# A SOCIAL COST BENEFIT ANALYSIS OF A LARGE CITY RUN

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## Abstract

### 1. AIM OF ABSTRACT

Sport events often receive government support, either financial or in kind. Underpinning the effects of such an event is often important for the organizers or the government to justify the support. The aim of this paper is to demonstrate how social costs and benefits can be calculated for a one-day mass participation sporting event. To accomplish this task, new valuations of non-market goods based on four different questionnaires were introduced.

### 2. THEORETICAL BACKGROUND

In practice, most events are evaluated using economic impact analysis (EIA). An EIA calculates how much additional spending the event generates in a region and uses a multiplier to reach the final projection for economic impact. There are several reasons why EIAs often give too optimistic outcomes. Most economists therefore prefer social cost benefit analysis (SCBA) to analyze the welfare implications of sport events. In the literature only large events such as the Olympic Games and the World Cup soccer are sometimes analyzed using SCBA (e.g. De Nooij et al., 2013). For smaller events, only Taks et al. (2011) made a SCBA, which they compared with an EIA to show the differences. In De Nooij (2014) their SCBA was criticized for several reasons, like not including the investment costs for a venue build for the event, ignoring future benefits of the event and including the interest rates paid. As a result the adjusted SCBA in De Nooij (2014) was substantially more negative. Both SCBAs however lacked a number of valuations for non-market effects such as the consumer surplus, the public good of better city marketing and more attractive city, and the increased sport participation and healthier lifestyle. Both used a benefit transfer based on Johnson and Whitehead (2000), which actually was for the public willingness to pay for a stadium rather than an event.

The present paper improves on this literature by developing a SCBA using a several new estimates for the willingness to pay for both runners, visitors, and inhabitants of the organizing city, as well as an estimate for the health effect for increased sports participation and reduced unhealthy behavior (smoking and drinking).

3. METHODOLOGY, RESEARCH DESIGN AND DATA ANALYSIS The SCBA was developed for largest running event in the Netherlands, which is from the center of Amsterdam to the center of Zaandam (10 English miles, 16 Km). Because the track uses one of the few tunnels under the IJ-river in the center of Amsterdam the impact on transport is large and the number of participants in the main event is limited to 54.000.

We estimated the additional spending by the organization and runners in the Amsterdam area (which is the core of an EIA). Next, we present estimates for a number of non-market effects:

The welfare of the visitors along the track (who do not pay an entry fee)
The runners for which we look at both consumer surplus over their ticket

price and the social benefit of increased sports participation

• The public good and bad for all Amsterdam inhabitants (inhabitants experiences both positive externalities like city marketing benefits and negative externalities like traffic congestion).

The estimates of the non-market effects is based on four questionnaires: one administered to the runners (using an Internet questionnaire, n=2963, a response rate of 33,0%) one under the visitors (768 face to face interviews), one under the inhabitants from Amsterdam (using a panel n=400) and one under the volunteers (using an internet questionnaire, n=297, a response rate of 42.2%).All four questionnaires were different, and included amongst others questions on the perception on the event, visitor motives, willingness to pay, travel time spent, visitor duration, and for the participants included several questions on preparation and changed behavior, like how long in advance one started to prepare, changes in training frequency and duration, changes in behavior in smoking, nutrition and drinking behavior and the duration of this.

### 4. CONCLUSIONS

The tentative findings (we are in the process of analyzing the various questionnaires) are that the economic gains from the additional spending are relevant, but not as important as the non-market benefit of the welfare for the visitors and the Amsterdam city marketing benefits as valued by the inhabitants. However, the most important effect seems to be the increased health of the participants who started to exercise or who increased their physical exercise efforts. This shows that a SCBA can be much more positive than an EIA (contrary to Taks et al.). Furthermore it illustrates the importance of valuing non-market benefits for sound sport policy making, and adds a couple of new valuations of non-market benefits to the scarce literature on this topic.

#### References

5. REFERENCES

De Nooij, M., M.R. van den Berg, C.C. Koopmans (2013) Bread or games. A Social Cost–Benefit Analysis of the World Cup Bid of the Netherlands and the Winning Russian Bid. Accepted Journal of Sports Economics. Volume 14 Issue 5 October 2013 pp. 521 - 545. De Nooij, M., Economic Impact Analysis Versus Cost Benefit Analysis for a Medium Sized Sport Event, a Further Improvement (February 10, 2014). Available at SSRN: http://ssrn.com/abstract=2393427 Johnson, B., & Whitehead, J. (2000). Value of public goods from sports stadiums: The CVM approach. Contemporary Economic Policy, 18, 48–58. Taks, Marijke, Stefan Kesenne, Laurence Chalip, B. Christine Green, and Scott Martyn (2011) Economic Impact Analysis Versus Cost Benefit Analysis: The Case of a Medium-Sized Sport Event. International Journal of Sport Finance, 6, 187-203.