



Abstract

This report contains a descriptive quantitative analysis of reported bike thefts in the city of Barcelona in 2023, based on a dataset provided by the local police (Mossos d'Esquadra). Since many people do not report bike thefts to the police, this data most likely understates the actual extent of bike theft in the city. Nevertheless, analysing official data provides some first insights into the issue. We have analysed the total amount of reported thefts over the last three years according to their spatial distribution within the city, type of location, and seasonal and daily distribution.

In 2023, bike theft increased compared to the past two years, reaching a total of 1.167 reports. Furthermore, bike theft in Barcelona was unevenly spatially distributed, with prominent clusters in the districts of Sant Martí, Ciutat Vella and Eixample, particularly in the neighbourhoods of el Raval, la Dreta de l'Eixample, and Diagonal Mar i el Front Marítim del Poblenou. Most bicycles were reported as stolen in January and October, with time peaks at midnight and 10 pm. Most thefts happened on public streets.

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Introduction

Three years into our research on bicycle theft in Barcelona, the development of the situation remains disappointing: whilst local authorities such as city planners and the police still consider bike theft a “minor crime, an inconvenience, or an accepted risk” (Vetter and Honey-Rosés 2021, 3) and fail to take significant action, the official amount of bike theft reports is rising every year.

The following pages analyse official data on bike theft collected by Barcelona’s local police (Mossos d’Esquadra) for the year 2023, analysing their spatial distribution with regards to districts and neighbourhoods, their seasonal and daily patterns, and the type of locations of reported thefts.

However, the analysed data only includes the bike thefts that have officially been reported to the police. This does not reflect the real extent of bike theft in Barcelona, since prior studies have shown that about 67% of bike thefts are not reported to the police (Sax 2023, 5). Additionally, police reports only include entire stolen bikes with a serial number, and therefore exclude all instances of stolen bike parts or bikes without official registration. Accordingly, and while the officially counted numbers of bike theft are rising on a yearly basis, we can assume that the number of bike theft in Barcelona is much higher than the official data.

This report is built up as follows:

Data and Methodology

Analysis

Conclusion and Next Steps

Data and Methodology

We obtained the data of the 2023 bike theft through an official request to the Catalan police (Mossos d'Esquadra). This data included information about the date and time, the district and neighbourhood, the type and name of the street of the occurred theft, the number of the stolen bicycles and the age of the victim. Analysing the available data, we have created a summary of the data including graphs and maps to visualise key bike theft trends. All the graphs and maps included in this report were created with Datawrapper.

Analysis

Theft reports over the last three years:

The data collected by the police over the last three years (2021-2023) shows a steady increase in bike theft reports in the city of Barcelona. In 2021, 870 bicycles were reported as stolen (Vetter & Honey-Rosés 2022). In 2022, theft reports increased by almost 20%, up to 1,042 bicycles. 2023 showed an even further increase in reported thefts, with 1,167 bikes reported as stolen. This constitutes a 12% when compared with 2022, and a remarkable increase of 34% when compared to 2021. Indeed, 1,167 bikes reported as stolen amounts to more than three bike theft reports per day in 2023.



Figure 1: Reported bike thefts in Barcelona in 2021, 2022 and 2023.

Theft reports by district:

Reported thefts are primarily concentrated in three districts: Sant Martí (255 theft reports), Ciutat Vella (223 theft reports), and Eixample (211 theft reports). In fact, those three districts account for 59% of the total bike theft reports in the city. All other districts show slightly to much lower quantities of theft reports.

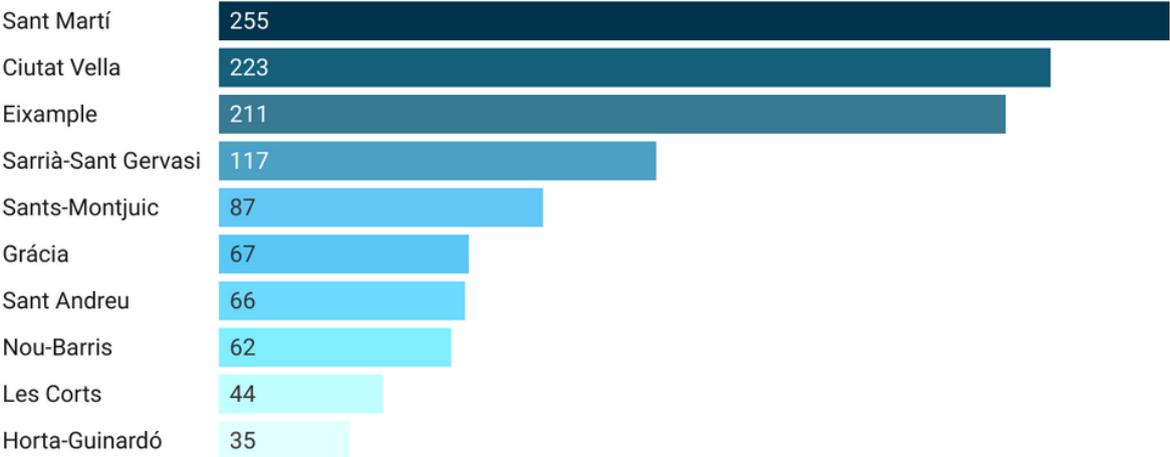


Figure 2.1: Reported bike thefts by District in 2023

Theft reports by neighbourhood:

When looking more closely at the spatial distribution of theft reports in the city, specific neighbourhoods stand out from the total amount of theft reports in the three abovementioned districts. In Ciutat Vella, the neighbourhood el Raval accounts for 42% (93 cases) of total theft reports. Similarly, the neighbourhood of la Dreta de l'Eixample is responsible for 33% of Eixample's total theft reports (70 cases), and Diagonal Mar i el Front Marítim del Poblenou accounts with 67 theft reports, i.e. 26% of the Sant Martí district's total reports.

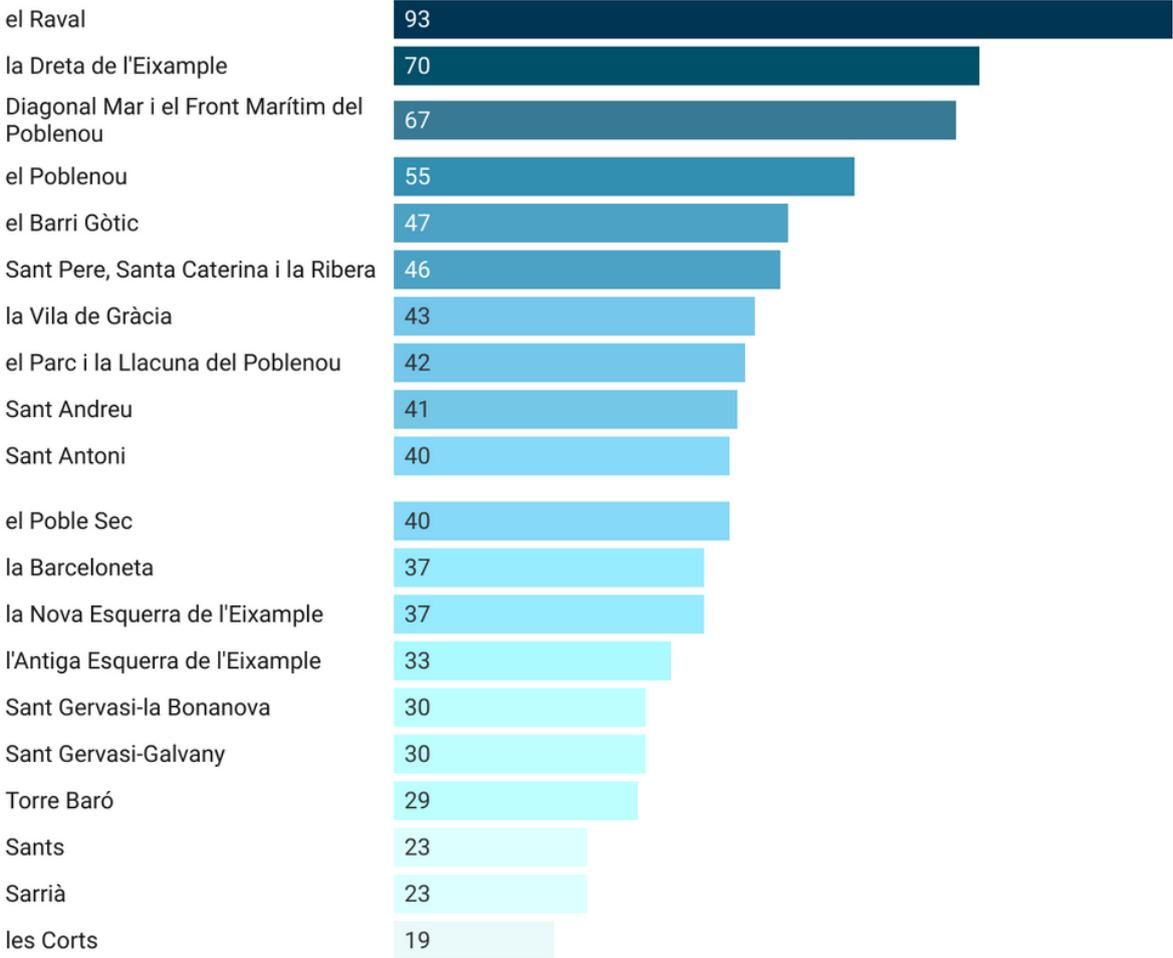


Figure 3.1: Reported Bikes Stolen in Barcelona by Neighbourhood in 2023

Spatial visualisation of theft patterns:

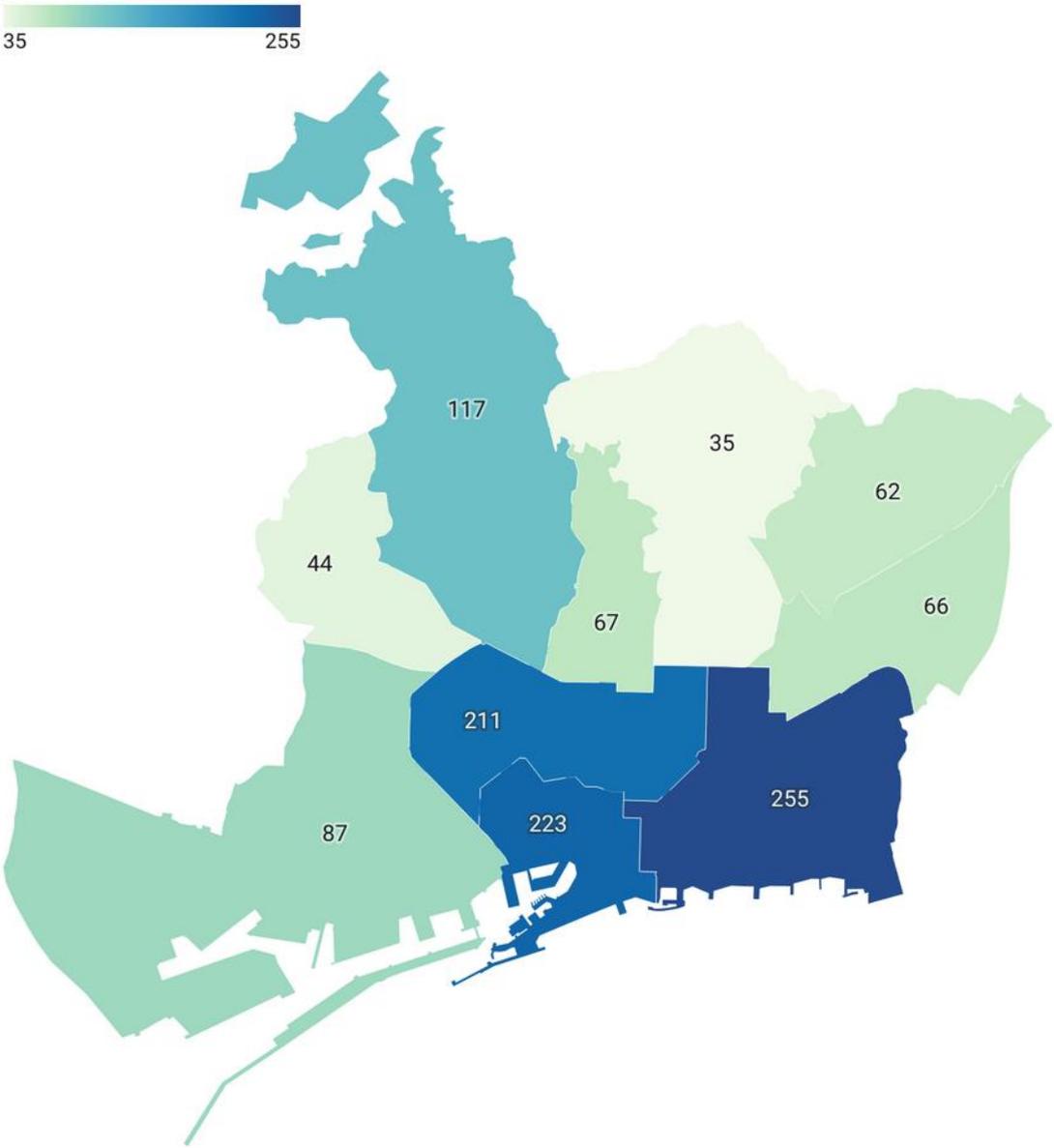


Figure 2.2: Reported bike thefts by district - Map

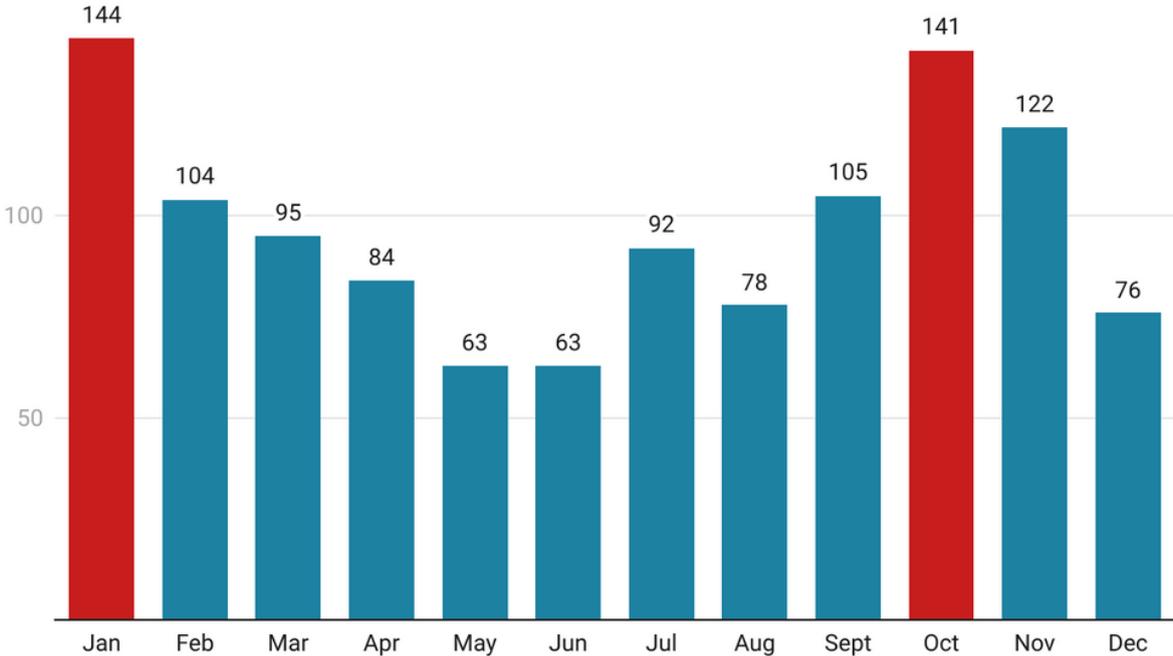


Figure 4: Reported Bikes Stolen in Barcelona by Month

Although the reported hours of theft occurrences peak in the hours of 22:00 – 23:00 (104 reported thefts) and 00:00 – 01:00 (96 reported thefts), most bicycles (54%) are reportedly stolen during daytime. Nevertheless, the time information contained in bike theft reports may not always be reliable, and should accordingly be treated with caution.

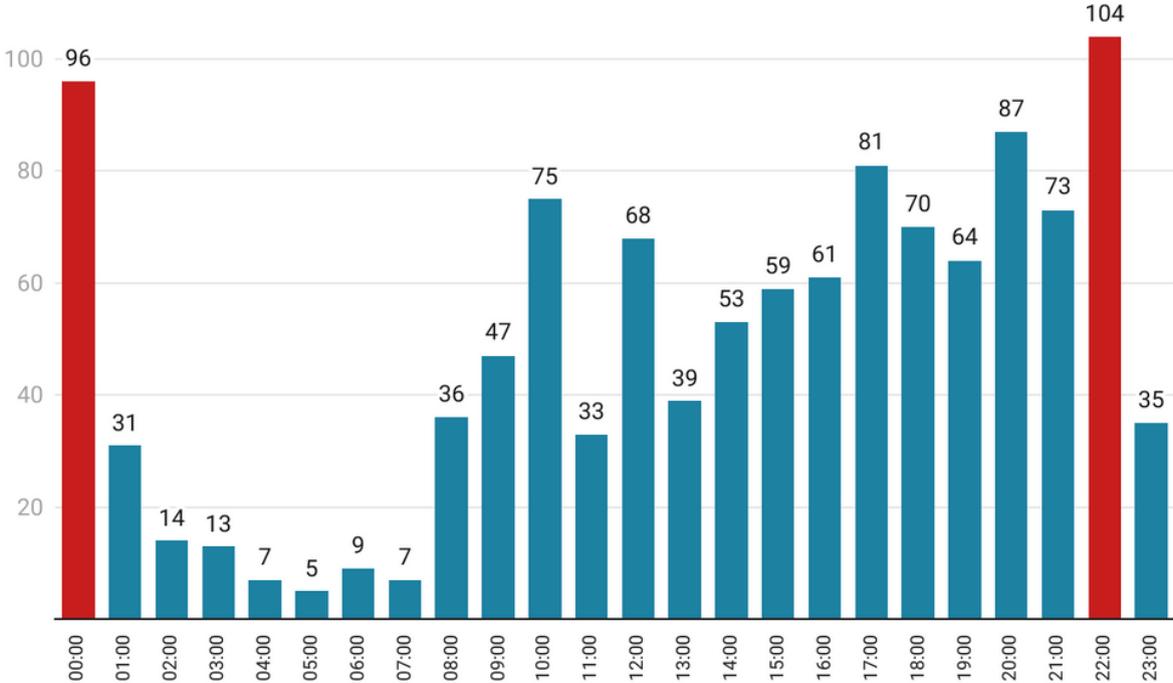


Figure 5: Reported Bikes Stolen in Barcelona by Hour

Theft location:

Most reported thefts (52%) occur on public streets. Private residential areas, including outdoor locations within residential properties (patios, gardens, terrasses etc.) are also a relatively common theft location, accounting for 29% of reported thefts in 2023. The remaining 19% of thefts reportedly took place in private or public parking spots, and commercial locations (in front of shopping centres, restaurants etc.) which had a parking option related to the respective commercial domain or business.

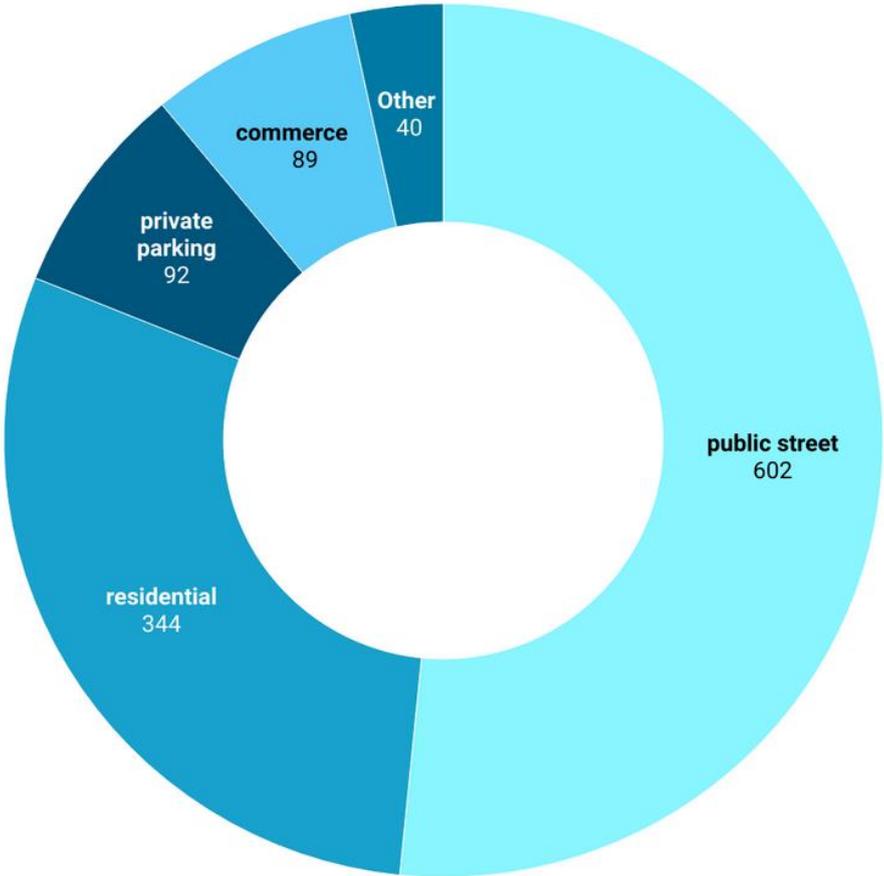


Figure 6: Reported Bikes Stolen in Barcelona by Location

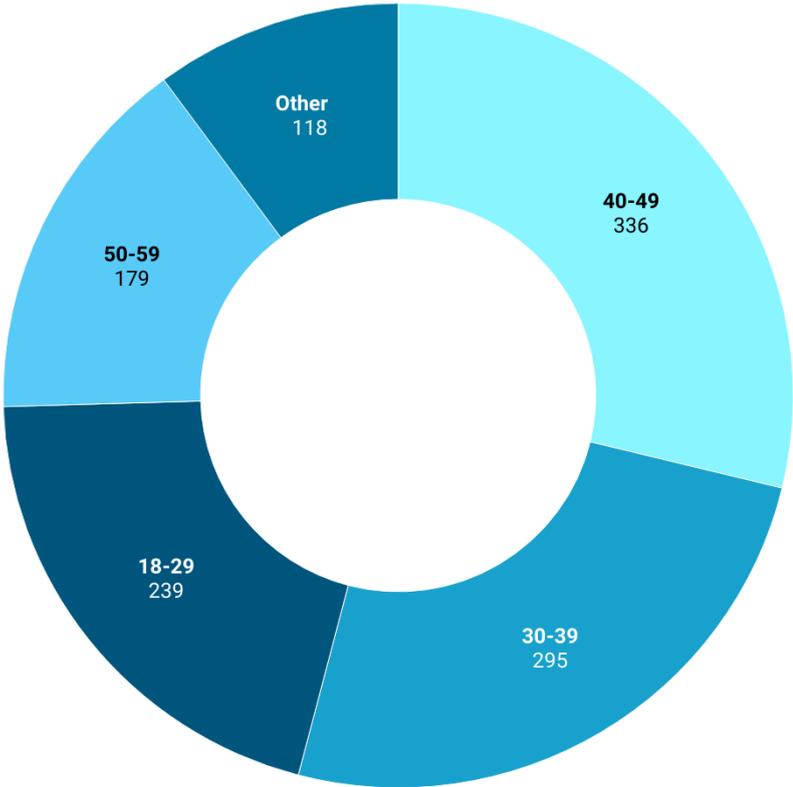
Age groups of theft victims:

The data shows that most of the victims that reported theft are between 40 and 49 years old (336 reports). Together with the age group of 30-39 years old, those people accounted for 59% of the entire theft reports. Both younger

(< 18, 18-29 years old) and older (50-59, and >60 years old) people reported significantly less bicycle thefts to the police.

Age groups of theft victims

40-49 30-39 18-29 50-59 Other



Created with Datawrapper

Figure 7: Age groups of the theft victims

Conclusion and Next Steps

This report presents a descriptive analysis of the bike theft police reports in Barcelona for the year 2023. Although these official numbers do not accurately represent the actual extent of bike theft due to a lack in reporting and shortcomings of the reporting system of the police, analysing this data provides some first insights into patterns of bike theft in the city. This report showed that bike theft reports increased over the past three years, reaching 1.167 stolen bikes in 2023. Furthermore, there were clear spatial patterns with regards to the theft occurrences: the districts of Sant Martí, Ciutat Vella and Eixample accounted for 59% of reported thefts in 2023, with particular hotspots in the neighbourhoods of el Raval, la Dreta de l'Eixample and Diagonal Mar i el Front Marítim del Poblenou. January and October were the months with most reported thefts, with peaks at midnight and 10pm. Lastly, 52% of the reported thefts happened on public streets.

Analysing the official data on bicycle theft in the cities leaves many questions unanswered: How many stolen bikes are not accounted for in the official statistics, and what is the real extent of bicycle theft in the city? How does bicycle theft impact the victims and what do they think about it? And most importantly - what can be done to improve the situation and reduce bike theft? At City Lab Barcelona, we are striving to find answers to these questions through our ongoing "Stop Bike Theft" project. By running a public campaign, we aim to raise awareness on the issue of bike theft and encourage people to report their losses on our citizen science platform [BiciZen](#). In this way, we can collect more data on bike theft directly from citizens themselves. Additionally, we will collect opinions and ideas of citizens regarding potential solutions to the issue in our project events, with the aim to bring the new insights directly to local authorities such politicians and the police.

You can read more about “Stop Bike Theft” and our other projects on our website: <https://citylabbcn.org/projects/>

Bibliography

Sax, Julius; 2023. *Bike Theft in Barcelona: Reporting Behaviour and Impacts on Cycling*. Bellaterra: Universitat Autònoma de Barcelona.

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All the data on bicycle theft reports in Barcelona in 2023 was provided by the Mossos d'Esquadra.

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