



Learning to cycle again: Examining the benefits of providing tax-free loans to purchase new bicycles

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ABSTRACT

In 2009, the Irish government introduced a tax relief scheme whereby employees could purchase a bicycle through their employer. The motivation for introducing this scheme was to encourage workers to cycle to work on a regular basis and to promote sustainable transport. Under the scheme the employer purchases a bicycle and accessories up to the value of €1,000 for the employee and deducts the cost from the employee's salary over a 12 month period. The deduction is from the before-tax salary leading to savings of up to 51% for the employee. The main contribution of this research is to show how individuals who haven't owned a bicycle in the past five years, have changed their perceptions of cycling and improved accessibility to the bicycles and cycling after using this scheme.

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1. Introduction

The Irish government, like many other international governments, has been actively examining methods to promote cycling and other sustainable modes of transport. These policies have been driven by the desire to reduce greenhouse gas emissions, decrease congestion and to tackle the growing national obesity problem. In 2008, the Irish government launched a road map to encourage the use of more sustainable modes of transport in Ireland called the *Smarter Travel Policy*. This plan is the government's action plan to reduce national car commuting from 65% to 45% by 2020 (Department of Transport, 2009). To achieve this aim, it is intended to increase the number of people using public transport or walking and cycling to work to 55% from its current base of approximately 35%. In 2009, the Department of Transport published a supporting policy document on cycling, the National Cycle Policy Framework (Department for Transport, 2009). It coordinates diverse actions to promote cycling across different departments including; cycle-friendly infrastructure and planning, education, training, enforcement, promotion, coordination with public transport, and the introduction of a shared bicycle scheme in all cities based on the Dublin Bikes scheme. This paper examines one of the policies introduced to promote cycling by reducing the cost of purchasing a bicycle.

A number of studies have examined how cycling can be promoted but few have looked at the actual impacts and benefits of government interventions to increase the modal share of cycling. The lack of previous research in this area could be due to the lack of data collected on

those individuals who use such a bicycle purchase scheme; this is the case with the Irish scheme. To overcome this problem in this research, the authors conducted a survey of users of the scheme. The results outlined in this paper present the findings of a survey conducted to ascertain the benefits of the Cycle to Work scheme in Ireland.

2. Background on incentives to encourage cycling

The Irish government has been using tax incentives to promote sustainable modes of transport since 2000. Under a scheme called Taxsave, commuters can purchase their monthly or annual public transport pass from their employer and save up to 51% on the cost of the ticket. On January 1st 2009, the Irish Government extended this scheme to bicycle purchase scheme called the 'Cycle to Work Scheme'. Under this scheme employers can purchase a bicycle and accessories up to a value of €1000 for their employees and deduct the net cost from their employee's pre-tax salaries over one to 12 months. This enables individuals to save up to 51% on the total cost of their bicycle and accessories. This scheme can be availed of once every five years. It should be noted that the financial risk associated with the purchase of the bicycle is with the employee. If the bicycle is lost/stolen or if the employee leaves their place of employment they must repay the outstanding balance of the loan. This may influence individuals who are financially risk adverse, however it should be noted this would be the same if the individual purchased the bicycle independent of the scheme.

Table 1 below demonstrates the potential savings from the scheme. Ireland has two income tax brackets. For example a single person would pay 20% on the first €32,800 earned and 41% on the balance (Revenue, 2011). A single person must earn over €19,800 to receive the benefits of the basic tax relief of 30%. The details of the sample collected in

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Table 1
Example of cost/savings to employees/tax payers.

<i>Higher rate taxpayer^a</i>				
Cost of bicycle and accessories	€250	€500	€750	€1000
Tax relief saving at 51%	€128	€255	€383	€510
Net cost	€123	€245	€368	€490
Payment per month	€10	€20	€31	€41
<i>Basic rate taxpayer^a</i>				
Cost of bicycle and accessories	€250	€500	€750	€1000
Tax relief saving at 30%	€75	€150	€225	€300
Net cost	€175	€350	€525	€700
Payment per month	€15	€29	€44	€58

^a See Revenue (2011) for more details on these tax bands.

Table 4 show that some respondents are below this income level. Individuals below the income level would be attracted to using the scheme as they can still use the loan facility and spread the cost of this purchase. Under the Cycle to Work Scheme depending upon the individuals' earnings, they can save between 30 and 51% (this is demonstrated in Table 1). For example a person purchasing a bicycle costing €1000 will save €510 on the cost of the bicycle, and will pay €41 per month from their salary for a year to purchase the bicycle. It is worth noting that those on higher incomes receive a greater benefit from the scheme. This preferential treatment for those on higher incomes raises a number of equity issues, which could be addressed in any revision of the current scheme.

The scheme also covers the purchase of bicycle accessories. The accessories cover safety equipment, helmets, locks, lights, reflective clothing, luggage carriers and panniers, security equipment and repair kits. Employers pay nothing to run the scheme, and it is open to all employees. Since the start of the scheme a number of third-party companies have been established which offer to administer the Cycle to Work scheme for companies and take a commission from the bike shops. These companies reduce the administrative burden for companies.

In recent years many other countries have introduced tax incentives for cyclists. On the 1st of January 2009 the United States added commuting to work by bicycle to the list of qualified transportation fringe benefits by the Internal Revenue Service (IRS). Under the scheme those that cycle to work may be paid up to \$20 per month for reasonable expenses associated with their commute (IRS, 2010). The onus is on the companies providing the rebate to monitor cycling trends. In British Columbia, Canada, an innovative scheme called 'SCRAP-IT' incentivizes individuals to scrap their car if it is 25 years or older and are given financial incentives to purchase alternative modes of transport (SCRAP-IT, 2010). These incentives include the purchase of annual public transport tickets and financial incentives toward purchasing a bicycle.

Internationally one of the most successful schemes providing interest free loans to purchase bicycles and equipment is operated in the United Kingdom (UK). The cycle to work scheme works in a similar way to the Irish scheme and it enables employees to save from 20 to 40% of the cost of a bicycle (Department for Transport, 2009). Several studies in the UK have examined the benefits of providing interest-free loans to purchase bicycles. A study was carried out in the mid 1990s in Nottingham, England where eight companies provided their employees with a number of incentives to cycle to work including interest free loans (Cleary & McClintock, 2000). The results of this demonstration project showed that there was an increase in cycling and a promotion of greener modes of transport.

Wardman, Tight, & Page, 2007 examined the potential of financial incentives to encourage individuals in the UK to cycle to work. The study considered a daily financial reward for those individuals who cycle to work on a daily basis and found such a policy would result in a considerable modal shift. Informing commuters of the cost savings of using sustainable modes of transport has been shown to modify

Table 2
Modal split of travel to work in Ireland.
Source: POWCAR dataset (CSO, 2007).

Mode	N	%
Walk	197,622	10.9
Cycle	35,310	1.9
Bus	110,975	6.1
Rail	53,090	2.9
Motorcycle	12,678	0.7
Car-driver	1,052,795	58.1
Car-passenger	102,483	5.7
Work vehicle	138,208	7.6
Other means	6228	0.3
Work from home	56,897	3.1
Not applicable	45,634	2.5
Total	1,811,921	100.0

behavior and decrease car usage. Herzog and Grant (2002) developed an online commuter choice benefits calculator. The calculator presented in this study estimates the benefits to the employer of introducing schemes such as bicycle purchasing schemes. In countries lacking a national bicycle purchase scheme like those in the UK and Ireland, providing employers with information on the benefits of such schemes is key to persuading employers of their merit. It has also been shown that habit and education are key to ensuring a cycling culture (Koike, Morimoto, Takekoshi, & Sarker, 2002).

3. Cycling in Ireland

This section of the paper provides background information on cycling in Ireland. Table 2 details the modal split results for travel to work in Ireland from the 2006 Census. The census data used in this paper was taken on the night of Sunday, 23rd April 2006 with 1.5 million Irish homes receiving the census forms two weeks before that. The dataset used is called the Place of Work Census of Anonymised Records dataset (POWCAR) (CSO, 2007). The POWCAR dataset contains information on the regular work trips of 1,834,472 individuals in Ireland. The results show that less than 2% of workers in Ireland cycle to work on a daily basis. The results in Table 2 show that driving to work alone has the largest modal share in Ireland, with 58% of individuals driving alone to work on a daily basis. Table 3 shows the characteristics of those that said they cycle to work. The results show that a larger number of males indicated that they cycled to work (77%). The results also show that 60% of those that cycle to work were aged 20–39. In the older age groups there are a large number of individuals cycling in the 40–49 and 50–65 age groups.

Table 3
Characteristics of cyclists that cycle to work.
Source: POWCAR dataset (CSO, 2007).

		N	%
Gender	Male	27,202	77
	Female	8108	23
	Total	35,310	100
Age	Under 20	891	3
	20–29	11,445	32
	30–39	9984	28
	40–49	6822	19
	50–65	5758	16
	65+	410	1
Total	35,310	100	
Industrial grouping	Manufacturing	4590	13
	Building and construction	2119	6
	Clerical, management, government	12,712	36
	Communications or transport	2472	7
	Sales and commerce	2825	8
	Professional, technical, health workers	6356	18
	Services based	4236	12
Total	35,310	100	

Table 4
Characteristics of the sample.

	N	%
<i>Gender</i>		
Male	314	67
Female	156	33
Total	470	100
<i>Age</i>		
18–24	9	2
25–34	227	48
35–44	156	33
45–54	68	15
55–64	8	2
65+	2	0
Total	470	100
<i>No. of cars per household</i>		
None	56	12
One	194	42
Two	192	41
Three	17	4
Three or more	7	2
Total	466	100
<i>Industrial grouping</i>		
Manufacturing	41	9
Building and construction	8	2
Clerical, management, government	59	13
Communications or transport	13	3
Sales and commerce	54	12
Professional, technical, health workers	229	49
Services based	51	11
Other	10	2
Total	466	100
<i>Income</i>		
Less than €10,000	48	10
€10,000–€19,999	5	1
€20,000–€29,999	29	6
€30,000–€39,999	54	12
€40,000–€49,000	56	12
€50,000–€59,000	62	13
€60,000–€79,000	42	9
More than €80,000	43	9
I do not wish to answer	125	27
Total	466	100

The results for the occupation of the individuals show that 36% of those that cycle to work are in clerical, management or government roles.

4. Survey and results

4.1. Data collection

A survey was conducted to examine the impacts of the Cycle to Work scheme. The survey was sent to 3605 individuals who availed of the Cycle to Work scheme, in December 2010. The survey was sent via an email to all of the individuals who have used Bike to Work to purchase a bicycle under the scheme. Bike to Work is one of the third party companies set up to administer the scheme. There was a strong response to the survey and 498 fully completed surveys were returned, a response rate of 14%. The survey consisted of a number of sections that asked respondents how their opinions toward cycling has changed since purchasing a bicycle and how the scheme has improved their accessibility to bicycles and cycling.

4.2. Characteristics of the sample

Table 4 details the characteristics of the sample collected. The results show that the majority of the respondents that completed the survey were male. The results for the age profile of the respondents show that

the majority of respondents were aged between 25–34 and 35–44. It is not surprising that the 18–24 age group is only 2% of the whole sample, as participants in the scheme have to be in full-time employment. The car ownership rates of the respondents show that only 12% of respondents did not have access to a car. The results for the occupation of respondents demonstrate that almost half of the respondents were professionals, technical or health workers. Finally, the results for income demonstrate a good distribution between each of the income categories.

4.3. Levels of satisfaction with the scheme

This section of the paper examines the results of the several questions from the survey that relate to the use of the scheme and individuals' satisfaction with the scheme. The results of the first question presented in Table 5 show that 52% of respondents indicated that they did own a bicycle before participating in the scheme. One of the key areas of interest in this paper is to examine the opinions of those that did not own a bicycle before the scheme. The second question presented in Table 5 is a follow up question to the first question, asking individuals who had not owned a bicycle before using the scheme how long had it been since they had owned a bicycle. The results show that 75%, of those that did not own a bicycle before the scheme, had not owned a bicycle in at least four years.

The results of the third question presented in Table 5 report individuals' satisfaction with the Cycle to Work scheme. The results show that 73% of respondents were very satisfied and 22% satisfied with the scheme. This result demonstrates that the majority of respondents had a very positive opinion of the scheme. One of the current rules of the scheme is that individuals are only allowed to avail of the scheme every five years. The final question presented in Table 5 asks would individuals like to see this time period changed. The findings show that 68% of individuals would like to see this time period changed. At the end of the survey there was a comments box and many of the comments related to the question of changing the number of years that one could access the scheme. One of the main reasons stated for the desired change in the number of years was due to the concern of the

Table 5
Users' perceptions of the benefits of the bike to work scheme.

	N	%
<i>Did you own a bicycle before using the scheme?</i>		
Yes	246	52
No	224	48
Total	470	100
Did not answer	28	
<i>If not, how long has it been since you owned a bicycle</i>		
Never	4	2
Less than a year	18	8
1–3 years	34	15
4–6 years	47	21
More than 7 years	121	54
Total	224	100
<i>How satisfied are you with the scheme?</i>		
Very satisfied	345	73
Satisfied	102	22
No opinion	6	1
Unsatisfied	11	2
Not at all satisfied	7	1
Total	471	100
Did not answer	27	
<i>Currently one can only avail of the Cycle to Work scheme once every five years, would you like to see this changed?</i>		
Yes	312	68
No	147	32
Total	459	100
Did not answer	39	

Table 6
Characteristics of individuals that had purchased a bicycle for the first time in a number of years.

	Had a bike before the scheme		Never owned a bicycle		Did now own a bicycle in the past year prior to the scheme		Did not own a bicycle in the last 1 to 3 years		Did not own a bicycle in the last 4 to 6 years		Did not own a bicycle in more than 7 years		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
<i>Gender^a</i>														
Male	167	68	3	75	14	76	27	78	31	65	75	62	317	68
Female	79	32	1	25	4	24	7	22	16	35	46	38	153	32
N	246	100	4	100	18	100	34	100	47	100	121	100	470	100
<i>Age^b</i>														
18–24	5	2	–	–	–	–	–	–	–	–	2	2	7	1
25–34	113	46	1	25	–	–	–	–	3	6	–	–	117	25
35–44	81	44	3	75	12	65	23	68	24	52	52	43	195	42
45–54	44	18	–	–	4	24	8	24	16	33	47	39	119	25
55–64	2	1	–	–	2	12	2	5	4	8	15	12	25	5
65+	–	–	–	–	–	–	1	3	1	2	2	2	4	1
N	246	100	4	100	18	100	34	100	47	100	121	100	470	100

^a Gender result: not significant ($p < 0.372$, chi-square = 5.374, 4 degrees of freedom).

^b Age result: significant ($p < 0.054$, chi-square = 38.128, 25 degrees of freedom).

bicycle being broken or stolen. It should be noted that a reduction in the timeframe from when individuals could access the scheme would result in a higher cost to the exchequer of running the scheme.

4.4. Analysis of individuals who used the scheme

The results in this section of the paper examine the individuals' that purchased bicycles under the scheme. The purpose of this section of the paper is to determine the characteristics of the individuals who had recently purchased a bicycle and did not own a bicycle before. Table 6 presents a cross-tabulation between gender and age and when the

respondent had last owned a bicycle. A chi-square test showed that there is no significant difference between the gender results, however there was a significant difference between the age findings. The results for gender show that a greater percentage of males purchased bicycles in the sample collected, however the difference is not statistically significant.

Table 7 shows the frequency of which individuals make commuting and non-commuting trips since purchasing their new bicycle. A chi-square test was run on the cross-tabulations shown in Table 7. The results of the chi-square tests show that there is a significant difference between work trips and non-work trips and bicycle ownership. However,

Table 7
Frequency of bicycle trips.

	Had a bike before the scheme		Never owned a bicycle		Did now own a bicycle in the past year prior to the scheme		Did not own a bicycle in the last 1 to 3 years		Did not own a bicycle in the last 4 to 6 years		Did not own a bicycle in more than 7 years		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
<i>Work trips^a</i>														
Every day	101	41	2	50	6	35	7	22	6	13	13	11	135	25
2–3 times a week	52	21	1	25	5	24	16	46	15	31	30	25	119	29
Once a week	22	9	–	–	3	17	3	7	6	13	15	12	49	10
At least once every two weeks	12	5	–	–	–	–	1	3	4	8	7	6	24	25
At least once a month	17	7	–	–	–	–	–	–	4	8	7	6	28	6
Less than once a month	10	4	–	–	2	12	1	3	2	2	13	11	28	6
I used the bike once	2	1	–	–	2	12	–	–	1	4	4	3	9	2
I have never used the bike	30	12	1	25	–	–	6	19	10	21	31	26	78	16
Total	246	100	4	100	18	100	34	100	47	100	121	100	470	100
<i>Non work trips^b</i>														
Every day	22	9	1	25	–	–	2	5	–	–	5	4	30	6
2–3 times a week	89	36	1	25	5	29	11	32	8	17	36	30	150	32
Once a week	69	28	–	–	2	12	7	22	16	33	24	20	118	25
At least once every two weeks	22	9	–	–	4	24	5	17	7	15	19	16	57	12
At least once a month	15	6	–	–	3	18	2	5	9	19	13	11	42	9
Less than once a month	12	5	–	–	3	18	4	11	2	4	15	12	36	8
I used the bike once	2	1	1	25	–	–	–	–	–	–	2	2	5	1
I have never used the bike	15	6	1	25	–	–	3	8	6	12	6	5	31	7
Total	246	100	4	100	18	100	34	100	47	100	121	100	470	100
<i>If your bike was lost or stolen would you replaced it?^c</i>														
Yes	234	95	3	75	15	82	29	86	41	88	108	89	430	91
No	12	5	1	25	3	18	5	14	6	12	13	11	40	9
Total	224	100	4	100	18	100	34	100	47	100	121	100	470	100

^a Work trips result: significant ($p < 0.000$, chi-square = 84.693, 35 degrees of freedom).

^b Non-work trips result: significant ($p < 0.000$, chi-square = 67.339, 35 degrees of freedom).

^c If stolen result: not significant ($p < 0.077$, chi-square = 9.924, 5 degrees of freedom).

Table 8
One-way ANOVA for variation between respondents' preferences and previous bicycle ownership.

	F-statistics	Pr>F
<i>Reasons for partaking in the cycle to work scheme</i>		
Health reasons	0.404	0.846
Cost	0.527	0.756
Time savings	5.598	0.001
Convenience	5.589	0
Flexibility	0.594	0.705
To reduce emissions	2.205	0.030
I feel it's a safe mode	0.911	0.474
<i>Ranking of interventions to encourage cycling, by the bike ownership</i>		
Introduction of a 30 km speed limit	2.004	0.077
Improvement of the cycle lane network	1.554	0.172
Increased traffic calming	1.628	0.151
Maps and signed routes	0.385	0.859
Segregated cycle schemes	1.268	0.277
Classes on cycle safety	0.420	0.835
The ability to bring bikes on-board public transport services	2.313	0.043

the chi-square test found no significant difference among whether an individual would purchase a new bicycle if their current bicycle was lost or stolen and when they last owned a bicycle. In the results it should be noted that 21% of those that had not owned a bicycle in 4 to 6 years and 26% of those who have not owned a bicycle in over seven years, still haven't used their bicycle. As one would expect of those individuals who had a bicycle before the scheme, 40% cycle to work every day and 68% of all of these individuals cycle to work at least once a week. Of the new bicycle owners, those who had not owned a bicycle in the past four to six years, 13% said they cycle to work every day and 57% cycle at least once a week to work. A similar result was found for those individuals who had not owned a bicycle for more than seven years. The second set of results presented in Table 7 examines the frequency of which respondents cycle for non-work trips. The results show that 73% of those who owned a bicycle before using the scheme cycled for non-work trips at least once a week. The findings demonstrate that 50% of individuals who had not owned a bicycle in four to six years and 54% of those that did not own a bicycle for more than seven years cycled for non-work trips at least once a week. The results in Table 7 demonstrate the success of the scheme, as it has encouraged individuals to use their bicycle for commute and non-trips on a regular basis. These modal change results show how accessibility to cycling has improved as a result of the Cycle to Work scheme.

Table 7 also reports the results of a question, which asked respondents if their bicycle was lost or stolen would they replace it. It should be noted that these results were not statistically significant. The majority of respondents said they would replace their bicycle if lost or stolen. This finding demonstrates, even for those who prior to the scheme had not owned a bicycle in a number of years, they would replace it if lost or stolen. This finding demonstrates the benefits respondents derive from their bicycle, as they would need to replace it.

5. Motivations for using the Cycle to Work scheme

This section of the paper examines the motivations for individuals to use the scheme and determines what factors encourage them to cycle on a regular basis. One-way ANOVA analysis was conducted on the results presented in Tables 9 and 10 (see Table 8). The results of this analysis show that there is statistically significant variability between cost and timesaving and the decision to partake in the scheme. However, none of the other relationships were shown to have statistically significant variability between the factors examined. In the survey, respondents were asked what their main motivating decision was to start cycling – the results of which are detailed in Table 9. Respondents were asked to choose between seven reasons and rate these reasons one to seven with one indicating the most influential factor and seven the least. An average score was calculated to show how important each of these factors were to the respondent. To calculate the average score each of the importance factors was given a ranking, with one being the most important factor and seven the least. An average of these rankings was estimated and the lower the average scores the greater the importance to the respondent. Table 9 details the average score for each of the factors cross-tabulated by when the respondent had last owned a bicycle. The results show the most influential factors in encouraging individuals to cycle on a more regular basis were health reasons. The results show that cost was the second most influential factor followed by convenience and time-savings. Typically one would assume that cost and travel-time would be the factors that would encourage individuals to use a particular mode of transport. The findings presented in Table 8 show that health factors were the most influential to encourage cycling in the sample. A desire to reduce emissions was not found to be an influential factor on respondents. Interestingly, regardless of when respondents had last owned a bicycle, all respondents rated each of the factors in more or less the same order.

The final set of results presented in this paper asked respondents, which interventions have had an impact upon their decision to cycle. Each of the factors were rated on a scale from one to eight, with one indicating the factor had a large impact and eight less of a factor. The average rating factor for each of the interventions cross-tabulated by bicycle ownership characteristics is presented in Table 10. The average scores presented in Table 9 were estimated in the same way as those presented in Table 8. It should be noted that the results in Table 10 show that regardless of when the respondent had last owned a bicycle, improvements to the cycle lane network and the introduction of segregated cycle schemes were the most influential factors in encouraging individuals to use the cycle network. Traditionally in Ireland, public transport operators have been reluctant to allow passengers to bring bicycles on-board public transport services. The results presented in Table 10 show that the ability for passengers to bring bicycles on-board public transport services would improve the accessibility of cycling. The results also show that the provision of maps and signed cycle routes would particularly encourage individuals to cycle more often.

Table 9
Factors that encouraged respondents to partake in the Cycle to Work Scheme.

	Had a bike before the scheme	Never owned a bicycle	Did now own a bicycle in the past year prior to the scheme	Did not own a bicycle in the last 1 to 3 years	Did not own a bicycle in the last 4 to 6 years	Did not own a bicycle in more than 7 years	Average score
Health reasons	2.4	2.0	2.9	2.6	1.8	1.6	2.2
Cost	2.8	3.5	2.7	2.8	2.2	2.6	2.8
Time savings	3.5	4.3	3.3	3.2	3.7	4.2	2.7
Convenience	3.5	3.5	2.8	3.0	3.3	3.9	3.3
Flexibility	3.8	4.3	3.8	3.8	4.1	3.9	4.0
To reduce emissions	4.6	4.5	5.8	4.6	4.9	4.2	4.8
I feel it's a safe mode	5.7	4.5	5.5	5.7	5.3	5.5	5.4

Table 10
Ranking of interventions to encourage cycling, by bike ownership.

	Had a bike before the scheme	Never owned a bicycle	Did now own a bicycle in the past year prior to the scheme	Did not own a bicycle in the last 1 to 3 years	Did not own a bicycle in the last 4 to 6 years	Did not own a bicycle in more than 7 years	Average score
Introduction of a 30 km speed limit	2.3	2.7	2.9	2.6	2.1	2.6	2.5
Improvement of the cycle lane network	1.3	1.8	1.3	1.2	1.4	1.2	1.4
Increases traffic calming	2.0	2.7	2.7	3.2	2.0	1.8	2.4
Maps and signed routes	1.6	2.8	2.3	1.9	1.5	1.7	2.0
Segregate cycle schemes	1.3	1.0	0.8	1.1	1.2	1.2	1.1
Classes on cycle safety	1.9	3.3	2.2	2.6	1.8	1.7	2.3
The ability to bring bikes on board public transport	1.4	2.8	1.9	1.3	1.4	1.5	1.7

6. Implications for managerial practice

The research presented in this paper is a first look at the success of the Cycle to Work scheme in Ireland. This research is limited in that it was not possible to get an accurate number of the total number of people that have participated in the scheme. If records on the number of individuals and the characteristics of these individuals were available, it would greatly improve the research presented. Further research in this area should examine the long term benefits of the scheme such as improved employee health, reductions in absenteeism and the wider economic benefits of promoting cycling in the work place.

7. Discussion and conclusions

This paper presents the findings of a study undertaken to explore the benefits of a government policy to encourage the purchase of bicycles with the provision of tax incentives. One of the primary motivations to conduct this research was to explore how successful this policy has been in encouraging individuals who haven't owned a bicycle in a number of years to cycle on a regular basis. The results presented in this paper suggest that those individuals who owned a bicycle prior to partaking in the scheme cycled to work on a regular basis. However, those individuals who were purchasing a bicycle for the first time in a number of years were encouraged to do so because of the scheme and this has resulted in a substantial modal shift toward cycling. One of the interesting findings in this paper is that the overwhelming majority of respondents said that if their bicycle was lost or stolen they would replace it. This result demonstrates how successful the scheme has been in improving the perception of cycling, especially among those individuals who have not owned a bicycle in a number of years.

Traditionally in Ireland, as with other countries, young males were more likely to commute by bicycle. Improving the attractiveness and accessibility of cycling to females and older age groups is a key policy area of developing cycling in Ireland. The results presented in this paper demonstrate that the scheme has been successful in attracting a greater percentage of females and those in older age groups to cycle on a more regular basis.

Internationally, other similar Cycle to Work schemes have been implemented, and the results in this paper quantify some of the benefits from the Irish experience. In terms of accessibility, the scheme has been successful in encouraging individuals to cycle on a regular basis for work and non-work trips, as it has achieved a modal shift and placed cycling as an important mode of transport. The results presented in this paper also demonstrate the potential success of government policies to encourage cycling and how these types of intervention can achieve a modal shift.

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