



The distribution of Australian sports data into foreign jurisdictions

Sport Integrity Australia

Gambling Research Australia

FINAL REPORT

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Executive summary

Background

Australian governments, sports and law enforcement bodies have no role in the regulation of offshore wagering service providers (**WSPs**) offering betting contingencies on Australian sports to customers.

The key agency for restricting the use of offshore providers by Australian customers is the Australian Communication and Media Authority (**ACMA**). However, research by the Australian Criminal Intelligence Commission (**ACIC**) found that Australian consumers can still access offshore sites and that the links between Australian consumers and unregulated platforms are strengthening with increased participation. In this context, the *Review of Australia's Sports Integrity Arrangements* (**the Wood Review**) warned that while Australia's sport integrity environment is favourable in comparison to other countries, the potential for serious integrity breaches, including match-fixing, is real and growing.¹

Access to Australian sports data by WSPs is important in framing betting markets, and there are arrangements in place to support the integrity of Australian sports data and for domestic regulated WSPs to access it. However, it is not well understood how Australian sports data is obtained by offshore WSPs and the associated impacts.

Research aim

This research was commissioned by Sport Integrity Australia and Gambling Research Australia and is the first research of its kind undertaken in Australia. It builds on the findings of the Wood Review and Safeguarding the Integrity of Sport, the Government's response to the Wood Review.

The research aim was to explore and better understand:

- the impact of the distribution of Australian sports data, including player and/or team performance match statistics, into foreign jurisdictions in establishing and maintaining offshore wagering markets (offshore wagering markets), which for the purposes of this report are markets on Australian sports or events offered by offshore wagering service providers (offshore WSPs) who are not licensed in Australia;² and
- the impact this has on sport integrity and consumer protection outcomes in Australia.

Its findings represent one contribution to the evidence base in relation to the issue of sports data creation and dissemination into foreign jurisdictions. There are important opportunities to build on these findings with further research and investigative work in collaboration government, industry, academics, and consumers over time.

Research design and challenges

There is limited prior research and practical investigation of issues associated with the distribution of Australian sports data into foreign jurisdictions. As a result, Sport Integrity Australia and Gambling Research Australia defined the scope and method to be exploratory and draw on a wide range of views and perspectives from the available literature, domestic and international stakeholders, and consumers.

Detailed research questions were developed and agreed to guide the research, though, it was recognised from the outset that there would be significant information gaps and therefore challenges in fully answering these questions. The key reasons included:

- Limited prior research and investigation by government, industry, and academics in relation to this issue;
- Lack of consistent definitions, data capture and monitoring in relation to sports data creation and dissemination;

¹ Wood, J., 2018, Report of the review of Australia's sports integrity arrangements, https://consultations.health.gov.au/population-health-and-sport-division/review-of-australias-sports-integrity-arrangements/supporting_documents/HEALTH%20RASIA%20Report_Acc.pdf

² In this report and executive summary, 'offshore wagering markets' refers to markets on Australian sports or events offered by offshore wagering providers.

- Varying extents to which different areas of industry and government have identified and defined the sports data creation and dissemination in the context of their interests and objectives;
- Existence of commercial arrangements for the use of some types of sports data that are not able to be shared with third parties; and
- Limited transparency and willingness of some stakeholders to engage in relation to these issues.

In this context, the research purpose was to develop a better practical understanding of the current landscape based on the available information to help inform government and industry stakeholders' future considerations and research around these issues. In doing so, the identification of information gaps and additional and/or tangential issues to the original research questions were important objectives and equally were seen as important in informing future considerations.

This report documents the full extent of the research, and the relevant limitations and caveats. Collectively, these provide a clearer and more consistent basis for all stakeholders to understand the current landscape and issues and prioritise future areas of research and industry discussion to better understand and respond to those issues.

Methodology

Several methods were used to identify the widest available inputs to inform this report. survey

Table 1: Summary of research methods

Table 1. Summary of research methods		
Research method	Description	
Literature review	A broad-ranging desktop exercise was undertaken to identify relevant insights from the academic literature, government reports, international publications, industry policy and strategic documents, and other relevant articles and journals. A reference list is contained in Appendix A and a full glossary of terms is contained in Appendix B. Information about the literature review is contained in Section 2.1 with key terms utilised in Appendix F.	
Stakeholder consultation	Consultations were undertaken across Commonwealth, State and Territory government agencies and regulators, international regulators, industry peak bodies, sports data companies, wagering service providers (which includes domestic WSPs and offshore WSPs), Australian sporting bodies, and academic researchers.	
	Consultations sought to gather stakeholders' perspectives in relation to the research questions and identify data and evidence to help understand and substantiate these perspectives.	
	The research scope and team could not compel information from stakeholders, rather, the aim was to engage stakeholders confidentially to understand themes and issues relevant to the research questions and to inform the understanding of current issues. Insights emerging through stakeholder consultation are reflected thematically in the report.	
	A list of the stakeholders consulted is contained in Appendix C. Information about the stakeholder consultation methodology is contained in Section 2.2 and Appendix D.	
Consumer research	Insights from 1,228 Australian consumers engaging in wagering were gathered through a consumer research survey. The purpose of the consumer research was to explore consumers' perceptions and behaviours in relation to wagering and better understand the current state of participation in offshore wagering markets offered on for Australian sports.	
	Information about the consumer research methodology is contained in Section 2.2 and Appendix E.	

Limitations

The findings in this report should be considered in the context of the following limitations:

- Due to the lack of prior consolidated research, it was anticipated by Sport Integrity Australia and Gambling Research Australia that there would be gaps in the available information. For this reason, several different methods were used to identify relevant information to best address the original research questions. The report brings together the extent of the information available and the key findings and opportunities for improvement highlight the key gaps identified and potential ways these might be addressed going forward.
- The research approach was not designed to compel information from stakeholders, rather, to engage them in a confidential manner to understand broad themes and issues relevant to the research questions and to inform the understanding of current issues.
- Consultation insights have been regarded as being based on stakeholder experience and have been treated thematically, rather than in isolation. Where practical, consultation feedback was also crossreferenced against available literature and documentation.
- Details of certain product, fee and integrity agreements (PFIAs) associated with the creation and dissemination of Australian sports data are generally subject to commercial-in-confidence arrangements between sporting organisations and sports data companies or relevant WSPs.
- The consumer research survey was limited by a low sample size of participants who bet with offshore WSPs, limited consumer awareness associated with those providers and jurisdictional regulations, and also general issues in online gambling questionnaires including engagement and understanding. Several actions were taken to maximise the survey response rate, including follow-up of participants and extension of in-field time. Detailed discussion of the survey sampling limitations, including relevant insights from the academic literature, is included in the report.
- This report has not accounted for the impact of COVID-19.

Key findings

The table below provides a summary of	the key findings of the investigated questions associated with this research piece:
Research question	Findings
How does the collection, dissemination and use of sports data, through either official or unofficial means, influence the wagering volume and type of markets offered by offshore wagering service providers on Australian sporting competitions that are not approved for betting as part of any Product Fee and Integrity Agreement (PFIA) or Regulators approved contingency regime? Are there associated integrity threats that exist as a result?	 The availability of official and unofficial Australian sports data into foreign jurisdictions is unanimously considered by stakeholders to be a necessary enabler for the development of offshore wagering markets. However, stakeholders also agree that availability and flow of data is only a single contributing factor to the framing of these markets and cannot be considered in isolation. Australian sports data transactions and dissemination is regulated and managed in the broader ecosystem primarily through contractual data sharing arrangements between sporting organisations and sports data companies From an integrity perspective, the importance of contractual data sharing arrangements with sports data companies is largely the control they give the sporting organisations to define which data can be shared and with which third parties. Where the contractual arrangements do not adequately or properly define data sharing arrangements between the parties, sports data companies are generally entitled to sell this data to third parties, which may or may not be governed by Australian law. Offshore WSPs regularly offer betting contingencies that are not typically authorised by an Australian sporting organisation or Australian based regulators, such as markets on semi-professional and amateur games. While the availability of these markets has consistently been identified by stakeholders through this research, there is insufficient data on the extent of wagering market availability and depth in offshore jurisdictions on Australian sporting competitions resulting from unofficial data flows. There are several potential threats to sport integrity in Australia resulting from the collection, dissemination and use of sports data through both official and unofficial means. These are discussed in the findings of Question 3 (below) and Section 5 – Potential impacts of sports data flows into offshore wagering markets. Refer to Section 3.2, Section 3.3, Sect
What impact does the distribution of data, by data providers into foreign jurisdictions have on market availability in those jurisdictions (i.e. what impact does data sourced only from data providers have, as opposed to that obtained through open source (i.e. broadcast or internet)?	 For the purposes of this report, sports data dissemination is defined as the function by which sports data is shared externally following its origination to facilitate its various end uses. Sports data can be shared directly by sporting organisations or by sports data companies if a contractual arrangement is in place. Sports data can also be disseminated through official and unofficial means, depending on how that data has originally been collected and how that data is being shared. 'Official' data dissemination is considered where a collection and dissemination arrangement between a sporting organisation and a sports data company is in place, and where data sharing clauses in the contractual arrangements define which third parties the data can be shared with and for what end uses the data can be shared.
	• For the purposes of this research, 'unofficial' data dissemination is when enorts data is shared without the permission

• For the purposes of this research, 'unofficial' data dissemination is when sports data is shared without the permission or oversight of the sporting organisation that originated the data. This unofficial dissemination has been found to

Research question	Findings
 How is data distributed from the point of collection to the WSP? To what extent does this affect liquidity in markets in foreign jurisdictions? To what extent does this data promote betting on markets in foreign jurisdictions that would be prohibited in Australia by domestic regulatory regimes, including online in-play markets? 	 occur through three main channels: dissemination of unofficial data gathered through unofficial data scouting, dissemination of unofficial data scraped from publicly available websites, and dissemination of official data outside of the intended means of the sporting organisation. Sports data companies have been known to have a role in all forms of official and unofficial data dissemination. Availability of up-to-date and real-time access to sports data is important for WSPs to create and sustain online wagering markets. While the sale of official sports data by National Sporting Organisations (NSOs) to domestic WSPs licensed under Australian State or Territory law enable the latter to create domestic wagering markets which are highly regulated, the sale of unofficial sports data to offshore WSPs creates a risk to sport integrity through the fundamental role of data in facilitating the creation of offshore wagering markets. These impacts are further explored in Section 3 – Sport integrity and unregulated wagering. Refer to Section 3.2, Section 3.3, Section 3.4 and Section 5 for a detailed explanation of the above summary.
 What are the sports integrity risks associated with the availability of markets not available in the regulated domestic environment? Are existing Australian regulatory regimes undermined by the distribution of data to foreign jurisdictions and, if so, to what extent? Are any sports/competitions vulnerable to sports integrity threats as a result of the distribution of this data? 	 Offshore WSPs are unlicensed and are therefore not subject to the range of integrity-related obligations and associated measures contained within standard PFIAs aimed to prevent, investigate, and assist in the prosecution of match fixing or other competition manipulation of Australian sports. The associated loss of transparency, lack of integrity related measures and acceptance of anonymous wagering and funding channels by offshore WSPs aggravates the conditions for manipulation of Australian sporting competitions and assists in avoiding detection by wagering through these unregulated offshore WSP platforms. The existence of offshore wagering markets diminishes regulatory and law enforcement oversight, information collection and intelligence and frustrates the effective supervision of the betting markets and associated interaction with the relevant sporting competition. This inability to access important betting activity creates conditions that are more conducive to manipulation and match fixing in Australian competitions, particularly at the semi-professional and amateur levels of sport. It also increases the risk of exploitation of Australian sport and participants by domestic and foreign persons with more limited prospects of detection, investigation, and hence remote prospects of prosecution. Refer to all of Section 2 and Section 5 for a detailed explanation of the above summary.
Does the availability of Australian sport markets in foreign jurisdictions impact consumer behaviour?	 Products offered by offshore WSPs do not necessarily provide consumer protections that would be in line with regulatory standards in Australia. Furthermore, products offered by offshore WSPs in foreign jurisdictions can include game elements that are strictly prohibited by domestic WSPs. These include (but are not limited to): anonymous betting; high-speed and uninterrupted play; online in-play betting (without need to use a telephone service) provision of credit;

Research question	earch question Findings	
	 payment through cryptocurrencies; increased availability and accessibility of games, including illegal online games such as roulette, blackjack, poker and slots; and minimal know-your-consumer (KYC) requirements (Gainsbury et al., 2014). This also results in minimal consumer protection requirements including limits on deposits, losses and self-exclusion. Gainsbury et al., 2014 and information gathered through stakeholder consultations indicate the above factors can contribute to higher risk of harm for consumers, principally through undermining consumers' ability to maintain control According to a consumer survey conducted, sports bettors who used offshore betting WSPs were more likely to engage in in-play betting, and more likely to engage in problematic betting behaviour compared to sports bettors who did not use offshore WSPs. Refer to Section 3.5 and Section 4.3 for a detailed explanation of the above summary. 	
To what extent does the availability of these markets motivate Australians to gamble with offshore WSPs and what effect does this have on: Revenue for licensed domestic WSPs Revenue from various national and state taxes?	 Some estimates and analyses are available in relation to market size and potential foregone domestic taxation revenues lost due to the availability of markets from offshore WSPs. However, there is no definitive source of truth of data and estimates vary greatly. The O'Farrell Review noted that estimates of the offshore wagering market varied greatly. An estimate by Global Betting and Gaming Consultants (GBGC) estimated the size of the offshore wagering market at AUD\$63.9 million in 2014. A separate estimate prepared by H2 Gambling Capital (H2GC) estimated the market size at approximately AUD\$400 million in 2014. Both estimates are based on various sources of data from across jurisdictions globally and are not able to be compared in detail. It is also not possible to compare the robustness of these estimates. While arrangements differ between each Australian State and Territory, it is common for a percentage of gambling taxation revenue, typically from electronic gambling machines (EGMs) and casinos, to be applied to administer and fund responsible gambling arrangements including support and treatment services as well as community education and awareness campaigns, among other initiatives. This ensures that the operators that profit from providing gambling services contribute to gambling harm prevention and support services. State and Territory government revenue from domestic WSPs is derived from taxes, licensing fees and other non-gambling specific taxes, whereas Commonwealth government revenue from domestic WSPs includes Goods and Service Tax (GST), company tax and fringe benefits tax (Wood, 2018). A consumer survey conducted showed that the presence of offshore WSPs who offered wagering products such as online in-play betting, motivated consumers to engage with these products normally prohibited in Australia. A study by H2GC, commissioned by Responsible Wagering Australia, estimated potential tax revenue leakage at approximately AUD\$84 million (at a pre-p	

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Research question	Findings		
	(at a pre-POC effective tax rate of 25 per cent) and AUD\$23 million (at a post-POC effective tax rate of 36 per cent) (GBGC, 2021).		
	 Similar to the estimates of market size, estimates of potential tax revenue leakage vary and there is limited information to validate and test these estimates further. They are also unable to be directly compared. 		
 No stakeholder consulted through the research provided robust estimates of the size of the unregulated market or potential forgone domestic government taxation revenues due to unregulated wagering market 			
	Refer to Section 5.4 for a detailed explanation of the above summary.		
Does this availability facilitate gambling harm, or assist in harm minimisation mitigation strategies?	Compared to regulated land-based gamblers, gamblers who participate in betting on offshore wagering markets are more likely to be moderate-risk (more than twice as likely) or problem gamblers (more than three times as likely), with higher levels of gambling expenditure with annual losses (Gainsbury et al., 2014).		
	The safety of Australians who partake in offshore wagering markets is impacted by the inadequacy of consumer protections, absence of systemic grievance redress mechanisms, lack of protection of funds and misuse of personal information. The availability of offshore WSPs and the lack of consumer protection presents a high risk to consumers and may facilitate gambling harm.		
	Refer to Sections 5.2 and 5.3 for a detailed explanation of the above summary.		

Conclusions

The research findings highlight the following conclusions for further consideration:

- Further analysis and consultation are required to establish a greater common understanding, definition, and measurement of the sports data ecosystem. This will be an essential consideration going forward, including for governments and industry, in understanding the market and regulatory landscape and working across the sector to continue to strengthen current arrangements.
- There is a lack of clarity and alignment of objectives in relation to sports data creation, dissemination and use across several related pieces of legislation, regulatory obligations, and government and industry strategies. Detailed mapping and analysis of the end-to-end coverage and dependencies across current legislation, regulatory requirements and government and industry strategies will be essential to ensuring that future decisions can help to create greater alignment and coordination of roles and responsibilities and drive greater transparency and accountability across the system.
- From consulting widely throughout this research, it is evident that the issue of control, transparency and monitoring of sports data creation, dissemination and use is a shared responsibility of many stakeholders within the system. While this has been noted broadly by the Wood Review and other recent publications, this research has further demonstrated the complexity of this stakeholder landscape and the challenges associated with establishing a clear, consolidated picture of activity and issues contributing to the ultimate flow of sports data into offshore wagering markets.
- There is a need to establish a more common measurement approach to better understand and monitor risks in relation to the creation, dissemination and use of sports data, including in relation to offshore wagering markets. Commonality of measurement and definitions will also be critical for all stakeholders to agree the most appropriate and cost-effective ways to collaborate to manage and mitigate these risks.
- There are opportunities to clarify areas of regulation in relation to the creation, dissemination and use of sports data. The current regulatory environment for sports wagering should be streamlined to provide clarity, transparency, and consistency and to give full effect to the intended model under the National Policy on Match-Fixing in Sport (National Policy). Clarifying the legislation regarding the requirements for PFIA related revenues would also help to support stronger sport integrity related outcomes, as well as better define the relationships between SCBs and WSPs.
- The research findings make clear that the sport integrity ecosystem is highly complex, with the achievement of better outcomes being reliant on many individual stakeholders across the ecosystem. To better support the structure of this ecosystem, a review into information sharing arrangements to better enable collaboration could lead to beneficial outcomes.

About this report

This report is structured as follows:

- Section 1 introduces the research motivation, and aim including the research questions and issues that arose due to trying to answer the former. It also highlights the research methods that were adopted throughout the project.
- Section 2 presents the background of the Australian sporting landscape, sports integrity definition and risks, key issues driving sports integrity risks and the emergence of offshore wagering markets, including the potential threats of such platforms on sports integrity.
- Section 3 presents the results in relation to the use of sports data to create offshore wagering markets, different types of sports data and the complete cycle of sports data collection, dissemination and use through official and unofficial means.
- Section 4 presents the results in relation to the current regulation and management frameworks across government and industry in relation to the creation, dissemination and use of Australian sports data.
- Section 5 presents the results in relation to the potential impacts of sports data flows into offshore wagering markets on sport integrity, consumer protection, taxation, and illegal activities.
- Section 6 discusses the important areas of research in relation to Australian sports data, sports integrity, and offshore wagering markets. It also discusses the limitations of the research.
- **Reference List**
- **Appendices:**
 - Appendix A: Acronyms;
 - Appendix B: Glossary of Terms;
 - Appendix C: Stakeholders List;
 - Appendix D: Consultation Materials;
 - Appendix E: Survey Methodology Paper; and
 - Appendix F: Key terms for document and literature review.

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Introduction

1.1 Background

The gambling market in Australia and globally, both physical and online, is rapidly changing.³ Advancements in technology and innovation are enabling the creation of different gambling products, platforms, and media in which consumers may participate. Extraneous factors such as the impacts of the COVID-19 pandemic are also shifting patterns of consumer expenditure. One of the key market segments experiencing such change is online wagering4 (Jenkinson et al. 2020).

In 2015, the Review of Illegal Offshore Wagering (the O'Farrell Review) identified online wagering as the fastest-growing segment of the Australian gambling market, albeit from a low base (O'Farrell, 2015). Recently, the Australian Institute of Criminology (AIC) reported online sports wagering as the most prevalent form of online gambling in Australia, with up to 92 per cent of those participating in online gambling having online betting accounts (Brown & Hickman, 2020).

Online gambling in Australia is regulated by Commonwealth, State, Territory governments, with each iurisdiction having separate regulatory regimes (Department of Health, 2020). At the Commonwealth level. the Interactive Gambling Act 2001 (Cth) (IGA) enables sports betting to be offered by any WSP holding an Australian licence. However, the IGA prohibits in-play sports betting (except at retail wagering outlets or via telephone) (IGA). Although the IGA only allows sports betting to be offered by licensed providers, it is not a criminal offence for Australian consumers to use the services of an online gambling service provider not regulated in Australia (Australian Communications and Media Authority, 2021).

Data on participation and expenditure of Australian consumers on unregulated online wagering sites (i.e., those not permitted or regulated in Australia) is very opaque. Estimates prepared by government and industry over time vary significantly (O'Farrell, 2015), (Australian Criminal Intelligence Commission, 2017).

Wagering service providers (WSPs) are entities that offer wagering products such as bets on sporting events to consumers. The use of Australian sports data by regulated domestic WSPs, and offshore WSPs not regulated under Australian laws, is integral to the creation and sustainment of unregulated illegal markets (Feld, 2020). Several requirements and initiatives exist to protect the integrity of Australian sports data, however, the ways in which it is created and disseminated, and the resulting impacts, are not fully understood. In this context, the Wood Review identified that, although Australia's sport integrity environment is favourable in comparison to other countries, the potential for serious integrity breaches, including matchfixing, is real and growing (Wood, 2018). For example, while there is a comprehensive integrity framework regarding match fixing for domestic land-based and online wagering markets, this policy does not apply to markets that operate outside Australian gambling regulatory frameworks. Sporting organisations employ internal risk mitigation measures through integrity policy and processes, however access to the relevant betting data and suspicious betting alerts is not possible or available from these jurisdictions.

Better understanding these issues is a key priority for Sport Integrity Australia and Gambling Research Australia given the availability of these markets, lack of access to market information, and the risks to the integrity of Australian sports. There are important flow-on consumer protection and related considerations which are a shared responsibility across several Commonwealth and State and Territory governments and regulators.

³ Gambling occurs in many settings, including various physical locations (e.g., casinos, racetracks, physical betting agencies, pubs, and clubs) and online (e.g. through apps, interactive online settings, online casinos). There is a wide variety of gambling products available to consumers (e.g. lotteries, casino table games, wagering on sports and racing, poker machines). Gambling products are all premised on games of chance, where consumers transact a certain amount of money to participate in a specific type of game with a chance of success (and an associated financial reward or other payoff) and a corresponding chance of failure (and an associated loss of player monies bet). Player losses (i.e., the amount of monies bet less player winnings) represents total consumer expenditure on gambling. Participation in gambling is a form of consumption and entertainment, however, there are also potential consumer harms associated with gambling, particularly for those in vulnerable circumstances and who may be more susceptible to addiction, which can be exacerbated by the nature of certain gambling products, including (but not limited to) those with high degrees of repetition, low betting thresholds and other factors such as design features that encourage irrational beliefs and facilitate impulsive behaviours.

⁴ Wagering involves the placing of bets in relation to sport and racing event outcomes, both prior to the commencement of a game or event, and during the event itself. Wagering can occur in physical venues such as racetracks and Totaliser Agency Board (TAB) venues. Wagering can also occur online through wagering service providers (WSPs).

1.2 Research aim

The aim of the research is to understand the end-to-end lifecycle of Australian sports data creation and dissemination, and the impact of its flow into offshore wagering markets on sport integrity and consumer protection outcomes in Australia.

Research questions

How does the collection, dissemination and use of sports data, through either official or unofficial means, influence the wagering volume and type of markets offered by offshore wagering service providers on Australian sporting competitions that are not approved for betting as part of any PFIA or Regulators' approved contingency regime? Are there associated integrity threats that exist as a result?

What impact does the distribution of data, by data providers into foreign jurisdictions have on market availability in those jurisdictions (i.e. what impact does data sourced only from data providers have, as opposed to that obtained through open source (i.e. broadcast or internet)?

- How is data distributed from the point of collection to the WSP?
- To what extent does this affect liquidity in markets in foreign jurisdictions?
- To what extent does this data promote betting on markets in foreign jurisdictions that would be prohibited in Australia by domestic regulatory regimes, including online in-play markets?

What are the sports integrity risks associated with the availability of markets not available in the Australia?

- Are existing Australian regulatory regimes undermined by the distribution of sports data into foreign jurisdictions and, if so, to what extent?
- Are any sports/competitions vulnerable to sports integrity threats as a result of the distribution of this sports data?

Does the availability of Australian sport markets in foreign jurisdictions impact consumer behaviour?

To what extent does the availability of these markets motivate Australians to gamble with offshore WSPs and what effect does this have on:

- Revenue for licensed domestic WSPs
- Revenue from various Commonwealth, State and Territory taxes?

Does this availability facilitate gambling harm, or assist in harm minimisation mitigation strategies?

2 Research methods

This is the first time that research of this nature has been undertaken. To this end, several different methods were utilised throughout the project which are outlined below.

Literature review 2.1

The document and literature review provides background on the current state of the unregulated wagering market in both the context of Australia sports data and consumer behaviour. The aim of the literature review was to develop an evidence base that would inform foundation information and data to the research questions.

A broad-ranging desktop exercise was used to understand consideration in the literature and industry and government analyses. Information was gathered from government reports, academic studies, international reports, journals, articles, and industry policy and strategic documents. This was done through an online search for publicly available relevant primary and secondary documentation. The scope of searches conducted was limited by search terms indicated by the research questions (outlined above). The literature review was performed from May to December 2021, accessing document and literature from across the globe.

Within these parameters, the search aimed to be exhaustive. The search was only limited by the scope, search terms and search bases accessed. For a full list of keywords that were used please refer to Appendix F.

2.2 Stakeholder consultation

Consultations were critical in gathering data and information, understanding commonalities and differences in perspectives, understanding reasons behind different issues occurring and potential solutions, and testing and validating insights identified in other areas of the research.

Recognising the formative nature of this research, the complexity of the issues considered, and the varied perspectives and interests of different stakeholder groups, consultation was broad and comprehensive. Domestic and international organisations were consulted, including industry peak bodies, SCBs, NSOs, WSPs, wagering and gaming regulators, other government agencies, and academics. To identify a final list of stakeholders that were to be engaged as part of the consultations, there were initial working sessions with Sport Integrity Australia and other agencies to determine those that would provide the most value. The research consultants then worked with the wider research consortium to append this initial list of stakeholders with any other identified groups that may have been able to provide any further insights in relation to the research questions and issues.

As part of the engagement process, the research consultants worked closely with Sport Integrity Australia, other agencies, and the wider consortium to develop consultation guides that would be used initially to lead each consultation ensuring the appropriate data and information could be gathered. Consultations were then undertaken via teleconference, with semi-structured open and closed questions. Detailed follow-up and additional data and information gathering was undertaken in relation to specific issues where required.

The full list of stakeholders consulted is included in Appendix C and consultation materials are included in Appendix D.

2.3 Consumer research

To further complement the research, insights from Australian consumers engaging in wagering were gathered through a consumer research survey. The purpose of the consumer research was to explore consumers' perceptions and behaviours in relation to wagering and to better understand the current state of participation in offshore wagering markets for Australian sports. This ultimately adds clarity to a currently very opaque area of sports data research allowing key stakeholders to make more informed decisions, particularly in relation to wagering.

To this end, a survey was conducted to better understand the characteristics of people engaging in sports wagering, including with WSPs licensed in Australia and in foreign jurisdictions. While there has been some research and analysis of consumer issues undertaken in the past, there is scope for this to be expanded significantly to better understand consumer-related issues and risks associated with offshore wagering markets. The targets for the survey were n = 500 offshore sports wagers and n = 500 sports wagerers participated in any sports wagering.

The survey design and materials are set out in Appendix E and detailed breakdown of the survey characteristics is in Section 4.

3 Sport integrity and unregulated wagering

This section discusses how the emergence and continued growth in offshore wagering markets on Australian sports may be associated with sport integrity risks. Information was gathered from both a literature review and stakeholder consultations.

3.1 The Australian sporting landscape

Sport plays an integral role in Australia's identity and international reputation. Between 2001 and 2020, participation of Australians aged over 15 years in sport and physical activity (at least three times per week) grew from 37.1 per cent to 63.7 per cent (Sport Australia, 2021). Furthermore, in 2020, 89.4 per cent of Australian adults participated in sport or physical activity at least once, along with 71.5 per cent of Australian children participating in organised outside-of-school sport or physical activity (Sport Australia, 2021). According to the Intergenerational Review of Australian Sport 2017, sport appeals to more than 90 per cent of Australian adults, with an estimated 14 million Australians (11 million adults and three million children) participating in sports activities annually (Boston Consulting Group, 2017).

Australia's vast sports network, from international to local communities, is supported by an estimated 220,000 people employed in the sector and 1.8 million people volunteering 158 million hours each year (Boston Consulting Group, 2017). In terms of economic, health and social benefits, investment in community sport infrastructure is estimated to generate more than AUD\$16.2 billion in combined benefits every year (KPMG, 2018). Similarly, community-based sport participation in Australia is estimated to generate AUD\$18.7 billion value annually in social capital (Clearinghouse for Sport, 2021).

Various professional and semi-professional sports leagues exist in Australia, including, but not limited to:

- Australian Rules Football Australian Football League (AFL) and AFL Women's (AFLW);
- Rugby League National Rugby League (NRL) and National Rugby League Women's (NRLW);
- Rugby Union SANZAAR Super Rugby;
- Basketball National Basketball League (NBL) and the Women's National Basketball League (WNBL);
- Soccer A-League Men and the A-League Women;
- Cricket Big Bash League, Women's Big Bash League and Sheffield Shield;
- Netball Suncorp Super Netball;
- Tennis Australian Open;
- Motorsport Australian Grand Prix, Australian Motorcycle Grand Prix, and the Supercars Championship;
- Thoroughbred horse racing.

AFL and cricket are generally regarded as having the highest rates of spectatorship in Australia, followed by NRL and soccer. This can change from year to year. In 2020, AFL club memberships reached 992,854, with one in 26 Australians being a member of an AFL club. Before the suspension of AFL games due to COVID-19, total premiership season attendance reached more than 7.5 million people in 2019 (Australian Football League, 2020). Participation in cricket observed a 3.8 per cent growth from 684,356 people in 2018-19 to 709,957 people in 2019-20 as cited in the 19th annual audit of Australian cricket participation (Cricket Australia, 2020).

All major Australian sports have three tiers of competition - National, State and District or Regional. At the national level, NSOs support and fund elite sports development. NSOs play a crucial role in the development of the sport by creating rules and regulations, managing national teams, organising tournaments, issuing quidelines, maintaining sport integrity, and enforcing the rules of the game. Various Australian Commonwealth Government agencies, including Australian Sports Commission, Sport Integrity Australia, and Australian Sports Foundation, support respective NSOs through investments, knowledge sharing. grants, and allocation of resources (Clearinghouse for Sport, 2021). As of 2021, Australia has 96 NSOs that are recognised by the Australian Sports Commission (Sport Australia, 2021). At the state and regional level, eight affiliated State Sports Organisations (SSOs) manage the day-to-day activities of local clubs and community sports, although some NSOs have moved away from a national structure to a one-management approach.

3.2 **Sport integrity**

An active focus and investment in promoting and improving sport integrity, and mitigating current and emerging risks to sport integrity, is fundamental to the confidence of the Australian and international community in Australia's sporting codes and the continued positive impact of Australian sport. Views gathered from a broad range of domestic and international stakeholders regarded Australia's current integrity framework as internationally leading, robust in detection and comparatively low risk of sport integrity challenges compared to international counterparts.

Defining 'sport integrity'

The Wood Review, in line with the definition previously established by the National Integrity of Sport Unit (NISU), defined 'sport integrity' in Australia as:

"The manifestation of the ethics and values which promote community confidence in sports, including:

fair and honest performances and outcomes, unaffected by illegitimate enhancements or external interests; and

positive conduct by athletes, administrators, officials, supporters and other stakeholders, on and off the sporting arena, which enhances the reputation and standing of the sporting contest and of sport overall." (Wood, 2018).

Risks to sport integrity can include behaviours, attitudes, events, or other circumstances that can degrade the integrity of sport in one or several ways. Sport integrity risks vary between sports and across different levels of sport, and can include doping and illicit substance use, match-fixing, competition manipulation and safeguarding, participant safety and wellbeing, attitudes and behaviours that do not meet community expectations, sharing of sensitive information, and corruption of sports administration (Department of Health, 2019). Not all sport integrity risks are equivalent and evidence from the literature and consultations suggests that many are not fully measured, understood or assessed consistently across the sector. However, the literature and consultations suggest several common underlying drivers and issues that can increase the likelihood of behaviours, attitudes, or events that increase risks to the degradation of sport integrity.

Table 2: Summary of key issues driving sport integrity risks

Issue/Driver	Considerations (based on literature and stakeholder consultation)	Key related risks
Imbalance between competition cost and prize money	Individual sports, as opposed to team sports, can be more vulnerable to match fixing, especially where there is an imbalance between prize money (and how it is shared amongst competitors) and the cost of competing. This imbalance places players with flexible ethics in an invidious position where they may choose to fix matches for financial reward where they believe they would not get caught. In 2015, the AIC cited that "negligible pay and lack of financial security, particularly among second and lower-tier players and officials" were among the strongest reasons for match-fixing (Bricknell, 2015). In recent years, tennis has had several examples of convicted match-fixing offences across competitions	Match fixing, typically in lower levels of sport (semi-professional or below)
	ranging from sub-elite, professional to international (Visentin & Partridge, 2016), (Asher, 2017), (Vedelago, 2020). ⁵	

⁵ The effort of tennis in safeguarding the integrity of the sport can be further demonstrated in the establishment of the International Tennis Integrity Agency in 2021.

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Issue/Driver	Considerations (based on literature and stakeholder consultation)	Key related risks
Vulnerabilities of athletes, officials, and sporting staff	Apart from financial incentives and monetary gains, athletes, officials, and sporting staff can engage in sports corruption due to personal weaknesses, pressure from family and third parties, compromise, or ambition. Such personal vulnerabilities enable criminal organisations to approach and exploit individuals through blackmail, extortion, or grooming. The IOC—INTERPOL Handbook on Protecting Sport from Competition Manipulation cites that, apart from financial need and wealth creation, other vulnerabilities may include gambling debts, greed, pressure to succeed, addiction (drugs, sex, alcohol), lack of recognition and unfulfilled ambitions (Handbook on Protecting Sport from Competition Manipulation).	Money laundering and other organised criminal activity Corruption of sporting administration
Limited resources of sporting organisations	Insights gathered from consultations with sporting organisations illustrated that sufficient resources to set the integrity controls and address integrity risks can be difficult to source or provide, largely relating to lower tiers of competition. In general, semi-professional and amateur sports bear the brunt of lack of resources and weak regulations, making them more vulnerable and creating opportunities for corruption, such as match fixing (Kerr, 2018). Various sporting organisations highlighted that lower levels of sports are at risk of unauthorised data capture, evidenced by unauthorised data scouting instances in suburban basketball (Southern Basketball League and Women's National Basketball League) and football (National Premier Leagues Victoria 2) games (Kerr, 2017, 2018),(Gardiner, 2019). Although uncommon domestically, the risk of corruption, match-fixing, sharing of sensitive information, and other integrity issues persist due to increasing online streaming of such competitions globally, lack of education and poor understanding by participants. This is particularly relevant given the presence of borders and differing jurisdictions.	Unauthorised data scouting, typically in semi-professional and amateur levels of sports Match fixing and sharing of sensitive information
Integrity governance environments within sporting bodies	Sporting organisations recognise the importance of protecting the reputation of their sport as being integral to their operations and growth (The Sports Integrity Initiative, n.d.). Literature indicates that sporting bodies' desire to protect their sport from harm and prejudicial conduct has generally sharpened their integrity focus. However, due to the autonomous nature of sporting organisations, being that integrity governance is run by the sport for the sport, some structural and cultural factors have been shown to pose risks to sport integrity where a sporting organisation's desire to protect the reputation and public standing of the sport may have manifested in a reluctance to share suspicions or evidence of integrity issues due to concerns of reputational or commercial damage. Sporting organisations might engage in the following activities to protect brand image of the sport and avoid public controversy:	Corruption of sporting administration Weakened governance within sporting bodies

Issue/Driver	Considerations (based on literature and stakeholder consultation)	Key related risks
	 delayed or incomplete sharing of information, especially suspicions, investigations or evidence of breaches of integrity policies, with relevant authorities; biased administration of hearings; or internal compromises. 	
Status or importance of the sporting event(s)	The likelihood of a player engaging in corruption might depend on the status or importance of a sporting event (The Sports Integrity Initiative, n.d.). While assessing risk from a competition manipulation perspective, professional athletes may be less likely to 'fix an outcome' when the rewards for success outweigh the perceived risks associated with match fixing. Furthermore, opportunities to win championships, succeed in nationally broadcast matches and play in critical games are important factors when considering taking action to alter the competition outcome. On the other hand, sporting events with lower value in terms of reward, value and exposure could be considered more open to corruption. This is due to both players in sub-elite competitions not being as well rewarded as their professional counterparts and hence being tempted by the extra incentive, and the competition not having as wide-ranging integrity and governance protections. This view is corroborated by various examples of corruption in amateur and lower levels of sports, including basketball, tennis, cricket, and soccer leagues.	Prohibited substance abuse Corruption of players, typically in lower levels of sport
Existence and liquidity of betting markets	The depth of liquidity of betting markets, particularly in unregulated jurisdictions, poses a higher risk for corruption on sporting events (ACIC, 2020). Corruption in wagering outcomes is more easily hidden in highly liquid betting markets which can conceal illegal transactions and allow for wagering higher volumes to be bet to achieve financial returns. Contrastingly, wagering large amounts on low liquidity betting markets runs the risk of generating alerts, both in external and WSPs bet monitoring systems. As a result, it is understood that professional match fixing networks assess the depth of betting markets before devising strategies to corrupt sporting events. In an analysis of its exposure to unregulated wagering market platforms, a domestic sporting body found that +200 unregulated platforms offered wagering products on a regular season match, operating without a license and thus illegal under Australian law (IGA) with a majority of them being 'grey' wagering platforms. That is, platforms where there is some uncertainty in relation to whether the products offered are legal or illegal.	Match fixing Money laundering and other organised crime

Source: Document and literature review

Several recent, high-profile instances have had significant ramifications for the integrity and reputation of Australia's sporting codes, domestically and internationally. These include, but are not limited to, alleged and convicted doping in elite swimming and rugby league respectively, and physical, emotional and sexual abuse that was uncovered in the independent review into Australian gymnastics (Mercer, 2019), (The Guardian,

2021) (BBC, 2021), (Wood, 2018). The Wood Review made 52 recommendations to government to address shortcomings and establish arrangements to fundamentally strengthen sport integrity arrangements nationally (Wood, 2018). Both the Wood Review and the Government's response acknowledged that Australian sports continued to be challenged by a wide range of integrity risks, especially with transnational, serious and organised crime having the potential to infiltrate and exploit sports outcomes (Sports Integrity Initiatives, 2019).

3.3 **Sport integrity initiatives**

While NSOs are typically at the core of integrity initiatives, upholding and improving sporting integrity standards, and holding people and organisations to account for prejudicing or degrading sports integrity, it is a shared responsibility of players and officials, sporting organisations, regulators, and law enforcement agencies, WSPs, governments, and the community.

From consultations with NSOs across Australia, it was found that they deliver several initiatives to address sport integrity risks, including policies and codes of conduct, education and training, betting audits, anonymous hotlines and reporting, and partnerships and commercial arrangements with other organisations to share information and investigate issues. NSOs have dedicated integrity functions responsible for designing, implementing, and monitoring these initiatives in accordance with relevant guidelines, legislation, and regulatory policy. It should be noted however, that this integrity function and capability varies across NSOs.

Consultations undertaken explored at a broad level the relative focus and resources placed by NSOs on different sport integrity risks. These discussions highlighted several considerations that provide important context for the later sections of this report:

- There are different operating models in place across different NSOs' sport integrity functions. These range from dedicated line functions with greater levels of resourcing and more sophisticated analytical and investigative capabilities, to sub-divisions (e.g., within legal) with lower resourcing and more limited prescriptive functions.
- There is a focus on ensuring that a broad coverage and range of initiatives are implemented, however, there is not always commensurate monitoring and evaluation of the impacts of these initiatives, either in isolation or in how they interact to contribute to integrity and other outcomes.
- Many NSOs engage sports data companies, including (but not limited to) Sportradar, Genius Sports, and Stats Perform, that provide integrity and education services. These are typically established as part of, or are associated with, the commercial arrangements established around the collection and dissemination of sport data.
- PFIAs between SCBs and domestic WSPs include clauses to assist in integrity related functions and investigations, which typically include conducting betting audits, informing evidence of suspicious betting patterns when identified and other support from time to time with betting related data requests. Consultations with domestic WSPs indicated instances of significant variability of the requirements across different PFIAs. SCBs based in Victoria were considered more uniform due to a historical agreement between those codes to align the inaugural versions of their PFIAs.
- Consultations indicated that there was evidence of shared learnings between sporting codes, either through formal bodies such as Coalition of Major Professional and Participation Sports (COMMPS) or informal relationships, although not all sporting organisations participated.
- Notwithstanding the above, consultations highlighted that, in the main, the potential impacts of offshore wagering markets on sport integrity were not fully understood or measured across stakeholders, and further, were only rated, at best, as an 'emerging' risk for the sector.

3.4 The emergence of offshore wagering markets

The Wood Review, together with several industry and academic publications, highlighted the emergence of threats to sport integrity and other outcomes associated with the existence of offshore wagering markets offering betting contingencies on Australian sports.

The following sub-sections outline some of the important context in relation to the current understanding of the markets.

Global market context

The existence and growth of Australians' participation in online wagering is consistent with trends observed globally. Specifically, continued changes in technology and the increased level of live broadcasting and associated coverage of global sporting events have seen significant growth in the online wagering market and an expansion of the products available. This global growth has inherently included the growth of Australian sports markets into foreign jurisdictions. This growth has been skewed to online in-play products to a wider range of online gambling markets and sporting events (Killick & Griffiths, 2020), (Gainsbury et al., 2020a).

The key drivers of the level of growth seen in the market, based on industry analysis and the academic literature, are as follows:

Increased level of live broadcasting of sporting events

A finding from stakeholder consultations was the impact of the increase in live streaming of sporting events on online platforms. In addition to TV broadcasting of sporting events, the growth of over-the-top (OTT) streaming services, streaming services that are offered directly to viewers via the internet such as mobile streaming, has resulted in increased online sports viewership.

Growth of online in-play wagering can be attributed to increased coverage of live sporting events from around the world, resulting in expansion of the online betting market and creation of opportunities to bet on these in-play markets (Killick & Griffiths, 2020).

Increased advertising of sports betting products

Advertising of gambling products continue to increase on an international scale, facilitated by significant industry expenditure. Spending on marketing and promotion has increased by 56 per cent from 2014-18 to reach GBP£1.5 billion in the UK, with online marketing constituting 80 per cent of the total spend (Be Gamble Aware, 2022). Similarly, gambling advertising expenditure in Australia has increased by more than 200 per cent from AUD\$89.7 million in 2011 to AUD\$271.3 million in 2020 (excluding social media, sponsorships, and in-program content) (Victorian Responsible Gambling Foundation, 2022). Apart from advertising on TV, radio and through sponsorships, the shift towards online gambling marketing has provided WSPs with uninterrupted advertising space. Furthermore, a review of empirical gambling advertising research highlighted that marketing content, majorly/primarily in sporting and social spheres, is targeted, positively framed, financially incentivising, and sometimes over-represent riskier bets (Killick & Griffiths, 2020).

In 2017, in response to community concern about children's exposure to gambling advertisements during live sport, the then Government announced further restrictions on gambling advertising during live sports programs on free to air and subscription television, commercial radio and online platforms. The purpose of these restrictions was to establish a 'safe zone' for children and young people from gambling advertising during live sport. Following this announcement, in 2018, ACMA registered new restrictions on gambling advertising during live television and radio broadcasts and online streams of sporting events. The new restrictions banned advertising during live sport content from 5am to 8:30pm and introduced additional restrictions after 8.30pm.

Attractiveness and behavioural implications of in-play betting products

Literature reviews indicate that in-play sports betting has gained popularity across the globe because of numerous features being offered by such as (Gainsbury et al., 2017a, 2020a; Killick & Griffiths, 2020):

- Short bet-outcome interval betting: Where there is a short duration of time between placing the bet and knowing the outcome, this allows gamblers to immediately reinvest money resulting in fast and repetitive betting. This rapid sequence of outcomes encourages additional bets, motivates loss chasing and longer gambling sessions and diminishes self-control.
- **Increased excitement:** While watching a sporting event, wagering on the outcomes elevates interest and excitement levels while viewing. Many online in-play gamblers highlighted that they took part in in-play sports betting because it increased their engagement with the sporting event as there was an opportunity for monetary gain.
- **Increased intensity of the game:** Various online in-play gamblers experience increased intensity levels when watching and betting on a match simultaneously, allowing the game to be psychologically interesting.
- Application of betting skills and knowledge: Some gamblers engage in in-play sports betting because they believe that they possess skills that could lead to higher likelihood of being successful due to specialist knowledge, thereby providing them with perceived advantage.

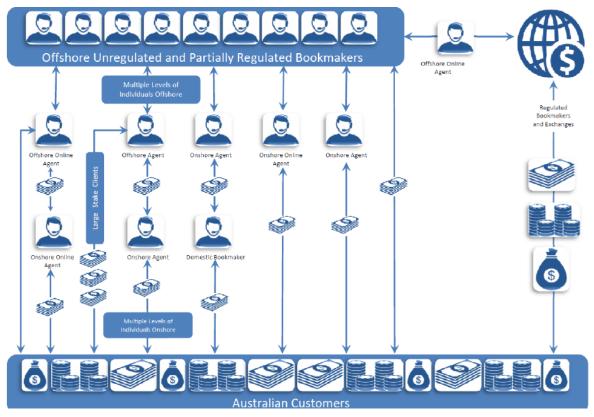
Size of the Australian market

Notwithstanding current legislative and regulatory arrangements, evidence and industry insight suggests the existence of an unregulated wagering market offering contingencies on Australian sports to both Australian and international consumers. The size of the market is difficult to estimate given the lack of visibility to regulatory bodies and varies depending on the source. For context, H2 Gambling Capital's 2019 analysis of online sites indicated at least 415 unregulated gambling sites, including at least 45 unregulated wagering sites, that target Australian consumers (Responsible Wagering Australia and H2 Gambling Capital, 2019). These numbers compare to only 43 domestically licensed TABs, corporate bookmakers, and betting exchanges in Australia (Australian Communications and Media Authority, n.d.).

Australian consumer characteristics and behaviours

Research undertaken by the Australian Criminal Intelligence Commission in its report, Offshore Online Wagering Platforms: Current and Emerging Threats to the Integrity of Australian Sport, found there are wellestablished and growing links between Australian consumers and offshore unregulated betting markets.

Figure 1: Channels for consumer access to unregulated offshore wagering markets



Source: Australian Criminal Intelligence Commission 2017, 'Offshore Online Wagering Platforms: Current and Emerging Threats to the Integrity of Australian Sport'

The current view of the unregulated wagering market is opaque, with the ACMA being responsible for identifying, investigating, and taking enforcement action (including web blocking) of illegal offshore sites. The Australian Criminal Intelligence Commission (ACIC) found that Australian consumers can still access unregulated WSPs and that the links between Australian consumers and unregulated platforms are strengthening with increased participation. Ongoing engagement between unregulated WSPs and Australian consumers is having a subsequent effect in strengthening operators' understanding and targeting of the customer base and market segments (ACIC, 2017). This contradicts evidence from H2GC and GBGC which highlights that the illegal offshore market has declined over recent years and is forecast to remain flat, which again reinforces the uncertainty and lack of visibility in the market.

The table below has identified demographic profiles of gamblers using offshore wagering markets (including in-play) to be separate from gamblers using regulated WSPs in terms of their education, employment status, ethnicity, age, and gambling involvement. The table outlines a comparison of characteristics between gamblers who participate in regulated markets compared to unregulated markets.

Table 3: Gambling market participants in regulated gambling markets and unregulated gambling markets

Participant demographics and behaviours	Participants in regulated gambling markets	Participants in unregulated gambling markets
Demographics (Gainsbury et al., 2020)	Male Under 40 years of age Highly educated (university/college degree or post-graduate qualification) Employed full-time Speak a language other than English	Over 40 years of age High household income
Behaviours (Gainsbury, 2015)	Engage in more forms of betting (bingo, keno, poker, casino, table games and electronic gaming machines) Bet at higher frequencies Pay via debit cards (excluding credit or pre-paid credit cards) and POLi payments	Pay via bank transfers and BPAY payments

Source: Document and literature review

Various academic studies (Gainsbury et al., 2017a, 2020a; Killick & Griffiths, 2020), consumer surveys and analysis have also demonstrated several reasons consumers choose to participate in gambling activities on offshore sites including in-play sports wagering through online platforms, even when they understand that these are not regulated or permitted in Australia.

Key reasons include:

- convenience of accessing in-play products online rather than via the telephone or at land-based venue;
- price and other related financial incentives (e.g. bonuses, free credits, and more favourable odds);
- greater number of betting products and games options;
- fast payout rates;
- avoidance of queues;
- submission of limited personal details;
- anonymity of betting;
- capacity to place larger bets (betting limits);
- use of free-play sites; and
- enhanced game experience with social features (e.g., chat) (Gainsbury et al., 2017) (Podesta & Thomas, 2017).

Studies have also found that consumer protection related features and complaints handing processes are of less importance to consumers choosing to participate in unregulated markets (Gainsbury et al., 2018). Furthermore, some research has suggested that consumers participating in these unregulated markets tend to engage in significantly longer online sports betting sessions and have accounts with various WSPs. (Gainsbury et al., 2017).

3.5 Potential threat of offshore wagering markets to sport integrity

The existence of unregulated wagering markets was identified in the Wood Review and in various industry and academic publications as an emerging and growing threat to sport integrity. Principally, this threat is seen to arise through the framing and availability of unregulated wagering markets providing opportunities and incentives for bad actors to manipulate and exploit sporting games for primarily financial benefit. Furthermore, these markets, as they are not regulated by Australian authorities, lack transparency and are subject to significant gaps in scrutiny and information collection. This provides further opportunity for threats to materialise.

Stakeholders accept that the use of Australian sports data is a necessary enabler of WSPs in establishing well-functioning wagering markets for Australian sports. Therefore, notwithstanding the lack of consensus of market depth, the existence of wagering markets provided by operators in foreign jurisdictions suggests that Australian sports data is being obtained by offshore WSPs and other actors.

There is no common view of how official data may be leaking, the extent of unofficial data collection or the relative scale or importance of official data leakage vs. unofficial data being shared to offshore WSPs in setting up offshore wagering markets. Sporting organisations consulted tended to believe that data scouting and data scraping were the main channels in which this data was being shared with offshore WSPs. Law enforcement, international regulators, other industry Subject Matter Experts (SMEs) and sports data companies were more inclined in the view that contractual arrangements without the necessary data sharing restrictions contributed more to the issue. However, all views given by key stakeholders were offered anecdotally without corroborating evidence. A key challenge identified through the research which is contributing to this issue is the lack of oversight and unregulated nature in which sports data companies currently operate, although it is important to note that established sports data companies are largely cooperative in nature.

The remaining sections of this report detail the current evidence base in relation to this issue and future considerations for policymakers and industry.

4 Results

Sports data creation, dissemination, and use

This section brings together information from the literature, industry analysis and consultation to better understand the ways in which various types of data on Australian sports are created, disseminated, and used for a range of purposes. This understanding, although subject to many gaps, provides the basis for the consideration of the impacts of data flows into wagering markets, and the roles and responsibilities of different stakeholders, later in this report.

4.1.1 Types of sports data

Australian sporting organisations collect different forms of sports data for several uses. Sports data can be defined as all facts and information resulting from, or related to, a sporting event (Glanz & Armendariz, 2018). Based on the content, the method of data creation, and the level of refinement, sports data can be broadly categorised into event and performance data, raw and refined data (Dickson, 2015).

4.1.1.1.1 Event data

This category includes data based on external circumstances and conditions of an event, such as weather, temperature, attendance, team line-ups, officiating decisions, game-day results, and is collected during a sporting event. Event data is collected by observing the sporting event from inside the arena or from a televised broadcast, wherein the data is input into a centralised database for further analysis. Processing of event data enables creating player rankings and historical comparisons.

4.1.1.1.2 Performance data

Collected during a sporting event, performance data tracks an athlete's movements, speed, acceleration, heartrate, technical execution. Performance data is captured through manual, camera, and sensor-based tracking systems to track the athlete's movement and record their physical performance data. These coordinates are entered into computer software, which calculate statistics on movement and speed.

Event and performance data can be further classified as raw or refined data. Raw data is defined as data collected from an event that has not been changed since its collection. Refined data is data that has been cleaned, aggregated, edited, or modified. This type of data is usually generated from technology to enable statistical analysis of the raw data. Examples include batting averages, shot-on-goal accuracy, etc.

The type and volume of sports data collected varies between different sporting organisations and at different levels of competitions within the organisation. Professional levels of sporting codes capture greater volumes of data at a more granular level compared to the semi-professional, amateur and junior leagues.

Consultations with stakeholders highlighted that there is variation between the sophistication of the types of data collected between different Australian sporting organisations. This was, in part, driven by the size and professionalism of the sporting organisation, as well as the end uses of the data. Organisations which were driven by commercial incentives alongside player performance generally collected a more sophisticated volume and type of data.

Sports data collection 4.1.2

In a game-day situation, there are numerous ways that data can be created from the state of play, individual technical player performance, player biometrics, weather, officiating decisions, scoring and results. Elements of this data is collected, by various methods which range from manual data entry to highly sophisticated automated processes. This data is collected both officially and unofficially, depending on the process and circumstances by which the collection occurs, and the official and unofficial data collection that occurs is neither mutually exclusive, nor collectively exhaustive, of all the data that can be created.

For example, when a cricket player hits a ball for a six, some of the datapoints that can be collected are both player event data and performance data, including the scoring attempt; the type of swing undertaken; the speed of the ball; where on the bat the ball was hit; the distance and direction hit; the score tally; the ball and over in which the score was made; the player who scored etc. While the datapoints outlined are not exhaustive, it highlights the broad range of data that is created and collected. However, the process of the collection heavily dictates the likely end use(s) of the data.

4.1.2.1.1 Official data collection

Data collection is considered 'official' when the data collected is a "league-approved tabulation of what happened in a sports competition" (Glanz & Armendariz, 2018). Depending on the type of data being collected, the processes by which the collection occurs may vary. The sophistication by which the data is collected via the system can be manual to highly automated, depending on the system being used. Some is collected through an official data scout who will attend the game and collect player performance and match day data through a system (Glanz & Armendariz, 2018). Other data elements may be collected through wearables or cameras which track movement on the pitch. The collection of this data may coincide with the official scoring of the match or happen alongside. In tennis for example, the umpire scoring the match also feeds the data into the system via a tablet on which they capture the score. In cricket, a separate scout captures the scoring data alongside the official scorekeeping.

This data collection may occur through in-house means or be outsourced to a third-party sports data company by a contractual arrangement. Consultations indicated that Australian sporting organisations typically engage a third party for data collection purposes. The companies that are engaged more regularly include Sportradar, Stats Perform, Champion Data, and Genius Sports, alongside several other smaller operators which purchase (and in some cases aggregate) this sports data for their commercial purposes. These purposes include providing media, broadcasting, OTT fan engagement and supporting wagering markets and are further explained in Section 3.4. These transactions are governed by contractual arrangements between the sporting organisations and the purchaser of the data. In return for their sports data, sporting organisations typically receive a fee. In some cases, sporting organisations are also provided with other services, such as subscription-based monitoring products, to assist in monitoring sporting integrity.

4.1.2.1.2 Unofficial data collection

'Unofficial' data collection is defined as data collected "through unlicensed sources or by 'data scouts' who collect data in stadiums without a license or the league's consent" (Glanz & Armendariz, 2018). The means by which the data is collected falls into two general categories.

Unofficial data scouting is where data scouts attend matches to collect and transmit sports data to a database which can be shared with third parties. These scouts are not operating within the remit of the sporting organisation, either over the top of an official arrangement (either internal or with a different sport data company) or where there is an absence of an agreement entirely (Glanz & Armendariz, 2018). Data scouts are typically low-paid, casual labour employed by data management companies to attend sporting matches and report live data throughout the match. Data scouts report data in real-time using a combination of hardware and software, including cameras to extract statistical data of players on the field and mobile phones to submit match data (Watson, 2019). These data scouts then feed the data into central server, where it is distributed to international gambling websites and other third parties (Kerr, 2017). Other mobile devices are also used to collect and feed data, including the use of tablet devices. Australian sporting bodies have limited visibility of the data scout network as the true structure and extent of data scouts' operations in Australia is obscured and often not easy to detect (Australian Criminal Intelligence Commission, 2019).

Data scraping occurs through scraping data from open source means of livestreamed games through the internet, or directly from websites that are displaying the data for broadcast, commercial, wagering, or other means (Glanz & Armendariz, 2018). Collecting data from live streams can be unreliable, as this is subject to video streaming latency which leads to a significant delay between an in-sport event occurring and the event being recorded by the data scouter. Thus viewing live streams is a less-preferred means of accessing unofficial data by WSPs as the delay in receiving the data can be manipulated by court-siding for certain contingencies of betting such as in-play (Gardiner, 2019). When data is scraped from livestreams, the data being collected is the same, albeit a less holistic, raw performance and the event datapoints that are collected at games either officially or unofficially. When data is scraped from betting websites, it should be noted that the data that is scraped via these means is more likely to be betting data, such as odds rather than performance and event data. Consultations with WSPs and sports data companies have indicated that some offshore operators are scraping betting data to either inform or improve the odds they are offering to their customers.

Consultations with Australian sporting organisations indicated that both forms of unofficial data collection have been identified across different sporting codes and at varying levels of competition. Unofficial data collection poses a challenge to sporting organisations as it degrades the commercial value of the official channels of collection, as well as acting as an enabler for offshore wagering markets outside the purview of the organisation (Feld, 2020).

4.1.2.1.3 Monitoring unauthorised data collection

In the absence of regulations regarding activities of data scouts, the responsibility is on the sport itself to try and monitor data scouting. Consultations indicate consensus among sporting bodies that monitoring unauthorised data scouting is extremely challenging and requires further discussion and cooperation between different stakeholders to devise strategies of how it can be mitigated. Australian sporting codes have attempted to manage the threat posed by unofficial data scouting by implementing policies and processes to identify, where possible, data scouts in a game day situation.

- At professional levels of sport, ticket terms and conditions have been adjusted to include clauses that forbid data collection. Basketball Australia was one of the first major sporting codes in Australia to introduce this policy in February 2018 which banned data scouts and the unauthorised transmission of match data for any purpose to deter unofficial data collection (Basketball Australia Introduces Courtsiding Policy, 2018). It is however more difficult to identify these scouts in larger stadiums.
- Unofficial scouts have been more easily identified in small stadium or field environments in semiprofessional and amateur levels of sport. However, removing data scouts from the premises where games at this level are taking place can be more difficult as these events are often un-ticketed and/or are on public premises where the officials do not have sufficient rights to remove the individuals in question.
- Consultations indicated that sports data companies may engage in unofficial data scouting. This occurs particularly where the legality of data collecting is vague.

Data scraping can occur online when offshore operators link to online streams. Australian sporting codes have attempted to manage this through identifying offshore WSPs and banning comment functionality on their websites or enabling streams, and often removing the websites or streams entirely.

Sports data dissemination

For the purposes of this report, data dissemination is defined as the function by which data is shared externally from the sporting organisation from where it originates from to facilitate its various end uses. Sports data can be shared directly by sporting organisations or by the third parties that collect the data if a contractual arrangement is in place. Data can also be disseminated through official and unofficial means, depending on how the data has originally been collected and how the data is being shared.

4.1.3.1.1 Official data dissemination

'Official' data dissemination is considered where a collection and dissemination arrangement between a sporting organisation and a sports data company is in place where data sharing clauses in the contract define which third-parties the data can be shared with and for what end uses the data can be shared.

4.1.3.1.2 Unofficial data dissemination

For the purposes of this research, 'unofficial' data dissemination is defined as when sports data is shared without the permission or sights of the sports body that originated the data. This unofficial dissemination has been found to occur through three main channels:

- Dissemination of unofficial data gathered through unofficial data scouting is the follow-on process of where data that was collected unofficially by scouts is shared through the networks of the organisations or groups for which they work.
- Dissemination of unofficial data scraped from online means is also the follow-on process of where data that was collected unofficially by data-scraping is shared through the networks of the organisations or groups for which they work (ACIC, 2018).
- Dissemination of official data outside of the intended means of the sporting organisation is the process of the sharing of data that was collected through official contracts beyond the intended means of the contract. This can occur unintentionally through leakage in the value chain of the data, or through contracts that do not have the necessary contractual clauses outlined to limit sharing of data more broadly.

Sports data companies have been known to have a role in all forms of official and unofficial data dissemination (Glanz & Armendariz, 2018). Consultations indicated that this is present in the broader sports data ecosystem in Australia. During a now lapsed partnership between Basketball Australia and a major sports data company, official data was shared with 68 offshore betting operators unlicenced in Australia as well as an additional five betting software operators which embed data feeds into software packages. It is unknown how many additional unregulated betting operators received data from these products. All these further recipients however were not covered by integrity arrangements with Basketball Australia due to them not being licenced to operate within Australia (ACIC, 2018). It is difficult, however, to monitor and regulate the dissemination of sports data the further down the chain it goes, particularly due to the ubiquitous nature of information once it is available on the internet.

Availability of up-to-date and real-time access to sports data is important for WSPs to create and sustain online wagering markets. The sale of official sports data by NSOs to licensed WSPs enable the latter in creating the domestic wagering markets. However, the sale of unofficial sports data to unregulated WSPs creates a risk to sport integrity through the fundamental role of data in facilitating creation of unauthorised wagering markets (ACIC, 2019). This view has been validated by various stakeholder consultations and is further elaborated in Section 3.4.

4.2 Sports data use

Sports data has many uses which include general operations and policy setting, high-performance monitoring, and player development, match-day experience, media, broadcasting and OTT fan engagement, and sale for commercial purposes which includes enabling wagering markets. For the purposes of this report, the various uses will be covered at a high level and will deep dive into how sports data informs and enables sports wagering markets.

General operations and policy setting

Sports data is used in day-to-day operations of sporting organisations to run and facilitate the competitions for which they are responsible. Sports data is also used to inform policy settings for sports, including for example informing rule changes for games.

High performance monitoring and player development

As sports have become more professional, the collection and use of sports data for high performance monitoring and player development has become more and more prevalent. Sports data provides comprehensive information on tactical performance and individuals and teams (How to read the odds, n.d.). A team's ability to utilise their sporting data more effectively is heavily correlated to its success within the industry (Anderson, 2017). Sporting clubs and organisations use game day and training sports data to inform strength, conditioning, and technical training programs to support the development of their players.

Match-day experience, media, broadcasting, and OTT fan engagement

Sports data is used to enhance the match-day experience, including the broadcast of games to consumers, either online or through television. This data is used to inform game commentary and display statistics and facts to enhance the viewing experience. Fan engagement is heavily correlated with a team's success, of which the effective use of data is integral (Anderson, 2017).

Commercial purposes, including enabling wagering markets

The sale of sports data is a source of commercial revenue which is not explicitly restricted under Australian legislation. A key commercial stream of revenue using sports data is a sale for the purposes of enabling and facilitating sports wagering markets.

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Sports data has become an integral component on which wagering markets are created. The types of sports data sold enable different types of wagering markets to be created, which are called 'contingencies. Simple match-day data and results of games are all that are required to create a 'head-to-head' market. The odds for this market will be informed by recent and historical player and team performances (otherwise colloquially known as 'form'), injuries, suspensions, and results of historical matchups (Glanz & Armendariz, 2018). When more granular data is made available for sharing, further contingencies can be made available on

In a Rugby League context, this could include first try-scorer, points scored in the first half, total points scored etc. Wagering markets can be further classified into pre-play and in-play markets, depending on whether a bet is placed before or after the game or race takes place.

In-play wagering requires the most granular and real-time access to data to be able to facilitate these markets.

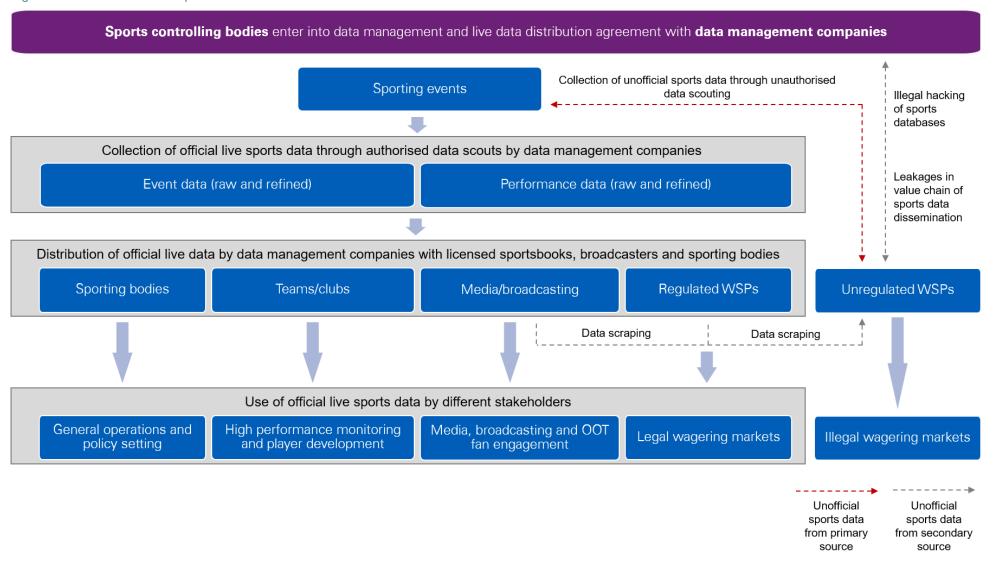
A tennis example of this contingency would be a bet on who wins the next set, or when the next double fault would take place. In-play wagering is currently only permitted, for Australian licensed WSPs, in a land-based retail wagering venue, or by placing a live bet with the WSP over the telephone.

Consultations indicated that Australian sporting organisations engage in the sale of sports data for commercial purposes, including wagering, to varying degrees. The degree to which organisations choose to sell their data is driven by both internal and external factors. Internal factors include organisations balancing sport integrity outcomes, and commercial interests such as selling sports data to facilitate a wagering market. Additionally, external factors included consumer demand for a wagering market.

In a study by ACIC, it was noted that the practice of merging official data with unofficial data from data scouts to service the global wagering industry is frequent (ACIC, 2019). Furthermore, stakeholder consultations indicated that a number of Australian sporting organisations have limited understanding of the potential onsale and use of official sports data to licensed and unlicensed WSPs, as well as collection and dissemination of unofficial sports data to unregulated WSPs.

The below figure demonstrates the flow of Australian sports data to global wagering operators.

Figure 2: Flows and uses of sports data



4.3 Consumer survey results

The purpose of the survey was to identify consumer characteristics and understand issues experienced while participating in offshore gambling. This component of the research helped give insight into the role of offshore WSPs on the wagering behaviour of Australian wagerers.

Survey response rate and coverage

Table 4 describes the achieved responses for sports wagerers generally, those who place bets online using onshore platforms, those who gamble online using unregulated offshore platforms and those who report participating in online in-play wagering - an activity that is banned for domestic WSPs. Note that respondents could select both domestic and offshore providers and can be counted in both columns.

Table 4: Coverage of sports wagerers

	Wagering (any) ^a	Wagering online in- play (on offshore sites) ^b	Wagering online (onshore) °	Wagering online (offshore) ^d
Male	686 (55.7%)	111 (57.8%)	439 (62.5%)	33 (40.2%)
Female	538 (43.8%)	81 (42.2%)	262 (37.3%)	47 (57.3%)
Other gender/Gender not confirmed	4 (0.3%)	0 (0%)	1 (0.2%)	2 (2.5%)
Total	1,228	192	702	82

^a Survey respondent who responded "yes" to the question "Do you gamble on sports" or responded that they have participated in betting on sports at least "once or twice" in the past 12 months.

Source: Consumer research survey

Respondents were classified either as onshore or offshore sports wagerers based on their responses to being asked to select the WSP they use for online wagering. The options were split by Australia's largest regulated onshore providers, offshore providers and "other". Respondents who selected "other" were assumed to be using an offshore WSP. The list of WSPs is provided below.

Bet365	BetCity	Betfair	BET.co.za	BetEasy
Betmasterplay	BitStarz	Cloudbet	DraftKings	Draftstars
EliteBet	Golden Star Casino	LiveBet	Ladbrokes	Neds
Picklebet	Pointsbet	Sportsbet	Swoopstakes	Tabcorp
TAB Limited	TopSport	Unibet	Zbet	Other

^b Any wagerer who selected "in-play online" to the question "what types of sports wagering have you participated in the past 12 months"

^c Any wagerer who selected an onshore WSP when asked to select the wagering service providers they use for online wagering.

^d Any wagerer who selected an offshore WSP when asked to select the wagering service providers they use for online wagering.

The breakdown of sports bettors by the location of WSPs responses is provided below.

Table 5: Count of respondents by WSP status

Providers used	Count	% of sports bettors
Onshore only	662	54%
Offshore only	6	0.5%
Both	76	6%
Did not respond	484	39%

Source: Consumer research survey

Sports wagerers were also asked to describe their types of sports wagering in the past 12 months. 192 responded that they participate in online in-play sports wagering. This is notable, as online in-play is not offered by regulated domestic WSPs. The implications and meaning of this finding are described further

Representation of consumers wagering on offshore sites

Of the respondents, the reported rate of use of offshore WSPs was low. 84 per cent (1,036) of the sports wagerers who responded reported that they did not participate in online in-play sports wagering in the past 12 months.

There are several potential reasons for the low representation of offshore consumers in the survey, including:

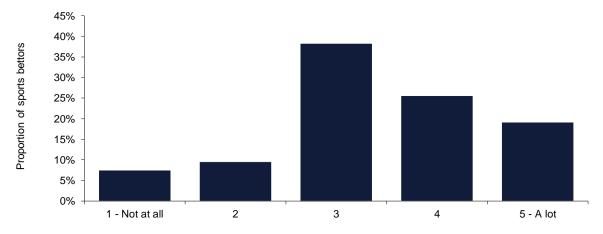
- intentional non-disclosure:
- lack of external validity due to under-representation of consumers more likely to be involved in wagering with offshore WSPs (Heirene et al., 2021; Sturgis & Kuha, 2021); and
- low levels of consumer awareness of whether the jurisdiction of the betting provider was onshore or offshore, however, there are also several other potential factors.

Perceptions of the impact of regulation on risks to sport integrity

Respondents were asked "On a scale of 1-5, to what extent do you think that betting with a foreign site impacts sports integrity". A large majority of respondents considered that betting on a foreign site has an impact on integrity with 83 per cent (1019) providing a response of 3 or higher. Figure 3 below breaks down the responses.

Figure 3: Consumer perception of foreign betting sites risks to sports integrity (n = 1,228)

On a scale of 1-5, to what extent do you think that betting with a foreign site impacts sports integrity



Source: Consumer research survey

Similar to overall results, sports wagerers who responded that they use offshore WSPs or stated that they participate in online in-play wagering selected 4 or higher in response to this question at 58 per cent and 43 per cent of the time as well, respectively.

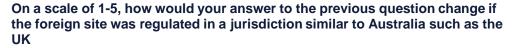
Table 6: Response to "On a scale of 1-5, to what extent do you think that betting with a foreign site impacts sports integrity"

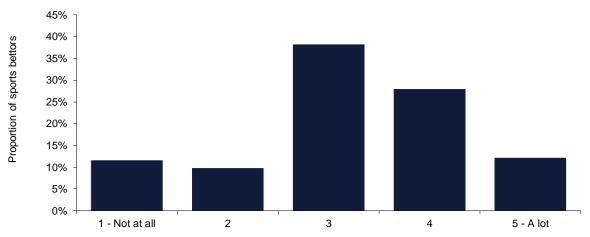
Response Scale	All sports wagerers	Offshore sports wagerers	Online in-play sports wagerers
1	92 (7%)	8 (10%)	18 (9%)
2	117 (10%)	5 (6%)	18 (9%)
3	470 (38%)	22 (27%)	73 (38%)
4	314 (26%)	21 (25%)	55 (29%)
5	235 (19%)	27 (33%)	28 (15%)

Source: Consumer research survey

Respondents were then asked how, on a scale of 1-5, their perception of a foreign site's impact on sports integrity would change if the site was regulated in a jurisdiction similar to Australia, such as the UK. The majority of responding wagerers considered that this would impact sport integrity at least somewhat, with 78 per cent (964) responding with a 3 or higher and 40 per cent (494) responding with a 4 or higher. Figure 4 below breaks down these responses in detail.

Figure 4: Consumer perception of foreign betting sites risks to sports integrity (n = 1,228)





Source: Consumer research survey

Sports wagerers who responded that they use offshore WSPs or stated that they participate in online in-play wagering selected 4 or higher in response to whether sports integrity would change should the foreign site be regulated in a jurisdiction similar to Australia at a rate of 64 per cent (53) and 39 per cent (75), respectively. Under a two-tailed z-test, those who indicated using offshore WSPs were more likely to provide a response of 4 or higher than those who did not (Table 7).

Table 7: Response to "on a scale of 1-5, would their perception of a foreign site's impact on sports integrity would change if the site was regulated in a jurisdiction similar to Australia, such as the UK"

Response Scale	All sports wagerers	Offshore sports wagerers	Online in-play sports wagerers
1	143 (12%)	10 (12%)	28 (15%)
2	121 (10%)	1 (1%)	19 (10%)
3	470 (38%)	19 (23%)	70 (36%)
4	344 (28%)	26 (31%)	52 (27%)
5	150 (12%)	27 (33%)	23 (12%)

Source: Consumer research survey

Table 8: Statistical test results for selecting 4 or higher to "on a scale of 1-5, would their perception of a foreign site's impact on sports integrity would change if the site was regulated in a jurisdiction similar to Australia, such as the UK"

Response Scale	All other wagerers	Offshore sports wagerers	
Total responses	1,145	83	
Reponses of 4 or higher	441	53	
Z-test (offshore)	-4.46		
P > (Z)	<0.001		

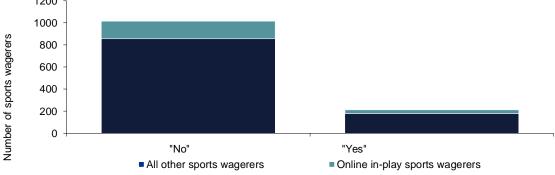
Source: Consumer research survey

Cybersecurity and consumer protection

Respondents were asked if they have experienced any cybersecurity issues, such as spam, hacking, identity theft, money theft or fraud, related to online in-play sports wagering. 17 per cent of sports wagerers (212) responded that they had experienced this before. However, 84 per cent (179) of those who responded that they had experienced an issue also responded that they had not participated in online in-play sports wagering in the past 12 months. However, this may be an awareness issue, as consumers may not be aware that online play wagering is illegal in Australia and is only offered by offshore WSPs. This is likely a combination of the lack of consumer awareness towards online in-play wagering and the possibility that some respondents interpreted the question to refer to cybersecurity issues during online sports wagering in general. 17 per cent (33) of responding online in-play sports wagerers reported experiencing an issue, which was a similar percentage (179) to all other sports wagerers. The difference is not statistically significant. Figure 5 below breaks down the responses to the question by whether the respondent was an online in-play sports wagerer.

Figure 5: Consumer perception of foreign betting sites risks to sports integrity (n = 1,228)

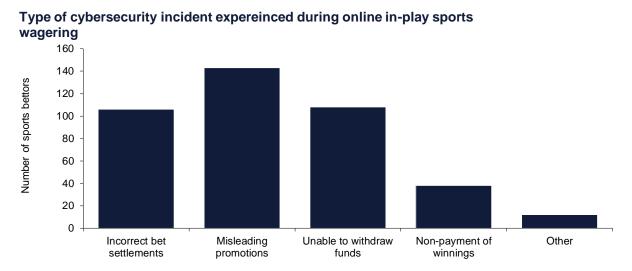
Have you experienced any cyber-security issues (e.g., spam, hacking, identity/money theft, fraud etc.) you believe is related to online in-play sports wagering? 1200



Source: Consumer research survey

The most common cybersecurity incidents relating to online in-play experienced by sports wagerers were misleading promotions, incorrect bet settlements and the inability to withdraw funds, with each of these issues making up roughly 30 per cent (106-143) of reported incidents. Non-payment of winnings was a less frequently reported issue, with 10 per cent (38) of reported incidents being attributed to this issue. Twelve respondents reported other issues. Figure 6 describes the number of sports bettors reporting each incident type.

Figure 6: Types of cybersecurity incidents relating to online in-play sports wagering (n = 407)



Source: Consumer research survey

Section 5.2 continues the discussion on the issues relating to consumer protection amongst offshore WSPs.

Severity and problem gambling

Respondents were asked to respond to questions on their gambling behaviour that are used to determine a score on the problem gambling severity index (PGSI). The PGSI asks participants nine questions relating to sports gambling, and are scored accordingly on each question based on their response:

- Never 0 points;
- Sometimes 1 point;
- Most of the time 2 points; or
- Almost always 3 points.

Scores are then aggregated, and a participant is assigned a gambler category based on their total score.

Table 9: PSGI score-bands and category descriptions

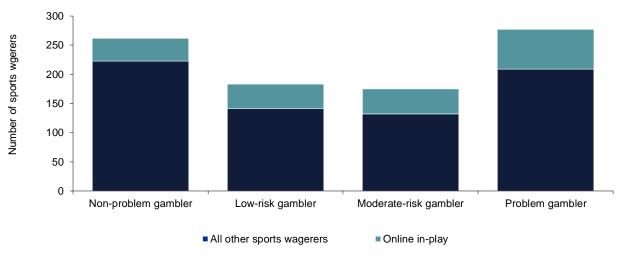
Score-band	Category	Description
0	Non-problem gambler	Gamblers who gamble with no negative consequences
1-2	Low-risk gambler	Gamblers who experience a low level of problems with few or no identified negative consequences
3-7	Moderate-risk gambler	Gamblers who experience a moderate level of problems leading to some negative consequences
8 or more	Problem gambler	Gambling with negative consequences and a possible loss of control

Source: Problem Gambling Severity Index, Victorian Responsible Gambling Foundation,

Of the 897 sports wagerers who responded to the PGSI questions, 50 per cent (452) scored as "moderate gamblers" or "problem gamblers". Based on the responses received, people self-reporting as online in-play wagerers were not statistically significantly more likely to be problem gamblers than all other responding sports wagerers at the 95 per cent confidence level (Table 10). However, this finding may not be generalisable to the overall population. Furthermore, academic research suggests that survey reported gambling related behavioural issues may be over-inflated and lack external validity (Pickering & Blaszczynski, 2021).

Figure 7: PSGI scores for sports wagerers (n = 897 (192 online in-play sports wagerers))

Problem Gambling Severity Index scores by sports wagering cohort



Source: Consumer research survey

Table 10: Distribution of PSGI score-bands

Gambling category	Online in-play sports wagerers	All other sports wagerers	
Non-problem gambler	39 (20%)	223 (31%)	
Low-risk gambler	42 (22%)	141 (20%)	
Moderate-risk gambler	43 (22%)	132 (19%)	
Problem gambler	68 (36%)	209 (30%)	

Source: Consumer research survey

Table 11: Statistical test table comparing likelihood of problem gambling between responding online in-play sports wagerers and all other sports wagerers.

Response Scale	Online in-play sports wagerers	All other sports wagerers
Total responses	192	705
Reponses of 4 or higher	111	434
Z-test (offshore	-1.418	
P > (Z)	0.1561	

Source: Consumer research survey

Average responses to each question by sports wagerer cohort are provided in the table below.

Table 12: Mean PSGI response scores

Question	Online in-play sports wagerers (n = 192)	All other sports wagerers (n = 705)
Have you bet more than you could really afford to lose?	0.77	0.66
Have you needed to gamble with larger amounts to get the same feeling of excitement?	0.68	0.63
Have you gone back on another day to try to win back the money you lost?	0.99	0.83
Have you borrowed money or sold anything to gamble?	0.60	0.49
Have you felt that you might have a problem with gambling?	0.66	0.62
Have people criticised your betting or told you that you had a gambling problem, whether or not you thought it was true?	0.65	0.51
Have you felt guilty about the way you gamble or what happens when you gamble?	0.77	0.74
Has gambling caused you any health problems, including stress or anxiety?	0.67	0.59
Has your gambling caused any financial problems for you or your household?	0.61	0.54
Total score	6.41	5.60

Source: Consumer research survey

Regulation and management of sports data

This section discusses the current legislation, regulation, and management frameworks in place across government and industry in relation to the creation, dissemination and use of Australian sports data.

Legislative and regulatory instruments

Research indicates that there several pieces of legislation and regulation that govern different aspects of the sports data lifecycle and related activities. The Commonwealth, State and Territory Governments all play roles in setting these policy frameworks. The table below outlines a set of key legislation and regulation.

Table 13: Related legislative and regulatory instruments

Instrument	Jurisdiction	Overview
Interactive Gambling Act 2001 (Cth) (About the Interactive Gambling Act, n.d.), (Department of Social Service, Australia, 2018)	Commonwealth	The IGA contains the legislative framework which applies to those who offer or advertise interactive gambling services. It covers all gambling that takes place online, through a website or app and via a telephone. In 2017, the IGA was amended to give additional powers to ACMA for the implementation of the IGA and coordinating the enforcement strategy for unregulated wagering. The IGA makes it illegal for gambling providers to offer some online

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Instrument	Jurisdiction	Overview
		services, including in-play sports betting and for providers which do not hold an Australian licence to offer services.
National Consumer Protection Framework for Online Wagering (Department of Social Service, Australia, 2018)	Commonwealth and State/Territory	The National Framework consists of 10 consumer protection measures that provide tools for consumers and requirements for online WSPs (licensed in Australia) to help mitigate harm related to online wagering activity.
National Policy on Match-Fixing in Sport (Sports Integrity Australia, n.d.)	Commonwealth and State/Territory	Agreed in June 2011, the National Policy on Match-Fixing in Sport is a shared commitment by the Commonwealth and State and Territory governments to work together to address match-fixing activities with the aim of protecting the integrity of sport.
National Integrity Framework (Sports Integrity Australia, n.d.)	Commonwealth	A streamlined suite of policies establishing the expectations and complaints, disputes, and disciplinary policies in relation to the conduct of all participants in Australian sport. These include safeguarding children, member protection, competition manipulation and sports wagering, and the misuse of drugs and medicines.
Sports Betting Operational Model (SBOM) (Wood, 2018)	Commonwealth and State/Territory	In 2011, the Commonwealth Government introduced the National Policy on Match-Fixing in Sport. The major objective of the policy included: establishment of match-fixing criminal offence provisions and a system of sports wagering regulation – to be implemented at the State and Territory level. Under the sports wagering regulation, the National Policy on Match-Fixing in Sport anticipated the establishment of a system of tripartite cooperative partnership between sporting organisations, wagering service providers, and State and Territory regulators, to be underpinned by nationally consistent wagering legislation introduced and implemented at the State and Territory level - the Sports Betting Operational Model (SBOM).
Anti-Money Laundering and Counter-Terrorism Financing Act 2006 (AML/CTF Act) (Anti-Money Laundering and Counter-Terrorism Financing Act, 2006)	Commonwealth	The Anti-Money Laundering and Counter-Terrorism Financing Act 2006 (Cth) (AML/CTF Act) and associated Regulations and Rules are administered by the Australian Transaction Reports and Analysis Centre (AUSTRAC), Australia's financial intelligence unit and AML/CTF Regulator. The AML/CTF Act, and associated Regulations and Rules, establish Australia's AML/CTF Framework and set out the regulatory requirements for persons that provide designated services. Section 6 of the AML/CTF Act sets out the scope of designated services which incur AML/CTF related obligations and Gambling Services are dealt with in Table 3. Where a person provides one or more designated services, they are considered a reporting entity for the purposes of Australia's AML/CTF framework and incur extensive reporting and compliance related obligations including the requirement to adopt and maintain an AML/CTF Compliance Program. An AML/CTF Program is required to set out how a reporting entity identifies, mitigates, and manages the risk

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Instrument	Jurisdiction	Overview
		its products and services might, whether inadvertently or otherwise, involve or facilitate, money laundering or the financing of terrorism. WSPs are caught as <i>reporting entities</i> because they provide one or more designated services described in Table 3 Gambling Services.
Competition and Consumer Act 2010 (Cth) (Anti-Money Laundering and Counter-Terrorism Financing Act, 2006), (Australia: Gambling Laws and Regulations, 2021)	Commonwealth	The Competition and Consumer Act 2010 (Cth) (CCA) aims to promote fair and competitive business operating environment. The Act includes anti-competitive conduct, price fixing, unfair conduct, advertising and consumer's right and responsibilities. With respect to gambling, the CCA provides obligations for WSPs regarding gambling advertising and ensuring consumers are not treated unconscionably. The Australian Competition and Consumer Commission (ACCC), an independent statutory authority, administers the Act.
Privacy Amendment (Enhancing Privacy Protection) Act 2012 (Cth) (Australia: The Privacy Amendment (Enhancing Privacy Protection) Act, 2012)	Commonwealth	Enacted in December 2012, <i>Privacy Amendment</i> (Enhancing Privacy Protection) Act 2012 introduced a new statutory regime with mandatory Australian Privacy Principles (APPs), replacing privacy principles in the <i>Privacy Act 1988</i> (Cth). Under the Act, gambling organisations are mandated to comply with obligations relating to collection, storage, security, use, disclosure, access, and correction of personal information.
State and Territory specific gambling legislation	State/Territory	In addition to the Commonwealth statutes covering aspects of gambling activity, each of Australia's eight mainland States and Territories separately regulates gambling activities within their respective jurisdictions. The following details the key legislation in Victoria and New South Wales as examples:
		<u>Victoria</u> : Gambling Regulation Act 2003 (Vic) (Gambling Regulation Act, 2003)
		The <u>Gambling Regulation Act 2003 (Vic)</u> governs the conduct of gambling activities in Victoria, other than the casino. The main objectives of the Act include:
		(a) to foster responsible gambling in order to—
		(i) minimise harm caused by problem gambling; and
		(ii) accommodate those who gamble without harming themselves or others.
		Part 5 of the Act contains the framework for approved betting competitions and sports betting, including (at Division 4) the approval or declaration of sports controlling bodies for sports betting purposes (Gambling Regulation Act, 2003).
		New South Wales: There is no NSW equivalent to the Victorian Gambling Regulation Act 2003, which consolidates most of the gambling related legislation.
		The Betting and Racing Act 1998 (NSW)
		The Betting and Racing Act 1998 (NSW) principally deals with racing, wagering, and sports betting administration, while discrete gaming related legislation and the <i>Unlawful Gambling Act 1998</i> (NSW) governs the conduct of other gambling activity in NSW.

Instrument	Jurisdiction	Overview
		The objects of the <i>Betting and Racing Act 1998</i> (NSW) are as follows—
		(a) to ensure the integrity of racing in the public interest;
		(b) to ensure that certain betting activities by licensed bookmakers are conducted properly;
		(c) to minimise the adverse social effects of lawful gambling; and
		(d) to protect a source of public revenue that is derived from lawful gambling.
		Part 3 Authorisation of certain betting events, Division 2 and 2A of the Act contains the framework for declared betting events, the prescription of bodies as sports controlling bodies and certain other provisions relating to the requirements for PFIAs.
		In addition to the above, all States and Territories have legislation which contains match-fixing and related offence provisions, with a maximum penalty of 10 years imprisonment.

Source: Document and literature review

Consultation and research indicated that, while there is substantive coverage through legislation and regulation regarding broader sports wagering related activities, there is limited legislative and regulatory coverage of the sports event data elements of the sport wagering environment. Additionally, there has been no overarching exercise to review how the current and regulatory policies align against key objectives and identify gaps. The research has outlined preliminary gaps which are outlined in more detail in sections 4.3 and 4.4.

Regulation and management of the creation of sports data

Currently, there is no legislation or regulation regarding the creation of sports data as a form of intellectual property. This is in contrast with racing where, while there is also no statutory recognition of intellectual property rights in race fields information, the use and publication in Australia is protected by State and Territory statutory schemes. These schemes often make it a criminal offence to use or reproduce such information without authorisation from the relevant principal racing authority.

The Wood Review considered whether unofficial data scouting (which it called datacasting) should be considered for an offence under the criminal code, the IGA or any legislation enacted to establish the proposed Australian Sports Wagering Scheme (ASWS) to deal with unofficial data scouting. However, it refrained from making a recommendation regarding the issue. The Wood Review suggested that key issues, such as the practical enforcement of such a provision alongside the justification in an environment where data scraping occurs, should be investigated in more depth alongside the monitoring of any developments internationally regarding this issue.

Research into international jurisdictions indicates there are no examples of legislative or regulatory policy regarding the creation of sports data directly. Instead, where intellectual property rights have come into question, other laws have been considered in court findings.

In the United Kingdom and Europe, legal commentary has considered "there is no property right in information itself. Nobody owns the fact that a goal has been scored, or foul has occurred. That is preexisting, factual data. But, in Europe, there is an ability, through the sui generis (unique) database right, for those who make a substantial investment in obtaining, verifying, and presenting data, to obtain an intellectual property right in the resultant database into which the data is stored" (Hoy,2018). Football DataCo, the wholly owned company by the Premier League and The Football League, and Genius Sports, as the official and exclusive partner for official data, use this provision alongside ticketing terms and conditions in the United Kingdom to enforce their intellectual property rights and associated commercial revenue streams (Cronin, 2019).

In the USA, there is no equivalent database protection, nor can sports data be copyrighted due to both constitutional law and statutory copyright law given its factual nature. However, US sports have typically protected themselves from the unofficial use of their sports data through being able to protect the commercial value of a sporting event from misappropriation by a third party (Hoy, 2018).

4.5 Regulation and management of the transaction, dissemination and use of sports data

The primary process by which Australian sports data transactions and dissemination are regulated and managed in the broader ecosystem is through contractual data sharing arrangements between sporting organisations and sports data companies. This is not guided by any Australian legislation or regulation, and instead relies solely on the contractual arrangements determined between the parties involved.

It should be noted that the industry has attempted elements of self-regulation regarding sport data, namely the International Betting Integrity Association's (IBIA) data standards. These are a set of standards which govern the procedure for the collation of sporting event data for betting and offer and audit and associated accreditation (IBIA, 2021).

However, it should be noted these standards focus on data collection quality as opposed to the transaction and dissemination of the data itself. PFIA's between SCBs and domestic WSPs may also be used to regulate the collection and use of sports data, however, these are primarily used to facilitate the sharing of betting data for monitoring and investigative activities. The PFIA process is a result of the agreement of National Policy on Match-Fixing in Sport (2011), of which the States and Territories agreed to legislate as a requirement of (Department of Health, 2020).

Data sharing agreements

When sporting bodies choose to sell or give their data to a third party, such as a sports data company, data sharing clauses are generally included in the contractual arrangements. Because there is no legislation or regulation regarding sports data as a form of intellectual property, nor how it should be handled in commercial arrangements, there are no overarching requirements in relation to how these arrangements should be set.

The importance of the data sharing clauses insofar as the integrity impacts are concerned, relates to the control it gives the sporting organisations to define which data can be shared and with which third parties. Where the contractual arrangements do not define data sharing arrangements, sports data companies are within their rights to sell this data to third parties (including offshore WSPs) which may or may not be governed by Australian laws.

Australian sporting organisations currently recognise their sports data as their own intellectual property in the absence of any clarifying legislation. However, there is a disconnection between this recognition and the way they value the data and its impact on the sector through the protections they put in place in their contractual arrangements.

This research was unable to understand at a more granular level the differences between data sharing arrangements between the sporting codes as these arrangements were typically commercial in confidence documents between the sporting organisations and the sports data companies. However, sports data companies that were consulted confirmed that sharing of sports data to third parties in foreign jurisdictions was common because often contracts did not contain the necessary data sharing restrictions. The reason for this data leakage is due to many reasons Including inadequate regulatory frameworks.

Product fee and integrity agreements (PFIAs)

Due to the complex, globalised and connected nature of sports integrity risks, a nationally coordinated approach was designed across different stakeholder groups, including sports, governments, regulators, the wagering industry, law enforcement and other agencies. The result of this was that, in 2011, all Australian governments agreed to the National Policy on Match-Fixing in Sport, which articulated the roles and responsibilities of all Australian governments, sporting organisations and the betting industry in protecting Australian sport from match fixing (Department of Health, 2020).

One of the key policy recommendations following the endorsement of the National Policy on Match-Fixing in Sport, was the Sports Betting Operational Model (SBOM), a system of a three-way cooperative partnership between sporting organisations, domestic WSPs, and State and Territory regulators. The National Policy on Match-Fixing in Sport and SBOM focused on the development of relationships between sporting organisations and domestic WSPs for the purposes of:

- cross matching betting data to identify betting by restricted persons (e.g. athletes and coaches); and
- identifying and reporting suspicious betting on Australian sporting events for further assessment and investigation.

The SBOM indicates that sporting organisations and domestic WSPs would, together, determine what sports betting data is collected and controlled through clauses in PFIAs. These agreements would also include disincentives for unofficial collection and usage of sports data by these WSPs.

While the SBOM contemplates nationally consistent legislative arrangements, the implementation of the model across States and Territories remains incomplete, the legislation enacted in NSW and Victoria contains similar provisions, however, involves limited prescription dealing with integrity agreement requirements. Highly prescriptive arrangements are contrary to more contemporary risk-based approaches, however the limited direction and guidance within existing frameworks may facilitate inconsistency. This may, in turn, have implications for the ability to mitigate risks to sport integrity.

Increased regulatory engagement, including more direction and guidance and supervision, would assist the sporting organisation's awareness and understanding of effective measures. Establishing minimum standards or safe harbor arrangements would improve consistency, support implementing effective measures proportionate to the identified risks, and help increase sector resilience. The integrity agreements are contractual arrangements between the sporting organisation and domestic WSPs and are subject to limited legislative instruction and regulatory oversight.

Given that implementation of SBOM is inconsistent across Australia, this appears to have led to inconsistent regulatory requirements regarding gambling and wagering across jurisdictions. While Victoria and NSW have implemented reasonable arrangements in comparison, South Australia and the Northern Territory, the Australian Capital Territory, Queensland, Tasmania, and Western Australia have made limited progress in implementing SBOM to date.

While NSW and Victoria have successfully implemented the substance of the SBOM, observations about overall framework coherence and the utility and effectiveness of the integrity agreements in practice, suggest there is opportunity to further develop and refine the framework. The level of generality and discretion around the nature and extent of any integrity measures undermines progress towards common initiatives and standards and identification of a library of best practice measures capable of responding to the assessed risk within each sector.

A review of a sample of the PFIAs revealed limited particulars about the measures applied to prevent, investigate, and assist in the prosecution of any match-fixing or corrupt behaviour related to betting on the relevant sporting event. A more comprehensive articulation of the nature and extent of measures would increase confidence in the efficacy of individual agreements, the overall framework and rigor of implementation.

The PFIAs allow the WSP is entitled to use sports data provided by the sporting organisation (whether on its website or through other feeds) for the purpose of taking wagers on approved events. Only certain bet types are approved, with betting on negative outcomes not permitted as this is more likely to lead to match-fixing.

None of the PFIAs reviewed provided any insight into the data sharing arrangements in place between the sporting organisation and third parties who monetise that data, including those who collect and provide the data directly or indirectly to the relevant WSP. Each of the PFIAs reviewed, however, implicitly prevented the sporting organisation from providing betting data to any third party, because of the rights granted under the respective agreement and the often-strict confidentiality provisions. Despite this, third-parties such as offshore WSPs are able to collect data illegally through methods such as data scouting and data scraping as described in Section 3

Sporting organisations often have in place a form of gambling policy or alternatively rules, which are intended to prohibit certain persons associated with the sporting organisation and its participants from gambling on the event. Although the documents reviewed were quite basic, this enables the sporting organisation to produce a list of 'restricted persons' or 'prohibited persons' which can be provided to the WSP.

All PFIAs contained some form of measures relating to WSP's checking details of these 'restricted persons'/'prohibited persons' supplied by the sporting organisation against the WSP accounts to identify any betting activity by relevant sporting organisation's employees, contractors, and sport participants. However, only some PFIAs contained additional provisions related to more thorough due diligence, such as inquiries to check for individuals with common personal details. A reasonably fundamental addition to assist in identifying whether a participant may be disguising their betting activity through a proxy such as another household member or relative would be beneficial. Most PFIAs contained some form of audit rights, including a compulsory annual audit imposed on the WSP.

The PFIAs reviewed contained provisions which require the WSP to refuse to permit a customer of the WSP to bet on the relevant product if the customer refuses to grant consent to the WSP (which may arise because of the Privacy Act 1988 (Cth)). The only exception is for the customer to agree under the WSP's terms and conditions or through direct approval to disclose personal information to the sporting organisation.

All the PFIAs require the WSP to notify the sporting organisation of suspicious matters involving customers. Some of the PFIAs also require the WSP to provide regular reports to the sporting organisation, including in relation to bets placed which exceed a monetary threshold (unless such disclosure is not permitted by law). While this may provide the sporting organisation with data to undertake further analysis, in the case of the latter, there is no insight as to whether there is any use of this information beyond the sporting organisation.

The PFIA review also identified that information request provisions were relatively standard, however the thresholds to activate a request and response times provided for WSPs to produce the information varied across PFIAs. The different timeframes for production of information are illustrated by reasonably relaxed language in some agreements, such as "promptly provide" through to similar guidance underpinned with a more prescriptive ceiling on the time limit, such as "as soon as practicable but no later than 5 business days".

Additionally, it was common in PFIAs to apply a threshold for information requests, including setting out the suspicion that underpins the request, and some PFIAs enabled the WSP to require further details as to why the sporting organisation suspected a person had breached its rules. Several PFIAs contained provisions which enabled the WSP to refuse to provide the requested information to the SCB where the licence or regulatory framework permitted.

Although such inconsistencies may be undesirable for a nationally consistent coherent model, they satisfy the limited and high-level legislative obligations in NSW and Victoria, particularly in the absence of regulatory guidance or statements of expectations supported by more comprehensive monitoring and evaluation of effectiveness. An illustration of this is the Betting and Racing Act 1998 (NSW), which only requires a PFIA to provide for the sharing of information between the sporting organisation and the WSP.

The acknowledgment of court-siding and importance of disrupting this unofficial data collection was contained in one PFIA while other PFIA did not explicitly recognise or prioritise this issue. The treatment of court-siding illustrates a continuum in awareness, understanding and regard to the relative risk of unofficial data collection for sporting organisations.

Research indicates that inconsistency on the implementation among the States leads to variable wagering regulations and unnecessary pressure on the sporting organisations and WSPs (Wood, 2018). Various literature highlights that the inconsistent jurisdictional approaches towards implementing the SBOM potentially limits national sports betting monitoring and enforcement coherence. Furthermore, data can be accessed unofficially by WSPs without a PFIA in place with the relevant sporting organisation. In the absence of PFIAs, irregular betting transactions do not trigger notification obligations to the sporting organisation and other law enforcement agencies. In 2018, the Wood Review recommended that the current regulatory environment for sports wagering be streamlined to provide clarity, transparency, and consistency and to give full effect to the intended model under the National Policy on Match-Fixing in Sport (Wood, 2018).

Australian sporting organisations were able to provide limited information on the specifics of the PFIAs they had established, including the betting related and sports data sharing requirements, due to the commercial in confidence nature under which the PFIAs were established, as noted above. Where PFIAs were provided. these were generally templates.

Of the limited PFIAs that were provided, the existence and nature of betting related data sharing requirements were varying in nature between different sporting organisations. The main function of PFIA's is to facilitate the sharing of betting related data to assist with monitoring and investigative activities related to prohibited betting related conduct. However, some included provisions that relate to the collection, dissemination and use of sports data that prohibited the act of court-siding or data scouting, and that the WSP should notify the sporting organisation should they become aware of this occurring. There was limited existence of provisions that required the use of official data streams, or disincentives to using unofficial data.

5 Potential impacts of sports data flows into offshore wagering markets

This section identifies and consolidates literature, stakeholder, and consumer perspectives in relation to the potential impacts of sports data flows into offshore wagering markets. While many of these issues have been identified in previous industry and academic analysis, this section consolidates this evidence for the first time.

5.1 **Degradation of sports integrity**

Reports of alleged corruption, manipulation, illegal sports wagering, and match-fixing in sports have brought attention to various sports integrity risks, impacting the growth, international reputation, and fair play of sports. Growth in unregulated sports wagering, particularly in Asia, represents a major risk to sport integrity in terms of manipulation of sporting competitions. The Black Economy Taskforce Report states that unregulated sports wagering undermines the integrity of sports as "information about unregulated betting is not available to stewards or integrity units who investigate unusual wagering activity or results" (Australian Government Treasury, 2017). Various literature corroborates that existence of offshore wagering markets impact the integrity of Australian sports in the following ways (O'Farrell, 2015, Wood, 2018), Department of Health, 2020):

Opacity of offshore wagering markets

WSPs that are unlicenced in Australian jurisdictions are not subject to the range of integrity related obligations and associated measures contained within PFIAs aimed to prevent, investigate, and assist in the prosecution of match fixing or other competition manipulation on Australian sports. Offshore WSPs create a loss of transparency, lack of integrity related measures and acceptance of anonymous wagering and funding channels. This aggravates the conditions for manipulation of sporting competitions and assists in avoiding detection by wagering through these unregulated offshore platforms. In addition, unregulated markets regularly offer contingencies that are not typically authorised by Australian sporting bodies, such as markets on semi-professional and amateur games.

Diminished visibility of wagering activity

Industry stakeholders, including sporting organisations, regulators, and law-enforcement agencies, lose visibility of wagering activity conducted through offshore wagering markets on Australian sports. These offshore wagering providers include those offering markets on Australian sport regardless of who bets with them. This weakens Australia's sport integrity framework and resilience to corruption as it becomes increasingly difficult to effectively monitor wagering markets for possible match-fixing or other unlawful activity. The weakened integrity of Australia's sporting environment may also incentivise domestic and/or foreign actors to engage in corruption of sports.

The existence of offshore wagering markets diminishes regulatory and law enforcement oversight, information collection and intelligence and frustrates effective supervision of the betting markets and associated interaction with the relevant sporting competition.

The inability of regulators to access important betting activity information creates conditions that are more conducive to manipulation and match-fixing. These conditions are capable of being exploited by domestic or foreign actors with more limited prospects of detection, investigation, and a potentially remote prospect of prosecution.

Inadequate cooperation from WSPs

Unlicenced Offshore WSPs offering markets on Australian sports are not required to cooperate with Australian sporting bodies, law-enforcement agencies and regulators. They do so for reasons ranging from commercial sensitivity, competing priorities and practicalities, or possible complications for their business through to complicity due to direct or indirect involvement in potentially corrupt practices in matches or wagering contingencies.

Loss of product fees

Funding for integrity measures available to sporting bodies reduces as unregulated WSPs do not pay product fees to the former, leading to a loss of company taxation revenue for governments.

Case study

In September 2013 a coach, four players and another person who was engaged with the Southern Stars Football Club (a second tier Victorian Premier League Club) were charged by Victoria Police with matchfixing offences, following detection by an internet betting integrity monitoring agent. Several matches involving the Southern Stars were identified through irregular odds movements with predominately Asianbased bookmakers whilst matches were underway that could not be explained by the events unfolding on the pitch. On some occasions, bets were placed with only minutes remaining in matches when the likelihood of further goals should have been minimal (Steele & Opie, 2017).

The four players were all from the United Kingdom and the other person charged was a Malaysian national who acted as a liaison between the coach and the four players, and a betting syndicate based in Hungary and Malaysia. It is estimated that the syndicate made approximately \$2 million on the five Southern Cross games which were 'thrown' over a period of approximately two months.

5.2 Adequacy of consumer protections

Domestic WSPs in Australia must adhere to a range of State and Territory as well as Federal regulatory obligations typically involving pre-licensing probity inquiries, complying with their gambling licence conditions as well as responsible gambling obligations and rules regarding consumer rights and protections. These regulatory settings help ensure consumers can make informed choices and access these services with confidence and with an appropriate level of protection from potential harms. However, offshore wagering markets do not provide the same explicit consumer protections and sense of security as domestic WSPs, and consumers cannot access the same redress mechanisms should an offshore WSP engage in unscrupulous practices, such as identity theft, illegal use of personal information or defrauding consumers (including by not paying out wins).

This research has not included a review of complaint data, such as customer grievances or alleged noncompliance by offshore WSPs received by State and Territory gambling regulators or ACMA, however, consultations suggest that low numbers of complaints are received. While it is difficult to speak with any precision about the nature and extent of the issue, it is instructive that complaint numbers regarding wagering (including sports betting) seem to be limited, and it has not been reported as a material issue or public policy priority throughout stakeholder consultations. This potentially undermines concerns raised by some stakeholders that use of offshore sites leads to fraud or other cybersecurity risks for consumers.

Inadequate consumer protection tools

- Various features of online gambling, such as increased availability and accessibility, convenient payment methods, high-speed and uninterrupted play, etc., might undermine the ability of consumers to maintain control (Gainsbury et al., 2014).
- As a result, domestic WSPs are required to provide a range of largely voluntary consumer protection tools, such as activity statements, deposit limits, ban on credit lines, self-exclusion, age restrictions, temporary time outs and access, to help resources to prevent and minimise gambling related harms (Gainsbury et al., 2020).
- In contrast, offshore WSPs are not mandated to, and do not necessarily provide, consumer protection tools. Offshore WSPs providers tend to offer products and elements of services that are strictly prohibited domestically, such as anonymous betting, provision of credit lines, payment through cryptocurrencies, access to illegal online games, minimal KYC requirements. Research indicated these all contribute towards higher gambling harm (Sturgis & Kuha, 2021).

Absence of systematic grievance redress mechanism

- Historical studies into understanding consumer attitudes towards online gambling and player protection found that more than one-third of online gamblers had disputes with online gambling sites (Gainsbury et al., 2013).
- Due to being outside the Australian regulatory framework, consumers who engage with offshore WSPs are more vulnerable to unfair practices due to a lack of consumer protection

Protection of funds

- To protect the interests of consumers, it is mandatory for domestic WSPs to ensure that consumer funds are adequately protected and paid out as required. For instance, in Tasmania, domestic WSPs can access consumers' funds for specific purposes, as mentioned in the Gaming Control Act 1993. Furthermore, WSPs are required to remit the funds to consumers after a specific period (two years) of account inactivity (Gaming Control Act, 1993).
- In contrast, consumers run the risk of not being able to access or protect their funds while wagering with offshore WSPs. Since offshore WSPs do not fall under the purview of Australian consumer protection laws, consumers are unable to access a systematic grievance redressal mechanism to their complaints.

Misuse of personal information

- Consumers accessing unregulated wagering markets cannot guarantee that their personal and financial information will be used securely, thereby increasing the possibility of identity theft and misuse of available data.
- Conversely, domestic WSPs must comply with relevant Australian privacy legislations/policies such as the Privacy Act 1988 and the National Privacy Principles to manage consumer information appropriately (Final Report 2012 - Review of the Interactive Gambling Act, 2001).

5.3 Higher risk of harm associated with problem gambling

Although land-based gambling is still a popular form of gambling in Australia and electronic gaming machines are recognised as the most problematic for gambling harm, research indicates that gambling in unregulated markets, particularly unregulated online betting, has strong links with problem gambling (Gainsbury et al., 2020). As compared to regulated land-based gamblers, gamblers who participate in unregulated markets are more likely to be moderate-risk (more than twice as likely) or problem gamblers (more than three times likely), with higher levels of gambling expenditure with annual losses (Hing et al., 2021).

Structural features of online in-play wagering, such as continuous form of gambling within an event, might have greater potential for contributing to gambling harm than telephone or in-venue in-play betting (Kilick & Griffths, 2020). Continuous form of gambling, i.e., short duration of time between placing the bet and knowing the outcome, allows gamblers to immediately reinvest money resulting in fast and repetitive betting. This rapid sequence of outcomes encourages additional bets, motivates loss chasing, longer gambling sessions and diminishes self-control. The intensity and frequency of in-play sports wagering can be associated with problem gambling harms among individuals who place online bets (Gainsbury et al., 2020a). In the Australian context, this online in-play wagering occurs in an environment without the necessary regulatory oversight to mitigate these problems.

In a study that tried to identify the relationship between in-play betting and gambling problems, results highlighted that participants who bet in-play had a significantly higher average problem gambling severity index (PGSI) score than those who did not bet in-play (Gainsbury et al., 2020a). The study also noted that three in every 10 participants (a non-representative sample of 1000 past-month online gamblers) placed inplay bets mostly via online methods which are prohibited under Australian regulations. It should be noted that, because bets were placed in unregulated markets, there is no consideration for the regulation of contingencies which could mitigate the associated harm in a regulated environment.

The consequences of harmful gambling are significant and can result in (O'Farrell, 2015):

- financial loss and resulting financial pressures for low-income individuals or those who make high value financial commitments;
- personal harm, including stress and anxiety, depression, suicidal ideation/attempts, substance abuse, and homelessness;
- family and marital issues, including domestic arguments and violence;
- employment problems, including workplace conflict, absenteeism, and termination of employment;
- poor academic results;
- criminal offences related to gambling; and
- social isolation and interpersonal conflicts.

Governments and the gambling industry continue to respond by investing in programs and initiatives to reduce the risk of harm related to gambling and to educate the community on responsible gambling.

As part of the response to recommendations from the O'Farrell Review, the 'National Consumer Protection Framework for Online Wagering in Australia' (National Framework) was agreed amongst the Commonwealth, State and Territory governments to provide stronger protections for consumers gambling online. The National Framework includes 10 consumer protection measures, intended to provide nationally consistent requirements for licensed WSPs and providing tools for consumers to safeguard themselves from harm related to online wagering. The measures were agreed in the National Framework, several which have now been enshrined in relevant State and Territory legislation, include:

- "Prohibiting lines of credit being offered or provided by interactive wagering service providers, apart from certain on-course bookmakers;
- Discouraging links between interactive wagering service providers and small amount credit contracts (payday lending) for online wagering;
- Reducing the customer verification period from 90 days to a maximum of 14 days for online wagering across all jurisdictions:
- Restricting all specified inducements in applicable jurisdictions:
- Ensuring that online wagering account closure or cancellation is readily available, and accessible for all customers:
- Providing a voluntary opt-out pre-commitment scheme for deposit limits, on an operator basis;
- Ensuring that customers receive meaningful activity statements on their wagering activity from each interactive wagering service provider;
- Providing evidence-based consistent gambling messaging;
- Providing staff training in the responsible service of online gambling; and
- Providing a National Self-Exclusion Register (NSER) for online wagering that ensures that those experiencing gambling harm can immediately exclude themselves from services offered by all interactive wagering service providers." (Department of Social Service, 2018).

To inform full implementation of the National Framework, the Australian Institute of Family Studies undertook an independent study to establish base levels of online wagering, associated consumer harm, and prevalence of risk gambling behaviour and to provide recommendations on the implementation and future evaluation activities (O'Farrell, 2015).

5.4 Loss of taxation and regulated WSP revenues

Availability of offshore wagering markets outside the purview of Australian regulations impact revenue collection in three ways, as outlined in the sub-sections below.

Loss of domestic WSP revenues

As highlighted in the O'Farrell Review, Australian consumers wager a significant amount with illegal offshore WSPs, thereby denying revenue streams to domestic WSPs in Australia (O'Farrell, 2015). It should be also noted that, since the O'Farrell Review, the IGA was amended to make it clear to offshore WSPs that offering services without an Australian licence is illegal, to which a number of these operators exited the market in response. Additionally, due to a lack of information we are unable to estimate the size of the unregulated market and therefore are unable to estimate the size of lost revenue.

No contribution to Responsible Gambling measures

While arrangements differ between each State and Territory, it is common for a percentage of gambling taxation revenue, typically from EGMs and casinos, to be applied to administer and fund responsible gambling arrangements, including support and treatment services as well as community education and awareness campaigns, among other initiatives. This ensures that the operators that profit from providing gambling services contribute to gambling harm prevention and support services.

The arrangements in NSW, while not nationally consistent, illustrate how gambling operators are contributing to responsible gambling resources and services within a key jurisdiction. The NSW responsible Gambling

Fund is principally funded by a levy on The Star Casino and received \$5 million per year from 2019-20 to 2021-22 derived from point of consumption (POC)⁶ tax receipts levied on WSPs.

Loss of taxation revenues

State and Territory government revenue from domestic WSPs is derived from taxes, licensing fees and other non-gambling specific taxes, whereas Commonwealth government revenue from domestic WSPs include Goods and Service Tax (GST), company tax and fringe benefits tax (Wood, 2018).

In addition, domestic WSPs are required to pay a POC tax on wagering as per the stipulated tax rates by States and Territories (except Northern Territory, which has separate wagering taxes payable by licensees), increasing the effective tax rates for domestic WSPs (Department of Health, 2020).

Table 14: Projected wagering tax revenue across the states and territories (as per each state budget)

Jurisdiction	Date introduced	Point of consumption tax rate (as a percentage of 'Net Wagering Revenue')	Projected FY22 tax revenues (\$m)
New South Wales	01 January 2019	10%	224
Victoria	01 January 2019	15%	272
Queensland	01 October 2018	15% ⁷	152
Western Australia	01 January 2019	15%	83
South Australia	01 July 2017	15%	46
Australian Capital Territory	01 January 2019	20%	16.96
Tasmania	01 January 2020	15%	14.5
Northern Territory	NA	NA	9.4

Source (projected revenue): NSW Budget - 2021-22 Budget Table 4.4 (Racing + Other gambling & betting), VIC Budget - 2021-22 Budget Table 1.2.1 (Racing and other sports betting), NT Budget - 2021-22 Budget Table 6.5 (Bookmaker Tax), SA Budget - 2021-22 Budget Table 3.3 (Betting Operations Tax), ACT Budget - 2021-22 Budget Table 3.5.2, QLD Budget - 2021-22 Budget Table 4.2 (Wagering Taxes), TAS Budget - 2021-22 Budget Table 5.5 (Point of Consumption Wagering Tax), WA Budget – 2021-22 Budget Table 4.2 (Point of consumption tax)

As highlighted above, domestic WSPs in Australia are subject to various taxes, whereas offshore WSPs pay no domestic tax or contribute to sporting bodies.

The O'Farrell Review noted that estimates of the offshore wagering market varied greatly.

A study by H2GC, commissioned by Responsible Wagering Australia, estimated potential tax revenue leakage at approximately AUD\$84 million (at a pre-POC effective tax rate of 25 per cent) and AUD\$195 million (at a post-POC effective tax rate of 36 per cent) in 2017 (Responsible Wagering Australia and H2 Gambling Capital March, 2019). A separate report by GBGC in 2021 estimated potential tax revenue leakage at AUD\$16 million (at a pre-POC effective tax rate of 25 per cent) and AUD\$23 million (at a post-POC effective tax rate of 36 per cent) (GBGC, 2021).

Both estimates are based on various sources of data from across jurisdictions globally and are not able to be compared in detail. It is also not possible to compare the robustness of these estimates.

⁶ In Australia, all States and the Australian Capital Territory have a POC tax and is levied on all Australian-based wagering operators. A POC tax ensures operators pay taxes on gambling activity where the associated harms occur.

⁷ Rate is increasing to 20% from 1 December 2022.

Loss of product fees

Domestic WSPs must enter into PFIAs with the relevant SCBs to gain approval to providing wagering contingencies on the relevant sport. These agreements contain provision for payment of product fees by WSPs to SCBs, along with other sport integrity and illegal betting monitoring obligations. Offshore WSPs generally do not pay product fees to Australian sporting organisations, reducing the revenue stream and funds available to strengthen integrity measures. H2GC estimates AUD\$168 million of potential product fees leakage in 2017 due to the availability of unregulated wagering markets but may be representative of the higher end of possibilities (Responsible Wagering Australia and H2 Gambling Capital March, 2019).

Potential facilitation of organised criminal activity

Online wagering is a 'designated service' under the AML/CTF Act. Therefore, domestic WSPs must comply with anti-money laundering and counterterrorism finance obligations under the Act and the associated Regulations and Rules, such as:

- enrolling as a reporting entity with AUSTRAC;
- appointing an AML/CTF Compliance Officer;
- undertaking a risk assessment in relation to the business to identify money laundering and terrorism financing risks and the controls in place to mitigate those risks;
- implementing a fit-for-purpose anti-money laundering and counter-terrorism financing program;
- employing certain Know Your Customer (KYC) requirements, involving customer identification and verification;
- reporting suspicious transactions and threshold transactions (that is, cash transactions of \$10,000 or greater);
- undertaking customer due diligence and enhanced customer due diligence; and
- maintaining records and recording business activities and transactions.

Consultations and the literature review indicate that some offshore WSPs may have potential links to criminal networks, increasing the probability of corruption and money laundering. The 2017 Black Economy Taskforce Report stated that "Illegal gambling creates money laundering opportunities and enables the shifting of profits into tax havens. There are also clear organised crime links to some of these punters and operators of unregulated gambling platforms." (The Australian Government Treasury, 2017)

This was resonated by the ACIC's report on Organised Crime in Australia 2017, which states that "Multiple opportunities exist for domestic and international criminals to utilise online bookmakers to launder proceeds of crime ... this includes the capacity to bet large amounts of money anonymously through offshore bookmakers." (The Australian Government Treasury, 2017)

Australian sports with a principally domestic footprint (e.g., Australian Rules Football and Rugby League) have more limited international appeal and are less vulnerable to international organised criminal groups. These sports are unlikely to be of interest to these groups, as they lack many of the key vulnerabilities or attributes exploited in international sports. In addition, these groups have many potential opportunities to target competitions in other countries, especially those with limited integrity oversight (Australian Criminal Intelligence Commission, 2020)

2018 FIFA World Cup

During the 2018 FIFA World Cup, thousands of raids were undertaken, and suspects arrested in an INTERPOL-led operation against illegal gambling conducted throughout Asia. Operation SOGA VII (short for soccer gambling) saw more than 14,900 raids at illegal gambling dens across China, including Hong Kong and Macau, Malaysia, Thailand, and Singapore, which were estimated to have handled some USD\$1.6 billion worth of bets.

Coordinated by INTERPOL's Organized and Emerging Crime Directorate, the operation targeted the organised crime networks behind illegal gambling in the region. During the month-long (22 June - 16 July) operation, police seized more than USD\$1.7 million in cash, as well as 1,000 computers and mobile phones and made 242 arrests in Hong Kong.

In Macau, police received intelligence that a criminal network had set up an illegal gambling ring targeting bettors in mainland China. A total of 16 individuals were arrested in both jurisdictions following raids at residential buildings and casinos, and police seized vehicles, cash, computers, mobile phones, and accounting books (Illegal gambling: raids and arrests across Asia in INTERPOL operation, n.d.). Thereafter, Interpol stated Operation SOGA VII highlighted a move from physical betting operations to online betting services and reinforced how illegal gambling generates huge profits for organised criminal networks that are often linked to other serious crimes.

Interpol's Director of Organised and Emerging Crime stated that such online platforms have brought an international dimension to the phenomenon and are often located in jurisdictions with few regulations on sports betting, presenting additional challenges for police. A coordinated international response is necessary to tackle this type of crime, especially as it moves from gambling dens to internet-based illegal betting operations (Interpol calls for 'coordinated' response, 2018)

6 Discussion

This section discusses the key observations arising from this research and considerations for government and industry to continue developing its understanding of the issues and continuing to develop and implement the government's response to the Wood Review.

Research observations and conclusions 6.1

This research is foundational because it is the first time a systematic consolidation of literature, industry perspectives and data has been undertaken in relation to these issues. It provides an evidence base reflecting the extent of available information at the time of publication. While a considerable amount of information is available, significant gaps have been identified in information availability and industry and other stakeholders' understanding of the issues explored. Furthermore, there are commercial sensitivities associated with the disclosure of certain information in relation to these issues. The information identified, including gaps, has been used to develop several observations and identify future shared research priorities for government, sporting organisations, and industry. These issues build on the content in previous sections of the report and align with the themes consistently expressed through the broad consultation undertaken in developing this research.

This report is intended to contribute to the continued discussion of this issue as part of the proposed ASWS, and it is recognised that there are several ways in which they may be considered and addressed. Many of the issues identified in this section are discussed in the context of the research issue, namely, the framing of offshore wagering markets using Australian sports data. However, it is acknowledged that many of these issues extend to, and link with, other parts of the sector and have an impact in relation to broader outcomes.

Defining the sports data ecosystem

The sports data ecosystem is multi-faceted and serves a broad range of needs and uses. Previous industry analysis and this research continues to highlight the critical purpose and intrinsic value of sports data across sporting organisations and levels of competition. This is borne out through its use and application for several important purposes, including performance, communication, policy, advocacy, and commercial arrangements, all of which have the potential to contribute to, and to detract from, sports integrity.

However, this research has established that there is no single consolidated source of truth or common understanding in relation to the end-to-end sports data environment. Furthermore, it is evident that different parts of the sector and different stakeholder groups (see Section 4.4) are at different levels of maturity and development in relation to:

- articulation and recognition of the intrinsic value of sports data;
- definition and understanding of the sports data ecosystem;
- sophistication of the measurement and monitoring of sports data:
- resources and capability focused on sports integrity and associated sports data risks;
- understanding of the downstream flow, access, and end use of sports data; and,
- identification, assessment, and responses (both proactive and reactive) to the potential risks associated with the creation, dissemination, and use of sports data.

There are apparent pockets of expertise across the stakeholder environment informed by practical experience and academic research in Australia and offshore in dealing with issues related to sports data and wagering markets. However, it is also evident that this expertise is not broad or deep enough to enable a clear and shared understanding of the scale and impact of the current arrangements. It is also observed that this expertise is currently not being shared and acted upon consistently across government regulators, law enforcement and industry.

Establishing a greater common understanding, definition, and measurement of the sports data ecosystem is an essential consideration going forward including for governments and industry. This may include (but may not be limited to):

- common data types, definitions, and metrics;
- classifications of data originators, and users; and,

establishing a common data architecture and the roles and responsibilities of key stakeholders in relation to the establishment, operation, and integrity of that architecture.

The value of doing so would not necessarily be to prescribe the creation or use of sports data, but rather, provide a common framework and approach for stakeholders to define, understand and manage the end-toend creation, dissemination and use of Australian sports data both locally and overseas. Clarification and alignment of objectives in relation to sports data

Research and consultations on this issue have outlined that while there is significant legislation and regulatory policy that applies directly and indirectly, there has been no end-to-end review undertaken to understand how all these policies map together, and where the gaps are located. This is most evident through the lack of guiding policy regarding the creation, transaction, dissemination and use of Australian sports data.

The table below outlines relevant key legislation, regulatory and industry policy that currently apply to the Australian sports data ecosystem and relevant observations.

Table 15: Policies and frameworks identified with a potential intersection with the issue of sports data flows into offshore wagering markets

	Instruments
Legislation	 Interactive Gambling Act 2001 (Cth) Anti-Money Laundering and Counter-Terrorism Financing Act 2006 (AML/CTF Act) Competition and Consumer Act 2010 (Cth) Privacy Amendment (Enhancing Privacy Protection) Act 2012 (Cth) Various State-based legislation
Regulatory policy	 National Consumer Protection Framework for Online Wagering National Policy on Match-Fixing in Sport National Integrity Framework SBOM ASWS
Industry policy	Data agreementsPFIAs (in accordance with SBOM)

Source: Data and literature review

An important observation from the consultation is that, while there are pockets of discussions and evident expertise internationally regarding the issues associated with sports data flows, there is no clear example of an international jurisdiction currently framing a holistic regulatory position that appropriately covers all the relevant issues that Australia can look to for lessons learned.

The value in an end-to-end analysis of the current state of legislation, regulatory and industry policy would provide legislators a stronger evidence base upon which to form a policy position. Resultantly, stakeholders within Australian sport and industry would be able to act with more certainty where gaps are able to be filled.

Clarification of stakeholder roles and responsibilities

In consulting widely throughout this research, it is self-evident that the issue of control, transparency and monitoring of sports data creation, dissemination and use is a shared responsibility of many stakeholders within the ecosystem. While this has been noted broadly by the Wood Review and other recent publications, this research has further demonstrated the complexity of this stakeholder landscape and the challenges associated with establishing a clear, consolidated picture of activity and issues contributing to the ultimate flow of sports data into offshore wagering markets.

The following table summarises the key issues and considerations identified in relation to each key stakeholder group considered in this research.

Table 16: Summary of considerations by stakeholder group

Stakeholder group	Priority stakeholders	Considerations identified through consultations
Sporting organisations – SCBs, NSOs and other organisations with responsibility for the stewardship of sports	 AFL Basketball Australia Cricket Australia Football Australia Hockey Australia Netball Australia NRL Racing Victoria Racing New South Wales Tennis Australia COMMPS (alongside their constituent sporting bodies) 	 There are varying levels of establishment and maturity of sports data and match fixing related processes and oversight. There are different levels of resourcing placed on sports data management and integrity monitoring, reflecting different capacity of sporting organisations and the priority in which integrity risks associated with sports data are seen by the organisation. Integrity programs focused on coverage and limited focus on measurement of efficacy of outcomes. Some sporting organisations maintain high reliance on outsourced integrity services to provide capability they do not have internally. Commercial incentives to share data are at odds with the desire to maintain control of how this data is used by third parties.
Sports data companies	Genius SportsSportradar	 Views raised that there are potential conflicts of interest between the integrity services that are provided to sporting organisations and betting related services offered to WSPs. The position of sports data companies in the broader sports integrity ecosystem is undefined and unregulated.
Regulated WSPs	 Bet365 BetFair Entain Group Sportsbet Tabcorp Responsible Wagering Australia 	 Views that domestic WSPs in the past have displayed a reluctance to support investigations for the fear of brand damage. Challenge the relationship between rising product integrity fee volumes and the related integrity spend.
Commonwealth government agencies	 Sport Integrity Australia Australian Criminal Intelligence Commission Australian Communications and Media Authority Australian Institute for Criminology Australian Federal Police 	Sharing of key intelligence is restricted or challenged due to the private nature of data required to be shared.
State government agencies	 Department of Justice Victoria Victoria Police South Australia Consumer and Business Services 	 Inconsistent implementation of SBOM across states and territories. Challenged in balancing outcomes o related impacts such as sport integrity vs. consumer protections vs. taxation revenues.

Stakeholder group	Priority stakeholders	Considerations identified through consultations
	 Department of Justice Northern Territory Liquor & Gaming New South Wales Office of Liquor and Gaming Queensland 	
International counterparts	 Asian Racing Federation Council IBIA United Nations Office on Drugs and Crime 	Limited instances of international cooperation from which to draw experience.

Source: Stakeholder consultation

One of the most important observations from conversations across these stakeholders is that there is not a collective awareness or understanding or a consistent or consolidated base of evidence in relation to the ways in which sports data is created, used, and disseminated. These arrangements vary considerably across sporting codes, levels of competition, and based on the specific commercial arrangements established between sporting organisations and sports data companies and/or WSPs. It is also evident that the degree of control and transparency of the sports data ecosystem for any of these stakeholder groups is greatest at the point of data origination and the primary point of transaction of that data between the originator (typically a sporting organisation and/or their contracted third party) and another organisation (typically a sports data company and/or a WSP).

It is important to consider that, with increasing degrees of separation from the point of data origination, there are greater external factors and influences beyond the control of any given stakeholder, and indeed, groups of stakeholders, notwithstanding the extent of any collaboration between them to control such factors. Analysis undertaken by ACIC highlights the range of actors and relationships between those actors within the offshore wagering market. Furthermore, it needs to be assumed that any effort by government and the industry to respond to these risks is proportionate to the cost of doing so and the level of direct control and influence of those parties working together to respond.

Establishing a clear risk measurement approach

As outlined in earlier in the report, there are currently different levels of understanding and focus placed on the risks posed by sports data flows into offshore wagering markets across sporting organisations, industry (including WSPs) and regulators. Consultation has highlighted several contributing factors to this, including the fact that this risk is deemed to not be material for some sports and/or at some levels of competition. However, most importantly, no established or consistent measurement of risk has been identified in any part of the industry to inform an optimal response to the risk.

In line with the principles of a risk-based approach to regulation and outcomes, an informed understanding of the environment, risk profile and desired outcomes and proportionality will be critical to any shared response by industry and government to manage the impact of sports data flows in framing offshore wagering markets on Australian sports. Given the shared interest and responsibility of government and industry in these issues, proportionality is not only a regulatory consideration, but also a commercial one.

Establishing proportionality relies on a common understanding of the environment and risk to the outcome being sought – in this case, protecting sports integrity along with appropriate consumer protection outcomes. Measuring risk can subsequently be broken down into likelihood and consequence. In line with best practice regulatory and monitoring approaches, proportionality should be established with respect to both likelihood and consequence. Establishing a more common measurement approach for the risk of sports data in offshore wagering markets will provide a clearer basis for all stakeholders to engage on the most appropriate and cost-effective ways to collaborate on the management of this risk. This is of heightened importance in relation to this issue because of two important factors:

The evolving nature of the risk – While the risk of unregulated data is not yet fully understood, it is clear it is most viewed across stakeholders as 'emerging' and will continue to evolve due to several known issues:

- The continued growth in the wagering market and the emergence of new market players:
- The changes that the continued development of technology and innovation will help to drive in the Australian and global gambling and wagering market; and
- Consumer driven demand for new and varied wagering products.

Targeting any response will need to be supported with a greater understanding of how these issues continue to evolve, and the impacts on how the threat level evolves with them.

The diminishing span of direct control through the data value chain – As outlined above, one of the key challenges in understanding and responding to the issue of data flows into offshore wagering markets is the very broad spectrum of stakeholders and avenues in which data can flow after the point of origination, and the fact the many of these avenues are neither well understood nor economic for government or industry to attempt to measure. This is due to the extent and, likely, growing array of actors involved in these offshore wagering markets, and the decreasing influence and utility of stakeholders in intervening further downstream in the data value chain. In general, this tends to suggest that any response will likely need to be weighted towards the point of origination and primary transaction of data.

Priority of resourcing and focus on sports data and unregulated wagering reflect status as an emerging risk

As highlighted in Section 3, there is a lack of understanding across stakeholder groups as to the size or scale of offshore wagering markets and the resultant impacts on sports integrity outcomes and consumer protection. This is because, to date, there has been no concerted effort to measure or quantify the risk.

As a result of the lack of understanding of the size or scale of the risk, stakeholders, including regulators, law enforcement and sporting organisations, tend to acknowledge the issue as an emerging risk. Consultations indicated that few stakeholders were actively investigating this issue or were implementing ongoing data collection to support this risk categorisation. Stakeholders also indicated there was a lack of clarity regarding the next steps that could be taken to better understand this risk.

Program design to mitigate risk is best implemented when a solid evidence base is understood on which to base decisions. Resultantly, as the issue of sports data and its relationship to offshore wagering markets is misunderstood, the level or resourcing being allocated to managing the risk varies considerably across stakeholders. As discussed in Section 3 the operating model of the integrity functions across sporting organisations are very different between organisations, and funding allocation to these internal functions is prioritised towards more well understood risks, such as illegal betting and anti-doping. Until a measure of the risk is understood, there will be difficulties in defining the appropriate risk-mitigating response, both within sporting organisations and across the Australian sporting landscape in its entirety.

Clarifying regulatory responsibilities

Consultations with a mix of Australian State and Territory regulators and government departments with gambling policy and regulation responsibilities highlighted limited resources and monitoring are prioritised towards WSP activities specifically and limited, if any, ongoing involvement in the administration of PFIA arrangements and compliance.

While regulatory approaches and posture differed between regulators, it was observed that Australian gambling regulators prioritise responsible gambling arrangements generally in the sector, with a pronounced focus on consumer protection and harm minimisation, but with more limited experience and involvement with oversight of WSPs and sport betting supervision than the remit of some international regulators such as the UK Gambling Commission.

Some regulators consulted held steadfast views that harm minimisation and consumer protection outcomes were the most important to consider and were prioritised over sports integrity considerations and discounted the priority of access to betting data. Resultantly, the lack of a clear mandate and prioritisation from the regulators has led to a lack of clarity in regulation, or lack of regulation entirely for key factors related to Australian sports data and its relationship to offshore wagering markets.

As noted previously, the implementation of SBOM has been delayed in some jurisdictions, inconsistent across Australia, leading to varying regulatory requirements regarding gambling and wagering across jurisdictions. This inconsistency has led to variable wagering regulations and unnecessary pressure on the sporting organisations and WSPs and potentially limits national sports betting monitoring and enforcement coherence. The Review of Australia's Sports Integrity Arrangements recommended that the current

regulatory environment for sports wagering be streamlined to provide clarity, transparency, and consistency and to give full effect to the intended model under the National Policy on Match-Fixing in Sport.

A further key challenge regarding the flow of Australian sports data is the lack of regulation or legislation regarding sports data, including potentially as a form of intellectual property. This lack of clarity creates a challenge to the ability for sporting organisations to maintain the integrity of their own data flows. Unlike in racing, (where statutory race fields schemes in each State and Territory are comprehensive), the same cannot be said for sport.

6.2 Future research priorities

Based on the research findings and observations, and the gaps identification in the available information. several opportunities have been identified for future research and consultation:

- Review and map the specific requirements, roles and responsibilities associated with all relevant Commonwealth and State government legislation and regulation to identify areas of (mis)alignment, duplication, and gaps.
- Review and combine the findings of this research with other related research underway with Sport Integrity Australia, Gambling Research Australia, and other relevant government stakeholders.
- In collaboration with Commonwealth and State government, agree a common approach to defining and measuring the sports data and offshore sports wagering ecosystem, which may include (but may not be limited to):
 - Glossary of definitions and common terminology
 - Definition and mapping of sports data originators and users across use cases (ie. not limited to wagering market uses)
 - Beneficiaries from the use of sports data, and how beneficiaries derive value
 - Defining an agreed set of metrics (both qualitative and quantitative) to more consistently monitor risks to different outcomes associated with the improper use and dissemination of Australian sports data.
- Investigate options to establish a common data architecture for the measurement and monitoring of the Australian sports data ecosystem.
- Consider the optimal arrangements and forums across government and industry to facilitate collaboration and information sharing to better understand and address risks associated with improper use and dissemination of Australian sports data.
- Further consider the nature and extent of commercial arrangements associated with the creation, use and dissemination of Australian sports data and the ways in which these contribute to the integrity of Australian sports data.
- Supported by design and technical input from industry and academic stakeholders, undertake further practical consumer research to better target, access, and understand the behaviours and perspectives of consumers engaging with offshore WSPs. To overcome the challenges encountered in undertaking this research, this may require:
 - more targeted engagement methods for younger adults who may be less represented on traditional research panels
 - collaborating differently across government agencies, financial services institutions, sports data companies and other areas of industry to define the research protocols, definitions, and leverage additional data.

These opportunities are not exhaustive but address the most significant information gaps identified in undertaking the research.

6.3 Limitations

To the extent of our knowledge this is the first time research of this nature has been undertaken with the exploratory nature of the project being faced with inherent limitations in both method and scope.

This research report seeks to provide an evidence base reflecting the extent of available information at the time of publication. In doing so, the research has highlighted that there are significant gaps in availability of information and understanding of the nature and extent of some of the key issues being considered.

General limitations

The research methods, findings and conclusions should be considered in the context of several limitations.

- Research for the project was exploratory in nature and has not been previously undertaken and this is the first attempt at consolidating an evidence base in relation to the research questions and issues identified. Therefore, there was also a lack of compelling powers for certain stakeholders to engage and provide the full breadth of insight or evidence.
- Consultations were broad and intended to identify as much information as possible from a broad crosssection of domestic and international stakeholders across industry, government, regulators, academia, and peak bodies. Consultation targets were identified by Sport Integrity Australia in consultation with Gambling Research Australia stakeholders and the research team.
- The research project did not have the power to compel stakeholders to provide information.
- Consultation insights have been regarded as being based on stakeholder experience and have been treated thematically rather than in isolation. Where practical, consultation feedback was also considered and tested against available literature and documentation.
- Details of certain PFIA arrangements associated with the creation and dissemination of Australian sports data (i.e. performance and match data) are subject to commercial-in-confidence arrangements between sporting organisations and sports data companies or WSPs. The commercial-in-confidence nature of these arrangements has limited the extent to which they have been able to be accessed and considered as part of this research.
- The report has not considered or accounted for the impact of COVID-19 in relation to the issues considered in the report. This report considered the available evidence, and there was limited to scope to consider new and emerging evidence
- There is a lack of established evidence in relation to sports data in the context of foreign jurisdictions and characteristics of the offshore WSP market that can be relied upon. However, to provide any available context for users of the report, it was important to refer to data and research that potentially varied in both nature and scope.

Survey response

Despite targeted sampling and pre-screening, the consumer panel was unable to achieve the intended target for offshore sports wagerers, with only 82 respondents, out of a target of 500, selecting at least one offshore WSP as a platform used for online wagering. Combining this cohort with the 192 participants who responded to participating in online in-play sports wagering (noting that not all of these respondents selected an offshore website), there is a maximum of 274 respondents who may be considered as participants in the offshore sports wagering market.

Previous surveys and research targeting offshore sports wagerers have experienced similar issues in achieving sampling targets. A meta-analysis of online consumer gambling surveys by Sydney University's Gambling Treatment & Research Clinic highlighted that while online consumer research panels are a costeffective recruitment strategy, they can under-represent targeted groups, which may be exacerbated when the group may perceive that they are participating in illegal activity (Pickering & Blaszczynski, 2021).

A compounding factor towards the difficulty in achieving the targeted offshore sample may be respondent awareness of the survey intent and sponsoring organisations. Previous studies that sought to achieve a large sample of offshore sports wagerers have used costlier targeting strategies via social media and search engine advertising, were not co--sponsored by regulatory authorities with powers to restrict access to offshore platforms and were often framed to obscure that the intent of the study is to research behaviours of offshore wagerers (Gainsbury et al., 2018), (Hing et al., 2014). Knowledge that the survey was run on behalf of Sports Integrity Australia and Gambling Research Australia for the stated purpose of gaining an understanding of the current state of the in-play sports wagering market and the behaviour of Australian consumers who participate in online in--play wagering, may have deter consumers who did not wish to disclose the offshore WSP that they use to regulators and public research centres.

General limitations in gambling survey design

In addition to the limitations addressed above on the survey response rate, several broader limitations need to be considered when interpreting the survey results and generalising for the rest of the population (external validity). These include (but are not necessarily limited to):

- cohorts indicated through academic and other research to more likely participate in online wagering have lower levels of representation on market research panels used to recruit survey participants (Sturgis & Kuha, 2021);
- consumer awareness of information associated with their provider of choice and the jurisdiction (if any) in which the provider is regulated is low; and
- general issues in online gambling questionnaires, including engagement, understanding of offshore wagering (i.e., betting online vs. mobile-app fast codes), lack of identity verification and the lack of quality random sampling inhibiting statistical inference (Pickering & Blaszczynski, 2021).

These issues are consistent with the broader challenges and limitations established through the literature and noted anecdotally by stakeholders in terms of identifying and understanding the consumer cohort estimates of the size of offshore wagering in Australia vary widely and this is reflected in the variance and challenges in estimating the prevalence of offshore wagering in the survey and academic reports.

The cumulation of these limitations may mean that, while the survey may have strong internal validity, it may lack generalisable external validity. That is, responses generated can have little to no correlation or systemic impact on measures found in real life settings. A key reason for this is that respondents do not see the consequences of their actions and therefore, may hide their true preferences—as there is no incentive for respondents to disclose their true preferences (Vossler & Evans, 2009).

To mitigate the impact of the above limitations, responses with a low probability of validity were removed using the following checks:

- Speeder check: Removal of any respondent who completes the survey in less than one-third of the median duration:
- Key board mashing check: Removal of all respondents who enter nonsensical answers in open ended questions; and
- Straight-liner check: Removal of any respondent who gives the same answer to multiple statements on a grid question, where those answers are opposing.

While the above checks help to identify certain types of poor-quality responses, they may not fully identify other quality issues that may have been present in responses.

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Appendix A: Acronyms

Acronym/Abbreviation	Definition
ACIC	Australian Criminal Intelligence Commission
AIC	Australian Institute of Criminology
ACMA	Australian Communications and Media Authority
AFL	Australian Football League
GBGC	Global Betting and Gaming Consultants
GGR	Gross Gambling Revenue
H2GC	H2 Gambling Capital
IGA	The Interactive Gambling Act (2001) (Cth)
NISU	National Integrity of Sport Unit
NRL	National Rugby League
NSO	National Sporting Organisation
отт	Over-the-top
PFIA	Product Fee and Integrity Agreements
PGSI	Problem Gambling Severity Index
SCB	Sport Controlling Body
WSP	Wagering Service Provider

Appendix B: Glossary of terms

Key terms	Definition
Bonus bets	Free betting credits offered to a customer as an incentive to commence betting or continue betting with the same betting operator.
Bookmaker	An individual or organisation who sets betting odds and accepts bets in relation to specific contingencies on-course and, subject to approval, online and over the telephone. Bookmakers are typically licensed by a principal racing authority.
Contingency	Any event on which a gambling or wagering product is framed and in respect of which customers can place bets, in return for the chance of a winning payout.
Court-siding	The process of collecting and transmitting sports data directly from the location of a sporting event for the purpose of gaining a gambling advantage due to the time delay between an event occurring in a game situation and the event registering as occurred on the betting platform.
Domestic WSP	A domestic wagering services provider which holds a licence issued under relevant Australian State or Territory law.
Data scouting	The method of collecting live data from the sporting event and transmitting it to a centralised server in real-time. The data, once fed to the centralised server, is distributed to third parties to create engagement channels or gambling products.
Gambling	An activity that involves the staking of money or other valuable consideration of real-world value on the outcome of an event determined in whole, or in part, by chance and with the objective of winning a prize. Gambling can be classified as wagering, lotteries, electronic gaming machines and casino games (including poker).
Gambling harm	Adverse impacts from gambling on the health and wellbeing of individuals, families, communities, and society.
Gross gaming revenue (GGR)	The gross return made by an operator on gambling products, equal to the value of turnover (bets made) less payouts made to customers (player winnings).
Harm minimisation	Measures that seek to mitigate gambling harm.
In-play wagering	Betting options which are made after the commencement of an event, such as a sporting match.
Inducements	Credit, vouchers, rewards, or other benefits offered by gambling operators to customers to incentivise the opening and/or retention of an account with that operator.
Online gambling	All forms of gambling taking place over the internet.

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Key terms	Definition
Micro-betting	A type of bet that is considered a subset of in-play betting. Betting options such as ball-by-ball in cricket or point-by-point in tennis. Micro bets are characterised by a high frequency of events, a restricted number of potential outcomes and small timeframes (under five minutes) between bets being accepted and the outcome being realised. There are typically many options to micro-bet on a sporting event and the bets have a limited relationship to the overall outcome of the event.
National sporting organisation (NSOs)	NSOs are recognised by Sport Australia as the pre-eminent body for the governance/administration of their sport in Australia.
Official data	Data which is a league-approved tabulation of what happened in a sports competition.
Offshore wagering market	Refers to wagering services on Australian sports being offered by an offshore WSP. When offered to persons in Australia, these gambling services are prohibited under the IGA and under State and Territory laws.
Offshore WSP	Refers to an offshore wagering services provider which does not hold a licence issued under relevant Australian State or Territory law.
Pre-commitment	Measures to support consumers establish limits and monitor and manage their gambling expenditure at pre-determined levels per day, week, or month.
Self-exclusion	Systems to enable those experiencing gambling harm to immediately exclude themselves from gambling services. Self-exclusion is mandated to be made available to customers by all regulated wagering operators.
Responsible gambling	Responsible gambling refers to efforts made to provide a gambling environment that is safe, socially responsible, and supportive and where the potential for harm associated with gambling is minimised and people can make informed decisions about their participation in gambling.
Sports controlling body	An organisation that is approved by the relevant state-based regulator as the controlling body for a sports betting event.
Sports data	Data and information collected in relation to an Australian sporting event.
Sports data companies	Companies that provide data management and integrity services to sports organisations and leagues.
Sporting organisations	For the purposes of this report, collectively considers SCBs and NSOs.
Sports integrity	 The Wood Review, in line with the definition previously established by the National Integrity of Sport Unit (NISU), defined 'sport integrity' in Australia as: "The manifestation of the ethics and values which promote community confidence in sports, including: fair and honest performances and outcomes, unaffected by illegitimate enhancements or external interests; and positive conduct by athletes, administrators, officials, supporters and other stakeholders, on and off the sporting arena, which enhances the reputation and standing of the sporting contest and of sport overall."
Unofficial data	Data collected through unlicensed sources, including by 'data scouts' who collect data at events without a licence or the relevant Sporting organisation's consent.

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Key terms	Definition
Wagering	All forms of betting on sports, racing, and other approved events.
Wagering service provider or WSP	 In this report, wagering service provider is used as a wider term for: on-course bookmakers (being either individuals, partnerships or companies), who are licensed under State or Territory law to operate at race tracks and, depending upon their approvals and authorisations, also over the telephone and/or online; retail wagering service providers, which provide wagering on-course at racetracks, in agencies and licensed venues, over the telephone and online; and 'corporate bookmakers' (which, in the case of Australia, are licensed in the Northern Territory), which provide wagering services online and often also over the telephone. These WSPs may be regulated or unregulated depending on whether they hold a licence issued under relevant Australian State or Territory law. Onshore WSP: a wagering service provider that operates with a license issued by the relevant Australian State or Territory and under Australian regulatory frameworks Offshore WSP: a wagering service provider that does not operate with a license issued by the relevant Australian State or Territory nor under Australian regulatory frameworks

Appendix C: Stakeholder list

To identify a final list of stakeholders that were to be engaged as part of the consultations, there were initial working sessions with Sport Integrity Australia and other agencies to determine those that would provide the most value. The research consultants then worked with the wider research consortium to append this initial list of stakeholders with any other identified groups that may have been able to provide any further insights in relation to the research questions and issues. Domestic and international organisations were consulted, including industry peak bodies, the top major sport SCBs and NSOs, WSPs, wagering regulators, other government agencies, and academics.

No.	Stakeholder consulted
1	Basketball Australia
2	Motorsport Australia
3	Hockey Australia
4	BetFair
5	National Rugby League (NRL)
6	Bet365
7	Netball Australia
8	Sportradar
9	Tennis Australia
10	Victoria Police
11	Cricket Australia
12	Football Australia
13	Department of Justice (DoJ) Victoria
14	SA Consumer & Business Services
15	Responsible Wagering Australia
16	Asian Racing Federation Council
17	Coalition of Major Professional and Participation Sports (COMMPS)
18	Tabcorp
19	Entain Group
20	International Betting Integrity Association (IBIA)
21	Genius Sport
22	Liquor & Gaming NSW
23	Australian Communications and Media Authority (ACMA)

Appendix D: Stakeholder consultation materials

Recognising the formative nature of this research, the complexity of the issues considered, and the varied perspectives and interests of different stakeholder groups, consultation was broad and comprehensive. Once the final list of stakeholders to be consulted had been established through a collaborative process, the research consultants developed consultation guides and questions that would be used initially to lead each consultation ensuring the appropriate data and information could be gathered. The consultation guide is provided below.

Impact of the distribution of Australian sports data into foreign jurisdictions

Consultation Overview: NSW Department of Customer Service

Background

Gambling Research Australia and Sport Integrity Australia (SIA) are undertaking research to determine the impact of the distribution of Australian sports data into foreign jurisdictions on sport integrity and consumer protection outcomes. Specifically, the research is seeking to understand:

- the ways in which sports data is collected and disseminated by official and unofficial data providers;
- how data is used by offshore wagering service providers (WSPs); and
- how, and to what, extent these practices in wagering markets can influence sport integrity and consumer protection outcomes within Australia.

The research consultants, together with a consortium comprising Dr. Sally Gainsbury and Principals Paul Newson, Julian Hoskins and Alexandra Hoskins from Senet, have been engaged to undertake this research and provide input into the evidence base in relation to these issues.

Scope

The scope of the research project is to build an evidence base to understand the nature and extent of the impact of data flows into offshore wagering markets as they relate to sport integrity and consumer protection outcomes in Australia.

Specific policy recommendations of how Australian sports data is managed and regulated are not within the scope of this research and are not the focus of these stakeholder consultations.

Project timing

The project will be undertaken between May and August 2021.

Stakeholder consultations will be held during June and July 2021.

Consultation principles

To support this project, the research consultants and its consortium partners are undertaking detailed engagement with stakeholders across industry and government, including industry peak bodies, sporting organisations, WSPs, regulators and broader government agencies. The purpose of these consultations is to seek comprehensive evidence-based insight to inform the research questions being considered in this study.

Consultations will be facilitated by senior members of the project team in accordance with the following principles:

- We are taking a broad ranging approach to consultations to ensure we can maximise stakeholder input to the various issues being considered as part of this study to appropriately understand their complex nature:
- All feedback, data and information shared during consultations will be considered by the research consultant and its consortium partners in developing the analysis and report. However, all inputs from stakeholders will remain confidential and will not be attributed to directly unless expressly agreed between the research consultant and the stakeholder in question;
- Wherever practical, we will be seeking evidence and data to support insights and perspectives provided by stakeholders during consultation to construct a comprehensive evidence base; and
- Analysis will be themed based on the stakeholder groups to ensure questions are fit for purpose and address key outcomes sought from the consultation process.

Consultation topics

During our consultations, we are looking to gather insights and data in relation to the following broad issues:

- How Australian sports data is collected, disseminated and used by official and unofficial data providers;
- What impact the collection, dissemination and use of Australian sports data has on the volume and types of markets available by offshore providers;
- What impact the collection, dissemination and use of Australian sports data has on liquidity in foreign markets:
- What sports integrity risks are associated with the availability of offshore WSPs;
- How does the availability of these markets impact consumer behaviour, including wagering on domestically prohibited events or increased risk of gambling harm:
- What impact does the availability of these markets have on local WSPs; and
- What are the sport integrity risks, threats or benefits associated with the collection, dissemination and use of data by official or unofficial providers.

We are also looking to identify additional issues and considerations that may be pertinent in considering issues associated with the impacts of data flows in offshore wagering markets as they relate to sport integrity and consumer protection outcomes for Australians.

Post-consultation

Following the conclusion of the consultation there may be follow-up in the form of more specific questions by the research consultants and its consortium partners with the relevant stakeholders to seek any further written input or data that may be identified during the consultation process where available.

General consultation questions (asked to all stakeholders)

Question

What are the different types of sports data that you believe drive in-play betting?

What are the different types of sports data that you believe drive online offshore wagering?

What are the known and emerging integrity threats due to increased popularity of online wagering, especially in semi-professional and amateur sports in Australia?

What are the different methods of collecting official and unofficial sports data?

What drives consumers towards offshore wagering ahead of onshore wagering?

What do you believe are the drivers of offshore wagering/offshore markets?

What are your views on consumer behaviour with respect to online in-play wagering?

What are your views on socio-economic dynamics around the legislative arrangements for online, in-play wagering?

What are the issues, challenges and barriers in legalising online, in-play wagering?

What are the benefits and disadvantages to legalising online, in-play wagering?

What are the potential behaviour differences between consumers who place in-play wagers and those who do not?

Targeted consultation questions (asked to specific stakeholder types)

Question

Can you detail the impact of increasing online offshore wagering activity on consumer harm? What are the consumer protection policies/regulations implemented by you?

What are the policy options identified by you to restrict unauthorised transfer of official sports data, maintain sports integrity and ensure consumer protection?

Can you share any insights regarding the regulatory practices and standing of offshore WSPs with respect to data protection, consumer protection, sports integrity, illegal betting activity, etc.?

- What policies and practises are currently in place to limit offshore access?
- How could these current policies be expanded to be more effective?

What is your perspective on efficacy of National Consumer Protection Framework for online wagering in Australia?

- Where do you see the key benefits of broadening this to include online in-play wagering?
- What challenges do you foresee in broadening this to include online in-play wagering?

What are the different gambling harm minimisation tools/techniques implemented? Are the existing consumer protection measures being utilised to its full strength?

What are the most effective measures and how applicable are they to expand to include online in-play wagering?

Can you share any insights into the methods of enabling consumers to access/restrict offshore betting on local sports? How effective are they?

What are the policies in place to protect consumers and what is its effectiveness in regard to online offshore wagering?

What are the policies in place to protect consumers and what is its effectiveness in regard to inplay wagering?

If your jurisdiction allows online in-play wagering:

- What was the growth in the size of the on-shore market after this regulation was implemented?
- What was the demographics of the consumers who participate in this type of wagering? Is this varied at all from other forms of online wagering?

What do you think are the key reasons consumers bet on offshore betting markets as opposed to regulated domestic markets?

Do you believe that existing regimes, for example, Point of Consumption Tax have impacted customers betting behaviour?

What do you think are the key reasons consumers bet on offshore betting markets as opposed to regulated domestic markets?

Do you believe that existing regimes and 'push' factors, for example, Point of Consumption Tax have impacted customers betting behaviour?

How would different policy options change shifts in different consumer groups from offshore to onshore gambling sites?

What is the proportion of customers that started using quasi in-play betting using VOIP during the time it was available? Also, can you share the type of customers which engaged? Specifically:

- Population of consumers
- **Demographics of users**

Question

Volumes of dollars bet

What do you estimate is the volume of Australian consumers in the total online, in-play wagering activity for your business?

What type of consumer protection tools do you offer? Also, are there any gambling harm minimisation measures present in the system?

What do you think are the key reasons as to why consumers bet on offshore betting markets as opposed to regulated domestic markets?

Do you think the availability of Australian sports markets in foreign jurisdictions impacts consumer behaviour? If yes, how does it impact consumer behaviour?

What are your views on consumer behaviour with respect to online in-play wagering?

Do you believe that inferior/unknown consumer protection and responsible gambling arrangements are disincentives for Australian customers to bet with offshore sites? Would you state that unknown or inferior consumer protection and responsible gambling arrangements are a significant issue?

Appendix E: Survey methodology paper

Background and screening information

Screening information will be sought through several questions, as outlined below.

Background information

The participant will be presented with the following information at the outset:

Sport Integrity Australia and Gambling Research Australia are undertaking seeks to understand the endto-end lifecycle of Australian sports data creation and dissemination, and the impact of its flows into unregulated wagering markets on sport integrity and consumer protection outcomes in Australia.

As a key component of this research we are surveying Australian consumers to understand how they wager, the betting activities in which they wager on and what avenues they use to access wagering services. This survey has been designed to understand three objectives:

Understand the nature and extent of different consumers' participation in different forms of gambling;

Understanding consumer attitudes in relation to different forms of gambling; and

Developing an understanding of the link between sports data capture, dissemination and use in framing domestic and foreign sports wagering markets, and consumer engagement with those markets.

The following definitions apply in the survey questions:

Gambling: all forms of gaming and wagering, including betting on sports, racing and fantasy sports, lotteries, EGMs, and all casino games including poker.

Gambling spend: <u>net-losses</u> in gambling expenditure (\$ total bet amounts – \$ total winnings)

Land-based gambling: gambling that occurs in-venue by interacting with a machine or a person.

Online gambling: gambling that occurs by using an online means such as a mobile phone, computer, website or interactive application.

Pre-play gambling: Bets that are placed on a sports betting or racing market prior to the event beginning.

In-play gambling: Bets that are placed on a sports betting or racing market after the event has begun.

Consumer protection: this refers to various means of trying to minimise the risks to consumers associated with problem gambling, including (but not limited to) pre-commitment, self-exclusion, deposit limits, and maximum bets.

Sports data: Data and information collected in relation to an Australian sporting event.

Screening information

1. What is your current age?

Male	Female	Transgender
Gender variant/Non- confirming	Other	Prefer not to say

2. What is your current age?

18 ⁸	19-24	25-34	35-44	45-54	55-64	65+

⁸ These participants will be screened out.

3. What State/Territory do you currently live in?

NSW	QLD	NT	TAS	WA	SA	VIC	ACT

4. What is your current postcode?

(text)		
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5. Is English the primary language spoken at home?

Yes	No

6. What is the highest level of education/qualification you've achieved?

Certificate/diploma (including trade qualifications)	Bachelor's degree	Postgraduate degree	Year 12	Year 11 and below
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7. What is your current marital status?

Married De fa	facto Single	Divorced	Separated	Other
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8. What is your current household size?

1	2	3	4	5+	
		_		_	

9. What is your current work status (if you are currently impacted by COVID-19 lockdown, please refer to your typical work status)?

Employed full- time	Unemployed and looking for work	Employed part-time	Not in the paid labour force
Student/full-time studies	Retired	Pension	Other

10. Did you experience a reduction of hours or termination of your employment during the COVID-19 period (from March 2020 until today)?

Yes, reduction in hours	Yes, termination of employment
No, improvement in hours	No change

11. What is your current personal income?

No personal income	\$1-19,999	\$20,000-\$39,999	\$40,000 – \$59,999
\$60,000 - \$79,999	\$80,000 - \$99,999	\$100,000 - \$119,999	\$120,000 - \$139,999
\$140,000 - \$159,999	\$160,000 - \$179,999	\$180,000 - \$199,999	\$200,000+

12. Did you experience a reduction in your personal income during the COVID-19 period (from March 2020 until today)?

Yes, reduction in income	No change
No, increase in income	

13. What is your current household income (for all individuals within your household that share income)?

\$0	\$1-24,999	\$25,000-\$49,999	\$50,000 - \$74,999
\$75,000 – \$99,999	\$100,000 - \$124,999	\$125,000 - \$149,999	\$150,000 - \$174,999
\$175,000 - \$199,999	\$200,000 - \$249,999	\$250,000 - \$299,999	\$300,000+

14. Did you experience a reduction in your household income during the COVID-19 period (from March 2020 until today)?

Yes, reduction in income	No change
No, increase in income	

15. Have you ever participated in any form of gambling (includes all forms such as lottery products, casino games, sports wagering and scratch cards etc.)?

s	No
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16. Have you participated in any form of gambling in the past 12 months?

	Yes	No	
- 1			

Survey questions

The purpose of the survey component of the consumer research is to help understand seeks to understand the end-to-end lifecycle of Australian sports data creation and dissemination, and the impact of its flows into domestic and international wagering markets on sport integrity and consumer protection outcomes in Australia. The objectives are to:

- Understand the nature and extent of different consumers' participation in different forms of gambling;
- Understanding consumer attitudes in relation to different forms of gambling; and
- Developing an understanding of the link between sports data capture, dissemination and use in framing domestic and foreign sports wagering markets, and consumer engagement with those markets.

17.	On a scale of 1-5 what is your attitude towards sports wagering (sports and race betting)	in general (1
	being very negative, 3 being neutral or not sure and 5 being very positive)?	

1	2	3	4	5

18. What is your motivation to participate in sports wagering and how important were the below factors (select all that apply)?

	Very important	Important	Somewhat important	Not important
Monetary gain				
Promotional bonuses and rewards (i.e. bonus bets)				
Professional activity				
Social motives (i.e. be sociable with friends)				
Pass time/boredom				
Interest in sports/racing				
Challenge of gambling				
To relieve stress or emotion				
To make sports/racing more enjoyable				
Entertainment and excitement				
Prefer not to say				
Other				

	_				
1	Q	Ιf	other	nlease	specify?

(text)

20. Over the last 12 months, how frequently did you participant in the following gambling activities and what was your estimated dollar amount spent? (select and fill all that apply)?

Activity	Did not participate	Daily	Weekly	Monthly	Estimated dollar amount spent over the last 12 months (\$)
Betting on Horse or dog races					

Activity	Did not participate	Daily	Weekly	Monthly	Estimated dollar amount spent over the last 12 months (\$)
Casino table games					
Poker machines/slots					
Sports wagering					
Keno					
Poker					
Bingo					
Lotto or Lotto games					
Instant scratch tickets					

21. In regard to sports wagering, how much of the total amount you indicated in question 22 was spent through online platform over the past 12 months?

Less than \$200	\$200 - \$499	\$500 – \$999	\$1,000 - \$1,999
\$2,000 - \$4,999	\$5,000 - \$9,999	\$10,000-\$19,999	\$20,000 or more

22. In regard to horse or dog racing, how much of the total amount you indicated in question 22 was spent via an online platform over the past 12 months?

Less than \$100	\$100 - \$249	\$250 – \$499	\$500 - \$999
\$1,000 - \$1,999	\$2,000 - \$4,999	\$5,000-\$9,999	\$10,000 or more

23. What types of sports wagering have you participated in during the past 12 months (select all that apply)? Note that pre-play refers to bets placed before an event starts and in-play refers to bets after an event has started.

Pre-play – in person	Pre-play – online	In-play – in person
Pre-play – over the phone (mobile app)	In-play – online	In-play – over the phone (phone call)

24. What are the reasons for choosing not to participate in online sport wagering (choose all that apply)?

I prefer to gamble at a physical venue (e.g. TAB)	I believe outcomes to be more certain at a physical venue	I get better odds than online	I'm familiar with how to use land- based gambling	Other
I don't have to provide my identity	I can bet with physical cash	I don't want to create an online account	I can cash out immediately	

25. If other, please specify?

(text)	(text)					
--------	--------	--	--	--	--	--

26. What factors may influence you to participate in online gambling?

Convenience and accessibility	Promotional offers//bonuses	Advertising from online operators	Better odds being offered online
Ability to bet with credit card	Greater variety of betting options	Ability to track bets (i.e. via mobile app)	Other

27. What is your typical physical location while online sports wagering?

Home Work	Commute	Sports venue	Pub or club	Retail betting outlet	
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28. When do you typically place your bets in relation to an event?

During an event	Immediately before an event	The day of the event	1-2 days before the event	3-7 days before an event	7+ days before an event
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29. What technology medium do you use most for online sports wagering?

Mobile Phone	PC	Laptop	Desktop computer
Tablet	Smart TV	Other	

30. What time of day are you mostly likely to engage in online sports wagering?

Morning (6 AM to 12 PM)	Afternoon (12 PM to 6 PM)	Evenings (6 PM to 11 PM)	Late evenings/late night (11PM to 6 AM)
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31. What is your usual payment method for online sports wagering (select all that apply)?

Credit card (excluding credit cards linked to a debit account)	Debit card	Net banking i.e. bank transfer	e-wallets e.g. PayPal, Google Pay
Cryptocurrency	Afterpay (or other similar services)	Stripe	Other

32.	On a scale of 1-5,	how important	is it to you that	you follow	or support t	the sport that	you are	gambling
	on?							

1 2 3 4 5	
-----------	--

33. How often do you watch sports events (via television or streaming) that you have placed bets on?

Always	Sometimes	Never
_		

34. If you gamble on a sport that is not televised or streamed, what is your primary motivation for gambling on it and how important are the below factors

	Very important	Important	Somewhat important	Not important
Monetary gain				
Promotional bonuses and rewards (i.e. bonus bets)				
Professional activity				
Social motives (i.e. be sociable with friends)				
Pass time/boredom				
Interest in sports				
Challenge of gambling				
To relieve stress or emotion				
Entertainment and excitement				
Prefer not to say				
Other				

35. Which sports are you most likely to wager online (select all that apply)?

AFL	Basketball	Tennis	Rugby League
Rugby Union	Soccer	Cricket	Other

36. In the last 12 months, have you bet on Australia sub-elite, semi-professional levels, or junior levels of any sport with an Australian based wagering operator?

	Yes	No
ı		

37. (if answered No to Q44) If not, why?

I have no interest	There is no value	There is too much risk
They are not offered	I don't know enough about the event to bet on it	

38. In the last 12 months, have you bet on Australian sub-elite, semi-professional levels, or junior levels of any sport with an offshore based wagering operator?

39. (if answered No to Q46) If not, why?

I have no interest	There is no value	There is too much risk
They are not offered	I don't know enough about the event to bet on it	

40. (if answered Yes to Q44 or Q46) What type of bets did you place (select all that apply)?

Head to head	Often	Sometimes	Never
Multi & Same Game Multi Bets (when you combine a selection of single bets together, in effect multiplying your bet)	Often	Sometimes	Never
Microbetting (e.g. next tennis service is a fault)	Often	Sometimes	Never
Line or Handicap Betting (when a match is handicapped by the bookmaker)	Often	Sometimes	Never
Statistical betting (Exotics/Player Props that rely on statistical analysis to determine e.g. run metres, tackles, winners (tennis) etc)	Often	Sometimes	Never
Margin Betting (pick the winning margin on an event between two teams)	Often	Sometimes	Never
Other	Often	Sometimes	Never

Yes				No			
2. On a scale of 1	-5, how confider	it are yo	ou that the v	vagering o	perators	s' results are	legitimate?
1	2		3		4		5
3. How many onlir	ne sports wageri	ng acco	ounts do yo	u have?			
1		2 – 4				5 or more	
4. Roughly what is	the combined b	alance	of your onl	ine sports	wagerin	g accounts o	currently?
Less than \$50	\$50 - \$99		\$100 - \$2	49	\$250	- \$499	\$10,000 or mor
\$500 - \$999	\$1,000 - \$1,9	999	\$2,000 -	\$4,999	\$5,00	0-\$9,999	None
5. Please select a	II the online spor	ts wage	ering operat	ors that yo	ou have	accounts?	
Bet365	BetCity		Betfair		BET.	co.za	BetEasy
Betmasterplay	BitStarz		Cloudbe	t	DraftKings		Draftstars
EliteBet	Golden Star Casino	•	LiveBet		Ladb	rokes	Neds
Picklebet	Pointsbet		Sportsbe	et	Swoo	pstakes	Tabcorp
TAB Limited	TopSport		Unibet		Zbet		Other
	-5, how importar and 5 being very			tary base	(ie. inter	national or lo	ocal) (with 1 being n
7. Would you be n money within A		change	wagering o	perators if	you kne	ew that your	they weren't circula
Yes				No			
8. On a scale of 1- information was							ata and account very comfortable)?

49. Would you still feel comfortable betting on markets that the Sporting Organisations had not agreed to?

Yes	No	No preference
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50. On a scale of 1-5, if you knew that your wagering provider offered unagreed markets, how likely would you be to change providers? (with 1 being very likely and 5 being very unlikely)

1	2	3	4	5

51. Roughly what proportion of your total online sports wagering spend did you spend on in-play versus preplay in the past month (should total 100%)?

Online pre-play (100%)	75% Online pre-	50% Online pre-	75% Online pre-	Online in-play
	play,	play,	play,	(100%)
	25% Online in- play	50% Online in- play	25% Online in- play	

52. On average, how many bets do you place online in-play during a single sporting event?

0	1	2	3-5	6-10	More than 10
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53. Do you find the ability to place bets online in-play leads to you betting more frequently compared to other traditional platforms (i.e. online pre-play or in-play over the phone) (with 1 meaning a minimal effect on gambling frequency and 5 being a very high effect)?

1	1	2	3	4	5

54. On average, what is the amount of each online in-play sports wagering bet?

Less than \$5

55. Which type of online in-play sports wagering products do you gamble on (select all that apply)?

Head to head	Line or Handicap Betting (when a match is handicapped by the bookmaker)	Margin Betting (pick the winning margin on an event between two teams)
Multi & Same Game Multi Bets (when you combine a selection of single bets together, in effect multiplying your bet)	Exotics/Player Props (unique bets related to an event e.g. first player to kick a goal)	Other
Microbetting (e.g. next tennis service is a fault)		

56. What advantages do you see online in-play sports wagering having over other land-based or online gambling forms (i.e. physical venue or over the phone)?

Easily accessible	Better odds	High flexibility	Other
Ability to bet/change bet preferences after an event has started	Ability to change bets	More excitement	

57. If other, please spe	cify
--	------

(text)	

58. On a scale of 1-5 how important is the ability to place bets in-play in the decision to choose specific operator? (with 1 being not very important and 5 being very important)?

1	2	3	4	5

59. On a scale of 1-5, how important is where the site is regulated or which country regulates the site in your decision to use the site for online in-play (with 1 being not very important and 5 being very important)?

1	2	3	4	5

60. Referring to the previous question, please outline the reason for your rating, why?

Range of products offered	Greater sense of trust	Odds offered	Support available for dispute resolution	Other
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61. Are you aware of where an online in-play site you use is regulated?

Yes	No	I don't know
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62. To you best knowledge, where is an online in-play site you use regulated?

Australia	Isle of Man	Malta	Philippines	United Kingdom	Other	l don't know
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63. When it comes to online in-play wagering please highlight how important the below factors are for selecting an operator (select all that apply)?

	Very important	Important	Not important
Better odds offered			
Ability to bet without limits			

	Very important	Important	Somewhat important	Not important
Availability of other gambling products (e.g. casino games)				
Recommendation from others				
Ease of platform use				
Promotional offers (i.e. bonus bets)				
Availability of platform support i.e. customer service				
Availability of credit				
Range of wagering products				
Reputation of company for being fair and trustworthy				
Other				

	64.	If other,	please	specify?
--	-----	-----------	--------	----------

/+	~~+1
ιL	EXLI

65. On average, would you say odds offered for online in-play odds are better than online pre-play?

Never	Sometimes	Often	Always	

66. On average, what is your best estimate (percentagewise) of the difference between online pre-play and in-play odds (e.g. 20% better)?

	Somewhat better odds 1-5%)	Much better odds (5- 10%)	Significantly better odds (>10%)	
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67. On average, how often do you use credit (credit card not linked to a debit card etc.) to sports wager online in-play?

Never Sometimes Often Always	
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68. How long did it take you to set up an account that allowed online in-play?

Less than 5 mins	5-15 mins	More than 15 mins
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69. Would you look for new online in-play operators if odds or pay-outs were to decrease?

Yes, immediately	Yes, only if the decrease was significant enough	No

70.	Do you receive promotional offers or advertisements from online in-play operators specifically about
	participating in online in-play wagering?

Yes, always	Yes, sometimes	Never
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71. How important would the following factors be in you switching from your current in-play betting site? (select all that apply?)

	Very important	Important	Somewhat important	Not important
Betting odds				
Size of bets allowed				
Availability of similar betting products				
Regulated in Australia				
Ease of platform use				
Bonus offers (i.e. bonus bets)				
Dispute resolution (ability to seek support from domestic regulator if you have a dispute)				
Reputation of company for being fair and trustworthy				
Preference for a domestically licensed operator				
Ability to seek external support in the event of a dispute				
Other				

(text)

73. Are you aware of how the data that is used to frame markets on sports wagering is captured and disseminated in Australia?

	No	Other
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74. If yes, what is your und	erstandin	ng of how sports da	ata is captured and	l dissemir	nated within Australia.
(text)					
75. Have you heard of data	a scouting	or courtsiding?			
Yes		No		Other	
76. What is your understan	ding of d	ata scouting or cou	urtsiding?		
(text)					
77. Are you aware of any s	ports data	a companies?			
Yes		No		Other	
78. If yes, can you name ar	ny?				
Sportsradar		Genius Sport		Stats P	erform
Other					
Problem Gambling Severi (The below questions will 79. Have you bet more than	appear	all participants ex	•	have not	gambled)
Never	Someti	mes	Most of the time	•	Always
80. Have you needed to ga	ımble with	n larger amounts o	of money to get the	same fee	eling of excitement?
Never	Someti	mes	Most of the time	•	Always
81. Have you gone back or	n another	day to try to win b	ack the money yo	u lost?	
Never	Someti	mes	Most of the time)	Always
82. Have you borrowed mo	oney or so	old anything to gan	nble?		
Never	Someti	mes	Most of the time)	Always

83. Have you felt that you might have a problem with gambling?

Never	Sometimes	Most of the time	Always
Have people c thought it was		told you that you had a gambling p	roblem, whether or not you
Never	Sometimes	Most of the time	Always
35. Have you felt o	guilty about the way you	ı gamble or what happens when yo	u gamble?
Never	Sometimes	Most of the time	Always
36. Has gambling	caused you any health	problems, including stress or anxie	ty?
Never	Sometimes	Most of the time	Always
37. Has your gaml	bling caused any financ	ial problems for you or your househ	nold?
Never	Sometimes	Most of the time	Always
The below quest questions)	ions will appear to pa	pate online in-play sports wager rticipants if they select 'yes' to co	ontinuing with further
The below quest questions)	ions will appear to pa	rticipants if they select 'yes' to co	ontinuing with further
The below quest questions) 38. Do you think o	ions will appear to pa	rticipants if they select 'yes' to co	ontinuing with further
(The below quest questions) 88. Do you think o	ions will appear to pa	rticipants if they select 'yes' to co	ontinuing with further
(The below quest questions) 38. Do you think of Yes 39. If not, then why (text)	ions will appear to pandine in-play wagering in	rticipants if they select 'yes' to co	ontinuing with further ed are accurate)?
(The below quest questions) 88. Do you think of Yes 89. If not, then why (text)	ions will appear to panished in-play wagering in y?	rticipants if they select 'yes' to constructed fairly (e.g. prices offere No	ontinuing with further ed are accurate)?
The below quest questions) 38. Do you think of Yes 39. If not, then why (text) 90. On a scale of 1 being not at 1	nline in-play wagering in the in-play wagering in the in-play wagering in the interest in the	rticipants if they select 'yes' to construct the select 'yes' the select 'yes' to construct the select 'yes' the select 'yes' to construct the select 'yes' the sele	ed are accurate)? site impacts sports integrity (w
The below quest questions) 38. Do you think of Yes 39. If not, then why (text) 90. On a scale of 1 being not at 1	nline in-play wagering in the in-play wagering wagering in the in-play wagering wagering in the in-play wagering w	rticipants if they select 'yes' to construct the select 'yes' the select 'yes' to construct the select 'yes' the select 'yes' to construct the select 'yes' the sele	ed are accurate)? site impacts sports integrity (w
(The below quest questions) 38. Do you think of Yes 39. If not, then why (text) 90. On a scale of a being not at at a scale of a being not at a scale of a scale of a being not at a scale of a being not at a scale of a scale of a being not at a scale of	nline in-play wagering i y? 1-5, to what extent do y all and 5 being a lot) 2 erienced any cyber-sec related to after online ir	rticipants if they select 'yes' to construct the select 'yes' the select 'yes' to construct the select 'yes' the s	ed are accurate)? site impacts sports integrity (w 5 entity/money theft, fraud etc.)

Misleading promotions No, I have not had any issues	Other
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93. If other, please specify?

(text)

94. In relation to your issues with online in-play wagering sites, did you seek to resolve the issue through any of the following (select all that apply)?

No I did not seek any formal resolution	I stopped using the site	I closed my account
Through the operator	Through the police	Not relevant
Through a bank or financial institution	Through another organisation or third party	Other

95. What was the outcome of the complaint?

(text)

96. On a scale of 1-5, how confident are you in getting a complaint resolved with an online in-play operator (1 being not very confident, 5 being very confident)?

1 2 3 4 5

Delivery platform

The survey will be programmed into an online platform by an accredited programmer and distributed to 1228 participants by Dynata, a survey panel provider. Respondents will be selected by Dynata from its potential panel of respondents.

Once fieldwork is complete, Dynata will share the final data file with the project team via email for analysis and reporting.

Privacy and confidentiality

All survey responses will be anonymous. No identifiable information will be collected or stored within the survey response. Furthermore, all data collected will be coded and stored securely in Australia and, where appropriate, encrypted or password protected.

Ethics consideration

Research conducted in or by Australia public institutions that involves human participants must be approved by an accredited Human Research Ethics Committee (HREC). The purpose of HRECs is to protect the welfare and rights of the participants in the research with the secondary aim of trying to facilitate research of benefit to the wider community. (University of Wollongong, n.d.) The Consumer Research Survey and Behavioural Insights will be developed in accordance with all ethical standards and guidelines from the National Statement on Ethical Conduct in Human Research which relates to consultation with the general public regarding potentially sensitive material. Therefore, we will facilitate an ethics approval from an accredited Human Research Ethics Committee being the University of Wollongong (UoW).

We have undertaken an assessment of potential risks of harm to the participants and have concluded that there is a low risk based on our assessment and that the only foreseeable risk is discomfort. The human research being conducted:

- Does not involve a risk of harm; and
- Does not aim to expose an illegal activity from the participants themselves;
- The research is seeking to better understand potentially illegal activity by overseas service providers (not individuals, and not Australians) located in foreign jurisdictions.
- The risk of discomfort is due to the potential social discomfort as wagering and online behaviour may cause some people social discomfort due to the nature of the topic. Similarly the potential for participants to disclose that they are involved in accessing services that are illegally offered to them (offshore online, in-play wagering) however noting that this does not mean they are undertaking an illegal activity themselves as the IGA does not restrict Australians accessing these services. The National Statement refers to the sensitive nature of this topic as the potential to uncover illegal activities but as aforementioned any illegal activities relate not to the participant, but to overseas firms operating in overseas jurisdictions. Risk mitigation will involve:
- Obtaining active consent;
- Ensuring participants understand withdrawal for consent can happen at any time;
- That results of research are aggregated and data remains anonymous; and
- Summary of research will be made public (require Sport Integrity Australia's approval beforehand).

There is also a risk of inconvenience because participants need to give up their time to take part in the survey. This inconvenience risk is mitigated as respondents have opted-in to participating in exchange for a small incentive (either the accumulation of points or money).

Limitations

The consumer research is subject to several limitations, as outlined below. Each of these limitations has been considered through the research design and will also be accounted for in analysing and applying the results within the broader research projects.

Selection bias

While online panels allow for access to a targeted and diverse sample for surveys, there are also inherent limitations that come as a result of using such a method. A key consideration is the potential for systematic differences the panel may have in comparison to the general population, which may lead to results being skewed. This is as the demographic breakdown of the panel may differ from the general population due to inherently different behaviours in those who actively participate in any form of gambling or in online surveys themselves. (Sturgis & Kuha, 2021) A 2021 paper published by the London School of Economics found that surveys using predominantly, or entirely online self-completion produce consistently higher estimates of gambling harm compared to surveys using a paper self-completion questionnaire. Selection bias is a particular risk for the online surveys because they either have low response rates or use non-probability sampling; and respondents have the option to opt in, or out, and those that choose to respond to online surveys are likely to systematically differ from the population. Comparisons of estimates revealed a pattern of systematic differences between survey as the online surveys contained gamblers who were more likely to gamble online and to gamble frequently, while the health surveys contained higher proportions of in-person gamblers and less frequent gamblers.

These differences in sample composition seem likely to underpin the differences in rates of gambling harm as the online surveys skew toward people who are more online and 'tech savvy' and these sorts of people are more likely to be online and frequent gamblers. Disproportionately high numbers of online and frequent gamblers mean the online surveys over-estimate gambling harm because online and frequent gambling are independently associated with a higher risk of gambling harm.

Similarly, other potential limitations associated with online surveys include (Pickering & Blaszczynski, 2021):

- Participants being less likely to stay fully engaged for a survey of more than 8-10 minutes than with other research methods:
- Repeated requests to complete the survey can be perceived by participants as annoying and therefore lead to potentially lower response rates;
- Unless an identification verification tool is used, it is impossible to know if the sample providing answers is the right person (i.e. it could be a family member, friend, etc.); and
- Lack of quality random sampling leads to questionable (if any) statistical confidence and margin of error.

However, there are several potential mitigation strategies in reducing the questionable data quality from online gambling studies as outlined in a 2021 paper published by Pickering and Blaszczynski. Such methods to increase data quality include the screening of participants prior to the survey to ensure they meet the required criteria including number of bets placed over a period of time and also have the minimal required level of engagement with the subject area. For this primary research, there will be quality screening of the participant responses to ensure that those that do not meet the minimum criteria are removed.

Well-designed surveys may also have high internal validity but lack external validity. That is, responses generated can have little to no correlation or systemic impact on measures found in real life settings. This is because in surveys, respondents do not see the consequences of their actions and therefore, may hide their true preferences—as there is no incentive for respondents to disclose their true preferences (Vossler & Evans, 2009) A few methods will be used to reduce such behaviour (e.g., cheap talk script in the survey). We also aim to tailor the surveys towards each respondent and around an individual reference point. There is also widespread recognition that the use of surveys as a tool to enable predictive power is very limited. And, it is well documented that what people say they will do does not always equate to what they do. More rigorous methods to improve predictive power for consumers is possible, including through the proposed Behavioural Insights that will be deployed concurrently with the survey.

Response Quality

There can be challenges in the quality of responses provided in research exercises of this nature. To the extent possible, final data received from the provider, Dynata, will be checked to identify and remove any responses where there are indicators of poor response quality. In line with standard practice, this will include:

- Speeder check: Removal of any respondent who completes the survey in less than 1/3 of the median duration;
- Key board mashing check: Removal of all respondents who enter nonsensical answers in open ended questions; and
- Straight-liner check: Removal of any respondent who gives the same answer to multiple statements on a grid question, where those answers are opposing.

While the above checks will help to identify certain types of poor-quality responses, they may not fully identify other quality issues that may be present in responses.

Appendix F: Key terms for document and literature review

A broad-ranging desktop exercise was used to understand consideration in the literature and industry and government analyses and was done through utilising the online searchbase Google as a primary tool. A list of keywords used for the literature review of - 'Impact of the distribution of Australian sports data into foreign jurisdiction' is outlined below:

- Online wagering
- Offshore gambling industry
- Traditional modes of gambling (in-person and telephone)
- Illegal offshore wagering
- In-play sports betting
- Online offshore gambling
- Payout rates
- Onshore gambling sites
- Offshore interactive gamblers
- Electronic gaming machines
- Types of sports data
 - Event data
 - Performance data
 - Raw data
 - Refined data
- Private data collection companies
- Data management and integrity services
- Data scouts
- Wagering service providers (wsps)
- Sportsbooks
- Sport bookmakers
- Online in-play gambling products
- Official and unofficial data
- Courtsiders
- Data scraping
- Product fee and integrity agreements (pfia)
- Regulatory landscape for online gambling (all states and territories)
- Interactive gambling act 2001
- The Sports Betting Operational Model (SBOM)
- Sports controlling body
- Regulatory landscape for various jurisdictions:
 - Sports Betting Intelligence Unit (SBIU) UK'
 - Data Protection Act 2018 UK
 - Sports Wagering Market Integrity Act of 2018 US

- Sports Integrity
- unauthorised data scouting case studies
- problem gambling
- Consumer protection tools for gambling in Australia
- Policies implemented to combat corruption/match fixing in Australia
- Courtsiding policy.