



Outcomes and Economic Benefits of Active Travel

LEP Transport Sub-Group
25th June 2015

5 Goals of Transport in Oxfordshire



1. To support jobs and housing growth and economic vitality
2. To support the transition to a low carbon future
3. To support social inclusion and equality of opportunity
4. To protect and where possible enhance Oxfordshire's environment and improve quality of life
5. To improve public health, safety and individual wellbeing



For 4 of the 5 Goals, Active Travel clearly takes the 'Gold medal'


1st


2nd


3rd

1. To support jobs and housing growth and economic vitality	All modes can contribute		
2. To support the transition to a low carbon future			
3. To support social inclusion and equality of opportunity			
4. To protect and where possible enhance Oxfordshire's environment and improve quality of life			
5. To improve public health, safety and individual wellbeing			

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Rationale

Goal	Rationale for ranking
1. To support jobs and housing growth and economic vitality	<ul style="list-style-type: none"> All modes of transport contribute – the best depends on the specific situation.
2. To support the transition to a low carbon future	<ul style="list-style-type: none"> Average car: 186g/km CO2e Bus and train: 29-110g/km CO2e Cycle and walking: Zero
3. To support social inclusion and equality of opportunity	<ul style="list-style-type: none"> A cheap car £400 + insurance, fuel, etc Bus: £605 per year Shoes: needed for all!. Bicycle: £10.
4. To protect and where possible enhance Oxfordshire's environment and improve quality of life	<ul style="list-style-type: none"> Active travel is often used to symbolise 'quality of life'. It doesn't pollute, doesn't damage much, and doesn't take as much space.
5. To improve public health, safety and individual wellbeing	<ul style="list-style-type: none"> Regular cyclists take one fewer sick days per year, are 10 years healthier and live 2 years longer than less active people. Public transport requires some active travel.

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Economic benefits of Active Travel



For every other Goal, the advantages of Active Travel are clear.

So here we focus on the economic benefits, in 4 areas:

1. Time savings
2. Health and productivity
3. Creating an attractive environment for people and businesses
4. The Tourist Economy

Economic benefits of Active Travel



1. Time savings

Eynsham to Oxford 'Commuter Challenge'

The Oxford Times

Cyclists leave competition standing

22:00pm Thursday 9th June 2011

Fed up power beat petrol power in yesterday's Commuter Challenge

two 12-mile routes along the A40 from Witney to Oxford.

Four cyclists, two cars and a passenger travelling on Stagcoach Square, in Witney, at 7.45am.

Forty minutes later, two cyclists arrived at Carfax, in Oxford city Woodstock Road and St Giles.

The car driver, Ted Dewan, taking the same route, took 54 mins



Commuter Challenge 2011		www.cyclox.org	
Eynsham-Oxford		7.4 miles	
1 Bicycle (F)	21:21	9 Bicycle (M)	34:40
2 Bicycle (M)	23:37	10 Bicycle (M)	35:40
3 Bicycle (M)	24:42	11 Bicycle (M)	35:40
4 Bicycle (M)	24:42	12 Bicycle (M)	35:40
5 Bicycle (M)	24:42	13 Car (M)	44:00
6 Bicycle (M)	24:42	14 Car (M)	44:00
7 Bicycle (M)	24:42	15 Car (M)	44:00
8 Bicycle (M)	24:42	16 Car (M)	44:00

Cycle users save 10 to 22 minutes over 7 miles

- On congested roads, cycling can **save time**
- Cycling times are **more reliable** – much less affected by traffic
- Cycling is **more resilient** – unaffected by most road closures (e.g. OCN meeting held at height of 2014 floods)
- For busy people, cycling enables them to **fit exercise** in their busy schedules – the NHS guidelines for 2.5 hours per week would be met with a typical 3 mile commute
- Value of extra time saved with 10% journeys by cycle estimated **£15m/year¹**
- **Increased cycle use also reduces congestion for other modes**
- Potential extra benefit for Oxon with 10% journeys by cycle is **£16m/year²**

Source: (1) OCN Analysis assuming 25% of extra cycle journeys save 5 minutes x GVA £16.7/hr; (2) OCN scaling based on DfT's Transport Analysis Guidance recommended methodology



Economic benefits of Active Travel

2. Health and productivity

- "Regular physical activity has substantial health benefits, yet only a minority (21%) of the population in England achieve the minimum levels" – *Public Health England*
- Inactivity increases risk of Obesity, Cardiovascular diseases (inc. heart attacks, strokes), Diabetes, Alzheimer's disease, and more
- **Regular cyclists:**
 - Are as healthy as people 10 years younger
 - Live two years longer than inactive people
 - Take one day less of sick leave each year¹
- Physical activity has **mental health benefits**: reducing depression, anxiety and stress²
- Physical activity **improves cognition and academic achievement**³

So increasing Active Travel means:

- A workforce that is healthier in body and mind,
- that is at work more often, and more productive when it is,
- and less burden on the health service, freeing up public money

- Based on the DfT's recommended methodology: potential extra value for Oxfordshire with 10% of journeys by cycling is **£81m/year**⁴

Source: CTC Briefing 'Cycling and Health', containing full references; (2) Mental Health Foundation 'Let's Get Physical'; Martin UEA 2014; Thompson Coon et al. 2011; (3) Uni of Illinois 2009; Sibley & Etnier 2003; (4) OCN scaling based on DfT's Transport Analysis Guidance recommended methodology

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Economic benefits of Active Travel

3. Creating an attractive environment for people and businesses

Active cities are more attractive

Active cities and areas¹...

- Have higher property prices
- Boost footfall and retail trading
- Increase retail rents
- Have the 'Feel Good' factor

Developers capitalise on this ...



... and so do a growing number of cities



"Biking is definitely part of our strategy to attract and retain businesses in order to compete" – RT Rybak, Mayor of Minneapolis

• Source: (1) Active Cities Summit June 2015, research based on 521 findings from 221 sources; (2) CyclingWorks website

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Economic benefits of cycling

3. Creating an attractive environment for people and businesses

Top Employers recognise the value of active travel too, so support Active Travel infrastructure



3 of the 160...

"We value [our employees'] safety and we want to promote active lifestyles."

We also note strong evidence that more cycling increases spending in local retail businesses and lowers air pollution levels."

– **John Ridding, CEO**



"Cycle super-highways ... could be of major benefit to our staff and encourage more of them to adopt healthier lifestyles and active travel."

– **Christopher Fordham, CEO**



"We look forward to using the protected routes to help us attract and retain the people we need to continue to thrive."

– **Michel Van Der Bel, CEO**

Source: CyclingWorks website



Economic benefits of Active Travel

4. The Tourist Economy

Small scale



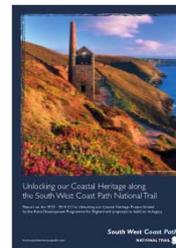
- At least 10 organised rides in the county each weekend
- Spending at least 10 x £5 on tea and cake
- £50 per visit, £26k per year

Mid scale



- Mountain bike centres (e.g. Cwm Carn)
- Employ 5-20 people in maintenance, café, bike shop, bike rental, uplift
- £100-500k/yr turnover businesses

Large scale



- South West Coast Path attracts 8.6m walking visitors a year, spending £436m
- What is Oxfordshire's opportunity?

Source: Unlocking our Coastal Heritage along the South West Coast Path National Trail, Report March 2014

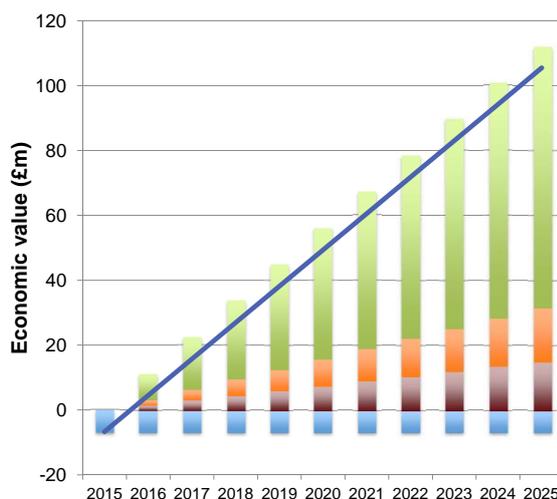
Economic benefits – A Reference case



- Currently 3% of journeys by bike in Oxfordshire¹
- **Reference case: 10% of journeys by bike by 2025**
 - ‘Get Britain Cycling’ target is 10% by 2025 (and 25% by 2050)²
 - Broadly consistent with OCC’s target of tripling cycling to work by 2031³
 - Equals Germany in 2003 – so 22 years behind (they are now at 14%)
- **Potential direct economic benefit for Oxfordshire at 10%: £112m/year**
 - CTC’s ‘The Economic Cycle’ analysis, based on DfT’s Active mode appraisal Transport Analysis Guidance, 2014
 - £16m De-congestion, £81m Productivity and health⁴
 - £15m Time-saving benefit⁵
 - Location attractiveness and tourism benefits on top of this
- **Costs: Estimate at £10 per population = £6.7m per year²**
 - 8% of OCC’s Annual expenditure on transport. (Excludes HA spend)

Source: (1) OCN analysis, England average is 1.56%; (2) All Party Parliamentary Cycling Group’s ‘Get Britain Cycling’ report, not allowing for Oxfordshire’s starting point being twice the average; (3) Draft LTP4; (4) Based on ‘The Economic Cycle’ and scaled to Oxfordshire by Gross Value Added. This analysis also includes the benefit of reduced casualties due to reduced car use, other benefits and reduction of indirect taxation but the net effect of these is small; (5) OCN Analysis

Economic benefits of cycling – Adding it up



- **Cumulative Net benefit by 2025: £543m**
- **Payback: Year 2**
- **7.4x the investment**
- **Discounted¹: £424m**
- **IRR: 167%**

- **Cumulative Net benefit by 2050 (if cycling peaks at 10%): £3.2bn**
- **13x the investment – consistent with other studies²**

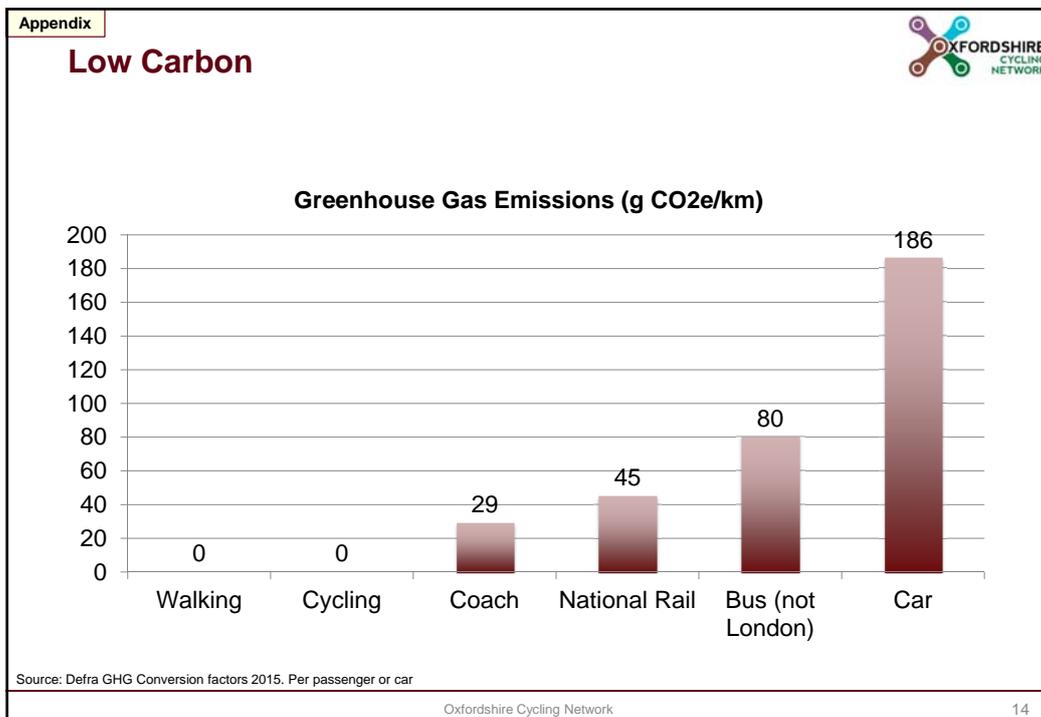
Source: OCN analysis. (1) Using Treasury Green Book discount rate: 3.5%; (2) A Davis, Value for Money: An Economic Assessment of Investment in Walking and Cycling. For Dept. of Health, 2010 which showed cycling investments delivering median return 13:1, and in UK 19:1

Appendix



BACKUP SLIDES

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Appendix

Social Inclusion





£10



£4.70 Return



£400

- Cheapest bike that looks rideable and 'Buy it now' on ebay in Oxon: £10
- (Other models are available!)
- + Oil and a pump

Increases 'one-hour range' from 3 miles to 12 miles

- Bus fare from Abingdon to Oxford (6.5 miles)
- Or: £605 per year

- Cheapest car with MoT and 'Buy it now' on ebay in Oxon: £400
- + 'Needs some work'
- + Vehicle Duty
- + Insurance
- + MoT
- + Fuel

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Appendix

Quality of Life



Bicycles are often used to symbolise 'quality of life' – particularly 'joy' and 'freedom' – from supermarkets to sofas to business software...









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