



BICYCLE ACCOUNT GUIDELINES

Measuring, tracking and reporting progress
to inspire better biking in your community

Created by

URBAN
systems



League of American Bicyclists

BICYCLE ACCOUNT GUIDELINES

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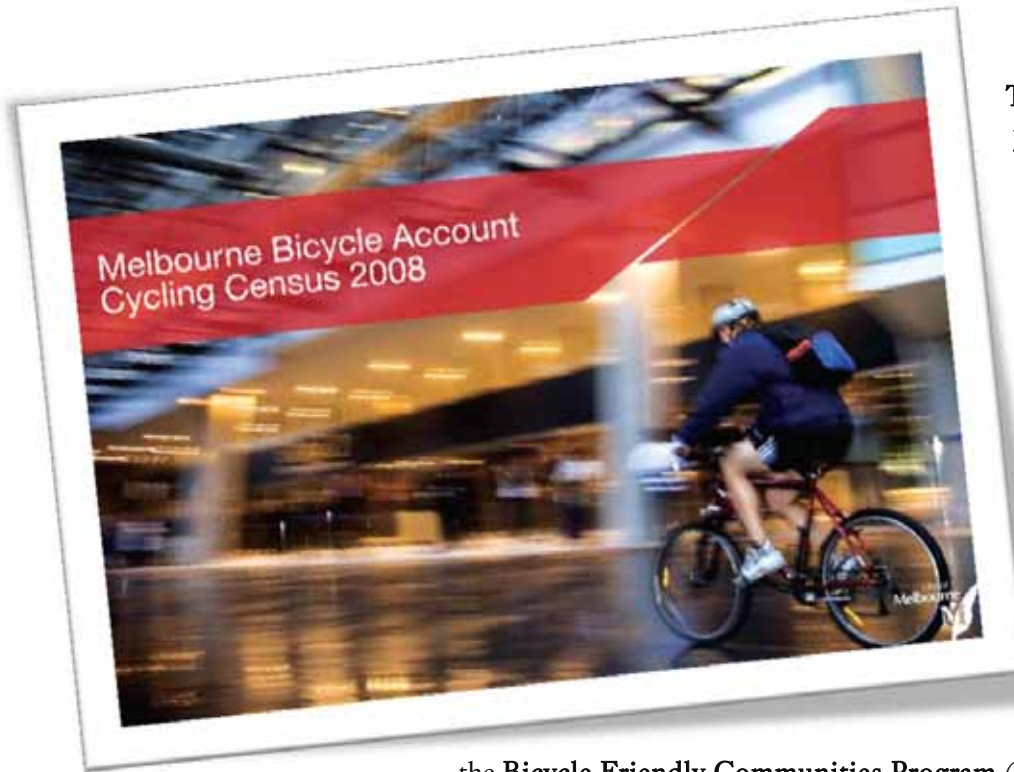


1.0 INTRODUCTION

A Bicycle Account is a tool to monitor the development of bicycling activity in a community on a regular basis, and is used to assess if a community is achieving its cycling objectives. Bicycle Accounts typically report on important public input that can be used and incorporated into the bicycle planning process. The Bicycle Account can also be, in itself, an opportunity to do community-wide marketing and communication on bicycling.

The City of Copenhagen (Denmark) completed a Bicycle Account for the first time in 1996, and has since developed a Bicycle Account on a regular basis every two years, with the most recent Bicycle Account developed in 2010. Copenhagen's Bicycle Account has evolved into a very important tool at the political level, and it has also become a key indicator for City staff and the public to monitor progress. The City of Copenhagen's Bicycle Account has also become an efficient way of focussing City staff on cycling objectives and on how residents perceive the quality of cycling in Copenhagen. Due to the success of the City of Copenhagen's Bicycle Account, combined with a general increase in bicycling internationally, many cities have produced bicycle accounts, or similar monitoring tools and measures, including Melbourne (Australia) and Minneapolis (Minnesota).





The League of American Bicyclists, the national organization for bicycling advocacy in the United States, recognizes that bicycle accounts are an important monitoring initiative that can be used by communities to track their progress in becoming bicycle friendly. In particular, the League works directly with communities through

the **Bicycle Friendly Communities Program (BFC Program)** to provide a roadmap to improve conditions for bicycling, and to provide direct assistance to make the community's vision for a better, bikeable community a reality. The BFC Program has five award levels – diamond, platinum, gold, silver and bronze – that are awarded based on demonstrated bicycling achievements in the categories of Engineering, Education, Encouragement, Enforcement, and Evaluation & Planning. The Diamond-level BFC designation was recently added, and is a higher standard for the best bicycle-friendly communities in the country, helping them become world-class bicycle friendly communities and compete at an international level. The Diamond-level community will have to reach minimum requirements in:

- Percentage of bicycle trips to work or school
- Bicyclists safety
- Public perception of bicycling safety and comfort.

In addition, the League measures the quantity and quality of the bike facility network (cycle tracks, paths, bike lanes, bike parking), bike parking and the percentage of children receiving bicycling education. The BFC Diamond-level incorporates public surveys that gather information from residents on the biking network quality, comfort and convenience as well as what it would take to make them ride more often. The creation of community Bicycle Accounts is critical for

promotion, transparency, benchmarking and generating public support for bicycle-friendly efforts. And as seen through the experience of cities such as Copenhagen, Minneapolis, and Melbourne, a Bicycle Account is a key evaluation and planning tool that can become a prominent part of community bicycle planning toolkits.

This document, **Bicycle Account Guidelines**, is intended for any communities interested in developing a Bicycle Account, as well as communities involved or interested in the League of American Bicyclists' Bicycle Friendly Communities Program. A Bicycle Account can be a key part of building a stronger bicycle friendly community, as it allows communities to systematically monitor local cycling activity, infrastructure projects, and trends, and can be a platform for leveraging future bicycle planning initiatives and investments. These guidelines provide interested communities with the basic start-up knowledge for developing such a monitoring tool in their local context, through a high-level overview of the basic components and points to consider when developing a Bicycle Account.



2.0 THE 4 BUILDING BLOCKS OF A BICYCLE ACCOUNT

Bicycle Accounts often include and report on the four following basic features:

- A. Bicycle traffic data
- B. Cycling quality
- C. Infrastructure development
- D. Theme studies

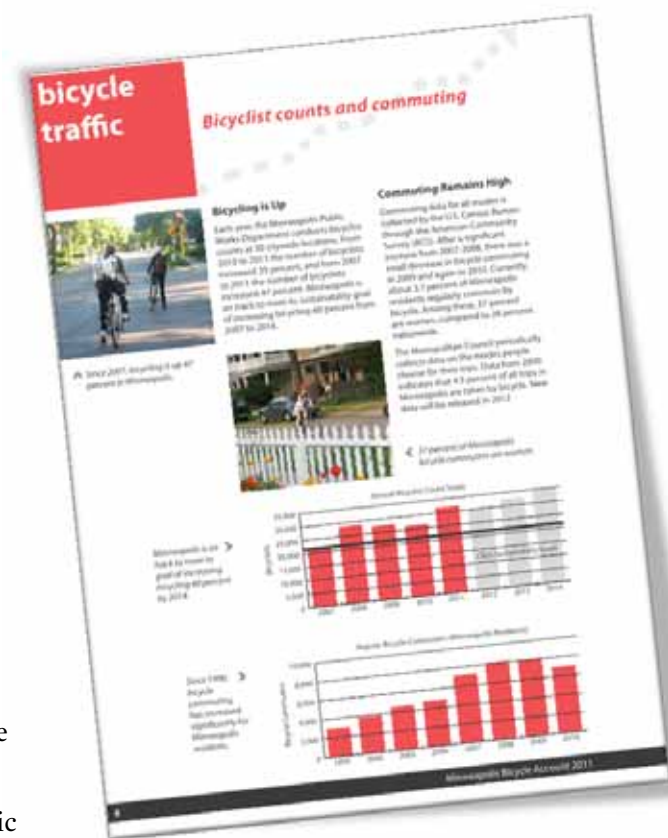
The City of Copenhagen's bicycle accounts include all four features mentioned above, and many other Bicycle Accounts have similar content, though not all include the features of cycling quality and theme studies. These four building blocks of a Bicycle Account are discussed in more detail in the following sections.

A. BICYCLE TRAFFIC DATA

Bicycle traffic data is a fundamental building block of a Bicycle Account, starting with bicycle mode share. Bicycle mode share can be calculated differently from city to city. Mode share calculation methods typically include automatic and manual traffic counts, which are sometimes supplemented with telephone surveys that ask residents about their transportation behavior.

It is also helpful to the bicycle planning process to have bicycle trips divided into trip purpose, trip length, and the demographic profile of cyclists (by gender, age, income, occupation), as this helps to further identify which segments to target for increasing bicycle ridership.

In the City of Copenhagen's Bicycle Account, bicycle traffic numbers are based on a combination of automatic counts, manual counts, the National Transport Survey results, and a statistical survey of a segment of



Minneapolis' 2011 Bicycle Account highlights trends in bicycle mode share over the past 5 years, as well as changing trends in bicycle commuting

Copenhagen's adult population. At times, this data is supplemented with surveys of certain demographic groups such as children, or commuters to the City of Copenhagen from surrounding municipalities.

The City of Minneapolis provides a comprehensive summary of bicycle traffic trends in its 2011 Bicycle Account, including bicycle count data, bicycle commuters by census tract, and bicycle traffic volumes on corridors around the City. The City uses data from a variety of sources: the City's Public Works Department conducts bicycle counts city-wide, bicycle mode share and commuter data is sourced from the U.S. Census Bureau's American Community Survey, and bicycle volume data is collected through a local volunteer-based program run through the City's Public Works Department.

The U.S. Census Bureau provides commute mode share data through the **American Community Survey (ACS)**, identifying the journey-to-work mode for the employed labour force. The ACS is an ongoing survey conducted annually by the U.S. Census Bureau that captures socioeconomic, housing, demographic and transportation characteristics of communities across the United States and Puerto Rico. The transportation questions in the ACS focus solely on commuting travel, not leisure or other non-work trips. The ACS commuting data is a publicly available source of mode share information that can be used on a continual basis by communities measuring the changes in bicycle mode share. The U.S. Census Bureau also releases a nationwide population and housing census every ten years.

In addition, the **National Household Travel Survey (NHTS)**, administered by the U.S. Department of Transportation (Federal Highway Administration), is a key source of data on travel behaviors in American communities. The NHTS collects data on all transportation modes including metrics on trip purpose, trip length, and trip time of day. The NHTS can provide useful information on bicycle travel behaviours and changing trip trends over time. NHTS updates are produced approximately every 5-8 years.

In Canada, **Statistics Canada** conducts a population census every 5 years, which includes journey-to-work information for the employed labour force by mode, including bicycling. Statistics Canada releases mode share data at both the city-wide level and the neighbourhood-level (i.e. census tracts).

Other tools available to communities to collect bicycle traffic data include telephone and online surveys, volunteer-based counts, and household trip diary surveys that can all provide a broad picture of mode share and bicycle trip behaviours.

B. INFRASTRUCTURE DEVELOPMENT

Bicycle Accounts typically include key metrics on bicycle infrastructure development, including parameters such as the development of the bicycle network in miles of bicycle facilities (i.e. bicycle lanes, bicycle boulevards, cycle tracks), bicycle parking supply, and quality of bicycle facilities (i.e. pavement surface quality measures).

OTHER KEY FIGURES									
Cycled kilometers (mil. km per weekday)	0.93	0.92	1.05	1.11	1.13	1.15	1.17	1.21	
Cycled km between serious casualties (mil. km)	1.2	1.8	2.4	2.4	3.0	4.0	3.2	4.4	
Cycling speed (km/h)					15.3	16.0	16.2	15.8	
Cycle tracks (km)	294	302	307	323	329	332	338	346	
Cycle lanes (km)		6	10	12	14	17	18	23	
Green cycle routes (km)	29	30	31	32	37	39	41	42	
Cycle parking spaces on roads and pavements (1000 pcs)*						42	47	48	

* New method of calculation, which is why the figures have been adjusted in relation to the Bicycle Accounts of 2006 and 2008.

Copenhagen's 2010 Bicycle Account includes clear reporting on bicycle infrastructure development over a ten-year period

In the City of Copenhagen, monitoring infrastructure development for the Bicycle Account is supplemented with estimates on how well the existing supply of infrastructure is meeting the demand. In certain instances, especially regarding bicycle parking, Copenhagen has noted a lack of infrastructure capacity, and the Bicycle Account is able to continually monitor this trend.

The City of Minneapolis incorporates the feature of bicycle infrastructure development into their 2011 Bicycle Account. This includes reporting on new projects, such as recently completed off-street pathways, bicycle lanes, and bicycle boulevards that added over 167 additional bikeway miles to the City's bicycle network. Likewise, in its 2008 Bicycle Account the City of Melbourne

provided a list of bicycle-friendly projects that the City was actively undertaking to increase bicycle network coverage, such as new cycle tracks, bike lanes, and a pedestrian and cyclist bridge.

Other infrastructure development topics may also be relevant to include in a Bicycle Account, such as the average width of buffers adjacent to parked cars, or the evolution of the average width of bicycle lanes and cycle tracks, for example.

C. CYCLING QUALITY









An important aspect of the City of Copenhagen Bicycle Account is a focus on residents' perception of the quality of the overall cycling experience in Copenhagen – with perceptions from those who cycle regularly and those who do not cycle (or who cycle only a little). As such, when the City of Copenhagen prioritizes and designs bicycle projects, there is an increased focus on aspects of

the bicycle network that matter to residents, such as perceived safety, comfort, and travel time.

Residents are often a valuable source of frank and straight-forward feedback that can help municipal staff develop bicycle solutions. For example, the Copenhagen Bicycle Account highlights increasing problems with congestion on the cycle tracks, as satisfaction with the widths of cycle tracks dropped from 70% in 1998 to 40% in 2008 and 2010. The result was an increased municipal focus on widening cycle tracks at the busiest sections of the network, in order to improve quality.

The City of Copenhagen has used a variety of methods to acquire data on bicycle quality for its Bicycle Account. The City uses the results of telephone surveys (which provide quantitative data), as well as focus groups (which provide more qualitative data), as well as cell phone text-based (SMS) feedback from residents for project-specific quality evaluations. The telephone surveys are a significant source of information for the City in regards to bicycle quality, and results are systematically reported on within the Bicycle Accounts. The City of Copenhagen develops the telephone survey format internally, and hires a company to conduct the telephone surveys, with a total of approximately 1,000 Copenhagen residents surveyed. In general, the City receives a high response rate to its telephone surveys, as there is a large local interest in cycling and traffic issues.







The satisfaction ratings given by survey respondents on bicycle quality, as shown in Copenhagen's 2008 Bicycle Account. These ratings indicate quality measures on safety, cycle track capacity, bicycle-transit integration, and bike parking conditions.

	1996	1998	2000	2002	2004	2006	2008
CPH as a city for cyclists 	7	8	8	8	8	8	9
Cyclist sense of safety 	6	6	6	6	6	5	5
Amount of cycle tracks 	6	6	7	6	6	6	6
Cycle track width 	7	7	6	5	5	5	4
Condition of cycle tracks 	5	5	4	5	5	5	5
Condition of roads 	2	3	2	3	3	3	3
Bicycle parking generally 	4	3	4	3	3	3	3
Combining cycling and public transport 	5	4	5	5	5	6	5

In their telephone survey, the City of Copenhagen surveys residents on questions relating to the general quality and condition of bicycle facilities, with residents providing satisfaction ratings ranging from 1 (lowest) to 10 (highest). The City has found that when questions are focused on more specific topics such as the condition of cycle tracks (as opposed to general questions such as the perception of Copenhagen as a city for cyclists), the answers become more nuanced, and provide useful input for the planning process.

The City of Melbourne has conducted similar resident surveys for their Bicycle Account (called Bikescope surveys) regarding the perception of bicycle quality, which involved asking residents how they rate the City's bicycle-friendliness, safety, cyclist behaviours, and network connectivity.

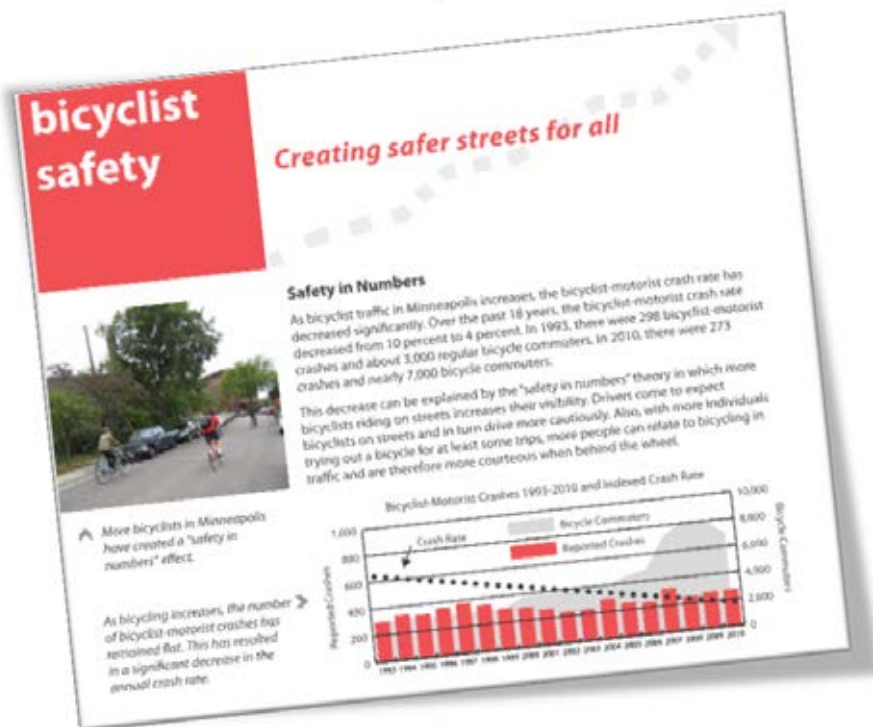
Melbourne's 2008 Bicycle Account shows results from the Bikescope surveys, comparing the results to those from the previous year's survey, allowing the City to track changes in perceived quality.

What city cyclists say about cycling in Melbourne	Average rating (out of 10)	
Is the City of Melbourne a cycle friendly area? 	6	6
Do you feel safe riding your bike in the City of Melbourne? 	5	5
Do bike riders observe road rules? 	6	6
Are cycling paths well designed? 	6	6
Are cycling paths well maintained? 	6	6
Are you happy with the amount and connectivity of the path network? 	5	5
Is the City of Melbourne doing a good job providing for riders? 	6	6
	2008	2007

The Bikescope Survey also asked residents to nominate one on-road bicycle route that needed the most improvement. The Bicycle Account then reports the bicycle routes that are frequently identified as poor quality and needing improvement.

Evaluating the quality of cycling in a city should also incorporate key measurements related to safety, through reporting bicycle collision statistics, including cyclist injuries and fatalities. In many cities, safety and collision data is typically acquired from police departments or road safety agencies. Cycling collision data can be reported in a number of ways, such as the overall of reported collisions involving cyclists per year, as well as collision rates based on cycling

volumes or per 100,000 residents, for example. The City of Minneapolis reports on bicycle safety information in its 2011 Bicycle Account, highlighting trends in bicycle-motorist crash rates, and describing recent improvements (i.e. painted bicycle lanes, and median islands) that the City has installed to improve safety conditions for bicyclists.



The Minneapolis 2011 Bicycle Account identifies that the impact of more cyclists on the road, or "safety in numbers", has resulted in a decrease in the bicyclist-motorists crash rate.

The City of Melbourne's 2008 Bicycle Account reports on bicyclist injury and collision rates, and it identifies conflict areas that the City is focussing improvements on to reduce accidents and injuries. Likewise, the City of Copenhagen reports on trends in cyclist injuries in their Bicycle Account, and also includes more qualitative information on perceived safety. For example, the City issues a survey to residents to indicate their perceptions of cyclist safety, and then reports the results in the Bicycle Account and compares these results to the City's stated cycling objectives. For example, while only 51% of cyclists in Copenhagen perceived bicycling to be safe in 2008, this increased to 67% of cyclists in 2010, indicating a marked increase and nearing to the City's goal of 80% by 2015.

In the United States, the National Center for Statistics and Analysis (NCSA), an office of the National Highway Traffic Safety Administration (NHTSA), is responsible for providing highway safety analysis and statistics to support the NHTSA. The NCSA regularly publishes statistics on bicycle collisions (including fatalities, injuries, locations, and time of day) on a national and state-level, with community level data available on request.

D. THEME STUDIES

The City of Copenhagen uses the Bicycle Account to convey key messages across in the media. When deciding on themes to focus on for an upcoming Bicycle Account, Copenhagen City staff seek to provide substantial new knowledge on a topic that matches the current political agenda, and to do it in a way that is also considered interesting to the media. The stories provided through the City's Bicycle Account are aligned with the overall 'story' on why to promote cycling in Copenhagen.

Recent examples of theme studies incorporated into the City of Copenhagen's Bicycle Account, include a Green Growth study, which is an analysis of the economic impact of bicycle-related industries. Theme studies have also focussed on the overall financial impacts/benefits of cycling compared to other modes of transportation. These themes, based on the findings in the Bicycle Account, gained considerable media attention and thereby helped to set the stage for cycling in Copenhagen.

The Copenhagen Bicycle Account 2010 showcases the Green Growth theme study on the economic impact of bicycle related industries.





3.0 A BICYCLE ACCOUNT FRAMEWORK

Based on experience from cities such as Copenhagen, Minneapolis, and Melbourne, a Bicycle Account, or a similar tool that tracks bicycle development in an ongoing and systematic way (and compares it with political goals), is an important tool to promote cycling and provide accountability for goals related to cycling. At the same time, a Bicycle Account is a practical way to keep track of the impacts of public investment in cycling. As such, a Bicycle Account can monitor if bicycle investments do or do not have an impact.

A Bicycle Account can provide valuable input to the ongoing bicycle planning process, and can be an effective communication tool, thereby contributing to cycling promotion. The longer the timeline of a Bicycle Account, the more useful it becomes as it will be a locally established publication, identifying long-term trends.

A Bicycle Account can be produced for a rather modest budget. Depending on how much work is carried out in house, and on data collection methods used, it is possible to produce a Bicycle Account for approximately \$20,000 - \$40,000. The current budget for the City of Copenhagen Bicycle Account is \$60,000. While the City of Minneapolis did not track the cost for development of their 2011 Bicycle Account, the project took four City staff approximately one month to develop, drawing on readily available sources of bicycle count and infrastructure data, collected through ongoing City collection efforts.

3.1 BICYCLE ACCOUNT: INFORMATION REQUIREMENTS

When compiling a Bicycle Account, there is certain information and data that is a basic requirement to have in order to deliver a sound Bicycle Account. There is also information and data that is desirable to incorporate into a Bicycle Account, if proper data sources and resources are available. An important guiding principle for determining which data to include in the Bicycle Account should be a consideration of which local data is already accessible and available, or which data can be easily collected through ongoing municipal work, such as resident surveys. The requirements for a Bicycle Account can be organized under the four main building blocks of:

- Bicycle traffic data
- Infrastructure
- Cycling quality
- Theme studies

1. Bicycle traffic data

	Bicycle traffic data	Data Source
Required Data	<ul style="list-style-type: none"> Bicycle mode share* Bicycle counts from (pref. 3 - 5 locations) Average bicycle trip distance travelled per day 	<ul style="list-style-type: none"> American Community Survey (United States) National Household Travel Survey (United States) Statistics Canada (Canada)
Desired Data	<ul style="list-style-type: none"> Cyclist age, gender, trip purpose, income, profession and home location Historic development of bicycle trip distance and mode share 	<ul style="list-style-type: none"> National Household Travel Survey (United States) Regional Trip Diary Surveys Statistics Canada (Canada)

2. Infrastructure

	Infrastructure	Data Source
Required Data	<ul style="list-style-type: none"> Length of bicycle network, in terms of off street facilities (paved and un-paved), and on street facilities (bicycle lanes, cycle tracks, bicycle boulevards) Public bicycle parking* Brief description of planned or current bicycle projects 	<ul style="list-style-type: none"> Public Works Department Planning / Bicycle Planning Department
Desired Data	<ul style="list-style-type: none"> Resident poll/survey identifying: <ul style="list-style-type: none"> Location of the most needed bicycle facility Location of the most needed bicycle parking Best existing bicycle facility Best end-of-trip facilities / bike parking <p>In order to create interest in the result, generating “worst” and “best” lists for bicycle infrastructure is especially useful for readers.</p>	<ul style="list-style-type: none"> On-line surveys Telephone surveys

3. Cycling Quality

	Infrastructure	Data Source
Required Data	<ul style="list-style-type: none"> Bicycle-motorist collision data* Bicycle fatality and injuries* Collision locations 	<ul style="list-style-type: none"> NHTSA/NCSA (United States) Road safety agencies
Desired Data	<p>Residents' perception of cycling quality, with parameters such as:</p> <ul style="list-style-type: none"> Perception of amount of off-street facilities* Perception of amount of on-street facilities* Perceived safety when cycling* Overall quality of the city to cycle in* Quality and availability of bicycle parking* Quality of maintenance of on and off-street bicycle facilities* Quality of community leadership, dedication, and responsiveness to bicycling community Feasibility of combining bicycling and transit trips* What could get residents to cycle more / primary deterrents Importance of cycling conditions based on gender, age, occupation, and location of home/work/school 	<ul style="list-style-type: none"> On-line surveys Telephone surveys

* Diamond BFC Data Requirement

4. Themed Studies

Certain themes (and studies focussing on these themes) can be emphasized throughout a Bicycle Account, depending on the current political and economic environment of a city. Examples of themes that can be included in a Bicycle Account include:

- **Tourism:** The current and potential effects of bicycle tourism, such as bicycle day trippers and vacationers, cycle tour groups, and one day events (i.e. bicycle races, such as GranFondo events);
- **Youth & Children:** The health effects of cycling promotion among youth and children, and/or how improved cycling conditions can increase the flexibility and freedom for children, thereby increasing quality of life;
- **Microeconomic effects:** Case stories on how the family economy is impacted if good bicycle facilities (and the will to cycle) make it possible to avoid the need for a second car.

Including specific themes and theme studies in a Bicycle Account is not required, but as illustrated above, this can provide very useful supplemental information. Such themed studies can be used to tie the Bicycle Account closely to the cycling goals and objectives of a local government, and can get some important stories and numbers out to the media, therein strengthening the Bicycle Account as a tool to promote cycling.

3.2 BICYCLE ACCOUNT FORMAT

One of the defining features of a Bicycle Account is that it should be an accessible publication, and should be written and designed in such a way that is easily understood to a broad audience. The Bicycle Account should be laid out and written in a way that is clear and concise, with a level of detail that makes it interesting, relevant, and attractive, so the average resident will pick it up and read it. This includes formatting and design considerations that will attract people to read the Bicycle Account and understand its messages. This can include the creative use of pictures, graphics, case studies, and statistics to convey the Bicycle Account's key messages. With the combination of sound content and attractive packaging, the Bicycle Account can effectively reach a broad audience.



Minneapolis' 2011 Bicycle Account demonstrates the use of inviting graphics, and easy-to-read statistics.

3.3 CONVEYING THE MESSAGE

A Bicycle Account is not of any use if no one in the community reads it or hears about its existence. As mentioned above, conveying the message accurately entails producing relevant and interesting content in the Bicycle Account, packaged and written in a way that is easy to understand. It is also central for the Bicycle Account team to work with internal and external partners to communicate the Bicycle Account's main messages. Thus, at the preliminary stages of developing a Bicycle Account, the team must consider the following key points:

- What is the main **message** of the Bicycle Account?
- Who is the intended **audience**?
- How and what should be measured?
- **Which partners** would have an interest in the content of the Bicycle Account, and/or an interest in helping getting the content out to a wider audience?

3.4 BUILDING MOMENTUM

With the right planning, a Bicycle Account can become an important tool to set the stage for bicycling in a community. For communities interested in improving conditions for bicyclists, a Bicycle Account can effectively become a platform to continually report on the state of cycling activity, infrastructure, and initiatives, identifying where successes have been achieved and what work still needs to be done. A Bicycle Account is a tool that is useful to a variety of stakeholders: for the local government looking to assess if it has reached its cycling goals and objectives; for community organizations seeking to make a case for needed cycling improvements; and for residents to see the impact of public investments in cycling and how this is affecting travel behaviours in their communities. The development, and ongoing use of bicycle accounts, can allow a community to continually strengthen its local bicycle planning and evaluation processes. Lastly, a Bicycle Account can support the momentum of governments, organizations, and residents as they continually strive to be welcoming places for bicyclists.



MELBOURNE BICYCLE ACCOUNT IN BRIEF

The City of Melbourne's bi-annual *Bicycle Account: Cycling Census* reports the progress of the City's *Bicycle Plan 2007-2011*. The first *Bicycle Account* was published in 2007 and is modelled on the Copenhagen *Bicycle Account*. Much of the data presented in the report is collected in conjunction with Bicycle Victoria, a self-funded community organization who is paid to manage the survey. Released every two years, Melbourne's *Bicycle Account* reports the following aspects of cycling:

- **Key Figures** – Key figures include manual count data on select cycling arterials and various metrics related to bicycle facility investment
- **What cyclists say** – The *Bicycle Account* survey asks participants to rate aspects of cycling in Melbourne.

Bicycle Counts:

The *bicycle count data* presented in the Bicycle Account comes from:

- **Super Tuesday bike counts** – Annual manual counts of bike commuters are performed by Bicycle Victoria during the morning peak (7-9am) on a Tuesday in March (which Bicycle Victoria reports to be the busiest time and day of the week and time of year).
- **Bicycle loop detector data** - In November 2005 VicRoads (the Roads Corporation for the State Government of Victoria) installed 17 permanent inductive loop detectors on the off-road path network around Melbourne.
- **City of Melbourne traffic surveys** – City of Melbourne traffic surveys count the number of vehicles and cyclists riding into the central city between 7am and 10am.

Bicycle Surveys:

The City of Melbourne commissions Bicycle Victoria, a self-funded community organization, to manage the "BikeScope Survey," an annual online survey reported in the *Bicycle Account* report that asks participants to rate aspects of cycling in Melbourne out of 10. Bicycle Victoria distributes the survey to their member base and contact list. The City also sends the survey to a specific contact list of cycling groups. More than 4,000 cyclists participated in the 2008 survey.

Bicycle Parking Supply and Usage:

The *bicycle infrastructure and safety* section of the *Bicycle Account* lists the number of on-street bicycle parking spaces. The 2007 Melbourne Bikescope Survey asked cyclists where they park their bicycles in the city. The 2008 survey asked about the availability of bicycle facilities (parking, showers, lockers, etc.) at work.

Other Data Considerations:

The City of Melbourne uses automatic count data to monitor variation in ridership by hour of day, season, year, etc. Count data is available online (VicRoads).



COPENHAGEN BICYCLE ACCOUNT IN BRIEF

Overview:

Beginning in 1995, the City of Copenhagen began releasing a **Bicycle Account** - a short 10-20 page document that assesses how well the city is achieving its cycling objectives. The *Bicycle Account* is published every two years. It provides both an overview of the current status of cycling improvements and what could be done better. Each *Bicycle Account* contains:

- **Key Figures** - A list of key metrics that cyclists regard as the most essential. Initially defined in collaboration with cyclist focus groups, some key figures have been replaced by others over the years. As shown in **Figure 3**, this includes considerations such as total kilometres cycled, extent of the bicycle network, maintenance, injuries, and bicycle parking.
- **What Cyclists Think** - Presents cyclist attitudes based on a representative telephone interview survey carried out by a consulting firm. These responses assist the City to identify where it should focus future improvements. As shown in **Figure 4**, this includes considerations such as sense of safety, network development, maintenance, and parking.
- **Current Issues** - In addition to providing key metrics, the Bicycle Account is used as an opportunity to promote and highlight bicycling - which is done by including articles on subjects such as combining cycling with public transport or the socio-economic benefits of cycling.

Bicycle Counts:

Count data is not featured in the *Bicycle Account*, presumably because extremely high levels of bicycling in Copenhagen allows the City to effectively utilize household travel survey data to ascertain mode share, origins and destinations, etc. and making the collection of count data less important.

Bicycle Surveys:

The telephone survey results collected every two years are presented in Figure 4 below. Telephone surveys of bicyclists are easier to conduct in Copenhagen than in other cities because a high percentage of people surveyed will regularly utilize a bicycle. As per the 2006 Bicycle Account, 'A Copenhagen cyclist is defined in the survey as either a person for whom the bicycle is the preferred mode of transport or a person who uses a bicycle a minimum of once a week. 723 out of the 1025 interviewees are thus designated as cyclists in the survey.

Bicycle Parking Supply and Usage:

In 2006, the Bicycle Account began including a metric on the number of public bicycle parking spaces on public roads and pavements.

Other Data Considerations:

The Bicycle Account has a very specific purpose, which is to measure the City's progress in achieving its goals set out in the Cycle Policy 2002-2012 released in 2002 compared to a 1998 base year, including:

- Increase the proportion of people who cycle to workplaces in Copenhagen to 40%.
- Reduce the cyclists' risk of being injured or killed by 50%.
- Increase the proportion of Copenhagen cyclists who feel safe cycling in town to 80%.



CITY OF COPENHAGEN 2010 BICYCLE ACCOUNT SURVEY

QUESTIONS - RESIDENT SURVEY

Do you have access to a bike?

- ☐ Yes
- ☐ No

Do you use a car for the daily commute?

- ☐ Yes
- ☐ No
- ☐ Sometimes

How often do you travel more than 10 minutes in Copenhagen?

- ☐ Almost daily
- ☐ Few times a week
- ☐ About once a week
- ☐ Rarer
- ☐ Never
- ☐ Do not know / no answer

How often do you use public transport in Copenhagen?

- ☐ Almost daily
- ☐ Few times a week
- ☐ About once a week
- ☐ Never
- ☐ Do not know / no answer

How often do you cycle in Copenhagen?

- ☐ Almost daily
- ☐ Few times a week
- ☐ About once a week
- ☐ Rarer
- ☐ Never
- ☐ Do not know / no answer

Bicycle Quality

What should there be to make it better to cycle in Copenhagen?

- ☐ More bike paths
- ☐ Wider bike paths
- ☐ Bike paths away from the car roads
- ☐ Improved bicycle parking
- ☐ More bike-friendly traffic lights
- ☐ Congestion tax / toll
- ☐ Shortcuts for bicycles
- ☐ Better to cycle two abreast
- ☐ Do not know

Which road user groups should, in your opinion, be more considerate for better cycling conditions in Copenhagen?

- ☐ Cyclists
- ☐ Motorists
- ☐ Buses
- ☐ None of them
- ☐ Do not know

If you felt safer as a cyclist, would you cycle more?

- ☐ Yes
- ☐ No
- ☐ Do not know

What would it take to make you more comfortable as a cyclist?

- ☐ More space on the bike path
- ☐ More ordinary bicycle paths
- ☐ More bike paths away from the car roads
- ☐ More separation between cars and bicycles
- ☐ More lights on bike paths
- ☐ More consideration from motorists
- ☐ Fewer holes in bike paths and roads
- ☐ More cyclist-friendly traffic lights
- ☐ Fewer cars and trucks
- ☐ Other
- ☐ Do not know

Are there other things that could make it better for you to ride in Copenhagen?

- ☐ A better bike
- ☐ Better weather
- ☐ An electric bicycle
- ☐ Tax deductions
- ☐ Other
- ☐ No
- ☐ Do not know

How likely is it that you would start cycling or cycle more if changes were carried out?

- ☐ Very likely
- ☐ Probable
- ☐ Unlikely
- ☐ Do not know

How often do you combine cycling and public transport in Copenhagen?

- ☐ Almost every day
- ☐ A few times a week
- ☐ About once a week
- ☐ Rarer
- ☐ Never
- ☐ Do not know / no answer

Here are some possible combinations of cycling and public transportation. Which of these do you use:

- ☐ S-train and bicycle parking at station
- ☐ S-train and take bike
- ☐ Regional and park the bike at the station
- ☐ Regional and takes bike
- ☐ Metro and park the bike at the station
- ☐ Metro and take bike
- ☐ Bus and park the bike at stop
- ☐ Take the metro or train, and have bike at the terminus
- ☐ None of them
- ☐ Do not know

Do you think that the impacts of bike culture on urban life and the overall atmosphere in Copenhagen is...

- ☐ Very positive
- ☐ Positive
- ☐ Neither positive or negative
- ☐ Negative
- ☐ Very negative
- ☐ Do not know

Have you had your bicycle stolen?

If yes, how long ago?

- ☐ 1 month or less
- ☐ 1-3 months
- ☐ ½ -1 year
- ☐ 1 -1 ½ years
- ☐ 1 ½ -2 years
- ☐ 2 years or more
- ☐ Have never had stolen a bicycle
- ☐ Do not know

Bike Types

What types of bikes are available in your household and how many of each kind?

- ☐ General
- ☐ Children's bicycles with pedals
- ☐ Running / balance bike without pedals
- ☐ Cargo bike (3 or 2 wheels)
- ☐ Electric bicycle
- ☐ Bike Trailer
- ☐ Other Type
- ☐ Do not know

Why do you have a bike or bike trailer? Is it because it is:

- Ideal for your needs
- A replacement for a vehicle
- A replacement for a second vehicle
- A supplement to car
- For environmental reasons
- Other
- Do not know

What do you use cargo bike or bicycle trailer for? Is it:

- For transporting children
- Transportation of goods
- Other
- Do not know

How satisfied or dissatisfied are you overall with the conditions of Cargo bikes and bike trailers in Copenhagen?

- Very Good
- Satisfied
- Neither satisfied nor dissatisfied
- Poor
- Terrible
- Do not know

Conversational Cycling

To what extent is it important for you to be able to ride alongside another person, so you can talk while you bike? Is it

- Highly important
- Somewhat
- To a lesser extent
- Not important at all
- Do not know

How often do you experience that is not possible to ride alongside and talk together with others?

- Daily
- A few times a week
- A few times a month
- Rarer
- Never
- Do not know

If the option to ride and talk with others was better, what effect would it have on you?

- Would you feel more comfortable
- Would have a better experience of cycling in Copenhagen
- Would cycling longer
- Would cycling more often
- Second, notes
- No effect
- Do not know

Cycling to Work / School

When did you last cycle to work / school for a longer period?

- Within the last six months
- Within the last year
- Within the past two years
- More than two years ago
- Never
- Do not know

Why did you stop cycling to work / school?

- Bike only in summer
- My bike was stolen
- My bike broke
- Moved / new job so I live too far to work for cycling
- Because of my health
- Because am worried about bike theft
- Due to changed family circumstances
- Other
- Do not know

Which of the following could possibly get you to cycle to work:

- Better bike routes between home and work
- End of trip facilities in the workplace
- Good bicycle parking (dry and possibly locked)
- Free bike maintenance at work
- Deductions for bicycle use
- Subsidy to buy a good bike
- Other
- No
- Do not know

To what extent do you agree with the following statement: “I think the vast majority of cyclists ride nicely”

- ☐ Strongly agree
- ☐ Agree
- ☐ Neither agree or disagree
- ☐ Disagree
- ☐ Strongly disagree
- ☐ Do not know

To what extent do you agree with the following statement: “I appreciate cyclists, partly because cyclists do not take up space on the bus or on the road”

- ☐ Strongly agree
- ☐ Agree
- ☐ Neither agree or disagree
- ☐ Disagree
- ☐ Strongly disagree
- ☐ Do not know

How satisfied are you with bicycle parking options at stations?

- ☐ Very Good
- ☐ Satisfied
- ☐ Neither satisfied nor dissatisfied
- ☐ Poor
- ☐ Terrible
- ☐ Do not know / no answer

How long does it take you to cycle from home and to work or study?

- ☐ Note stated minutes
- ☐ Do not know / no answer

How many miles do you cycle in a week, for reasons other than work and study.(i.e. transporting children, shopping, sports, fitness or visits)

- ☐ I do not use bicycles in this context
- ☐ Note stated km:
- ☐ Do not know / no answer

How many kilometers do you bike in one week for recreation and for exercise:

- ☐ Bicycles are not recreational
- ☐ Note stated km:
- ☐ Do not know / no answer

Bicycle Quality

If you do not cycle every day, what are the main reasons for this?

- ☐ Poor weather
- ☐ Slippery / snow
- ☐ Have errands on the way
- ☐ Have the opportunity to use other modes
- ☐ Variable working hours / days
- ☐ Large distances/too far
- ☐ Laziness
- ☐ Does not meet transport needs every day
- ☐ Do not feel it is safe
- ☐ Must deliver / collect child
- ☐ Uncomfortable with being outdoors at night
- ☐ Other
- ☐ Bikes every day
- ☐ Do not know / no answer

What are the main reasons why you cycle?

- ☐ Cheap
- ☐ Fast
- ☐ Easy
- ☐ Convenient
- ☐ For exercise
- ☐ Environmentally friendly
- ☐ My partner uses the car
- ☐ Must deliver / collect child
- ☐ Public transportation poor fit for me
- ☐ Other
- ☐ Do not know / no answer

How is Copenhagen to cycle in? Is Copenhagen...

- ☐ Very good
- ☐ Good
- ☐ Reasonable
- ☐ Yes
- ☐ Very bad
- ☐ Do not know / no answer

If you are sometimes bothered by other cyclists, what can they do to bother you less?

- ☐ Give hand signals
- ☐ Use bell
- ☐ Drive slower in general
- ☐ Drive faster in general
- ☐ Not use mobile phone
- ☐ Not use headphones
- ☐ Not talk
- ☐ Respect red lights
- ☐ Respect alignments
- ☐ Stick to bike paths
- ☐ Driving on the right side of the road
- ☐ Keep to the right side of the bike path
- ☐ Use bike lights
- ☐ Other
- ☐ Do not know

Is there anything you are particularly bothered by when you cycle in Copenhagen?

- ☐ Many pedestrians, too many cars
- ☐ Bad behavior of other road users
- ☐ Uneven bike paths
- ☐ Uneven roads
- ☐ Lack of bike paths for narrow bicycle lanes
- ☐ Dangerous Intersections
- ☐ Congestion
- ☐ Air pollution
- ☐ Buses
- ☐ Feel it is dangerous to cycle
- ☐ Noise
- ☐ Carriers
- ☐ Mopeds
- ☐ Trucks
- ☐ Other notes:
- ☐ No, not bothered by anything
- ☐ Do not know / no answer

Is there anything you particularly appreciate when you ride?

- ☐ The many bike paths
- ☐ That drivers take into account cyclists
- ☐ The other cyclists
- ☐ Meeting people
- ☐ Feel at ease when I cycle
- ☐ People in summer
- ☐ Relaxing
- ☐ Experiencing seasons
- ☐ Other
- ☐ No
- ☐ Do not know

Do you feel comfortable riding in the city centre? If not, what makes you feel uncomfortable cycling in the centre?

- ☐ The cars
- ☐ Taxis
- ☐ When cyclists do not follow the rules
- ☐ Buses
- ☐ Trucks
- ☐ Lack of cycle paths
- ☐ Conditions in traffic lights
- ☐ Uneven coating
- ☐ Other notes:
- ☐ Do not know / no answer

Can you name anything in particular that makes you feel comfortable as a cyclist?

- ☐ Bike Paths
- ☐ Safe car drivers
- ☐ Space on bike path
- ☐ Bicycle signals at traffic lights
- ☐ Taking from motorists
- ☐ Good coating
- ☐ Others to follow rules / code of ethics in traffic
- ☐ My own view
- ☐ Second, Notes
- ☐ Nothing
- ☐ Do not know

Bicycle Infrastructure

How satisfied are you with the amount of cycle paths?

- ☐ Very Good
- ☐ Satisfied
- ☐ Neither satisfied nor dissatisfied
- ☐ Poor
- ☐ Terrible

How satisfied are you with cycle track width?

- ☐ Very Good
- ☐ Satisfied
- ☐ Neither satisfied nor dissatisfied
- ☐ Poor
- ☐ Terrible
- ☐ Do not know / no answer

How satisfied are you with maintenance of bicycle paths?

- ☐ Very Good
- ☐ Satisfied
- ☐ Neither satisfied nor dissatisfied
- ☐ Poor
- ☐ Terrible
- ☐ Do not know / no answer

How satisfied are you with maintenance of roads, where there are no cycle paths?

- ☐ Very Good
- ☐ Satisfied
- ☐ Neither satisfied nor dissatisfied
- ☐ Poor
- ☐ Terrible
- ☐ Do not know / no answer

How satisfied are you with bicycle parking options in the city in general?

- ☐ Very Good
- ☐ Satisfied
- ☐ Neither satisfied nor dissatisfied
- ☐ Poor
- ☐ Terrible
- ☐ Do not know / no answer

How satisfied are you with bicycle parking possibilities at your workplace?

- ☐ Very Good
- ☐ Satisfied
- ☐ Neither satisfied nor dissatisfied
- ☐ Poor
- ☐ Terrible
- ☐ Do not know / no answer

How satisfied are you with opportunities to combine cycling with public transportation?

- ☐ Very Good
- ☐ Satisfied
- ☐ Neither satisfied nor dissatisfied
- ☐ Poor
- ☐ Terrible
- ☐ Do not know / no answer

How satisfied are you with bicycle parking options at shops?

- ☐ Very Good
- ☐ Satisfied
- ☐ Neither satisfied nor dissatisfied
- ☐ Poor
- ☐ Terrible
- ☐ Do not know / no answer

Within the last 2 years as a cyclist, have you been involved in traffic accidents in Copenhagen where you were injured?

- ☐ Yes
- ☐ No
- ☐ Do not remember

Do you use a helmet?

- ☐ Yes
- ☐ Yes, sometimes
- ☐ No
- ☐ Do not remember

Cycling & Children

How confident do you feel the way the school is for children to ride on? Is it ...

- ☐ Very comfortable
- ☐ Comfortable
- ☐ Neither
- ☐ Dangerous
- ☐ Very Dangerous
- ☐ Do not know
- ☐ No school-age children

Do you bicycle some of your children to school?

- ☐ Yes
- ☐ No
- ☐ No, no school-age children

Would the children cycle to school if school road was more comfortable?

- ☐ Yes
- ☐ No
- ☐ Do not know

How old are your children when they are allowed to cycle alone to school?

- ☐ Neither of them alone cycles
- ☐ Notes age
- ☐ Accompanied by security reasons
- ☐ Do not know

How satisfied are you with Copenhagen municipality's efforts to ensure children a safe way to school?

- ☐ Very Good
- ☐ Satisfied
- ☐ Neither satisfied nor dissatisfied
- ☐ Poor
- ☐ Terrible

How satisfied are you with Copenhagen municipality's efforts to ensure children a safe way to school?

- ☐ Very Good
- ☐ Satisfied
- ☐ Neither satisfied nor dissatisfied
- ☐ Poor
- ☐ Terrible

What is your profession?

- ☐ Unskilled work
- ☐ Skilled workers
- ☐ Salaried / official
- ☐ Independent
- ☐ Student / apprentice
- ☐ Pensioner
- ☐ P.T. unemployed
- ☐ Other
- ☐ Do not answer

Do your kids use a helmet?

- ☐ Yes, all
- ☐ Yes, some of them
- ☐ No
- ☐ Do not know

Demographics

In which zip code is your study or work?

- ☐ Note postcode
- ☐ Not study / work
- ☐ Do not know

What is your education?

- ☐ Primary education
- ☐ General secondary education
- ☐ Vocational upper secondary education
- ☐ Vocational education
- ☐ Map Higher Education
- ☐ Medium Higher Education
- ☐ Long higher education
- ☐ Do not answer

What was the total household income before taxes in 2009?

- ☐ During DKK 100,000
- ☐ Between 100 and DKK 200,000
- ☐ Between 200 and DKK 300,000
- ☐ Between 300 and DKK 400,000
- ☐ Between 400 and DKK 500,000
- ☐ Between 500 and DKK 600,000
- ☐ Between 600 and DKK 700,000
- ☐ DKK 700,000 - 1 mill
- ☐ Over the first mill
- ☐ Do not know / no answer

What is your age?

- ☐ Record age: _____



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