear that certain country systems fall short of the objective. The purpose of this study was to identify the best practices and methods for elite athlete education, and to assess their quality. All the examined countries present some positive options at the macro, meso, and micro levels of scrutiny and analysis. Education, sport, and political leadership from any of the studied countries could adopt practices and methods from other systems and potentially apply them to their own with positive results for athletes and the education sector in general.

Based on the literature review and the cases studies presented, the following section sketches a range of ideas, recommendations, and practices for adoption in any country.

Macro level[4]

Education, sport, community, and government leadership at appropriate levels should strive to:

- Better understand the significance and national peculiarities of population, GDP, and the historical commitment to sport on elite sport development to build and further advance incremental plans facilitating greater sustainable growth and enhanced development in both elite sport and in the education programs provided for elite athletes
- Recognize in more detail the impact that national context and specifically the state-society relationship has on the policy process and be clearer and more specific about what policies (i.e. regulatory, distributive, re-distributive, and constituent) are most likely to be effective and what barriers are likely to challenge the implementation of such policy (e.g. inequality, funding, organizational conflict, etc.)
- Realize interconnections between sport and national socio-economic factors and structures, and capitalize on the power of sport to positively influence advancements in society and economy. In particular, leadership should help sport education to lead and improve overall education, and in turn, receive more appreciation and resources from society, business and government for sport, including from education and healthcare sectors to sport education.

[4]The researchers do not present a comprehensive list of recommendations at the macro-level as this level of analysis involves a range of variables that are typically outside the direct control of sport organizations.

Meso level

Education, sport, community, and government leadership at appropriate levels should strive to

- Establish an elite sport coalition (network of organizations) to strategize, implement, and review policy in elite sport and education support for elite athletes, ensuring that athletes themselves have representation in such networks
- Develop cross-departmental champions to advocate for elite sport, and identify rationales for developing education programs to support elite-level athletes;
- Develop evidence-based policies that formalize and clarify the commitment to elite sport and education support for elite athletes
- Commit ongoing research for national elite sport systems and continually identify practices especially relevant to the development of elite sport and elite athlete education
- Integrate organizational structures at the national level for the transparent, publicly-funded coordination of athlete education as part of lifelong development and wellness
- Coordinate a repository of resources to advocate for, support and provide guidance to elite athletes in education
- Distribute education support and resources for teachers, coaches, parents, and athletes outlining the knowledge, skills and abilities to be taught at each level of long-term athlete development
- Develop a clear, coherent delivery system for all stages of policy-making and regarding elite athlete education with specific, agreed details of the roles, rights, and responsibilities of all stakeholders involved in the policy
- Formalize a code of conduct to identify athlete's rights regarding flexibility in education and other areas of support
- Develop short and long-term scheduling strategies to accommodate athlete calendars around training, competition, and academic commitments, provide an appropriate national network of accessible support for athletes, and ensure that key stakeholders, particularly athletes, coaches, and NGBs have a prominent voice in decision-making and infrastructure development
- Cultivate a tailored, fully resourced athlete lifestyle support program for elite athletes in education
- Create a consortium of commercial partners, bound by a cooperation agreement, in which the commercial partner provides funding to support elite athlete education in return for pre-agreed promotional benefits
- Ensure clear vision, mission, and goals in the leadership of overall policy, and a commitment to evaluation with clear benchmark data to support comparative analysis, and a growth mindset that is open to change in pursuit of continual improvement

- ## Micro level

Education, sport, community, and government leadership at appropriate levels should strive to

- Prepare and implement plans to grow the range of flexible learning opportunities for elite athletes: online, block release, weekend and evening, master classes, hybrid programs, personal guidance and tutoring, assistance with research, publications and conference participation, etc.
- Undertake routine, systematic, and methodologically sound research to build insight into the needs of the elite-level and talented athlete pool
- Build an athlete-focused support system to ensure they receive the holistic support needed for success in sport and academics
- Integrate particularly sport-specific, pedagogical, and medical academic studies with physical training for both sport success and for sport specialist competence
- Develop a seamless system of progression through school and university sport education through connected organization and clear communication
- Create a broad spectrum of study and career options, particularly in sport related areas, from sport medicine and science to journalism, management, and, most importantly, coaching specialization in Olympic and nationally important sports, as is being done at many universities worldwide
- Provide and promote education opportunities that lead to specific career paths, and make available career opportunities at various levels of existing education and sport programs
- Offer opportunities for personalized scheduling of studies tailored to sport specific training, camps, competitions and other life challenges for athletes
- Develop a full spectrum of education programs for various levels of athletic attainment, ensuring training routines are rationally rotated with study, rest, meals, and socializing for optimal productivity in sport, academics and lifelong career.

The research team believes there are many aspects of all of the examined systems that are positive, but overall there needs to be a reframing of elite athlete development and mass participation sport development worldwide. Through that lens, the totality of athlete progress should not be exclusively assessed by victory on international stages. While those goals are important and laudable, it is critical to develop the whole athlete, and provide education access and career development that benefits the athlete over a lifetime, as well as supporting the progress of the country as a whole.

References

Abbot, S. (2018). The away game: The epic search for soccer's next superstars. London: W. W. Norton & Company.

Adecco (2013). IOC Athlete Career Programme. Bringing elite athletes together with great companies. Retrieved July 20, 2013 from
http://athlete.adecco.com/en-US/Documents/index.html#what

Adecco (2014). Hilton Worldwide and Adecco partnership. Retrieved March 22, 2014 from
http://www.adeccousa.com/articles/Hilton-Worldwide-and-Adeccopartnership.html?id=142&url=/pressroom/pressreleases/Archives/Forms/AllItems.aspx&templateurl=/AboutUs/pressroom/Pages/Press-release.aspx.

Al Mofarreh, Y.I. (2016). Implementation of ICT policy in secondary schools in Saudi Arabia. PhD dissertation, University of Wollongong, Australia. Retrieved from
https://ro.uow.edu.au/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=5731&context=theses.

Andersen, S. and Ronglan, L., ed., 2012. Nordic elite sport: same ambitions - different tracks. Oslo: Universitetsforlaget.

Akkawi, M. H. (2010). Resident attitudes towards tourism development in conservative cultures: The case of Qatar. Mais H. Akkawi. Retrieved from
https://uwspace.uwaterloo.ca/bitstream/handle/10012/5298/Mais%20Akkawi%20final%20thesis%20(1).pdf%20%20%20%7D%7D;jsessionid=EDC5FD322CF228966B6CFD984F5E43A5?sequence=1

Amara, M. (2005). 2006 Qatar Asian games: A "Modernization" project from above? Sport in Society, 8(3), 493–514.

Amara, M (2013). The pillars of Qatar's international sport strategy. Retrieved from
https://www.e-ir.info/2013/11/29/the-pillars-of-qatars-international-sport-strategy/

Aquilina, D. (2013). A Study of the relationship between elite athletes' educational development and sporting performance. International Journal of the History of Sport, 30(4), 374-392.

Aquillina, D. & Henry, I. (2010). Elite athletes and university education in Europe: a review of policy and practice in higher education in the European Union Member States. International Journal of Sport Policy and Politics, 2(1), 25-47.

Aspire, News (2016): Aspire academy obtains prestigious CIS accreditation. Retrieved from
http://www.aspire.qa/news.aspx-?id=1467

Baller, S. (2014). Urban football performances: Playing for the neighbourhood in Senegal, 1950s–2000s. Africa, 84(1), 17–35.

Balyi I. (2001) Sport system building and long-term athlete development in British Columbia. Canada: SportsMed BC. Retrieved from
http://iceskatingresources.org/SportsSystemDevelopment.pdf

Bath Sport (2011). Retrieved from http://www.bathsport.org/about-bathsport.shtml.

Banjade, M. R., Paudel, N. S., Ojha, H., McDougall, C., & Prabhu, R. (2007). Conceptualising meso-level governance in the management of commons: Lessons from Nepal's community forestry. Journal of Forest and Livelihood, 6(1), 11-48. Retrieved from
https://www.nepjol.info/index.php/JFL/article/view/2331

Barasa, E. W., Molyneux, S., English, M., & Cleary, S. (2015). Setting healthcare priorities at the macro and meso levels: a framework for evaluation. International Journal of Health Policy and Management, 4(11), 719. Retrieved from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4629697/

Bauer, V.G. (1986). Organizational and methodological aspects of advancing the systems of sport reserves. Bulletin of Sport Science, 6, 9.

Baumann, A. (2002). Developing sustained high performance services and systems that have quality outcomes. 12th Commonwealth International Sport Conference Abstract Book, 62–71.

BBC. (2004a). Sport 'improves boys' behaviour. Retrieved June 14, 2004, from http:// news.bbc.co.uk/2/hi/uk_news/education/3804793.stm.

BBC. (2004b). Specialist schools now a majority. Retrieved from http:// news.bbc.co.uk/2/hi/uk_news/education/3438825.stm.

Bergsgard, N., Houlihan, B., Mangset, P., Nodland, S., Rommetvedt, H. (2007). Sport policy: A comparative analysis of stability and change. Oxford: Butterworth-Heinemann.

Bergström, J., & Dekker, S. W. (2014). Bridging the macro and the micro by considering the meso: reflections on the fractal nature of resilience. Ecology and Society, 19(4), 22-31. Retrieved from https://www.ecologyandsociety.org/vol19/iss4/art22/

Bloyce, D. & Smith, A. (2010). Sport policy and development: An introduction. London: Routledge

Bompa, T. O. (1983). Theory and methodology of training: The key to athletic performance. Dubuque, IA: Kendall/ Hunt.

Bompa, T. O., & Haff, G. G. (2009). Periodization: Theory and methodology of training. Champaign, IL: Human Kinetics.

Brackenridge, C. (2004). Women and children first? Child abuse and child protection in sport. Sport in Society. 7(3), 322-337.

Bravo, G., & Smolianov, P. (2016, November). Policy, organization and management of youth elite sport. Issues and evidence from Russia and the USA. Presented at II International Seminar of Sport Public Policy. Universidad Federal do Paraná, Curitiba, Brazil.

Bravo, G., Orejan, J., Vélez, L., & López de D'Amico, R. (2012). 'Sport in Latin America'. In M. Li, E. Macintosh and G. Bravo (Eds.), International sport management (pp. 99-133), Champaign, IL: Human Kinetics.

Broom, E.F. (1986). Funding the development of the Olympic athletes: a comparison of programs in selected Western and socialist countries. Proceedings of the 3rd International Seminar on Comparative Physical Education and Sport, 21-24. Champaign, IL: Human Kinetics.

Broom, E.F. (1991) Lifestyles of aspiring high performance athletes: a comparison of national models. Journal of Comparative Physical Education and Sport, 8(2), 24-54.

Brown, (1999, November 22). NCAA answers call to reform. NCAA News. Pp. A1-A4.

Buggel, E. (1986). The development of Sport in the German Democratic Republic: 1950-1985. Proceedings of the 3rd International Seminar on Comparative Physical Education and Sport, 37-53. Champaign, IL: Human Kinetics.

Bundesliga. (2017). German soccer rules: 50+1 explained. Retrieved from www.bundesliga.com/en/news/Bundesliga/german-soccer-rules-50-1-fifty-plus-one-explained-466583.jsp

Byers (1995). Unsportsmanlike conduct. Ann Arbor, MI: The University of Michigan Press.

Cabinet Office. (2018). Devolution of powers to Scotland, Wales and Northern Ireland. Guidance Note. London: Cabinet Office.

Campbell, N. (2018). Higher education experiences of elite student-para-athletes in the UK. Journal of Further and Higher Education, 42(6), 769-783.

Cafebabel. (2008, June 3). Football in Poland is more corrupt than in Italy. Retrieved from www.cafebabel.co.uk/lifestyle/article/football-in-poland-is-more-corrupt-than-in-italy.html

Carlson, R. (1991) Vägen till landslaget. Stockholm: Högskolan för lärarutbildning i Stockholm.

CBC. (2016, November 3). Russia approves anti-doping law targeting coaches. Associated Press. Retrieved from www.cbc.ca/sports/olympics/russia-anti-doping-law-coaches-1.3834669

CCPR. (1961). Sport and the community: The report of the Wolfenden committee on sport. CCPR: London

Chien, P.M., Kelly, S.J., & Weeks, C.S. (2016). Sport scandal and sponsorship decisions: Team identification matters. Journal of Sport Management, 30(5), 490-505.

Chu, D., Seagrave, J., & Becker, B. (1985). Sport and higher education. Champaign, IL:

Human Kinetics Publishers, Inc.

CIA. (n.d.). Africa : Senegal — The world factbook - Central Intelligence Agency. Retrieved from https://www.cia.gov/library/publications/the-world-factbook/geos/sg.html

Clarke, S.R. (2002). Home advantage in the Olympic Games. Retrieved November 27, 2003, from http://www.swo,/edu.au/sport/olympics/HAOlympicgames.pdf.

Clumpner, R.A. (1994). 21st Century success in international competition. In, Wilcox, R. (ed.), Sport in the Global Village, 298-303. Morgantown, WV: Fitness Information Technology Inc.

Clotfelter, C.T. (2011). Big-time sports in American universities. New York: Cambridge University Press.

Conzelmann, A., & Nagel, S. (2003). Professional careers of the German Olympic athletes. International Review for the Sociology of Sport, 38, 259-280.

Cook, B. (2015, December 12). How to solve the public vs. private school battle in high school sports. Forbes SportsMoney. Retrieved from https://www.forbes.com/sites/bobcook/2015/12/12/how-to-solve-the-public-vs-private-school-battle-in-high-school-sports/#9b012b4705bd

Cooper Institute for Aerobics Re

Search. (2013). The Cooper Institute signs agreement with Hungarian School Sport Federation. Retrieved from http://cooperinstitute.org/pub/news.cfm?id=146

Conn, D. (2017). Football's biggest issue: the struggle facing boys rejected by academies. The Guardian, 6 October, 2017.

Coalter, F. (2007). A wider social role for sport: who's keeping the score? London: Routledge.

Coalter, F. with Long, J. & Duffield, B. (1988). Recreational welfare. Aldershot: Gower.

Coghlan, J.F. with Webb, I. (1990). Sport and British politics since 1960. Brighton: Falmer.

Collins, D., Trower, J., and Cruickshank, A. (2013). Coaching high performamce athletes and high performance teams, in P. Sotiridou & V. De Bosscher (Eds.), Managing High Performance Sport. London: Routledge.

Commission of the European Communities. (2007). White Paper on Sport. Brussels: EU.

Connolly, W.E. (1995). The ethos of pluralization. Minneapolis, MN: University of Minnesota.

Crowley, J. (n.d.). In the arena: The NCAAs first century. Retrieved from https://www.ncaapublications.com/p-4039-in-the-arena-the-ncaas-first-century.aspx

DaCosta, L.P. & Miragaya, A. (Eds.) (2002). World experiences and trends of sport for all. Oxford, United Kingdom: Meyer & Meyer Sport.

Dallis, R. (2002). The design and implementation of an elite training system for tennis. (Unpublished doctoral dissertation). Boston University, Boston, MA.

Darby, P., Akindes, G., & Kirwin, M. (2007). Football academies and the migration of African football labor to Europe. Journal of Sport & Social Issues, Vol. 31(No. 2), 143–161.

Davies, G. (2008). Specialist sports colleges make the grade. Telegraph. Retrieved from http://www.telegraph.co.uk/sport/2290634/Specialist-Sports-Collegesmake-the-grade.html.

De Bosscher, V., De Knopp, P., Van Bottenburg, M., & Shibli, S. (2006). A conceptual framework for analysing sports policy factors leading to international sporting success, European Sport Management Quarterly, 6(2), 185-215.

De Bosscher, V., Shibli, S., Van Bottenburg, M., De Knopp, P., & Truyens, J. (2010). Developing a method for comparing the elite sport systems and policies of nations: A mixed research methods approach. Journal of Sport Management, 24, 567-600.

De Knopp, P, De Bosscher, V., & Leblicq, S. (2004). Topsportklimaat in Vlaanderen [elite sports climate in Flanders]. Brussels: Vrije Universiteit Brussel.

De Bosscher, V., Shibli, S., Westerbeek, H., & Van Bottenburg, M. (2015). Successful elite sport policies: an international comparison of the sports policy factors leading to international sporting success (SPLISS 2.0) in 15 nations. Maidenhead: Meyer & Meyer Sport (UK).

De Bosscher, V., De Knopp, P., van Bottenburg M., Shibli S. & Binghamd, J. (2009). Explaining international sporting success: An international comparison of elite sport systems and policies in six countries. Sport Management Review. 12, 113-133.

De Bosscher, V., Bingham, J., Shibli, S., Van Bottenburg, M., & De Knopp, P. (2008). The global sporting arms race: an international comparative study on the sports policy factors leading to international sporting success. Oxford: Meyer & Meyer Sport (UK).

Department for Culture, Media and Sport. (2002). Game Plan: A strategy for delivering Government's sport and physical activity objectives. London: DCMS.

Digel, H., (2005). Comparison of successful sport systems. New Studies in Athletics, 20 (2), 7–18.

Donnelly, P. & Petherick, L. (2004). Workers' playtime? Child labour at the extremes of the sporting spectrum. Sport in Society. 7(3), 301-321.

Duffy, P., Lyons, D., Moran, A., Warrington, G., & Macmanus, C. (2001). Factors promoting and inhibiting the success of high performance players and athletes in Ireland. Retrieved from http://www.nctc.ul.ie/press/pubs/Success% 20Factors%20STUDY.doc.

Dunlap, E., Johnson, B. D., Kotarba, J. A., & Fackler, J. L. (2010). Macro-level social forces and micro-level consequences: poverty, alternate occupations, and drug dealing. Journal of Ethnicity in Substance Abuse, 9(2), 115-127.

EPL. (2018). Charter for Academy Players and Parents. London: EPL.

Esping-Andersen, G. (1990). The three worlds of welfare capitalism. Cambridge: Polity Press.

Eriksson, S. (1989) Elitidrott – Utbildning. Mölndal: Göteborgs universitet.

Falla, J. (1981). The NCAA: The voice of college sports. Mission, KN: NCAA Publishing.

Fetisov, V.A. (2005). About Criteria and Indicators of Development of Physical Culture and Sport Internationally. Moscow: Soviet Sport.

Gál, A. (2012, July). Society and sport in Central Europe, particularly in Hungary. Glasgow, United Kingdom: World Congress of Sociology of Sport, Glasgow Caledonian University.

Gaul, G. M. (2015). Billion-dollar ball: A journey through the big-money culture of college football. New York, NY: Viking.

Gerdy, J. (2006). Air ball: American education's failed experiment with elite athletics. Oxford, MS: University Press of Mississippi.

Gibbons, T., McConnel, A., Forster, T., Riewald, ST., Peterson, K. (2003). Reflections on success: US Olympians describe the success factors and obstacles that most influenced their Olympic development. USOC report phase II, 48p.

Gibbons, T., McConnel, A., Forster, T., Riewald, S. T., & Peterson, K. (2003). Reflections on Success: US Olympians Describe the Success Factors and Obstacles that Most Influenced their Olympic Development. Report Phase II from United States Olympic Committee (USOC).

Gilbert, D. (1980). The miracle machine. New York: Coward, McCann & Geoghegan Inc.

Giles, T. (2017, 16 December). Russian Duma adopts new law allowing removal of coaches who violate doping rules. Retrieved from www.insidethegames.biz/articles/1059194/russian-duma-adopts-new-law-allowing-removal-of-coaches-who-violate-doping-rules

Girginov, V., & Bankov, P. (2002). Bulgaria: Sport for all from a way of life to a matter of choice. In, DaCosta, L. P. & Miragaya, A. (Eds.). World experiences and trends of sport for all. Oxford: Meyer & Meyer Sport.

Giulianelli, E., & Malyon, E. (2017, January 25). Wracked by corruption and mismanagement, Romanian football is in crisis as players start to walk away. The Independent. Retrieved from www.independent.co.uk/sport/football/european/wracked-by-corruption-and-mismanagement-romanian-football-is-in-crisis-as-players-walk-away-from-the-a7543666.html

GMB Yorkshire. (2018). GMB Sports Section. Retrieved from https://www.gmbyorkshire.org.uk/gmb-sports-section

Golubitsky, S. (2004). Fencing is My Life. Staten Island, NY: SKA SwordPlay Books.

Gould, D., Guinan, D., Greenleaf, C., Madbery, R., and Peterson, K. (1999). Factors Affecting Olympic Performance: Perceptions of Athletes and Coaches from More and Less Successful Teams. The Sport Psychologist, 13, 371-394.

Grant, R., Leadley, J. & Zygmont, Z. (2015). The economics of intercollegiate sports (2nd ed.). Hackensack, NJ: World Scientific.

Grasso, J. Mallon, B. & Heijmans, J. (2015). Historical Dictionary of the Olympic Movement. London: Rowman & Littlefield Publishers.

Green, M. (2003). An analysis of elite sport policy change in three sports in Canada and the United Kingdom. Unpublished thesis (Ph.D.), Loughborough University.

Green, M. & Houlihan, B. (2005). Elite sport development policy learning and political priorities. London: Routledge

Green, M. (2006) Integrating macro- and meso-level approaches: A comparative analysis of elite sport development in Australia, Canada and the United Kingdom. European Sport Management Quarterly, 5:2, 143-166, DOI: 10.1080/16184740500188805

Green, M., & Oakley, B. (2001). Elite sport development systems and playing to win: uniformity and diversity in international approaches. Leisure Studies, 20, 247-267.

Green, M., & Oakley, B. (2001). Elite sport development systems and playing to win: Uniformity and diversity in international approaches. Leisure Studies, 20, 247–267.

Greenleaf, C., Gould, D., & Dieffenbach, K. (2001). Factors influencing Olympic performance with Atlanta and Nagano US Olympians. Journal of Applied Sport Psychology, 13, 154-184.

Grey-Thompson, T. (2017). Duty of care in sport: Independent report to government. London: Grey-Thompson.

Grimes, P. & Chressanthis, G. (1994). Alumni contributions to academics: the role of

intercollegiate sports and NCAA sanctions. American Journal of Economics and Sociology, 1, 27-41.

Gurney, G., Lopiano, D., & Zimbalist, A. (2017). Unwinding madness: What Went wrong with college sports and how to fix it. Washington, D.C.: Brookings Institution Press.

Hall, J. (2015, June 15). Qatar to host fans on cruise ships during 2022 World Cup to satisfy FIFA's hotel demand. Retrieved from

http://www.cityam.com/214080/qatar-host-fans-cruise-ships-during-2022-world-cup-satisfy-fifas-hotel-demand

Hargreaves, J. (1985). Sport, power and culture. Polity: Cambridge.

Harris, S. (2013). An analysis of the significance of sub-regional partnerships in the community sport policy process. Unpublished thesis (Ph.D.), Loughborough University

Held, D. (1996). Models of democracy. Cambridge: Polity.

Henry, I.P. (2001). The politics of leisure policy (2nd edition). Houndmills: Palgrave.

History of Qatar (2018, November 28). Retrieved from

https://www.qatar.qa/english/Qatar/History-of-Qatar

Houlihan, B. (1991). The government and politics of sport. London: Routledge

Houlihan, B. (1997). Sport, policy and politics: A comparative analysis. London: Routledge.

Houlihan, B. & Green, M. (2009). Modernisation and sport: the examples of UK Sport and Sport England, London: Political Studies Association.

Houlihan, B. & Green, M. (2008). Comparative elite sport development: Systems, structures and public policy. Oxford; Butterworth Heinemann,

Houlihan, B. & Lindsey, I. (2012). Sport policy in Britain. London: Routledge.

Houlihan, B. & White, A. (2002). The politics of sport development: Development of sport or development through sport? London: Routledge.

Howard-Hamilton, M., & Watt, S. (2001). Student services for athletes. New Directions

for Student Services, 93, 1-7.

HM Government (2015). Sporting Future: A new Strategy for An Active Nation.

Hums, M. & McLean, J. (2013). Governance and policy in sport organizations (3rd ed.). Scottsdale, AZ; Holcomb Hathaway.

Hussain, F (2018, October 09). Doha Worlds to boost Qatari gymnasts, says Al Hitmi. Retrieved from

https://thepeninsulaqatar.com/article/09/10/2018/Doha-Worlds-to-boost-Qatari-gymnasts,-says-Al-Hitmi

Igoshev, M.V., & Apletin, A.A. (2014, May). Current human resources situation in Russia and need to increase the role of physical culture and sport. International Congress "Nations' Health: Systems of Lifelong Physical Education as a Foundation of Public Health," Moscow, Russia.

Inchenko, I.V. (2014, May). Solving social problems through sport and physical culture services. International Congress "Nations' Health: Systems of Lifelong Physical Education as a Foundation of Public Health," Moscow, Russia.

International Monetary Fund. (2018). Report for selected countries. Retrieved from

https://www.imf.org/external/pubs/ft/weo/2018/01/weodata/weorept.aspx?pr.x=43&pr.y=8&sy=1980&ey=2023&scsm=1&ssd=1&sort=country&ds=.&br=1&c=112&s=NGDP_RPCH,PPPGDP,PPPPC,PCPIPCH,LUR,GGXWDG_NGDP&grp=0&a

IOC (2008). The International Olympic Committee. Historical archives. Retrieved July

15, 2008, from

http://www.olympic.org/historical-archives

Isaev, A.A. (2002). Sports Policy of Russia. Moscow: Soviet Sport.

Johnson, C. C. (2013). Educational turbulence: The influence of macro and micro-policy on science education reform. Journal of Science Teacher Education, 24(4), 693-715.

Jeurissen, R. (1997). Integrating micro, meso And macro levels in business ethics. Ethical Perspectives-Katholieke Universiteit Leuven, 4(4), 246-254. Retrieved from

https://philpapers.org/rec/JEUIMM

Johnson, K. N., & Ali, A. (2002). A tale of two seasons: participation and medal counts at the summer and winter Olympic Games. Retrieved February 15, 2003, from:

http://www.wellesley.edu/economics/wkpapers/wellwp_0010.pdf. Wellesley, MA: Wellesley College.

Johnson, S. (2012). Russian Olympic Committee promises huge financial rewards for winning Olympic gold. Retrieved from

http://ca.sports.yahoo.com/olympics/news?slug=ycn-10877957

Josoor Institute (2018). Retrieved from

https://www.josoorinstitute.qa/business-divisions/education-training-development

Kaka'an, D., Smolianov, P., Koh Choon Lian, D., Dion, S. & Schoen, C. (2018, March). Nigerian football: best management practices and opportunities for development. 12th Sports Africa Conference. Pan-African Sports Studies: Beyond Physical Education. University of Zambia (Lusaka) in partnership with the Institute of Reconciliation and Social Justice at the University of the Free State, South Africa.

Keating X.D., Smolianov, P., Liu, X., Castro-Piñero, J., Smith, J. (2018). Youth fitness testing practices: Global trends and new development. Sport Journal. Retrieved from http://thesportjournal.org/article/youth-fitness-testing-practices-global-trends-and-new-development/

Keller, I. A. and Forsythe, C. E. (1984). Administration of high school athletics, 7th ed., Englewood Cliffs, NJ: Prentice Hall.

Kihl, L., Skinner, J., & Engelberg, T. (2017). Corruption in sport: Understanding the complexity of corruption. European Sport Management Quarterly, 17(1), 1-5.

Kim, P. H., Wennberg, K., & Croidieu, G. (2016). Untapped riches of meso-level applications in multilevel entrepreneurship mechanisms. Academy of Management Perspectives, 30(3), 273-291. Retrieved from https://journals.aom.org/doi/10.5465/amp.2015.0137

King, N. (2009). Sport Policy and Governance: Local Perspectives. Oxford, UK: Elsevier.

Krüger, A. (1984). To Moscow and back: international status of comparative research in regard to physical activity outside of schools. Proceedings of the 4th International Seminar on Comparative Physical Education and Sport, 213-227. Malente-Kiel, West Germany.

Kuper, G. H., & Sterken, E. (2003). Olympic Participation and Performance Since 1896. Research Report, No. 03C19. Graduate School/Research Institute Systems, Organizations and Management, University of Groningen, Netherlands. Retrieved 15 September, 2003, from: http://som.eldoc.ub.rug.nl/reports/themeC/2003/03C19.

Larose, K., & Haggerty, T.R. (1996). Factors Associated with National Olympic Success: an Exploratory Study. Unpublished Master's thesis, University of New Brunswick, Canada.

lenta.ru (2016, October 11). Putin called to reduce public funding of professional sport. Retrieved from https://m.lenta.ru/news/2016/10/11/putinsportbudget/

Marsh, D. & Stoker, G. (1995). Theory and methods in political science. Basingstoke: Macmillan.

MacAloon, J.J. (1984). The Great Symbol: Pierre De Courbetin and the Origins of the Modern Olympic Games. Chicago: University of Chicago Press.

Matveev, L. P. (1964). Problema periodizatsii sportivnoj trenirovki (Periodization of sport training). Moscow: Physical Culture and Sport.

Matveev, L. P. (2008). Teoriya i metodika fizicheskoj kul'tury (Theory and Methodology of Physical Culture). Moscow: Physical Culture and Sport-SportAcademPress.

Metsä-Tokila, T. (2001a). Koulussa ja kentällä (In school and on the ground). Turku: University of Turku.

Metsä-Tokila, T. (2001b). Urheilija ja opiskelija (Athlete and student). Liikunta ja tiede 38(3–4): 53–7.

Metsä-Tokila, T. (2002). Combining Competitive Sports and Education: How Top-Level Sport Became Part of the School System in the Soviet Union, Sweden and Finland. European Physical Education Review, 8(3), 196–206. http://doi.org/10.1177/1356336X0200832002

Ministère Des Sports. (2015). Lettre de Politique Sectorielle de Developpement des Sports.

Ministère des Sports. (2016). Etude de faisabilité du projet. Promotion des métiers du sport et des métiers liés aux sports. Dakar.

Miracle, A. Jr. and Rees, C. R. (1994). Lessons of the locker room: The myth of school sports, Amherst, NY: Prometheus Books.

Nikitushkin, V.G., Kvashuk, P.V., & Bauer, V.G. (2005). Organizational and Methodological Foundations of Sport Reserve Preparation. Moscow: Soviet Sport.

Novokmet, F., Piketty, T., Zucman, G. (2017). From Soviets to oligarchs: Inequality and property in Russia, 1905–2016". NBER Working Paper No. 23712. doi:10.3386/w23712.

No Child Left Behind Act of 2001, P.L. 107-110, 20 U.S.C. § 6319 (2002).

Nys, K., De Knopp, P., & De Bosscher, V. (2002). Prestatiebepalende factoren in topsport [Factors determining international suc**cess in elite sports]. (Unpublished ma**ster's thesis), Vrije Universiteit Brussel, Belgium.

Nixon, H. L. (2014). The athletic trap: How college sports corrupted the academy. Baltimore,
MD: The Johns Hopkins University Press.

NCAA (2017-18). NCAA Division I manual. Retrieved from
https://www.ncaapublications.com/p-4511-2017-2018-ncaa-division-i-manual-august-version-available-august-2017.aspx

NFHS (2018). About us. Retrieved from
https://www.nfhs.org/who-we-are/aboutus

Office of National Statistics. (2018). Overview of the UK Population, March 2017. Retrieved from
https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/articles/overviewoftheukpopulation/mar2017

Paltsev, S. (2011). Russia's natural Gas Export Potential up to 2050. Joint Program Report Series Report 201. Retrieved from:
http://globalchange.mit.edu/publication/14397

PCA. (2018). PCA, Personal Development. Retrieved from
https://www.thepca.co.uk/personal-development

Peterson, J. E. (2001). Succession in the states of the gulf cooperation council. The Washington Quarterly, 24(4), 173–186.

PFA. (2018). Education at the PFA. London: PFA.

Platonov, V. N. (1988). L'entrainement sportif: Theorie et methode. (Sport training: Theory and method) Paris: Ed. EPS.

Platonov, V. N. (2005). Sistema podgotovki sportsmenov v Olimpijskom sporte (System of preparation of athletes in Olympic sport).

Platonov, V. N. (2010). Sport Vysshikh Dostizhenij i Podgotovka Natsional'nykh Komand k Olimpijskim Igram (High Performance Sport and Preparation of National Teams for Olympic Games). Moscow: Soviet Sport.

Platts, C. & Smith, A. (2009). The education, rights, and welfare of young people in professional football in England: some implications of the White Paper on Sport. International Journal of Sport Policy, 1(3), 323-339.

Pochinkin, A.V. (2006). Formation and development of professional commercial sport in Russia. Moscow, Russia: Soviet Sport.

Potrac, P. & Jones, R. (2009). Power, conflict and cooperation: Toward the micro-politics of head coaching. Quest, 61, 223-236.

Project Play (2018). State of play 2018: Trends and developments. Washington, DC: The Aspen Institute.

Qatar General Secretariat for Development Planning. (2011). Qatar National Development Strategy 2011~2016. Retrieved from https://www.mdps.gov.qa/en/knowledge/HomePagePublications/Qatar_NDS_reprint_complete_lowres_16May.pdf

Qatar Olympic Committee. (2011). Sports sector strategy 2011-2016. Doha, Qatar: Qatar General Secretariat for Development Planning.

Qatar Secretariat for Development Planning. (2008). Qatar national vision 2030. Qatar. Retrieved from http://www.mdps.gov.qa/en/qnv/Documents/QNV2030_English_v2.pdf

Rad, M. A., Ganjouei F. A. & Hazaveh, H. S. (2014). An investigation of macro and micro factors affecting sport participation in Tehran citizens, Iran. Research Journal of Recent Sciences, 3(12), 138-146.

Reed, K. (2018). The sports reformers: Working to make the world of sports a better place. Washington, DC: League of Fans.

RFU. (2018). The education guide for talented young rugby players. London: RFU.

Ridpath, B. (2018). Alternative models of sport development in America: Solutions to prevent and educational and public health crisis. Athens, OH: Ohio University Press/Swallow Books.

Ridpath, B., Husted, J., Hite, C., Snodgrass, J. & Grant, S. Pay to Play: Who's in, Who's out and how much? Panel Discussion, The Ohio State Sport and Society Initiative, Ohio State University, Columbus, OH, February 26, 2016.

Ridpath, B. (2002). NCAA Division I student-athlete characteristics and indicators of academic achievement and graduation from college. (Doctoral dissertation, West Virginia University). Available from ProQuest Dissertations and Theses database. (UMI No. 3055939).

Rifkin, J. (2006, May 16). Diseases of the affluent. The Globe and Mail, A19.

Riordan, J. (1978). Sport Under Communism: The USSR, Czechoslovakia, the GDR, China, Cuba. London: C. Hurst.

Riordan, J. (1989). Soviet sport and perestroika. Journal of Comparative Physical Education and Sport, 6(2), 7-18.

Riordan, J. (1991). Sport, Politics and Communism. Manchester: Manchester University Press.

Riordan, J. (1980). Sport in Soviet society: Development of sport and physical education in Russia and the USSR. Cambridge, United Kingdom: Cambridge University Press.

Roche, M. (1993). 'Sport and Community: Rhetoric and Reality in the Development of British Sport Policy', in J. Binfield & J. Stevenson (Eds.), Sport, Culture and Politics. Sheffield: Sheffield Academic Press.

Rose, N. (1996). The death of the social? Re-figuring the territory of government. Economy and Society, 25(3), 327-356.

PA. (2018). RPA About Us, Retrieved from https://therpa.co.uk/about-u

RT. (2010). Gazprom to spend $130 mln on Russian Olympians. Retrieved from
http://rt.com/sport/gazprom-russian-olympic-sponsorship/

Rumsby, B. (2017). Premier League concern grows over GCSE results of academy players. The Telegraph, 9 February, 2017.

Ryashentsev, N.N. (1984). About preparation of Olympic reserve in trade unions sport society. Bulletin of Sport Science, 4, 2.

Sack, A., & Staurowsky, E. (1998) College athletes for hire: The evolution and legacy of the
NCAA's amateur myth. Westport, CT: Praeger Publishers.

Salzman, B. (2015, January 26). A bleak future for Eastern European soccer. Retrieved January 26, 2015, from
https://sites.duke.edu/wcwp/2015/01/26/a-bleak-future-for-eastern-european-soccer/

Sedlacek, J., Matousek, R., Holcek, R., & Moravec, R. (1994). The influence of the political changes on the high performance sport organization in Czechoslovakia. In, Wilcox, R. (ed.), Sport in the Global Village, 341-347. Morgantown, WV: Fitness Information Technology Inc.

Semotiuk, D. (1975). The sport system of the Union of Soviet Socialist Republics: An illustrated analysis. Proceedings and Newsletter, North American Society for Sport History, 50–51.

Semotiuk, D. (1990). East bloc athletics in the glasnost era. Journal of Comparative Physical Education and Sport, 9(1), 26-29.

Sotiriadou, P., & De Bosscher, V. (Eds.). (2013). Managing High Performance Sport. London and New York: Routledge.

Sports reporter Doha (2016, November 09). QOC and Aspire Academy announce framework to develop Qatari champions. Retrieved from
https://www.gulf-times.com/story/520494/QOC-and-Aspire-Academy-announce-framework-to-devel

Schwartz, M. (2008). A major tuneup for a sports machine. New York Times. Retrieved July 29, 2008, from www.nytimes.com/2008/07/29/sports/olympics/29russia.html?th&emc=th

Sharp, L., Moorman, A. & Claussen, C. (2010). Sport law: A managerial approach (2nd ed). Scottsdale, AZ: Holcomb Hathaway.

Shneidman, N. N. (1978). The Soviet road to Olympus: Theory and practice of Soviet physical culture and sport. Toronto, Canada: The Ontario Institute for Studies in Education.

Smirnova, L. (2018). Football supporters hit the pitch at the fan World Cup. The Moscow Times. Retrieved from https://themoscowtimes.com/articles/fan-world-cup-62036.

Smolianov, P. (2005). Systemy obespecheniya sporta vysshih dostizhenij. Analiz mezhdunarodnogo opyta v organizatsii Olimpijskoj podgotovki (Systems for provision of high sport performance. Analysis of international experience in organizing Olympic preparations. Sports Science Bulletin, 3(8), 49–52.

Smolianov, P. (2013). Russia. In O'Boyle, I. & Bradbury, T. (Editors). Sport governance: An international case study perspective. London and New York: Routledge.

Smolianov, P., G. Bravo, O. Vozniak, and E. Komova. (2014). National sport policy: Swimming program in Russia and the integrated mass and elite sport model. International congress 'nations' health: Systems of lifelong physical education as a foundation of public health', Moscow, Russia, May 26–9.

Smolianov, P., & Musunsa, S. (2018, March). Exploring factors and practices leading to international success and systematic sport development of Zambian sport. 12th Sports Africa Conference. Pan-African Sports Studies: Beyond Physical Education. University of Zambia (Lusaka) in partnership with the Institute of Reconciliation and Social Justice at the University of the Free State, South Africa.

Smolianov, P. (2019, upcoming). Sport in Eastern Europe. In, MacIntosh, E., Bravo, G., & Li, M. (Editors). International Sport Management, 2nd edition, Champaign, IL: Human Kinetics.

Smolianov, P., Schoen, C., Norberg, J., Dion, S., Smith, J., & Calpino, K. (2018). Innovative technology for high performance and mass participation in sport. In, Marinho, D. & Neiva, H. (Editors). The Use of Technology in Sport–Emerging Challenges. London: IntechOpen.

Smolianov, P., & Smith, J. (2019, upcoming). Fringe Methodologies in High Performance and Health. Michigan, USA: Ultimate Athlete Concepts.

Smolianov, P., Zakus, D. & Gallo, J. (2014). Sport development in the United States: High performance and mass participation. Routledge: New York, NY

Smolianov, P., & Zakus, D. H. (2009, September). Olympic training centers as part of sport development and mass participation–a case of Moscow, USSR. 17th Conference of the European Association for Sport Management, Amsterdam, Netherlands.

Smolianov, P., & Zakus, D.H. (2008). Exploring high performance management in Olympic sport with reference to practices in the former USSR and Russia. International Journal of Sport Management, 9, 206-232.

Sotiriadou, P., & De Bosscher, V. (2017). Managing high-performance sport: introduction to past, present and future considerations. European Sport Management Quarterly, 18(1), 1-7.

Sparvero, E., Chalip, L., & Green, C. (2008). In B. Houlihan & M. Green (Eds.), Comparative elite sport development (pp. 243–293). London: Elsevier.

Spence, J.C., Holt, N.L., Dutove, J. K. & Carson, V. (2010). Uptake and effectiveness of the Children's Fitness Tax Credit in Canada: The Rich Get Richer. BMC Public Health 10(1), 356.

Sperber, M. (1990). College sports, Inc.: The athletic department vs. the university. New York: Henry Holt and Company.

Sport Ministry. (2012, 2017). Ministry for Sport, Tourism and Youth Policy of the Russian Federation. Retrieved from http://sport.minstm.gov.ru

Sportloto. (2005). Retrieved from http://www.sportloto.ru.

Stamm, H. & Lemprecht, M. (2001). Sydney 2000 – The best games ever? World sport and relationships of structural dependency. International Sociology of Sport Association. Proceedings of the 1st World Congress of Sociology of Sport. Seoul: Yonsei University.

Stasik, E. (2012, June 6). Polish soccer plagued by cronyism and corruption. Deutsche Welle. Retrieved from www.dw.com/en/polish-soccer-plagued-by-cronyism-and-corruption/a-15980132

Staurowsky, E., & Abney. R. (2006). Intercollegiate athletics. In J. B. Parks, B. R. Zanger, & J. Quarterman (Eds.), Contemporary sport management (4th ed.). Champaign, IL: Human Kinetics.

Sturkenboom, M., & Vervoorn, C. (1998). Diagram of the multidisciplinary support staff in top sports. Paper presented at NOC*NSF Symposium, Ahrnem, the Netherlands.

Suciu, A., Balota, I., & Oana, O. (2002). Romania: Sport for all as a change of mentality and new lifestyle. In L.P. DaCosta & A. Miragaya (Eds.), World experiences and trends of sport for all. Oxford, United Kingdom: Meyer & Meyer Sport.

Sulayem, M. B., O'Connor, S., & Hassan, D. (Eds.). (2013). Sport management in the Middle East: A case study analysis. Routledge.

Swinburn, B.A. (2008). Obesity prevention: the role of policies, laws and regulations. Australia and New Zealand Health Policy, 5(12), 1-7. Retrieved from
https://anzhealthpolicy.biomedcentral.com/track/pdf/10.1186/1743-8462-5-12.

Tan, T., & Green, M. (2008). Analysing China's drive for Olympic success in 2008, International Journal of the History of Sport, 25(3), 314-338.

TeamBath (2005). Sport. Retrieved June 21, 2005, from http://www.teambath.com/sport/3_3_9.cfm

The University of Physical Education in Warsaw. (2014). Study in Warsaw. The Józef Piłsudski University of Physical Education in Warsaw. Retrieved March 15, 2014, from
www.studyinwarsaw.pl/index.php?option=com_content&task=view&id=1&Itemid=12&uczelnia_id=9

Trading Economics (2018, November 28). Qatar GDP. Retrieved from: https://tradingeconomics.com/qatar/gdp

Turner, B. (2002). Qatar: Dawlat Qatar (State of Qatar)." The statesman's yearbook: The politics, cultures and economies of the world. Retrieved from
http://www.statesmansyearbook.com/entry?entry=countries_dc_qa

UNESCO UIS. (2016, November 27). Senegal - UIS. Retrieved from
http://uis.unesco.org/en/country/sn
United Nations. (2018). World population prospects. Retrieved from
https://population.un.org/wpp/DataQuery/

USA Hockey. (2010). 2009–2010 annual report. Retrieved August 5, 2011 from
http://www. usahockey.com/uploadedFiles/USAHockey/Menu_About_USA_Hockey/2010%20 USAH%20 Annual%20Report_FINAL2.pdf.

Van Bottenburg, M. (2000). Het topsportklimaat in Nederland [The elite sports climate in the Netherlands]. Hertogenbosch: Diopter-Janssens en van Bottenburg bv.

Van den Berg, M. (2001). The support structure for top sports: perspectives from national team sport coaches. Unpublished thesis for the European University Diploma of Sport Management. Utrecht, the Netherlands.

Veal, A. J. (1982). Planning for leisure: Alternative approaches. Papers in Leisure Studies No.5. London: Polytechnic of North London.

Vinogradov, I. (2016, June 16). Muscovites pass GTO tests. Evening Moscow. Retrieved from
http://vm.ru/news/2016/06/15/normi-gotov-k-trudu-i-oborone-gorozhane-vipolnyayut-legko-323474.html

Von Tigerstrom, B., Larre, T. & Sauder, J. (2011). Using the tax system to promote physical activity: critical analysis of Canadian initiatives. American Journal of Public Health, 101(8), 10–6.

Watt, S. & Moore, J. (2001, Spring). Who are college athletes? New Directions for Student
Services, 93, 7-18.

Way, R., Repp, C., & Brennan, T. (2010). Sport schools in Canada: The future is here. Canadian Sport Center Pacific. Retrieved from www.vancouversun.com/pdf/NationalPaper2.pdf

Wells, H. J. C. (1991). Developing sporting excellence in Hong Kong. Journal of Comparative Physical Education and Sport, 1, 28-34.

Wicker P., Hallmann K. and Breuer C. (2012). Micro and macro level determinants of sport participation. Sport, Business and Management, 2(1), 51 – 68.

Wilson, K. & Brondfield, J. (1967). The big ten. Englewood Cliffs, NJ: Prentice Hall.

Worldmeteres. (2017). Qatar population. Retrieved from https://www.worldometers.info/world-population/qatar-population/

Wong, G. (1994). Essentials of sport law. Westport, CT: Praeger.

World Bank. (n.d.). Country profile. Retrieved from
http://databank.worldbank.org/data/views/reports/reportwidget.aspx?Report_Name=CountryProfile&Id=b450fd57&tbar=y&dd=y&inf=n&zm=n&country=SEN

Wright, D. (2017, January 17). The 20 biggest sport stadiums in the world ranked by current capacity. The Daily Telegraph. Retrieved from
https://www.dailytelegraph.com.au/sport/us-sports/nba/the-20-biggest-sport-stadiums-in-the-world-ranked-by-current-capacity/news-story/80518908e2555e277565b87fd019e462

Wynhausen, E. (2007). Crossing the greatest of divides, The Australian. Retrieved from
http://www.theaustralian.news.com.au/story/0,25197,22850153-2722,00.Htm

Zeeuw, M., Smolianov, P., Dion, S., & Schoen, C. (2017). Comparing the practices of Dutch swimming against a global model for integrated development of mass and high-performance sport. Managing Sport and Leisure: An International Journal, 22(2), 91-112.

Zigmund, E. (2007, June). Sport and genetics. Russian-Canadian Info, 452(3), 21.

Zimbalist, A. (2001). Unpaid professionals: Commercialism and conflict in big-time college sports. Princeton, NJ: Princeton University Press.

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ACKNOWLEDGEMENTS

The authors would like to thank Her Highness Sheikha Moza bint Nasser, Chairperson of Qatar Foundation, and the leadership of Qatar Foundation, for their unwavering commitment to the cause of education globally. It was the vision and guidance of Her Highness that led to the creation of the World Innovation Summit for Education (WISE). Without her ongoing support, this WISE Report would not have been possible.

The authors would like to thank our universities and organizations along with the following individuals and entities for their support of this project. This report would have not been possible without their assistance:

-Qatar's Supreme Committee for Delivery and Legacy and Jusoor Institute for sponsoring this research

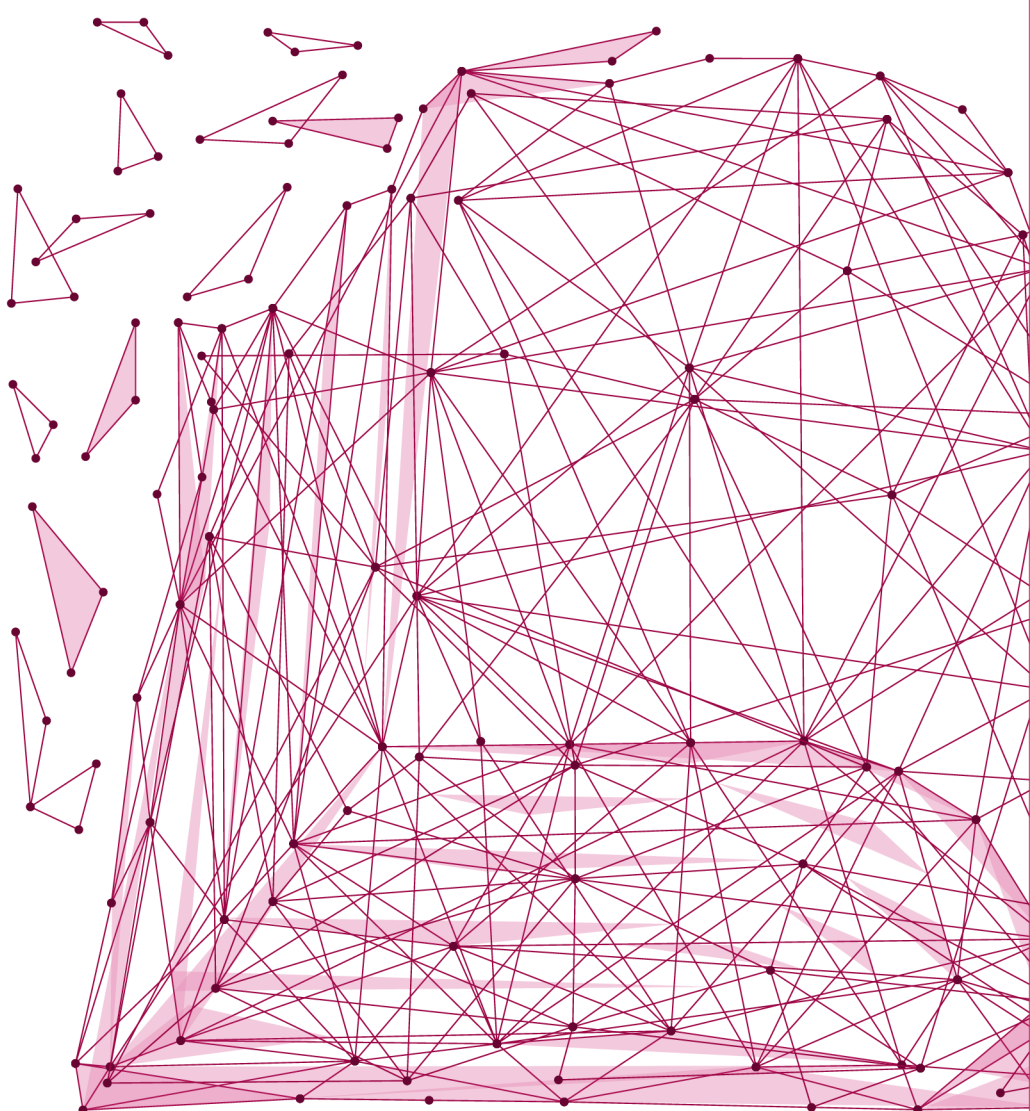
-Ohio University Office of Research and Sponsored Programs and the Ohio University Office of Research Compliance, specifically Brandie Hawk, Sherri Galbraith, Bailey Kormick, Jenny Whan, Michelle Allison, Pamela Harvey and Jessica Creamer.

-Dr. Aaron Clopton of the University of Kansas for his diligent peer review and suggestions for improvement

-Special thanks to all who participated in interviews as anonymous resources

-WISE team, in particular Dr. Asmaa Al-Fadala, Director of Research, and Dr. Ahmed Baghdady, Manager-Research and Content Development.

-Malcolm Coolidge for proofreading the report, and the Frazil House Advertising team for design and layout formatting of the report.



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