

How do we get students cycling more at universities and colleges in Edinburgh?

March 2015.



THE UNIVERSITY
of EDINBURGH



Social Responsibility
and Sustainability



Key messages

- Developing a “cycling culture” will make it more appealing and encourage people to take up cycling.
- Better communication with students is necessary to promote cycling; a lack of awareness of key issues such as facilities, training, safety and information are preventing greater uptake.
- The diverse nature of university institutions make the creation of a Cycle Friendly Campus Award more challenging – criteria should not be too prescriptive to allow for campus- and student-specific differences.
- Examples of successful schemes at other institutions indicate learning opportunities for Edinburgh, in terms of meeting students’ needs and fostering safe and normalised cycling communities.

Introduction

Postgraduate students completing the Participation in Policy and Planning (PPP) course at the University of Edinburgh took part in a group project exploring barriers to cycling and potential solutions, and how these can be overcome with a Cycle Friendly Campus Award. This report presents recommendations based on the findings of the group research, gathered from a range of interviews, in order to advise how to encourage more students to take up cycling. It focuses on key barriers and solutions within specific themes identified through analysis of the data. Considerations for Campus Friendly Cycle Award criteria are discussed to indicate how they can influence the student body. Finally, analysis of relevant case studies providing examples of best practice at different academic institutions are presented.

Methodology

In order to generate our findings, we conducted targeted stakeholder interviews. Individuals from across Edinburgh were selected. This included students and staff from The University of Edinburgh, Heriot-Watt University, Napier University and Queen Margaret University, as well as Edinburgh City Council, transport services and active-travel NGOs. Students in the PPP class then interviewed these stakeholders to gather information on attitudes towards cycling, existing schemes and views on a Cycle Friendly Campus Award. Data was analysed and grouped into core themes related to cycling, with specific barriers and solutions presented. Case studies which indicate initiatives already in place were also analysed to support recommendations.

Report Structure

The research and findings are presented as follows:

1. Recommendations and Engaging Students
2. Key Findings - Barriers and Solutions
 - 2.1 Infrastructure
 - 2.2 Cost



2.3 Publicity and Institutions

2.4 Fear

2.5 Logistics

2.6 Weather

2.7 Transient Student Population

2.8 Other

3. Incentives

4. Cycle Friendly Campus Award

5. Case Studies

1. Recommendations

Overarching message: Create a ‘cycling culture’ among students, by normalising cycling more to give it wider appeal. To achieve this we suggest:

Recommendation 1: Raising awareness

Lack of awareness of existing cycle paths and infrastructure was identified as a reoccurring issue. This related to a variety of areas including where to purchase second hand bicycles, cycle routes within and outside the city, and bicycle storage. We recommend that Universities take a more active role in advertising existing infrastructure and cycle paths, as well as alternative routes where cycle paths are lacking. This could be achieved through cycling events, such as bicycle marathons, as well as providing online maps of cycling routes (that can be accessed via smart phones) and information in Fresher’s Welcome packs. Fresher’s week and the beginning of Semester 2 were highlighted as key times to raise awareness, and can be supported by regular events and promotions throughout the year.

Recommendation 2: Overcoming fear and building confidence

Fear and lack of confidence in cycling ability have multiple causes. We strongly recommend the provision of frequent training workshops. These would be aimed at teaching cycling in general, with a particular focus on cycling on the roads in Edinburgh. It would give students a chance to familiarise themselves with the layout of the city and learn how to deal with everyday situations. Workshops could be extended to include bicycle maintenance and repair sessions, where students are given the opportunity to work with cycling experts to learn how to fix their bikes, allowing them to expand their capabilities and become more comfortable with cycling in general.

Recommendation 3: Providing opportunities to take up cycling

The student community is a transient population and most have little disposable income, and as such, relevant infrastructure and equipment should be provided by universities as much as possible. This can include a bicycle hire scheme, as well as the provision of suitable and affordable gear in university shops.



Many stakeholders identified a bike hire scheme as a vital incentive. The scheme could function both on a short (weeks) and long-term (semester/year) scale to suit the different needs of students. We would also suggest the creation of a central cycling hub within each institution where students are able to access information about cycling infrastructure, maintenance kits and give them the opportunity to engage with other cyclists. This would provide a focal point for cycling and would indicate institutions' positive attitudes towards cycling.

Engaging students

We devised potential ways to engage with students to share messages on a wider level:

- Cycle Friendly Award part of long-term scheme to raise awareness.
- Information boards with time taken to get to different locations will make students aware that actual distances are not that far.
- Information hub at each institution – place where leaflets, flyers and other cycle-related information can be found easily.
- Making the most of social networks
 - Short videos (30-40 seconds) produced by University and students to share information with all parts of students body

2. Key findings – barriers and solutions

2.1 Infrastructure

In general it was felt that universities should provide adequate and appropriate storage and shower facilities around campuses. It is recognised that the Council is responsible for improving infrastructure in the city as large structural changes are outside the control of universities. The key barriers that were mentioned include: the lack of cycle lanes and inconsistent cycling infrastructure; poor road conditions; a lack of facilities on campuses including showers, storage, lockers etc. Insufficient storage around the city was also mentioned regularly. It should be noted that perhaps this links with a lack of awareness and promotion of existing infrastructure and facilities. Funding is seen as a key solution for institutions to overcome a lack of infrastructure.

An interesting idea could be to incorporate infrastructure that allows cyclists to transport bikes either long distance or when incapable of cycling/shouldn't cycle (such as when intoxicated). For example, in the United States almost all buses have bike racks on the front of them, allowing people to take the bus in combination with cycling. This could increase cycling rates by making cycling more convenient when it may be seen as too difficult. Also the idea of implementing a traffic light system for cyclists at large junctions, like in Amsterdam, could be a solution to reducing the uncertainty and danger for cyclists.

“Everything needs to be easy: renting a bike, parking a bike, having a shower. We're all lazy.”

“The conditions of the roads are definitely the worst thing.”

If there was some sort of standalone cycling facility for changing and bike parking, it would actually be pretty revolutionary.

*But you know what really bugs me? That you're not allowed to bring your bike on the bus!
What if you have a puncture and you have to walk for an hour?*

Do they have bike lanes here?

Barriers	Solutions
<p>Lack of cycle lanes and lack of connectivity/consistency</p> <p>Busy roads and traffic. [Tram lines]</p>	<p>Cycle network - more well-connected cycle lanes, clearer cycle paths that are well signposted, away from main roads, and more lanes off major roadways (Meadows good example).</p> <p>Increased awareness of current infrastructure. The Council is working to improve roads and cycle paths (in terms of quality, visibility, accessibility, connectivity and quantity) with their Active Travel Plan.</p>
<p>Cycle lanes and paths not well signposted</p>	<p>Improve signage in optimum areas and consider dynamic information such as journey times.</p>
<p>Perception that the city is designed for cars rather than bicycles</p>	<p>Give cyclists more priority on roads over cars and increase responsibility of cars compared to cyclists.</p> <p>Change on-road parking so that it doesn't interfere with cycle lanes.</p>
<p>Poor road conditions (Potholes and lack of dropped kerbs)</p>	<p>Council should improve road quality with cyclists in mind.</p>
<p>Confusing junctions</p>	<p>Implement a traffic light system for cyclists similar to that in Amsterdam.</p>
<p>Poor lighting on certain routes (e.g. Sighthill)</p>	<p>Improve lighting (e.g. along the canal)</p>
<p>Lack of adequate storage and secure parking (in city and some key areas on campus, links to bike theft)</p>	<p>More information on where they are. Council could designate more space to put safe cycle parking facilities in. Universities should offer these facilities on campus. (More bicycle accessories e.g. pumps by storage). Investment needed.</p>
<p>Lack of facilities and getting sweaty e.g. Lockers, showers, drying racks etc.</p>	<p>Awareness of existing. Provide more according to demand.</p>
<p>Lack of current information on good access points</p>	<p>Universities could share data on access points so that students and organisations are more aware – with the potential to create maps.</p>
<p>Cycling may only be part of a journey</p>	<p>In the United States almost all buses have bike racks on the front of them, allowing people to take the bus in combination with cycling to. [Not enough was known about restrictions of attaching racks to buses, so viability need further analysis.]</p>
<p>Cannot cycle after drinking alcohol</p>	<p>In Copenhagen taxis have bike racks for people on nights out.</p>

2.2 Costs

Around half of the interviewees acknowledged that the cost of purchasing a bicycle and the cost of maintenance were barriers preventing students from cycling. People were concerned about the cost of all the accompanying accessories and equipment needed after the initial purchase of a bicycle. However, some interviewees also commented that compared to the high cost of public transport and car ownership, the cost of a bicycle is actually much less and therefore not a barrier. Key solutions include ways to get cheaper bicycles and equipment and to also reduce maintenance costs. The promotion of benefits should be made clearer in order to justify the costs of buying a bicycle and accompanying equipment.

Barriers	Solutions
Uncertainty about where to get a “cheap” bicycle	Launch awareness campaigns (e.g. Dr. Bike and Police bike accessories giveaway efforts; cheap bikes from Gumtree).
Bicycle maintenance cost	Free/reduced cost on bicycle repair (free bike maintenance from Dr. Bike twice a month is a good example).
Expense of new bicycle and accompanying accessories (e.g. a helmet, an appropriate jacket, quality lock(s))	Bicycle co-operative provides cheaper used bikes and parts (a second hand bike sale during Fresher’s Week, second hand online sale). Public bike hire scheme (maybe 50% student discount for annual membership in city hiring scheme). Student vouchers, grants and subsidies, e.g. reduced/tax free rates, a cashback from a bike shop (Cambridge and Bike-to-Work Scheme at QMU good example).
Feeling it is not “worthwhile” getting a bicycle	Promote the benefits of cycling to students, and make it easier for people to access resources they need.
Due to threat of theft, it is a high cost risk to buy a bicycle	Promote good security practices and sell high-quality locks at subsidised prices

2.3 Publicity and institutions

Among interviewees, there was a lack of awareness about schemes taking place, infrastructure and facilities, and promotion of cycling in general. The lack of awareness was due to a deficiency in publicity surrounding these issues. It was mentioned by staff within universities that communication between departments was an issue, potentially reducing the effectiveness of publicity and awareness, but it was also recognised that a lack of resources acts as a significant barrier. Along with this, there was a perception that more communication and collaboration were needed between the City Council and the universities, in order to improve both awareness and infrastructure. Improving communication is clearly a key solution. Social media was mentioned by both students and non-students as an effective method, as well as engaging face-to-face events and workshops. It was also mentioned that students should initially be targeted early in the year, or even before they get to university. It was felt that communication by mass email is not effective as they are often deleted by students before being read.

We found a large disparity between what facilities university staff knew were available and what students were aware of. Whilst cycling facilities and infrastructure were often present and maintained, the communication of this to students may be inconsistent or misdirected. Of those interviewed, many felt that cycling infrastructure and its promotion should be obvious and easy to access, the views of many are reflected in this quote:

“Right now, cycling is something where people have to go OUT to find it, but it should be that it’s provided HERE at Uni. It should be made obvious and available.”

The Edinburgh Napier University provides a range of facilities, such as e-bikes and puncture repair kits, yet student interviews showed that there was uncertainty over who was eligible to use some of these facilities. The University of Edinburgh similarly has an array of provisions, including pop-up bike maintenance stalls, yet there was limited awareness amongst those interviewed. Heriot Watt University students had a good awareness of the rental scheme and repair stalls but noted actual promotion of this infrastructure was not very apparent. At Queen Margaret University, provisions of lockers, showers and changing rooms were deemed satisfactory, but promotion of these to new students was insufficient.

Understandably, there was a division in awareness of facilities between cyclists and non-cyclists. Cyclists were aware of some of the best and worst examples of cycling infrastructure, such as safe, spacious cycle paths on the Meadows. One particular student cyclist originated from Kazakhstan and found the cycling provisions in Edinburgh to be comparatively safe and of high quality. Memorable and successful promotion of cycling included marketing where students were provided with free seat covers and the University of Edinburgh bicycle counter, which adds novelty to cycling. Promotion targeting first-year students was also thought to be successful. Non-cyclists had much less awareness of the promotion of cycling facilities by universities; eight of eleven interviewed said they were not aware of any promotion of cycling, with some being aware of a lot of people cycling.

I shouldn’t have to look for it, it should be advertised by the Uni better.

You need to demonstrate that you’re doing something that meets the needs of your student cyclists.

My motivation to cycle increased just from this conversation. It makes me want to do more just by talking about it.

Barriers	Solutions
<p>Lack of awareness of:</p> <ul style="list-style-type: none"> ● Cycling facilities at universities ● Support available for cyclists (e.g. repairs) ● How to get to university by cycle routes ● How to cycle proficiently/correctly ● Infrastructure in city (cycle lanes) ● Equipment needed for cycling ● Safety information 	<p>Provide information on existing and new:</p> <ul style="list-style-type: none"> ● Facilities (e.g. showers, lockers, storage etc.) ● Infrastructure (e.g. good cycle lanes, canal etc.) ● Signpost routes better ● Events surrounding cycling ● Schemes ● Supporting services for cycling (e.g. repairs) ● Proficiency courses ● Safety information

	<ul style="list-style-type: none"> • Equipment needed • Benefits provided by cycling (e.g. health, calories burned, quicker, environmentally friendly, well-being)
Staffing limitations	A new member of staff could be recruited who would ideally be a former student and be more in touch with the target population.
Poor communication with universities and external organisations	Have a key member of cycling staff to coordinate the communication Set up a collaboration with the Council

2.4 Fear

This was a dominant theme. Of those particularly concerned, many had developed a fear of cycling having witnessed accidents or observed dangerous conditions. Fear of cycling was, predictably, most prevalent amongst non-cyclists, and was often mentioned in relation to a lack of cycling confidence. Wariness of other road users and dangerous road conditions were mentioned repeatedly. Uncertainty of road rules and unfamiliarity with the layout of the city were also very common concerns, particularly amongst international students. Having cycle lanes segregated from the road was often mentioned as a potential solution to the fear of cycling, and so was the importance of regular, well publicised road training events.

The traffic in the mornings is intimidating for the inexperienced

The confidence in knowing what to do was a barrier for me cycling in town

It surprised me how many people told me I would get killed when cycling when I came here

Barriers	Solutions
Fear of other road users	Reduced speed limits would make the roads seem less dangerous. Cycling tours are a fun way to increase the confidence of nervous cyclists. Segregated bike lanes would make cyclists feel more safe. Bus and taxi drivers are seen as having a responsibility to be aware of cyclists and drive safely around them.
Uncertainty of road rules	Regular road-training courses - well advertised and geared towards international students. A buddy scheme to provide a safer way to get to know the road rules. More accessible information available about road rules.
Unfamiliarity with the layout of the city	The off-road cycle paths should be promoted so students can cycle without knowing the layout of the roads. Accessible and clear maps on where quieter routes are.
Personal safety at night and low visibility	A buddy scheme. Provision of free cycle lights.

	Good lighting on routes.
Safety concerns related to parked cars	Ban on parking in bus lanes at busy times.
Fear of bike being stolen	Safe, secure parking facilities for students. Police events on campus and option to register bikes with the police.

2.5 Logistics

Many of the interviewees see walking or taking the bus as more convenient and therefore have no incentive to cycle. The next most common logistical issue was storage.

Barriers	Solutions
Walking/bus more convenient	Bike hire scheme gives the opportunity for potential cyclists to try out this way of commuting before committing by buying a bike. Allowing bikes on buses integrates different transport modes. Selling second hand bikes on campus makes acquiring a bike more convenient.
Leaving the city during the summer	Make bike storage available at university over holidays.
General lack of bike storage space in student flats	Increased on-road covered storage. Encourage installation of storage hooks on walls..
Purchasing 'cycling gear' and accessories	Encourage a more casual cycling culture will make potential cyclists aware that they do not need lots of additional gear. Selling gear in university shops makes acquiring gear more convenient.
Knowing where to buy a bicycle	The university can publicise second hand bike shops more.
It is difficult to carry lots of things on a bike	Provide lockers on campus.

2.6 Weather

Only 7 out of over 100 people interviewed acknowledged weather as an important barrier. Most people acknowledge that there is nothing that can be done. Some people mentioned that weather is not a barrier, because they would have to deal with the weather conditions when they are walking anyway.

Barriers	Solutions
Safety and visibility in harsh weather conditions	The University could publicise routes that are safe in icy conditions
Rain	People could be encouraged to get suitable clothes. Fostering a "cycling culture" that makes people feel that weather is not a problem if you have suitable clothes.

2.7 Transient student population

The problem that was mentioned most often in relation to the transient student population is that it discourages bicycle ownership, and it was often noted that this barrier affects international students the most.

Barriers	Solutions
Not seeing bicycle ownership as 'worthwhile'	A bike hire scheme. Exchange scheme that allows students to sell their bicycle easily when they leave, or buy one when they arrive.
Nowhere to store bicycles over summer	Summer bike stores should be provided.
Term starts later in the year, when weather and light become poorer	Cycling should be promoted as early as possible, and then promoted throughout the year. Encourage people to get season-appropriate equipment (i.e. lights).
Lack of knowledge on how to buy and re-sell bikes	Promotion and advice provided as well as bicycle-buying workshops and marketing campaigns.
Students have a lack of initial interest and then they feel it is "too late" to start cycling	Maps which show how easy it is to get to places in a bike, and city cycling tours to encourage people to get into cycling.

2.8 Other

Most common other barriers were entrenched views, laziness and concerns about the terrain.

Barriers	Solutions
Concern that a lack of fitness would result in struggling up hills	Promotion of the fact that it is alright to walk up hills. Providing electric bikes for hire makes cycling uphill easier.
Students are unwilling to change their opinions about cycling	A bike hire scheme would give an opportunity to try cycling and potentially change views.

3. Incentives

Our stakeholders suggested a variety of incentives that would improve cycling in Edinburgh universities and across the city. Common themes are listed based on order of frequency of occurrence among interviewees:

Theme	Possible specific incentives
Financial Rewards / Monetary Reward Schemes	Bicycle subsidies Coupons, vouchers and discounts Club points Grants, prizes and scholarships
Events, Community Involvement and Culture Promotion	University-based events Tour de France-style bicycle marathons A 'Cycling Week' Newsletters and continuous communications

Infrastructural improvements	<p>Buddy Cycling Scheme</p> <p>Road Infrastructure</p> <ul style="list-style-type: none"> - Road maintenance - Separate bicycle lanes, routes and links <p>Bicycle infrastructure / maintenance</p> <ul style="list-style-type: none"> - Safety of bicycles - Locks for hire/discounts on purchase - Cheap or free repairs (Dr. Bike, Bike Station, pumps)
Health benefits	Promote the ways cycling can improve well-being and fitness

Themes that occurred less frequently include:

- Campus awards to stimulate improvements in universities and filter through to students
- Economic benefits of cycling
- Environmental benefits of cycling
- Recreational and inspirational benefits of cycling
- Other (personal safety, harnessing human energy)

It is important to note that there were a few people who felt that there were no incentives that could encourage them to cycle, due to their non-cycling experience, lifestyles or cultures. Also, one respondent noted that he was already walking most of the time and did not see cycling as a health, economic or environmental improvement in lifestyle. Another indicated that he lived close to everything he was involved with and did not feel the need to cycle.

4. Cycle friendly campus award criteria

Most stakeholders shared their views on the criteria that should be considered for the Cycle Friendly Campus Award. There were strong indications that the criteria should not be too prescriptive, but should maintain flexibility to accommodate individual university needs. Responses from stakeholders indicated that the award would have more of an indirect impact on student cycling behaviour than a direct one. Also where the award would not have a direct impact, it would provide a logo or brand to validate cycling improvements in universities. A handful of stakeholders felt that the award would directly influence patriotism or competition and therefore improve individual cycling practices.

Theme	Possible specific incentives
Bicycle Safety and Storage	Sufficient bicycle parking racks throughout campus Measures to improve bike security such as CCTV
Dedicated Cycle Routes and Open Space for Cycling	Well established cycle lanes throughout university campuses Clear and consistent signage Increased visibility within cycle lanes. e.g. Lighting
Marketing, Promotions and Publicity	Promotion of cycling facilities during Fresher's Week and throughout the year Interactive media to promote cycling such as route maps, videos, infographics and interactive maps Promotion of health benefits

	Information about the award
Training Courses and Workshops	Training and workshops on skills, benefits, routes, safety regarding cycling.
Creating Cycling Culture and Cycling Community	Peer-to-peer cycling proficiency (buddy scheme) Organising and promoting cycling clubs and events Normalising cycling on campuses
Hiring Schemes and Financial Support	Easy access to short and long-term bicycle rentals Financial support / subsidies for acquiring bikes
Provision of Facilities for Cyclists	Provision of showers, lockers and drying racks
Measuring Cycling Percentages	Overall percentages of student and staff cyclists Percentages of increased student and staff cyclists Using trackers to log cycling hours among community Measuring reduction in purchased parking permits Measuring cycling culture among visitors (minor)
Perception of Cycling and Safety Culture by Students	Using the NUS Survey to measure the perception of cycling among students
Bicycle Shop and Repair Station	On-campus sites for bicycle repairs Availability of cycling equipment and accessories such as helmets, jackets and locks

5. Case studies

The following case studies have been chosen for their relevance to cycling in Edinburgh. Each provides unique opportunity and insight into potential initiatives for Edinburgh, Sustrans, and Cycling Scotland. Velocampus at the University of Leeds is a project which Sustrans played a role in helping come to fruition. This project is relatable to Edinburgh, and is a potential option moving forward. The University of Western Australia found there was a lack of information regarding cycling, such as travel time, routes, etc., which was also found in Edinburgh. The Midwestern U.S. case study found that lack of knowledge and training on cycling was a main contributor to lack of cycling. The University of California, Davis and the City of Davis provides a good model of growth of cycling infrastructure alongside growth of the city. Finally, an assessment of cycling at the University of Cambridge indicates a model for a city that has successfully integrated cycling into everyday life. These case studies provide evidence of comparable situations and barriers, and indicate solutions that have had positive results.

Case study 1: Velocampus, University of Leeds

In 2008, the University of Leeds, in collaboration with Sustrans, established the cycling initiative 'Velocampus'. The inspiration for the project originated in Nantes, where a scheme bearing the same name was set up to encourage cycling among students by providing low cost bike hire and maintenance facilities. Velocampus Leeds is based at a bike hub that is centrally located on campus, and provides variety of services to promote and support cycling to all students and staff. Similarly to the original scheme in France, it provides low-cost short and long term bike hire, expert bike servicing, including advice on DIY maintenance and drop-in self help sessions, together with cycle training, route and safety advice.



What this means for Edinburgh

The interviews carried out among students and staff in Edinburgh would indicate that there is an appetite for a similar scheme to be established throughout campuses in the city. The most frequent suggestions for overcoming cycling barriers were a cheap cycle hire and easy access to cycle maintenance. A 'Bike Hub' placed in a highly visible and central location can obviously provide these services, as well as cycle training and general advice. However, it could also act as a locus for the flow of cycling-related information from various departments across the University.

Again, our research has shown that there is a common perception that cycling information from within universities is often disseminated in a fragmented way, which possibly reduces its effective coverage and contributes to the 'lack of awareness' often expressed by students. We propose the hub should not attempt to be the centralised source of information, as this would stifle the healthy heterogeneity of cycling initiatives and events that emanate from departments, clubs and societies across campus. Instead, "The Cycle Hub" can take on the role as promoter of cycling events and initiatives, as well as being the "expert" on cycling for students.

Furthermore, if adequate funding could be secured, a purpose built cycling hub could be constructed that not only provides all of the above services, but has the capacity to incorporate showers, changing facilities and secure bike storage over holiday periods (these are other popular suggestions from our research). This initiative would certainly raise awareness of cycling throughout the Universities, and also become a showcase that the highly influential educational institutions of Edinburgh are contributing to the 'zero carbon city' by 2035 goal, that forms part of the wider, 'zero carbon Britain' project.

References and Further Reading Leeds

Velocampus: <http://www.leeds.ac.uk/velocampus/index.html>

Sustrans & Leeds: <http://www.utravelactive.org.uk/what-we-offer/velocampus-leeds/>

Case study 2: University of Western Australia (UWA)

The University of Western Australia (UWA) carried out a study to become informed about students' cycling habits. Main barriers at UWA were travel time and distance to campus. The same study also found that the reported travel times are usually overestimated, and informing students about the actual travel times could be an incentive to get more students cycling. Generally, reducing barriers to cycling is more effective in increasing cycling than promoting the benefits (Shannon et al. 2006). UWA created a webpage dedicated to cycling that provides information about all the services that are provided (available at <http://www.transport.uwa.edu.au/cycling>.) The services UWA provides includes bike repair stations on campus, bike storage and charge options for electric bikes. To address safety and sense of safety, the study gives a set of guidelines.

References and Further Reading

Shannon, T., Giles-Corti, B., Pikora, T., Bulsara, M., Shilton, T., & Bull, F. (2006). Active commuting in a university setting: Assessing commuting habits and potential for modal change. *Transport Policy*, 13(3), 240–253. doi:10.1016/j.tranpol. 2005.11.002

Case Study 3: Midwestern, United States

A study on commuting behaviour was carried out on a large campus in the Midwestern United States. This study identified self-efficacy, or perception of one's skill, as one of the key barriers to cycling amongst students, which is consistent with our research, which identified perceived dangers of cycling and fitness as inhibitors. Suggested measures to increase self-efficacy included educational classes on campus and the creation of clubs and societies (Bopp et al, 2011). The study found that the next major influences for existing cyclists were financial benefits, concern about environmental issues, and the perceived health benefits of cycling. These factors are more crucial in the study than environmental factors such as topography and road conditions (although these also influence cycling behaviour).

References and Further Reading

Bopp, M., Kaczynski, A., & Wittman, P. (2011). Active Commuting Patterns at a Large, Midwestern College Campus. *Journal of American College Health*, 59(7), 605–611. doi:10.1080/07448481.2010.518327

Case study 4: University of California, Davis and the City of Davis: a case study promoting university and city collaboration

Davis, California is home to the first bike lanes in the U.S., and in 2005 was awarded the title of the nation's first "Platinum Level Bicycle Friendly Community" by the League of American Bicyclists. Nestled within the city, the University of California, Davis elevates the city's cycle status as the second U.S. University to earn the "Platinum Level Bicycle Friendly University" award. Unsurprisingly referred to as the Bicycle Capital of the U.S., with over 100 miles of bike lanes, amicable terrain, university bicycling and education programs, pro-cycling policies and cultured attitudes of respect between cyclists and motorists has resulted in the city becoming a high-functioning transportation system (Buehler and Handy, 2008).

A significant factor of the city and University's cycling success can be attributed to the two entities' collaborative cycling promotional efforts and synergy with broader public support (Takemoto-Weerts, 1998). In pushing for the creation of cycling lanes in the 1960s, public advocacy coalitions formed due to the high demand for cycling and alternatives to auto-centric roadways by the public, creating a unified front to push resistant elected officials to take a pro-bike stance and develop well-defined policy solutions. Most notably, the citizen advocacy coalition expanded to include city and elected officials creating a space where all stakeholders could meet and discuss their concerns and visions as well as formulate policy. In essence, "it created an opportunity to open a policy window in the city government as the streams of problem, politics, and political will converged" (Buehler and Handy, 2008). With the combination of strong civic support, assuaged political interests and collaborative policy development, the first bike lanes in America were warmly welcomed.

Since the 1960s, a wealth of cycling resources has blossomed at University: a Bike Barn hub for training and repair, cycle classes, bike auctions, bike licensing, and even a bike traffic school. Instead of informal bicycle coalitions, bicycling programs are now institutionalised throughout university and city government, such as the official Bicycle Program headed under the University's Transportation and Parking Services Department, the Davis Bicycle Advisory Commission, as well as integrated Davis Police Department involvement. The city and the university also co-host a number of fun and informative events such as Cyclebration, Bike Commute Day and the Transportation Fair to promote cycling.



What this means for Edinburgh

This case study demonstrates the importance of establishing cohesive, well-supported and strategic relationships amongst key stakeholders not only to better promote cycling efforts, but to also create a ripe policy atmosphere through which a cycling culture can become established. It underscores the symbiotic relationship needed amongst the two entities; a cycling culture isn't established within any particular boundaries and efforts to do so should be dually shared and carried out together. Our research identified a desire for increased collaboration and communication between the Council and Edinburgh universities. For instance, there is an opportunity for the University of Edinburgh to align their cycling goals and collaborate with the City Centre Neighbourhood Partnership who have various civic representatives working on active transport objectives for the area. Their combined efforts could result in a sustained, respected cycling community as well as help to meet overarching policy targets in the Cycling Action Plan for Scotland and the Council-backed Sustainable Edinburgh 2020 Framework.

References and Further Reading

Takemoto-Weerts, D. (1998). "The Davis Model." Paper presented to Pro Bike/Pro Walk, Santa Barbara, 1998. Available at: <http://taps.ucdavis.edu/bicycle/education/community>

Buehler, T. and Handy, S. (2008). "Fifty Years of Bicycle Policy in Davis, California." Transportation Research Record: Journal of the Transportation Research Board, 2074, pp 52-57. UC Davis Bicycle Plan 2011: <http://taps.ucdavis.edu/sites/taps.ucdavis.edu/files/attachments/BikePlanUCDCampus2011.pdf>

Case study 5: The University of Cambridge

The University of Cambridge itself has incredibly high cycle rates, while according to the Cambridge Cycling Campaign, 50% of Cambridge residents use their bike at least once a week (2013). Cambridge has always had a large cycling population, however the 2011 Census shows a 37% increase in bicycles on the road between 2001 and 2011. This is made even more successful by a minimal increase in cars, proving more people are choosing to cycle over driving (CCC, 2013). These impressive figures have a lot to do with the University's promotion of cycling. Undergraduates at Cambridge are not allowed a vehicle, unless they receive special permission. The University is always increasing cycling infrastructure where possible, but has been focusing on cultivating the "cycling culture" at the University.

The following are cycling programs that the University is currently focusing on:

- A new Cyclists Breakfast, created to allow cyclists the opportunity to suggest opportunities to improve existing cycling infrastructure at the University. The first of these breakfasts proved successful, and the University plans on holding more.
- The University has a bike repair service located centrally on campus for events to give bicycle a health check, and perform general maintenance.
- Bike Week is celebrated each year.
- CLOCS (Construction Logistics and Cycle Safety Initiative) aims to ensure delivery vehicles are aware of cyclists.
- Park-and-cycle facilities available to encourage people to park their car at the edge of the city and cycle into the centre.



What this means for Edinburgh

Many of the barriers we have found against cycling in Edinburgh exist in Cambridge as well. There is a large student population that are transient, and unwilling to invest in a bike. However, these factors seem to be less of a deterrent than they are in Edinburgh. A short informal interview was conducted with an international couple living in Cambridge. One studies at the University, whilst the other works full time. Both bought cycles upon moving to Cambridge, and when asked why they responded that it was the easiest way to get around, and that cycling is the “norm” in Cambridge; everyone cycles. This proves what Cambridge has that Edinburgh does not; a strong cycling culture. Perhaps by integrating some of the aspects that The University of Cambridge has included in its cycling program, the University of Edinburgh will be able to foster a cycling culture of its own.

References and Further Information

Cambridge Cycling Campaign: <http://www.camcycle.org.uk>

Why Cambridge is a model cycling city: <http://www.theguardian.com/environment/bike-blog/2011/aug/17/cambridge-model-cycling-city>

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