A Global Survey of Bike Bus initiatives
#BikeBus is joy and freedom. Community bike rides to school make kids happier, more awake, and ready to learn.

Our community becomes more connected and resilient. We demonstrate that our streets can be for children too.

As a #BikeBus community, we demand that our political leaders prioritize urban space and resources for child-friendly, healthy, and safer streets.

Barcelona Bike Bus Summit, 31 March 2023
Cycling during childhood is an activity that most people remember with joy. Children often have a special connection with bicycles [1], and learning to ride a bike marks a child's coming of age. Children enjoy the challenge of balancing their bodies and the satisfaction of propelling themselves on two wheels. Riding a bicycle is much more than simply a mode of transportation. It is about exploring the world and discovering a new form of play with a newfound sense of freedom. The bicycle invites children to navigate the city in a new way, shortening distances and discovering new places. With a bicycle, trips are fun.

**A Bike Bus is a group of children who ride their bike to school following a route with stops and timetables.**

This joy of cycling is at the heart of Bike Bus initiatives around the world. Recognizing the strong connection between children, bicycles, and happiness, the potential of the Bike Bus initiatives has been re-discovered. A Bike Bus is a group of children who ride their bike to school following a route with stops and timetables. The idea is not new, but there has been a surge of interest in the last three years. At a time when climate change and active transportation are gaining attention, we see that teachers, parents, families, and children ride on Bike Bus as a way to reduce their carbon footprint, increase physical activity, build community, and have fun while going to school.
Our research group, City Lab Barcelona, located within the Institut de Ciència i Tecnologia Ambientals at the Universitat Autònoma de Barcelona (ICTA-UAB), began to follow Bike Bus in the spring and summer of 2021, after a group in the town of Vic (Catalonia, Spain) began a Bike Bus that captured local headlines. In the fall of 2021, we volunteered with the new Bike Bus routes in Barcelona, and we were captivated by the joy of riding with children. Riding on a Bike Bus with kids felt special and inspiring, especially on wide Barcelona streets, normally packed with loud vehicles and traffic.

As we rode on the Bike Bus, we were filled with questions. What explains the success of the Bike Buses in Barcelona? How do they organize and what are their goals? How many Bike Buses are there around the world, and what are their characteristics and impacts? We wanted to learn about what was happening in other places and how they were organizing Bike Bus in their communities [2].

This report summarizes key findings from an online global survey and 22 interviews conducted in 2022 and 2023. To the best of our ability, we have mapped the Bike Bus initiatives globally, although we know it is incomplete. We also aimed to learn about the historic origins of Bike Bus, as well as their features, similarities, and differences. Our work answers some questions and leaves others open for shared reflection. This report has been written for those curious about the Bike Bus movement, and for anyone who envisions a future where children can cycle safely and playfully in our cities.
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Online Global survey

We looked for the existing Bike Bus initiatives in search engines under the keywords “bike bus”, “bike train”, and “bicibus”. We distributed the online survey to Bike Bus organizers through social media and email. The survey was administered in English, Spanish, and Catalan, and was open from 30 May 2022 to 21 April 2023. We received 145 responses that included information from 403 Bike Bus routes in 13 countries.

Interviews

We spoke with 22 Bike Bus organizers representing 93 Bike Bus routes in 8 countries. The interviews and surveys were endorsed by the Ethics Committee in Animal and Human Experimentation of the Universitat Autònoma de Barcelona with the code number CEEAH 6167.

Color legend

The figures in this report represent the degree of agreement of the Bike Bus organizers surveyed to several assertions. From left to right completely disagree to completely agree.

The colors used throughout this report mean...
There is a wide range of diversity among Bike Buses. Some have more than 200 participants, while others only consist of a couple of families. Some have more adults than children, while others are only made up of teenagers. Whether they cycle on dedicated bike lanes or on the road, and whether they do it daily or monthly, there is one feature that defines them all: a Bike Bus is a group of children that cycle together.

A Bike Bus is a group of children that cycle together.

An average Bike Bus has
- 10 children
- 7 adults
- travels 3 km
- lasts 20 min
- runs once a week
We searched for the origins of the first formal Bike Bus and found one organized by a school and a group of parents in Brecht, Belgium, in 1998. The first known manual on how to start a Bike Bus, was published in 2001 in Ile-de-France, titled “le ramassage scolaire non-motorisé: bus pédestre et bus cycliste”[3]. Similar manuals emerged in Spain in 2007, published by ConBici [4], and in the United States by the Safe Routes to School program in the same year [5]. Those manuals describe Bike Bus in tandem with Walking School Buses, the initiative from which researchers believe that Bike Bus emerged [6], [7].

The first batch of Bike Buses (c.1998-2014) consisted of scattered initiatives in different parts of the world. The very first Bike Buses that we are aware of were started by parents (Fietspoolsen Veilig and Champigny-sur-Marne). However, in these early years, we see many initiatives led and promoted by non-profit and cycling activists (ProVelo or ConBici), and even Bike Buses aimed at adults (Bike Bus Sydney and Air Valley Bike Bus). It does not appear that there was any single, or first Bike Bus (or Walking School Bus) that inspired others as an iconic example. Interestingly, some Bike Bus organizers claim they came up with the idea independently, suggesting that the Bike Buses started in several places by multiple organizers. For instance, the Bike Bus in Milano, Massa Marmocchi, started because of an alliance between a mother and the Critical Mass of the city, reporting no inspiration from outside groups.
In 2014, we are able to document the first scalar leap, when the Colombian city of Bogotá developed a large municipal program that offered Bike Buses to schools and families as a safe way to bring children to school. As far as we are aware, this is the largest municipal program of its kind, and it is still functioning. The second major surge of Bike Buses took place around 2020-2021. We trace the origins of this new wave to the town of Vic and the city of Barcelona, which through social media, became the source of inspiration for other initiatives such as the Shawlands Bike Bus (Scotland, UK), Alameda Bike Bus (Portland, US), and BiciBus Frankfurt (Germany), who in turn inspired more Bike Buses in their own regions. Still, Bike Bus networks were emerging in Portugal and Ireland prior to the Barcelona Bike Buses, and in Portland, US, a network of Bike Buses emerged and dissolved a decade earlier [8].
We find that the most recent Bike Bus initiatives operate in a different way than those in the past. To begin with, the media attention has brought renewed interest to this old idea [9]–[11]. And organizers from many different places are in contact through social media sharing their successes and ideas more than ever before. They meet in webinars and international meetings [12], and talk to the press and the City Councils [13], [14]. **Organizers aim to extend their impact beyond the Bike Bus initiative.** Today, Bike Bus has evolved from a set of isolated initiatives into a global movement that aspires to influence city policy and participate in the global conversation about building child-friendly cities alongside other movements such as the Kidical Mass and the Streets for Kids campaigns [15].
Origins

- Fietspoelen Veilig. Belgium.
- Bike Bus Sydney. Australia.
- Bici bus Zuloaga. Spain.
- Air Valley Bike Bus Yorkshire. UK.
- Bike trains Portland. US.
- Al Colegio en Bici. Bogotá, Colombia.
- Madrid STARS Project. Spain.
- Ciclo Expreso. Portugal.
- Bus Bici Víc. Spain.
- Viral Video Barcelona. Spain.
For most Bike Bus organizers, the current cycling infrastructure is not safe for children. The survey found that traffic volume and specific dangerous points in the bike network pose great concerns to cycling with children. Bike lanes are narrow and require advanced skills to navigate, while oftentimes intersections are unsafe because car drivers do not expect bikes, especially smaller children’s bikes.

Other challenges include managing the complexity of children’s mobility to school and after-school activities with their caregiver’s daily commute. In these chained trips, it is difficult to put the bike in the mix if it is not already part of the daily mobility of the family. Sometimes it requires adapted bikes with seats, baskets, or cargo bikes that can pose a challenge to maneuver and park.

Last but not least, it is essential to own a functional bicycle, appropriately sized for both children and parents, along with the confidence to ride it. Some families overcome this challenge by choosing other active modes of transportation to attend the Bike Bus such as scooters, roller skates, or running.
The volume of motor vehicles around us while we ride on our bike is low.
Why
Barriers to children’s cycling

Most of our route is safe

39% 40% 10% 8% 3%
Absolutely Disagree Neutral Agree Absolutely
Why
Barriers to children’s cycling

Bike Bus participants are not concerned with road safety

ABSOLUTELY  DISAGREE  NEUTRAL  AGREE  ABSOLUTELY
37%  32%  18%  8%  5%
Why
Safety and fun
Cycling in a group is not only more safe but also more fun. Often Bike Buses have music with them, and the rides turn into a happy parade. Inside the pack, children and adults cycle in streets that they might not normally ride if cycling alone. To make it more fun, the rides often have themes that encourage children to dress up, like Carnival, or celebrate events like International Women’s Day, with music and bubble machines.

Riding in a group is the key factor that makes us feel safer

<table>
<thead>
<tr>
<th>Absolutely Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
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<td>3%</td>
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Why
Safety and fun

The route we take is safe for a child to ride even if we did not have a Bike Bus

ABSOLUTELY DISAGREE NEUTRAL AGREE ABSOLUTELY
The motivations to start a Bike Bus are varied and complementary. Yet, results show that Bike Bus is more about advocating for change than a convenient way to get to school. This is because while organizers share the goal of demanding a city more bike-friendly for children, not all Bike Bus routes are practical. Some Bike Bus routes align with how families would naturally go to school, so even some weekly Bike Bus rides have become daily. But other routes are too short or too long, which means waking up earlier for a less efficient school journey. In these cases, the organizers are motivated by the fun and performative aspects of Bike Bus. For example, by choosing an especially busy street where they are demanding a bike lane or a school street.
It is more practical to get to school by Bike Bus than by other means.

Motivations:
- Absolutely disagree: 5%
- Disagree: 13%
- Neutral: 25%
- Agree: 26%
- Absolutely agree: 31%
Where

Figure 1. The location of known Bike Bus initiatives around the world. Known initiatives that responded to the survey are in red while those who did not respond are in orange.
We received a large number of survey responses from Spain, and Catalonia in particular. We suspect that there are many more Bike Buses that we could not find.
The participants of the routes consist mostly of young children, maintaining a relatively equal gender balance. Children constitute 63% of the participants, still indicating a significant presence of adults. Adults accompany the Bike Bus to enhance safety, but many of them are parents that enjoy cycling with their children and with other families.

We find that on average, the children’s age is 7.9 years, with some as young as 4 years old pedaling within the group. This is noteworthy as the Bike Bus successfully taps into the enthusiasm of younger children for cycling. This engagement with younger children contrasts with other cycling programs that target older age groups who may have started losing interest in biking.

Regarding gender distribution, girls make 47% of the children’s participants, while adult riders also maintain a gender balance. However, a closer examination may reveal more nuanced findings, especially concerning gender attitudes among children during the rides and the gender distribution of caregivers when the Bike Bus operates daily.
How
Organizers

The characteristics of Bike Buses around the world vary greatly, but we also see patterns in how they are organized.

We find that Bike Buses tend to be organized by parents, teachers, cycling organizations, or local government. And, when they are organized by a group, they usually have greater longevity than when delegated solely to one person. The types of actors are:

**Parents** as an informal or formal group, such as a parent association affiliated with a school (PTA, or AFA). Parents or caregivers are those who ultimately decide on their children’s mode of transport; therefore, parents are always present in the initiative even when they are not the organizers. When motivated, parents organize routes with many participants, like Bike Bus Sant Antoni in Barcelona with 150 riders, or the Fahrradschulbuse Vincenz-Statz-Grundschule in Köln with a 100. However, when the organizers’ children grow, the sustainability of the Bike Bus is compromised.

**Cycling organizations** specialize in cycle training and have experience and volunteers to lead or support a Bike Bus. With adequate funding and participation, cycling organizations can sustain Bike Bus initiatives for long periods of time. The oldest Bike Bus found has been organized by ProVelo in Brussels since 2003.

**Teachers** have daily access to children and easy access to their parents. A highly committed teacher can sustain a Bike Bus by motivating families and recruiting one generation after another. The second oldest known Bike Bus is *Con Bici al Zuloaga*, organized by a teacher in Madrid, Spain, since 2007. And the WeeUnicorns, with more than 200 riders, is the Bike Bus with more participants reported, organized by James Gillespie's Primary School in Edinburgh.
Local administrations usually are the promoters of a Bike Bus after a cycling organization or a group of parents prompted them to do so. This is the case of Bogotá, Portugal, and Madrid, which organize an important number of Bike Bus routes. Administrations fund chaperones or marshalls to train, lead, and promote participation in the rides. Having an administration as an actor with political support and funding can sustain a Bike Bus for a long time. For instance, Bogotá has been running more than 140 Bike Bus routes since 2014.

Finally, children are central in the development of the Bike Bus even when they are not organizers. Often, children motivate parents to create or join a Bike Bus. They also inspire caregivers, stimulating them to create a better future. For instance, the image of children riding a Bike Bus, shared on social media, has been a big boost for action.

Sometimes organizers do not fall into any single category but are a combination. For example, parents and teachers might also be members of a cycling organization, and teachers or local administrators can be parents themselves. In these cases, the advantages of each role complement each other. Additionally, various actors can collaborate to organize a Bike Bus, with the most common partnerships involving cycling organizations and parents. These coalitions of organizers have reported high satisfaction, particularly when they involve multiple types of actors and receive open support from local government.
How
Organizers
Most routes are between 1 and 2 km. An analysis of the length of the trips gives an idea of what is an appropriate distance for a Bike Bus route, and this may be useful information for anyone thinking about starting a new route. Routes that are too short or too long may be less practical or too challenging and therefore less likely to succeed.
An interesting trait of the Bike Bus is its high frequency. Unlike other initiatives to promote cycling among children that only take place occasionally, **almost 80% of Bike Buses run once a week or more**. The most common frequency is once a week (60%), although the share for every day (10%) and twice a week (8%) are also considerable. This periodicity is an advantage in building cycling habits for children and families. Nonetheless, we should not underestimate the impact of occasional Bike Buses, as they often draw significant participation and generate strong emotions within the organizing community, for example the Bike Bus in Lorca, Spain.
The use of street space is another key attribute, since almost 75% of Bike Buses cycle on the road, using either one or all lanes. The use of road space normally dedicated exclusively to motor vehicles can indicate a lack of appropriate cycling infrastructure, which is resolved by cycling in a group. Furthermore, it suggests that Bike Bus is a performative action, that apart from taking children safely to school, seeks to be visible. The routes that cycle on the asphalt disrupt morning traffic and challenge the legitimacies of public space by placing children in the center of the street.
Most parents ride with their children on Bike Bus (72%). We find that providing delegated or professional supervision could integrate more families, as noted in previous research on Walking School Buses [16]. However, delegated supervision requires legal permits and insurance that complicate the organization. For this reason, many Bike Bus ask that all children come with an adult. Interestingly, parents who are actively involved in the Bike Bus route, especially those who participate regularly, have developed close bonds and often entrust their children to the group when they cannot join.
The survey responses shed light on the varying levels of support by local government, revealing that a significant proportion received no support at all (31%). The first assistance Bike Buses received was police escorting (17%) which does not equal political support when the Bike Bus was registered as a protest. Organizers also reported engagement with their city government through funding (16%), political support (9%), dialogues with the City Council (8%), donation of high-visibility vests (8%), and bike parking racks (4%).

Funding includes grants for route coordinators or chaperones, material or communications, sometimes through active mobility or environmental programs like Safe Routes to School or “Supplemental Environmental Projects”. Political support was reported in different ways, some put it as “moral support”, others as “implicit support”, or “politicians visited us”.

The general opinion was that starting a dialogue with the City Council was easy, but not enough action was taken. However, several minor infrastructure changes were reported such as Bike Bus stop posts, changes in traffic lights, signals, and one school street. The Shawlands Bike Bus in Glasgow received a device that controlled the traffic light and prioritized the cycling children moving through the intersection. More significant changes happened when the local administrations were active participants or openly supportive.
Percent of bike bus respondents who reported various forms of municipal support. Respondants could select multiple forms of support.
How Bike parking

Bike parking was a challenge for some Bike Buses and posed no issue for others. This was dependent of the school’s available space for bike parking, or the number of bike racks that the local administration could install near the school entrance.
In the recent surge of Bike Bus initiatives, social media played a pivotal role. One video of a Barcelona Bike Bus by @lluisjunca went viral in October 2021, resulting in extensive coverage on news and social media platforms. This viral phenomenon inspired numerous Bike Bus initiatives around the world.

After that, an explosion of international press coverage by the Guardian, the BBC, and the New York Times among others, highlighted the joy and impact of the Bike Buses [9]–[11]. Since then, Barcelona has been receiving numerous visits from interested researchers, journalists, advocates, and practitioners from all around the world.

However, the Bike Bus promoted by schools, municipalities, and small communities are less reliant on social media. Remarkably, our survey results indicate a divided perspective on the role of social media in recruiting participants. While it may not be considered essential for all Bike Bus initiatives, some have depended on it for their success.
Most Bike Bus organizers are concerned about the long term sustainability of their initiative. Some organizers express optimism, expecting their Bike Bus to persist and possibly expand in the coming years. However, they are aware of the inherent challenges of initiatives based on volunteer work, like the exhaustion or departure of key organizers. To sustain the Bike Bus, the opportunity lies in periodically recruiting new families.

Recognizing this, many Bike Bus organizers argue that Bike Buses are not the end goal but rather the beginning of further change. Some organizers are spending more time now on pursuing “systemic change” than in organizing their Bike Bus. Others suggest that Bike Buses could become mainstream, by multiplying and downsizing the group number, just being a practical way for a couple of families to go to school. While the rest see the solution for the long term as turning Bike Buses into an official school transport service. However, there are concerns that an institutionalized Bike Bus might lose the feel of a bottom-up initiative and the associated advocacy impulse.
With over 470 Bike Buses found worldwide, transporting approximately 32,000 children to school per week, the Bike Bus movement has gained momentum globally. The initiatives we could identify were predominantly in Europe and the US, although it is likely that many more remain unaccounted for. Without a doubt, numbers reflect a growing international interest in Bike Buses.

Initially conceived as a means to shelter children from traffic, Bike Buses have evolved into a celebration of cycling and a way of demanding more child-friendly cities. Cycling in a group provides a safety-in-numbers effect that makes cyclists more visible and gives them a sense of collective legitimacy to use the road. Reasons for joining a Bike Bus are mixed and multiple. It can be about enjoying the ride with friends and family, physical exercise, or getting cleaner air and less traffic around schools. What is clear is that Bike Bus has become a catalyst for new cycling activists who defend children’s rights to cycle regardless of age and ability.

Our work reveals that Bike Bus routes typically travel 1 to 2 kilometers, operate weekly, and primarily use road space. Bike Bus organizers, mostly parents and cycling activists, have effectively promoted their initiatives through media and engaged local administrations. However, the impact on infrastructure remains limited, resulting in minor changes so far. The most remarkable effect is the powerful emotions it elicits in people, particularly suited for dissemination through social media. Therefore, ensuring that children and parents have an enjoyable experience during the Bike Bus is crucial.
Conclusion

A Bike Bus based on activism risks disappearing when children grow older or participation decreases, even when the effects on the local community are significant. **Converting the Bike Bus into a funded mobility service could enhance their resilience over time and allow for increasing and diversifying participation.** Political support is vital when pursuing structural changes and expansion of the initiative, but the involvement of families and cycling organizations will also be essential to maintain the focus on change.

Finally, if the international community of Bike Bus succeeds in consolidating a global network and group identity, current organizers are likely to persist in advocating for structural transformation [17]. Yet, regardless of how the international collaboration plays out, the Bike Bus movement has already provided a boost of energy and optimism for advocates of cleaner and healthier cities, reminding us to place fun and playfulness at the center of our lives.

There remains much more to learn about how Bike Buses organize, operate, persist, and transform the cities where they cycle. Working together, we look forward to understanding the impact of Bike Bus initiatives on families’ bicycle use, attitudes toward cycling, and its influence on public perceptions and public policies.
References


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Information on Bike Bus networks

Websites
https://bikebussummit.org/
https://bikebus.world/
https://bicibus.cat/
https://bicibus.eu/

Bike Bus email list
Send an email to bike-bus-subscribe@lists.riseup.net and follow the instructions to join the list.

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