

# ALTERNATIVE MEASURES OF PERFORMANCE IN THE OLYMPIC GAMES

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## Research question

In the London 2012 Olympic Games 204 nations took part in the event and of these 54 won a gold medal and 85 won a medal of any colour. In other words, the majority of nations (115) left London 2012 empty handed. It would be inappropriate to label the majority of participating nations as failures and thus the research question which emerges is "are there any non-medal based measures of performance that enable nations to demonstrate the effectiveness of their elite sport development systems?"

## Theoretical background

Increasing numbers of nations are taking a strategic approach to achieve success in elite sport competition (De Bosscher et al 2008). At the same time as the demand for success increases, the supply of success as measured by the scale of the Olympic Games, remains relatively fixed. As more and more nations chase success the market adjusts by raising the price of success in terms of the level of investment required to achieve success. Furthermore the size and wealth of nations vary considerably and these two macro-economic variables have consistently had a significant bearing on success in the Olympic Games (see Goldman Sachs 2012). Indeed if sporting talent was distributed evenly across the globe, one Olympian would be produced for around every 700,000 head of populations. This type of statistic legislates against small nations even attending the Olympic Games let alone having a realistic chance of medal success. Thus in order to deliver Jacques Rogge's 'real universality' the reality is that many nations are offered 'wild card' places to enable them to take part. That is, there are some athletes who take part in the event for geographical and political reasons rather than on merit. By contrast large and dominant nations have limits on how many medal winning opportunities they can contest. For these reasons, there needs to be a degree of expectation management concerning what it is reasonable to expect a nation to achieve in the Olympic Games (see Shibli et al 2013). This paper is concerned with conceptualising non-medal based measure of performance as a first step in helping to set performance and expectation parameters.

## Methodology

The research is primarily desk research involving the secondary analysis of existing data and where necessary the construction of data tables from different sources. A significant breakthrough in the capability to analyse performance in the Olympic Games is provided by the Infostrada Podium Performance database. This database contains the results of all participants in the Olympic Games and enables quick and easy calculation of measures of performance that otherwise would take weeks to prepare and compute. The database is user friendly allowing export to Excel for bespoke analysis such as the use of pivot tables.

## Results and discussion

The results reveal that athletic talent is not distributed evenly across the globe and that some nations are more efficient at producing Olympians than others. For example, the Cook Islands with a population of 20,000 was able to send 8 athletes to London 2012, a ratio of 1 Olympian per 2,500 head of population. By contrast, Bangladesh with a population of 147 million sent five athletes to London 2012, a ratio of one Olympian per 29.4 million head of population. Interestingly, neither the Cook Islands, nor Bangladesh have ever won an Olympic medal.

If we extend the measurement of success from medals (top three) to finalists (top eight) we find that in London 2012 the majority of nations (115) register at least one top eight place. Furthermore this is a trend that has been on an upward trajectory since the low of 72 nations in the post-boycott era. Finalists who do not win medals are awarded 'diplomas' for their achievements and thus a new measure of performance that would be relevant to most participating nations would be number of diplomas won.

For the 89 nations that do not even achieve a diploma there are other contextual measures of performance that may be of value. These include measures such as the number of athletes posting: season's best performances; lifetime best performances and national records. These are all positive outcomes that indicate that athletes were prepared to peak performance for the most important event of their year. Similarly, for some nations progression beyond the first round of an event is a worthwhile measure of performance.

Overall the results point to the need for a framework whereby nations can be realistic about their performance expectations and can draw positives for lower levels of achievement than medal winning success.

## References

- De Bosscher, V., De Knop, P., van Bottenburg, M., Bingham, J. and Shibli, S. (2008), *The Global Sporting Arms Race: Sports Policy factors Leading to International Success*, Meyer & Meyer, Brussels.

- Goldman Sachs, (2012), The Olympics and economics 2012, Goldman Sachs, London.
- Rogge, J. (2002), The challenges of the third millennium, Opening speech made at the International Conference on Sports Events and Economic Impact (18<sup>th</sup> April 2002), Copenhagen, Denmark.
- Shibli, S., de Bosscher, V., van Bottenburg, M. and Westerbeek, H. (2013), Measuring performance and success in elite sport, chapter 3, in Managing High Performance Sport, edited by Sotiriadou, P. and de Bosscher, V., Routledge, London & New York.