

# The economic contribution of sport to Australia

*This note summarises the findings of the longer Frontier Economics report*

## Why is it important to understand the economic contribution of sport?

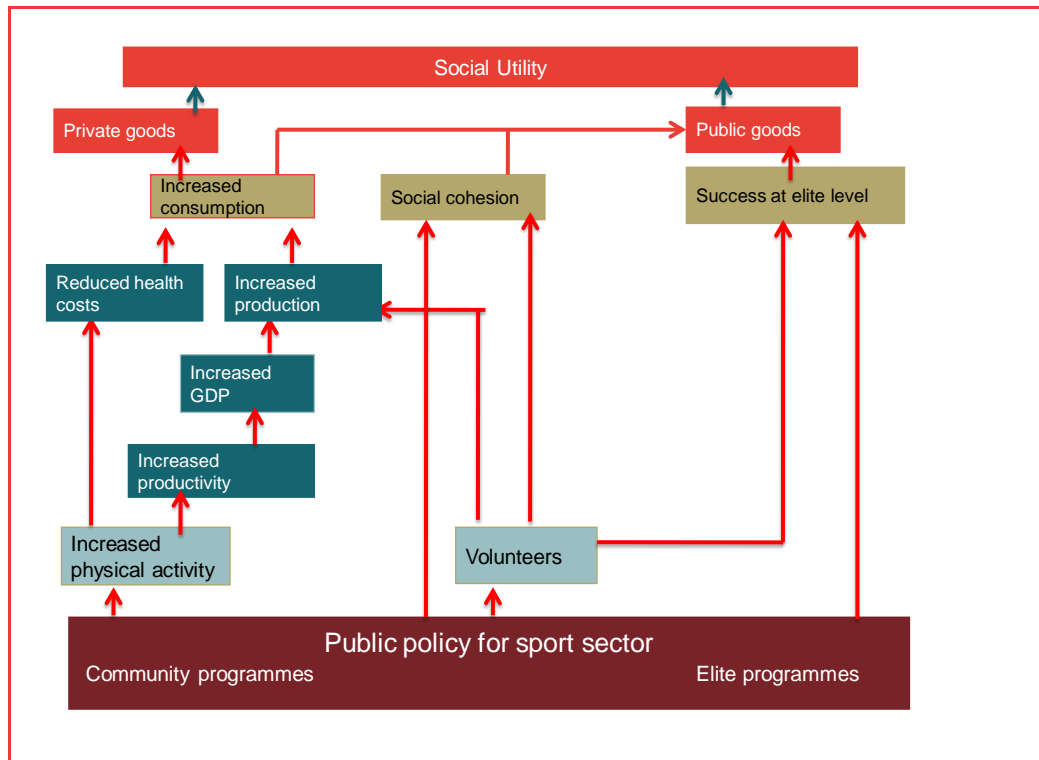
Sport in Australia consists of a range of inter-related activities, ranging from those organised at the community level to those involving elite sportspeople at the national and international levels. All or most of these activities would exist in the Australian economy to some extent even without public support. The reason is that individuals benefit financially and otherwise from the provision of sports services and from participation in sport. Hence, they have private incentives to engage in these activities.

Public support of sport will mean that the sport sector will be larger and will use more resources (labour, capital etc) than would be the case in the absence of public support. But for the most part this will not mean that the economy's aggregate output and employment will be greater than they would have been in the absence of public support for sport. Instead it will mean that there is more employment in the sport sector but less employment in other sectors.

Diverting resources into the sport sector from other uses will be a good outcome if society values the additional sport services that are produced more highly than it values the goods and services that could otherwise have been produced by the diverted resources. This is likely to be the case if sport delivers benefit to society in addition to the benefits derived by the individuals who provide sport services and participate in sport. In this case, the private incentives mentioned in the first paragraph will not be strong enough to support a sporting sector of the size that is justified by the benefits that it provides to society overall.

The following diagram sets out ways in which we can characterise the economic contribution of sport to Australia, and the main channels through which this contribution takes place.

Figure 1 Economic contribution of sport to Australia



Social utility refers to the value people place on various goods. These include goods that are bought and sold in markets (“private goods”). Public goods are ones that cannot be provided to one person without providing it to everyone, and the consumption of which by one person does not diminish consumption possibilities for others. The satisfaction Australians get from sports success is one such good. Markets for such goods are either missing or do not work, making a case for government intervention

The diagram depicts the various mechanisms through which sports policy can enhance utility. The left hand side of the diagram is associated with sport at the community level whereas the right hand side is associated with elite sport.

There are three main ways in which sport delivers to society benefits in addition to those captured by those who provide sport services and participate in sport directly.

These are:

- Community level sport promotes physical activity, with benefits in terms of reduced health-care costs and improved labour productivity. Research shows that health costs could be reduced, in gross terms, by \$1.49 billion per year; and that productivity gains by making the workforce healthier through increased physical activity could be as much as 1% of GDP (or \$12 billion) per year.

- Community level sport accounts for a disproportionate amount of volunteers, and by better supporting the work of these, benefits that stem from sport through its impacts on health, socialisation and social cohesion can be enhanced. Volunteer labour is also a key input into the development of elite sportspeople. The labour input of volunteers is valued at around \$4 billion
- The international success of elite Australian sportspeople is one of the most significant measurable positive impacts on well-being; with the value of that increased well being likely to be in excess of the current annual budget for elite sports (roughly 20 dollars per household per year).

In essence, there are two arguments related to community level sport and one related to elite level sport. We now consider these in greater detail.

## Community level sport

By community level sport we mean activities that undertaken, whether in formal competition or otherwise, by participants who are amateurs and who engage in sport primarily as a leisure activity. The distinction is not watertight, since we can think of sport as a continuum stretching from community level activities to elite level activities, with various intermediate stages that might have elements of both.

### Health and productivity benefits

There have been various attempts to measure the extent of participation in sport at the community level, though it is not easy to differentiate sport from physical recreation more broadly. Data from the Australian Bureau of Statistics suggest of the 10.5 million participants in sport and physical recreation activity in 2008, over 80% had taken part in a non-organized sports activity, while just over 40% had taken part in an organized sports activity.

On the face of it, participation in community sport can generate a variety of benefits to those taking part and society more generally. The types of benefit that have received the most attention are those related to the impact of sport and physical activity on health, and particularly in relation to non-communicable diseases. There is an abundance of credible evidence that substantiates these impacts. Obviously, the primary beneficiaries of these positive impacts are the people who take part in sports and physical activity. However, these private benefits spill over into wider benefits for society at large through a number of channels. One such channel is the reduction in health costs borne by society as its members get healthier. For example, data presented in a study by Medibank Private, which looked at the impact of inactivity on a range of diseases, concluded that increased participation could generate gross savings of about

\$1.49 billion per year (as against \$834.1 million worth of health costs from sports injuries).

Another channel is through improvements to workforce productivity. A study of this question suggested that a “4 per cent sustainable increase in productivity could be achieved for those workers who commence regular sport and recreational physical activity”. If we use these findings, and extrapolate from the data for physical inactivity presented in the Medibank study (which suggested an inactivity rate of 0.54), and then we would expect average productivity to increase by a little over 2%. That would yield an increase in GDP of about 1% per year, or roughly \$12 billion in 2008-09.

### **The role of volunteers**

An important and understudied phenomenon in sport is the role of volunteers. Indeed, sports dominates the field of volunteering in Australia (and in a number of other countries) accounting for some 33% of all volunteers and 26.5% of all volunteer hours. On the basis of ABS data for 2006, we have estimated the value of volunteer input to the sector in 2006 is \$3.9 billion.

This magnitude of voluntarism has a number of implications. First, in economic terms volunteers act as an input (of labour) into the conduct of community sport and elite sport. Without them, there would be fewer sports activities and / or they would be more expensive to produce. Consequently, volunteers play their part in bringing about many of the benefits imputed to sports such as health, in relation to community sport, they also play a role in sustaining the structure of elite sport.

Moreover, volunteers often form the “human face” of sport. They are the people that often provide the first point of contact for participants, and who undertake coaching and organizational functions. They can play an important role in community building efforts – for example, by facilitating the integration of different communities within clubs and teams.

Finally, the process of volunteering itself appears to be good for the people involved – a fairly extensive body of research demonstrates that volunteering leads to health and psychosocial benefits. Society derives value from these benefits in the same way as it does from the improved health outcomes that come from participation in sport.

### **Policy implications**

Various policy implications follow from this analysis. The first is the importance of addressing factors that affect participation in sport. This includes cost, by which we mean not only the monetary cost of accessing sports facilities, but also costs in terms of time foregone taking part in sports. For example, the longer the distances that people need to travel to access sports facilities, or the longer the

waiting period to access facilities of adequate quality, the less inclined people will be to take part in sport. Other factors affecting participation include lack of familiarity with sport, self-confidence and language issues. Here, building the capacity of people involved in the organization of sport or in the delivery of coaching/ training is likely to be important.

Policy towards volunteers is also important given the role that they play in sport. From an economic point of view, the key question turns on how best to increase the productivity of volunteer inputs. There are essentially two elements to this. One is the standard economic prescription of providing more capital to match their labour input. In practice, this means investing in the facilities volunteers work with. Because voluntary labour tends not to be “visible” (i.e. not reported in labour market statistics), the beneficial impact investing in these facilities can have on the contribution of volunteers is something that is often missed. A second type of policy response is to invest in building up the resources and expertise of volunteers. As we saw before, significant barriers to participation in sport are lack of familiarity, expertise and language skills. Equipping volunteers (say coaches and administrators) to meet these challenges can facilitate participation in sport.

An interesting facet of policy support to community sport is that it has the potential for efficiency and equity effects. By efficiency effects we mean that interventions that improve the wealth or well being of society as a whole. By equity we tend to mean interventions that affect the distribution of wealth or well being across society. Policy makers generally worry that they may have to sacrifice a bit of one to achieve more of the other, but in this case it seems possible to do well on both fronts. The reason for this has mainly to do with one of the factors that affects participation in sport – namely income. People with lower incomes tend to participate less in sport; and lower incomes are also associated with poorer health outcomes. Policies that address participation problems amongst poorer income groups can improve health outcomes for these groups (a distributional or equity effect), but can also make society as a whole better off (that is the efficiency angle) because of the effects of better health and reduced health costs.

## Elite sport

The elite sports we have in mind are those that involve the participation of athletes in international sports competitions. The main contribution elite sport makes to the well being of Australians is through the sense of satisfaction and national pride that Australians derive from the success of elite sportspeople at the international level. Over the last few decades, there has been a greater interest in economic research that has sought to understand what factors contribute to increasing people’s sense of well-being. In Australia, for example, Australian Unity computes a personal well-being index periodically, based on various

different components. There is a strong correlation between movements in this index and performance by elite sportspeople. For example, over the period 2001 and 2008 the index was at its highest level in the immediate aftermath of the Athens Olympics in 2004. The performance of Australian athletes appears to have favourably affected the standard of living and connection to other people components of the index. While the index is generally relatively stable, sporting achievements appear to be one of a few factors associated with significant shifts between surveys.

The sense of national satisfaction and pride at the performance of elite athletes is what economists consider to be a pure public good. By this we mean two things: that the enjoyment of the “good” (in this case, the sense to satisfaction and pride) by one Australian does not diminish the enjoyment of that same good by another; and that it is not possible to provide this sense of satisfaction and pride to one or some Australians without providing it to all.

Pure public goods are ones that are usually difficult to provide through the market. In the case of elite sports, one might ask whether the fact that people value national sporting success might create a system of rewards that in turn provide incentives for athletes to invest in training and developing themselves to perform well internationally. There is, after all, the prospect of prize money and sponsorship deals that can reward sports people. However, the truth is that this is applicable only to a handful of sports, and even then to a handful of sportspeople within these sports. In particular, they tend not to be applicable to the majority of the Olympic Sports, which are so important to delivering sense of pride and satisfaction that we have alluded to.

Moreover, a broader point is the process of developing an elite sportsperson can be modelled as a series of contests at various stages of their development. At each stage, the people involved incur substantial costs, in terms of training but also alternative career options that are passed over. If the only material reward for these athletes is the prospect of future prize money and endorsements in a distant future, it is quite likely that many will be deterred from trying to become elite sports people. It is not possible, for example, for an aspiring athlete to take out a loan that is set against future development prospects. The “winner takes all” aspect of these rewards (i.e. the fact that they are limited to only a handful of participants) can act as a further factor that deters young athletes from actively investing in their own development.

Public support for the development of athletes will help to tackle these issues, and by enhancing the chances of sporting success, contribute to the delivery of the “good” that is a sense of well being following national success. Of course, there are outstanding questions as to what sports deliver the most satisfaction, and what is the monetary value of the sense of well being gained as a result of sporting success.

The latter question is important since it amounts to asking what people are willing to pay for sporting success, and thus can be used to gauge what is the appropriate level of investment in elite sports in Australia. There are some tentative numbers on that front already. Performances at the Athens Olympics caused movements in the Australian Well-being index to the tune of 2-4 percentage points over a four week period. No monetary value has been assigned to this temporary shift, though Australian Unity have computed what it would cost to “buy” an added percentage point of well-being on a permanent basis. They have come up with numbers that range from \$23, 077 for a household with an income in the range of \$15,000-\$30,000; to \$71,429 for a household with income in the range of 100,000-150,000.

Suppose we use as a (conservative) starting point the figure of \$23, 077 referred to above as representative of the average Australian household. We can treat this figure as a lump sum payment for a percentage point increase in happiness over the span of adult life (say 60 years). If that is the case, it is a simply matter of working out the annuity associated with that lump sum payment for a constant interest rate. Assuming the latter is 5% annually, the annuity (or yearly equivalent of the lump sum payment) works out at just over \$1,200 in current terms. The rough weekly equivalent would thus be around \$23 per household i.e. a payment of \$23 would raise the level of well being in an average household by 1 percentage point for 1 week.

The current annual investment in elite sports is around \$167 million, or roughly 20 dollars per household per year. On the basis of these results it is this is well within the range of what the average Australian household would be willing to pay each year to support the success of Australian athletes.

We have focused on performances at the Olympics because is for these that data, however partial, are available. Clearly, all sport follow their own cycle of competitions at regional and international levels throughout the Olympic Cycle. Performances at these competitions are likely to be valued by Australians, but the absence of data make any attempt at quantification difficult.

## In conclusion

Sport brings benefits to Australian society through many channels, some of which deserve more study and all of which warrant more policy attention. In some specific instances we can see, quantitatively, how the benefits to society from sport exceed the investments made by the public purse. This is the case in the area of health, due to a combination of health costs savings and productivity increase. And this also appears to be the case in relation to the satisfaction provided by the success of elite sportspeople, where the annual willingness to pay by Australian households for international success is likely to comfortably exceed the annual investment made by government in elite sports.

From a policy perspective, the Australian model for supporting sport is, overall, a sound one, in that it channels resources in the right areas for the right ends. It warrants further strengthening, in order to maximize the value to society from increased participation in community sport, and the satisfaction Australians get from the success of their athletes internationally.