

More than a Game: Evaluating the Economic Contribution of Sport to the Australian Economy

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Introduction

Public policy and investment decisions are often informed by estimates of economic value. While some sources of economic value are measurable in markets, others are not reflected in market transactions and are thus difficult to quantify. Nevertheless, it is important for policy makers to understand the full spectrum of impacts any intervention could have on social well-being to ensure that resources are allocated optimally.

This essay summarises estimates of the economic contribution of amateur and professional sport (the 'sports industry') to the Australian economy. Conventional macroeconomic tools for assessing economic value are presented, along with estimates of the value of various spill-over effects associated with the sports industry. The latter represent non-market sources of economic value and are the subject of active debate in the literature. The policy implications of externalities as well as other market failures in the sports industry are also discussed.

Economic activity

The sports industry is not separately identified in the national accounts framework in Australia. Instead, the Australian Bureau of Statistics (ABS) measures activity in the 'sport and recreation industry', which includes several non-sport activities such as camping.¹ In 2011-12, the ABS estimated the value of sport and recreation to the Australian economy to be almost \$13 billion.¹ The report also excluded the economic value added by related industries, such as food and accommodation, retail trade and health care.

Several non-government entities have attempted to quantify the economic contribution of the broader sports industry to the Australian economy. Most recently, Boston Consulting Group (BCG)² used input-output tables published by the ABS (which describe linkages between industries at a highly disaggregated level) to estimate the gross value added attributable to the sports industry at \$39 billion. BCG's² estimate of value added was decomposed into:

- a direct economic impact of \$6 billion, measured by the gross value added of expenditure in the sports industry (the difference between total production and intermediate inputs)

- an indirect economic impact of \$5 billion, reflecting additional economic activity generated in non-sports industries (i.e. through supply chains)
- an induced economic impact of \$28 billion, arising from the increase in consumption associated with the incomes of people employed in the sports industry and supporting industries.

In addition, BCG² estimated that the wider sports industry accounts for around 2 per cent of total employment. An extension of BCG's approach to estimating economic value would be to calculate a satellite account for the sports industry, similar to that reported by several European countries and for the tourism industry in Australia.^{3,4}

Other sources of economic value

The total economic contribution of sport extends beyond what is measured in the national accounts. For example, sport and recreation accounts for more than one third of all volunteers in Australia, bringing substantial community benefits.¹ Research also suggests that sports-related economic activity generates externalities; that is, benefits and costs to society beyond those incurred by direct participants.⁵ When aggregated, these externalities are widely agreed to have a net positive impact on social well-being.⁶

Volunteers

In 2014, 1.8 million volunteers donated 158 million hours to the sports industry, performing activities such as administrative work, coaching and assisting with food service.^{2,7} BCG² estimated that this would be equivalent to about 90 000 full-time jobs and an additional \$3 billion in economic value. An earlier estimate by Frontier Economics⁵ valued the economic contribution of sports industry volunteers at about \$4 billion.

Health benefits

Numerous studies have found evidence of positive spill-over effects for mental and physical health stemming from participation in sport. Mental health benefits include greater self-esteem (particularly among children) and fewer episodes of depression.⁸ Physical health benefits include reduced risk of premature death due to cardiovascular disease and some cancers, as well as fewer incidences of diabetes and improved musculoskeletal health.^{9,10}

BCG² estimated the net health benefits from sport to be \$29 billion per year. This estimate included allowances for longer lifespans, improved quality of life and avoided costs associated with mental health conditions and non-communicable diseases and was net of higher costs resulting from sport-related injuries.²

Labour productivity

A healthier workforce is likely to be more productive due to lower absenteeism rates and higher engagement.¹¹ BCG² valued this productivity improvement at \$3–\$12 billion per year for 2016. Similarly, Frontier Economics⁵ estimated productivity gains equivalent to about \$12 billion or 1 per cent of gross domestic product for 2008–09.

Social benefits

Social cohesion and socialisation are widely discussed positive externalities arising from sport. In net terms, involvement in sport teaches participants behaviours that enable them to develop effective relationships with members of their community, thus contributing to a well-functioning society.¹² Survey studies have found evidence to suggest that sport participation strengthens family units and feelings of social inclusion, promotes interactions with people of different backgrounds, and shapes national and cultural identity.^{12,13} Empirical studies have also found a connection between sport and educational outcomes of children, as measured by indicators of cognitive development, academic achievement and school drop-out rates, as well as links between sport and crime prevention.¹⁴⁻¹⁶

The intangible nature of the social benefits of sport make them particularly difficult to quantify. One attempt by BCG² estimates the value of social benefits of sport to Australian communities to be \$10–\$30 billion per year, including benefits from the development of desirable social characteristics, social capital, social inclusion of marginalised groups and crime prevention and rehabilitation. In addition, BCG² estimate the educational benefits of sport participation (through higher lifetime earnings) to be roughly \$5 billion annually.

Australians also derive value from the success of elite sportspeople. For example, better-than-expected performances at Olympic Games have been shown to be positively correlated with measures of national well-being.⁵ Australians may also derive value from Australia's international sporting reputation in addition to discrete sporting

achievements.^{5,17} The value of sporting success is separate to that of being a spectator, where the latter can be measured by revealed preference methods (such as spending on tickets), but the former requires contingent valuation methods which are subject to greater scrutiny.^{5,17} Attempts to quantify the value of elite sporting success vary widely but generally suggest a net positive effect on well-being.^{5,17}

Policy considerations

The existence of one or more sources of market failure provides a prima facie case for government intervention. In the presence of market failures, free markets would under- and over-produce certain goods and services compared to the socially optimal level, implying that appropriately-designed policies could enhance social well-being. Understanding the total economic contribution of various industries is therefore important to ensure that policy makers allocate resources to the greatest social benefit.

The case for government intervention in the sports industry is strong due to several sources of market failure. As previously discussed, the net value of externalities associated with the sports industry is widely agreed to be positive, stemming from better health outcomes, higher labour productivity and various social benefits.^{2,6} Another source of market failure could be incomplete information. Some citizens (potentially in rural or disadvantaged areas) might not be fully informed of the health benefits associated with sport and physical activity, causing their consumption of such activities to be suboptimal.¹⁸

In addition, elite sporting success satisfies the characteristics of a public good. The utility that one person derives from sporting success, which might come from feelings of national pride or improved international reputation, does not reduce the utility that can be derived by another person (non-rivalrous), and no-one can be excluded from enjoying the benefits of sporting success (non-excludable).^{18,19} Public goods suffer from a 'free-rider' problem; because no-one can be excluded from consuming the good, people will not be willing to pay for the provision of that good.¹⁸ Sports infrastructure, such as swimming pools and grass fields, share the non-rivalrous characteristic of public goods (up to a capacity constraint) but can be excludable.

Uncorrected, these market failures would result in the under-provision of sports goods and services relative to the optimum level. Examples of possible government interventions in

the sports industry may include subsidisation of sports infrastructure or education programs in areas where participation in sport is low. Such interventions rely on policy makers being able to demonstrate that the return on investment, underpinned by estimates of economic value, surpasses a hurdle rate.

Conclusion

Sport has many benefits to society, not all of which are easily measurable. The national accounts provide a reference point for assessing the contribution of the sports industry to economic activity, but a growing literature suggests that the benefits of sport extend further. Microeconomic techniques can be used to estimate the value of these additional benefits but can be subject to a high degree of uncertainty. Nevertheless, policy makers should strive for accurate and consistent measurement of the total economic contribution of sport to ensure any government intervention in the sports industry leads to an improvement in social welfare.

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