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Economic Benefits of Cycling

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Top line: Economic analysis of cycling interventions suggests that average benefit per additional cyclist is £590 per year, and that small increases in cycling numbers can justify investment in new cycling infrastructure principally due to the health benefits which accrue.

Health effects of transport interventions are rarely accounted for in transport appraisal. Yet there is increased interest in health benefits which accrue from physical activity and how this might be better incorporated into economic appraisal within transport planning. Recent research argues that cycling must be treated with the same rigour as other mainstream modes of transport if its benefits are to be fully understood.¹ A Cycling Planning Model can help transport planners to better assess the number of additional cyclists required to generate a return on investment. Even a small number of additional cyclists will pay for investment in new cycling infrastructure. The model suggests that an investment of:

- £10,000 requires one additional regular cyclist
- £100,000 requires 11 additional regular cyclists

The research defines regular cycling as three times a week and measures the impact across the lifetime of a project, assumed in the study to be 30 years. Calculations of value include:

- improvements in general health and fitness
- reduced pollution and the emission of CO₂
- reductions in congestion

Based on conservative estimates, the annual economic benefits range from £540 to £640 with the greatest economic benefits for cycling generated by urban off-road projects and the least by rural on-road ones. The calculations take account of ambience ie values that relate to improvements in the journey quality as a result of new cycling infrastructure.

The greatest impact that cycling has is the health benefits accruing from additional cyclists. These health benefits are universal. If people can be convinced to cycle, around two-thirds of the economic benefit generated does not depend on the location or type of facility. This is important from a planning perspective. The greatest difference that new facilities can make is on their ability to generate additional cyclists.

A Cost Benefit Analysis of a cycling scheme for the Dept. Transport has revealed a benefit to cost ratio of 22:1, over half of which is attributed to health benefits.² Separately, WHO has developed an on-line tool to help planners when considering a new piece of cycle infrastructure.³ It allows the user to model the impact of different levels of cycling and attach a value to the estimated level of cycling when the new infrastructure is in place.

¹ SQW Consulting, 2008 Planning for cycling. Executive Summary.

<http://www.dft.gov.uk/cyclingengland/site/wp-content/uploads/2009/03/planning-for-cycling-exec-summary-10-3-09.pdf> accessed 11th June 2009.

² Dept. Transport, 2007 Transport Analysis Guidance. Guidance on Appraisal of walking and cycling.

³ WHO, 2008 Methodological Guidance on the economic appraisal of health effects related to walking and cycling: Summary. WHO: Copenhagen. http://www.euro.who.int/transport/policy/20081219_1 accessed 11th June 2009.