

# Understanding Bicycle Theft Patterns in Toronto

A Guide for Cyclists

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# 1 Introduction

Bicycle theft is a persistent problem in Toronto, posing a considerable deterrent for cyclists who rely on biking as a primary mode of transport. As cycling becomes increasingly popular in the city, understanding theft patterns can help residents make informed choices about their bike security. This study, commissioned by the Cycle Toronto Association, dives deep into Toronto Police Service data on bicycle thefts from 2014 to mid-2024, uncovering patterns related to the timing, location, and context of these incidents. By adjusting for factors like seasonal cycling activity and neighborhood-specific characteristics, we aim to provide insights that will help Toronto cyclists protect their bikes more effectively and encourage safe cycling practices year-round.

Our analysis explores four critical aspects of bike theft risk: geographic hotspots, seasonal timing, theft trends by premises type and time of day, and preferences for specific types of bikes. Each of these areas sheds light on distinct facets of theft risk, which together build a comprehensive picture of when, where, and how bike thefts occur. The findings from this analysis not only serve to inform individual cyclists but also have broader implications for community planning and public awareness efforts. With this background in mind, we first examine where bike thefts are most concentrated in Toronto, starting with a look at the city's high-theft zones.

## 2 Toronto's High-Theft Zones: Mapping Bicycle Theft Hotspots Across the City

### Bicycle Theft Density by Neighborhood in Toronto

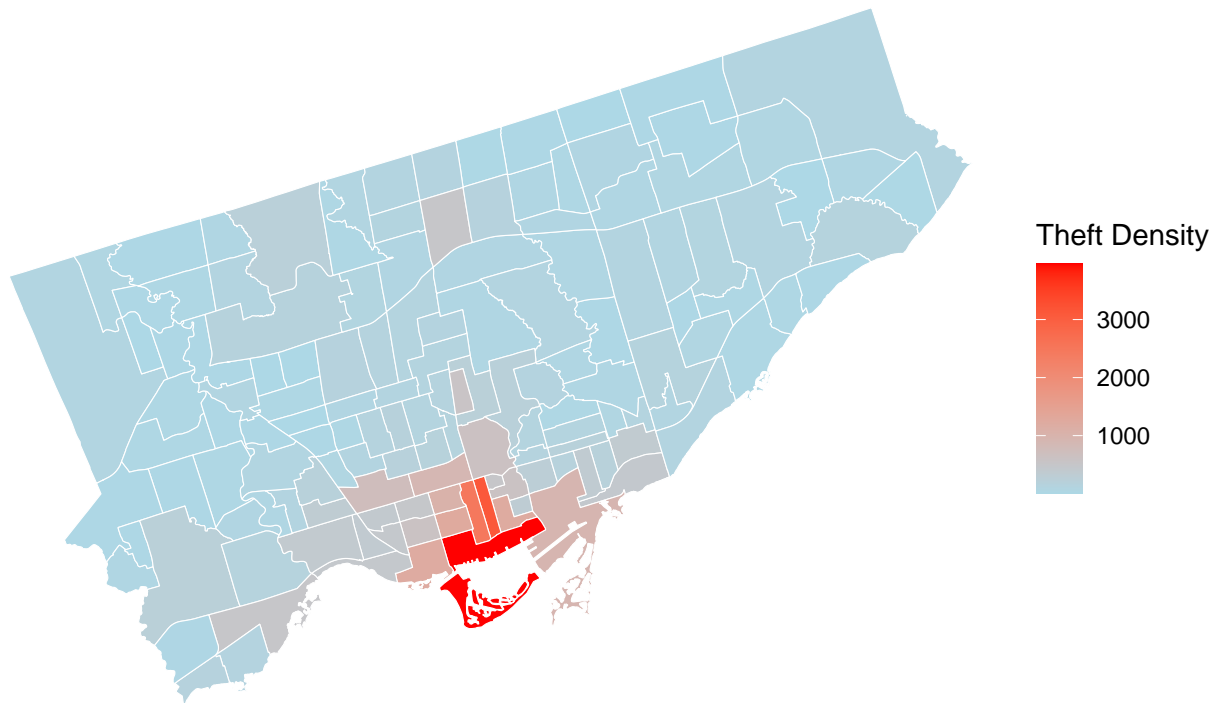


Figure 1: Concentrated Bicycle Theft Hotspots in Toronto's Downtown Core and Waterfront Areas

A central question in understanding bike theft risk is geographic: where in Toronto are bikes most likely to be stolen? To answer this, we generated a density map visualizing theft incidents across Toronto neighborhoods. Figure 1 highlights the downtown core, including the Entertainment District, Kensington Market, and the Waterfront, as the city's primary theft hotspots. These areas experience the highest density of reported bike thefts, likely due to their status as bustling hubs with high foot traffic and frequent cyclist activity. Toronto's downtown region is not only dense in population but also features numerous commercial establishments, tourist attractions, and transit hubs, which collectively create a high concentration of bikes parked and unattended at various times of day.

This spatial analysis suggests that the clustering of theft incidents is linked to a combination of factors: the density of cyclists, the convenience of public transit for potential thieves, and the mix of commercial and recreational attractions that draw both residents and visitors. The dense clustering around transit hubs and commercial areas further implies that bike theft risk correlates with locations where monitoring may be challenging due to the volume of people and bikes. This knowledge is valuable for cyclists, who can make safer choices by avoiding parking in isolated or poorly lit areas within these high-theft neighborhoods. For city planners and law enforcement, these insights suggest that targeted interventions, such as improved surveillance and bike-parking facilities in these zones, could help mitigate theft risk. Understanding where thefts happen is a key part of the puzzle. However, to gain a more complete view, we also need to understand when these thefts are most likely to occur. Let's look at seasonal patterns next to see how the risk varies over the course of the year.

### 3 Seasonal Risks: Understanding Monthly Theft Peaks and Patterns

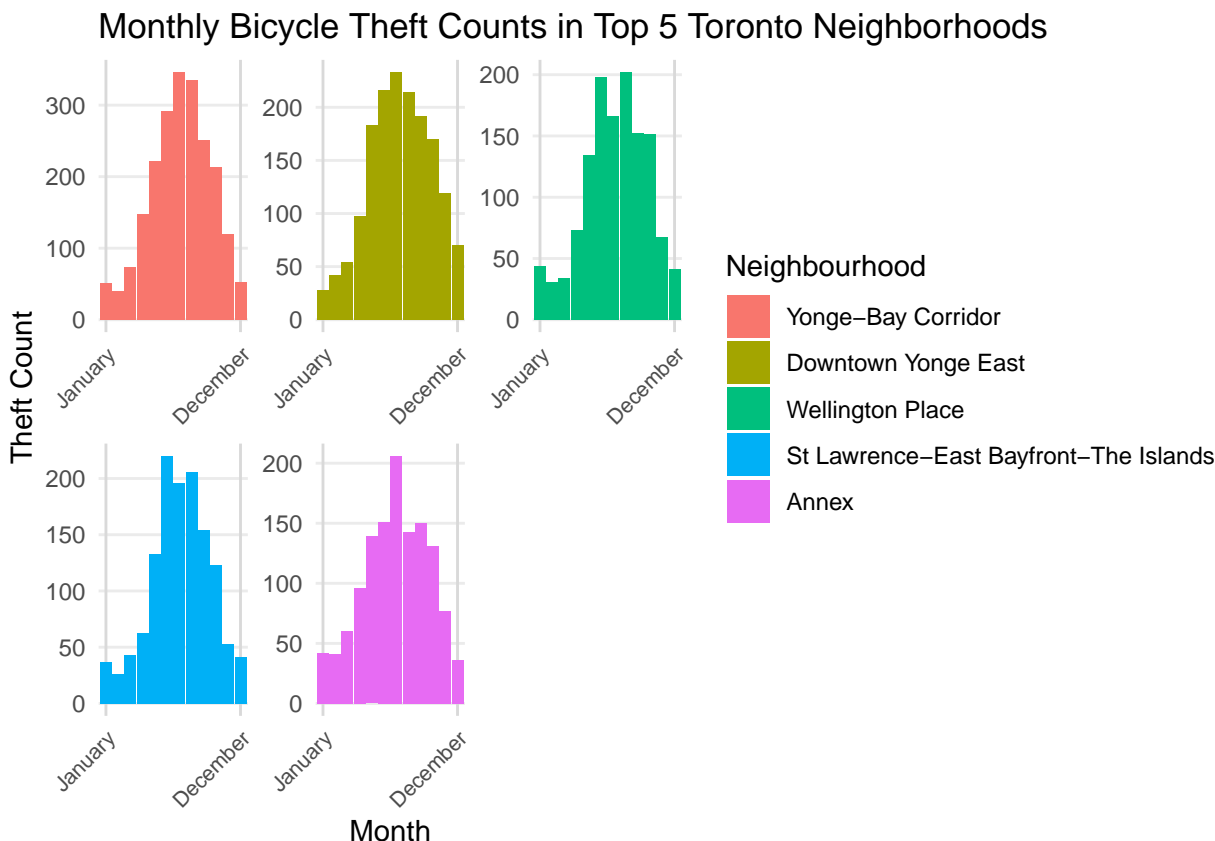


Figure 2: Monthly bicycle theft counts peak in Toronto’s top neighborhoods during summer

In Toronto, the risk of bicycle theft varies significantly throughout the year. This seasonal fluctuation makes it essential for cyclists to understand when and where they are most vulnerable to theft. In this section, we examine three complementary visualizations that collectively illustrate the risk of bike theft across different times of the year. By analyzing monthly theft counts, cycling incidence rates, and a calculated metric called the “relative theft rate”, we gain a nuanced understanding of when bikes are most at risk.

Figure 2 presents the **Monthly Bicycle Theft Counts in the Top 5 Toronto Neighborhoods**—Yonge-Bay Corridor, Downtown Yonge East, Wellington Place, St. Lawrence-East Bayfront-The Islands, and Annex. These neighborhoods consistently report the highest numbers of bike thefts, with peaks generally occurring between May and October. This increase in thefts aligns with warmer weather, when more cyclists take to the streets, increasing bike visibility and availability. While this chart provides valuable insight into overall theft patterns, it does not account for seasonal fluctuations in cycling activity, which can skew the perception of risk. A higher count in the summer months may simply reflect the fact that more people are cycling, not that the per-cyclist risk of theft is necessarily higher.

To address this limitation, we turn to Figure 3, a visualization that shows the percentage of cyclists active in each month.<sup>1</sup> Cycling activity rises sharply in spring, with substantial peaks from May to September, reaching a high of 81% in July. This metric is essential for contextualizing theft data: a higher incidence of theft during these months may simply result from increased cycling activity rather than an elevated risk of theft per cyclist. By understanding cycling incidence, we gain a clearer picture of how theft patterns relate to cyclist behavior and seasonal trends.

<sup>1</sup>Source: Nanos Research, online non-probability panel survey, May 13 to 29, 2019, n=5193\* Toronto cyclists.

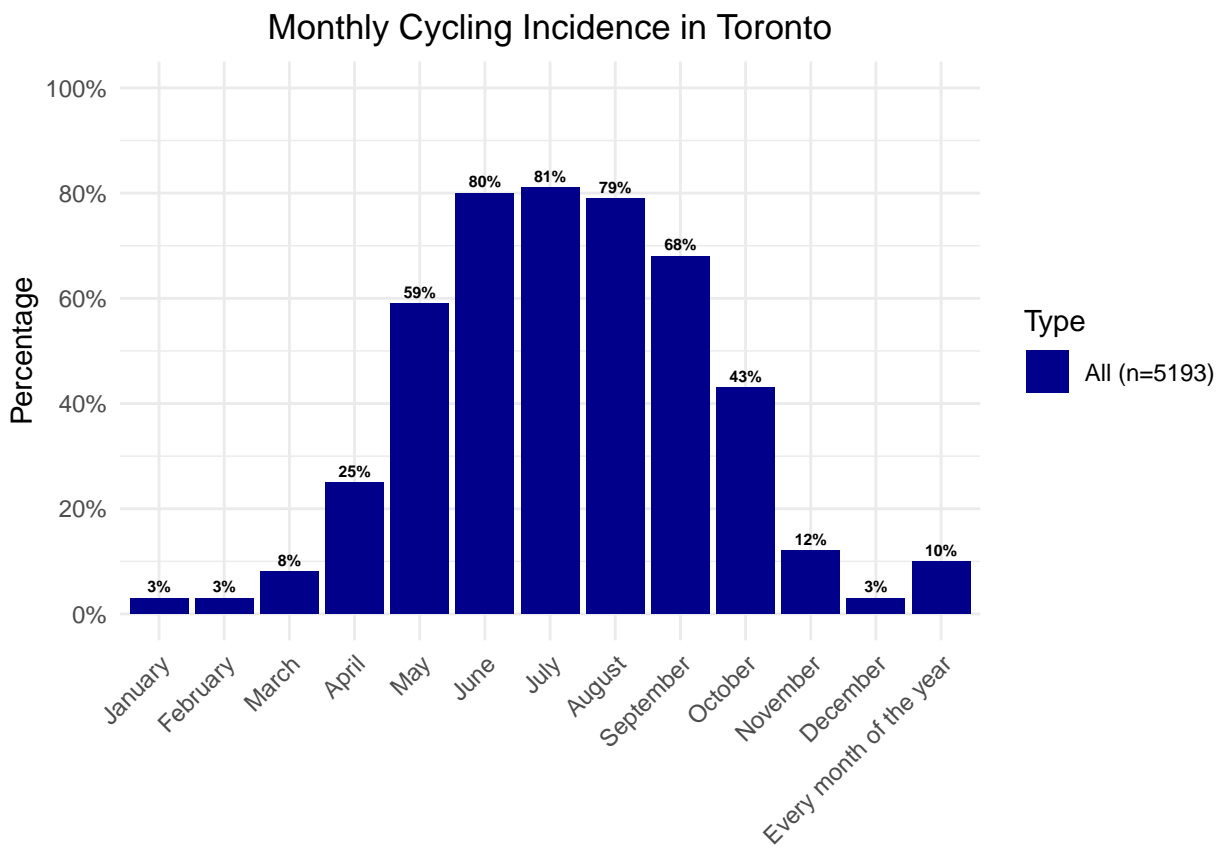


Figure 3: Cycling activity in Toronto peaks in summer, with the highest incidence in July at 81%

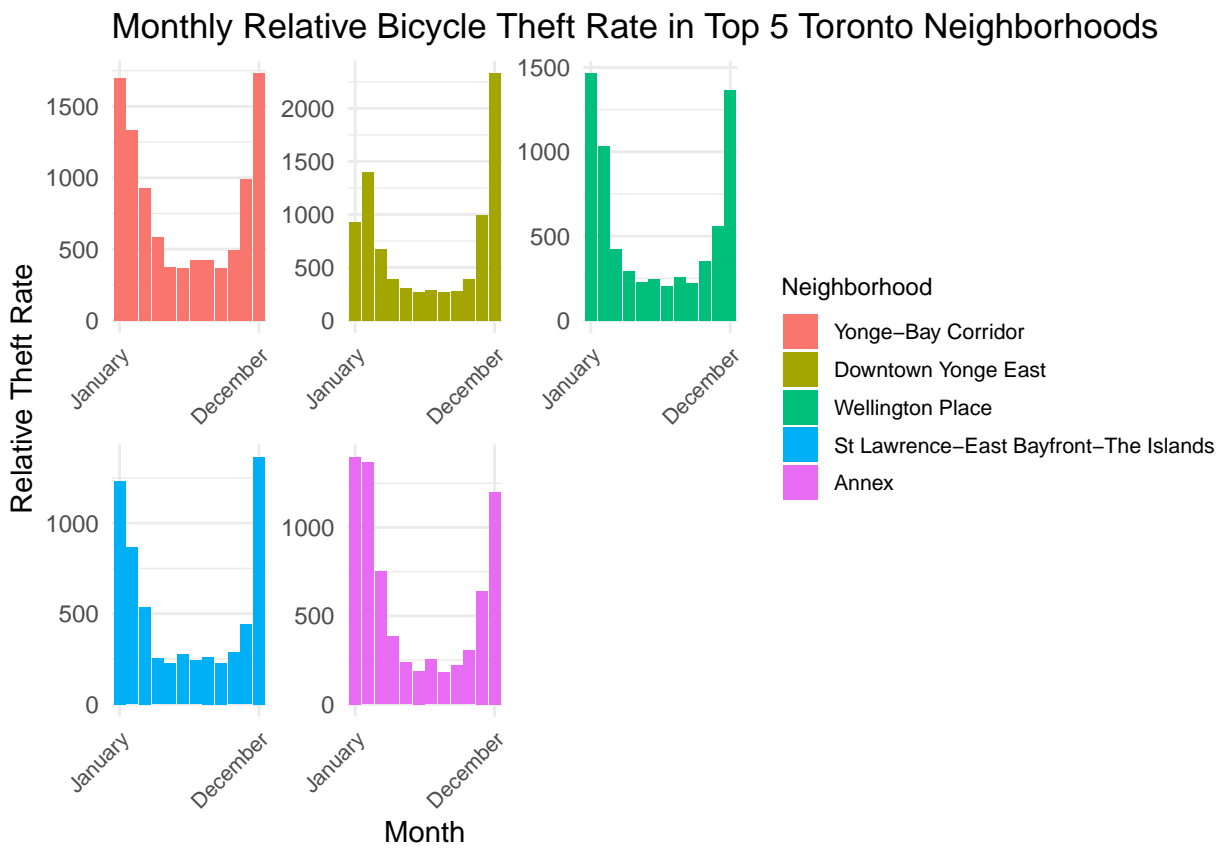


Figure 4: Relative bicycle theft rates are highest in January and December across Toronto’s top theft neighborhoods

Combining these two data points—monthly theft counts and cycling incidence—we derive a more accurate measure of risk: the **Relative Theft Rate**. The relative theft rate is calculated by dividing the number of thefts in each month by the percentage of cyclists active in that month. This adjustment normalizes the data, providing a clearer indication of theft risk per cyclist, independent of seasonal cycling fluctuations. For example, as shown in Figure 4, although July reports a high number of thefts, the high cycling incidence dilutes the per-cyclist risk, resulting in a relatively lower relative theft rate than the raw count would suggest. Conversely, winter months like December and January, which see fewer cyclists, show a heightened relative theft rate despite lower overall theft counts. This indicates that cyclists who venture out during these colder months face a higher risk per cyclist, likely due to factors such as limited secure parking and reduced public presence to deter thieves.

The relative theft rate is a more precise measure of individual risk than raw theft counts because it accounts for the seasonal nature of cycling activity. By normalizing the data in this way, we isolate the risk factor from seasonal cycling variations, revealing a clearer picture of individual vulnerability. This insight highlights an essential distinction: although absolute theft counts are higher in the summer, the relative theft risk per cyclist is not necessarily elevated. Instead, winter months may pose a higher per-cyclist risk, signaling a need for additional caution and security measures for those who continue to cycle through colder periods.

Taken together, these visualizations—starting from raw theft counts, moving to cycling incidence rates, and concluding with relative theft rates—offer a comprehensive view of seasonal bike theft risks in Toronto. For cyclists, understanding these patterns can lead to safer practices, such as avoiding high-theft areas during low-cycling months or ensuring better security measures when parking in neighborhoods like Yonge-Bay Corridor, which consistently reports high theft rates year-round. By adopting this data-driven approach, cyclists can make informed decisions that help mitigate the risk of theft throughout the year. While seasonal trends show when thefts are more common, another factor is critical in assessing risk: the context of the theft. Are there certain types of locations or times of day that make bikes more vulnerable? The next section delves into these situational factors.

## 4 Context Matters: How Location and Time of Day Affect Bicycle Theft Risk

Our next step was to analyze theft incidents by premises type—such as residential, public locations—and by time of day. This breakdown reveals nuanced differences in theft patterns that are relevant for different kinds of cyclists. For instance, in Figure 5 residential areas see distinct patterns based on whether the theft occurs at an apartment or a house. In apartment complexes, thefts peak in the afternoon, likely coinciding with times when bikes are parked but unattended as residents go about their day. Conversely, in house areas, thefts tend to occur in the evening and at night, possibly reflecting a risk associated with overnight storage in more secluded or poorly lit residential spaces.

Public locations, including commercial areas, educational institutions, transit hubs, and outdoor spaces, exhibit their own unique patterns, as shown in Figure 6. In commercial and outdoor areas, afternoon thefts are most common, aligning with peak business hours when bikes are frequently parked outside shops and public places. Educational institutions, on the other hand, see a morning peak in thefts, which may correspond to the influx of students and staff arriving for the day. Transit hubs display a similar pattern, with higher theft rates in the morning, likely reflecting the periods when cyclists are arriving to use public transportation. These insights provide guidance for cyclists on when and where they should be most cautious. Cyclists parking in commercial areas or at transit hubs should consider choosing high-visibility, secure locations and avoid leaving their bikes unattended for long periods during peak times. This understanding of theft risk by premises type and time of day allows cyclists to take location-specific precautions, which can be particularly valuable for daily commuters or students. Having examined the impact of location and timing, the final piece of the puzzle lies in the bikes themselves. In the following section, we explore which types of bikes are most targeted by thieves and how bike value influences theft risk.

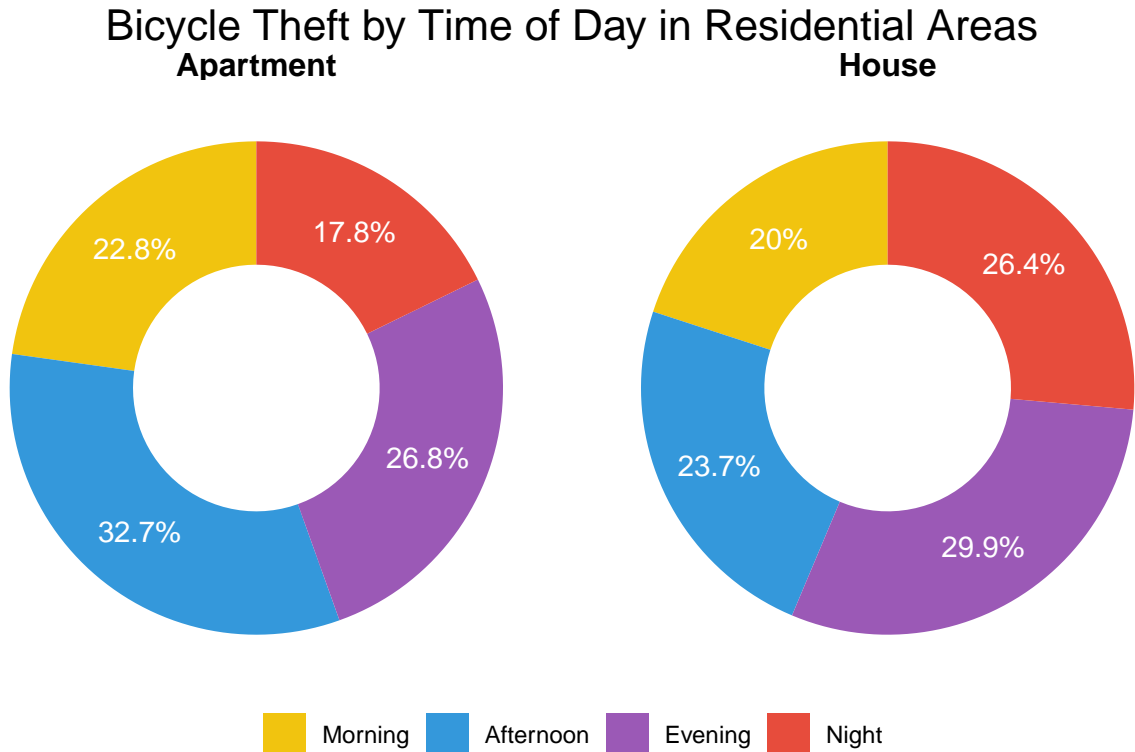


Figure 5: Bicycle thefts peak in the afternoon for apartments and in the evening and night for houses



## Bicycle Theft by Time of Day in Public Areas

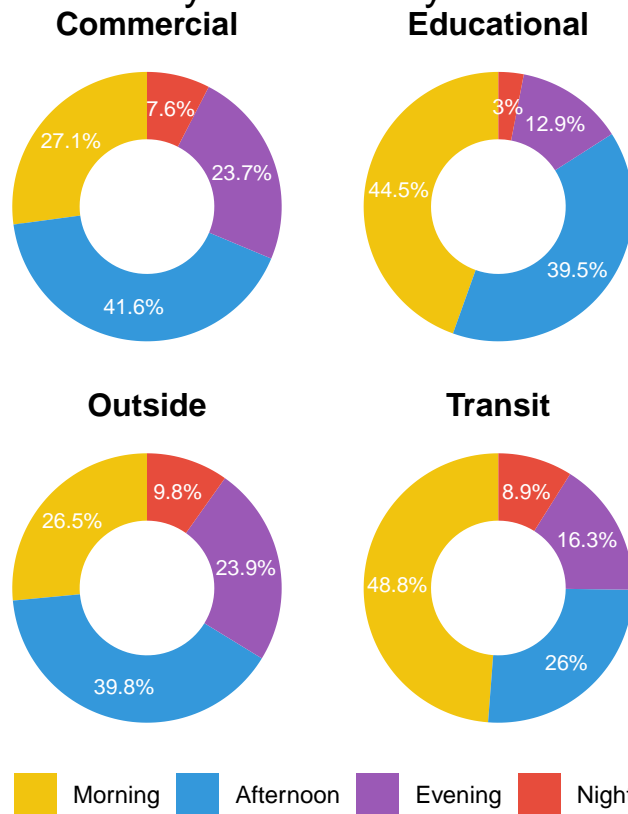


Figure 6: Bicycle thefts in public areas peak in the afternoon for commercial, educational, and outside spaces, while transit locations see the highest theft rate in the morning

## 5 High-Value Targets: Bike Types and Values That Attract Thieves

Finally in Figure 7 we explored how different types of bikes, along with their value, influence theft risk. Certain types of bikes, such as racing and touring bikes, are more frequently targeted, especially those with values exceeding \$1200. This finding underscores the importance of bike value in determining theft risk; thieves appear to prioritize higher-value bikes, which are likely to have a higher resale value. By contrast, less expensive bike types, such as BMX bikes and folding bikes, experience relatively lower theft rates, suggesting they may be perceived as less lucrative targets.

This analysis highlights the need for owners of high-value bikes to invest in enhanced security measures. Such cyclists might consider using GPS tracking devices, heavy-duty locks, or even bike insurance to safeguard against potential theft. Additionally, bike owners who primarily commute might consider choosing a less expensive or more inconspicuous bike if they plan to leave it parked in high-risk areas. For cyclists, understanding the specific vulnerabilities associated with their bike type can help in making decisions around bike purchase and security practices. With this information, they can better weigh the trade-offs between convenience, value, and security. Altogether, these findings highlight various aspects of bicycle theft in Toronto, offering insights that can help cyclists make informed decisions. In the conclusion, we summarize key takeaways and actionable recommendations based on this analysis.

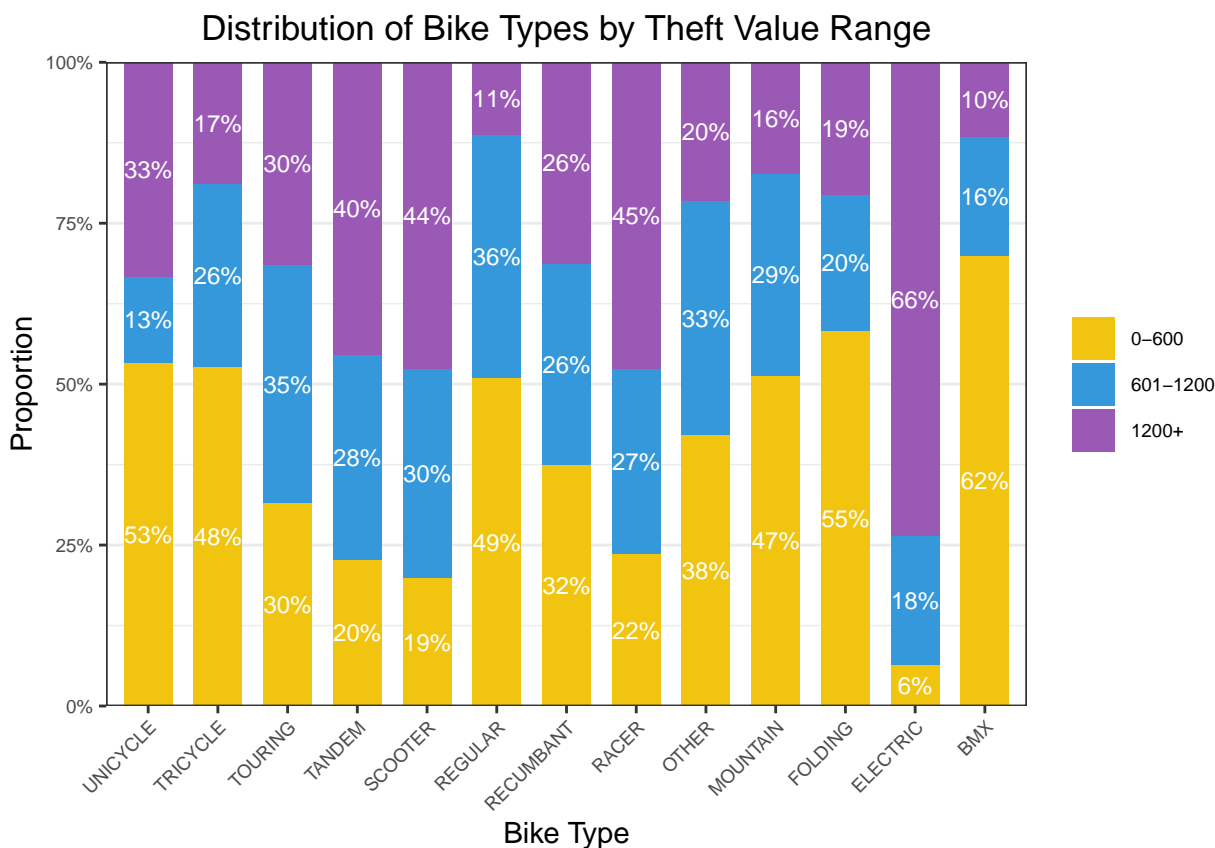


Figure 7: Higher-value bikes like electric and racing types are more frequently stolen in the 1200+ range, while lower-value bikes are more often stolen in the 0-600 range

## 6 Conclusion

Our analysis has provided several key insights into bicycle theft patterns in Toronto, covering high-risk areas, peak times, vulnerable premises types, and commonly targeted bike types. The findings suggest that Toronto cyclists face higher risks in the downtown core and popular public areas, particularly during the winter months when fewer bikes are on the road. Cyclists should exercise increased caution by securing their bikes in well-lit, monitored locations and considering seasonally adjusted security practices. Furthermore, theft patterns vary significantly by premises type, with distinct risks associated with residential, commercial, and transit locations. Cyclists can leverage this information to avoid high-risk parking practices based on the specific context of where they park their bikes.

Finally, our analysis of bike types underscores the influence of bike value on theft risk. Higher-value bikes are targeted more frequently, suggesting that thieves prioritize expensive models with higher resale potential. By understanding the relationship between bike type, value, and theft likelihood, cyclists can make informed choices about their security needs, whether by investing in stronger locks, choosing more secure parking locations, or even opting for lower-value bikes when commuting.

These insights form a holistic view of bicycle theft risk in Toronto, empowering cyclists to take control of their bike security. While bicycle theft is a complex issue influenced by multiple factors, targeted strategies based on our findings can help reduce individual risk. For the Cycle Toronto Association, these insights may also serve as a foundation for broader public awareness initiatives, helping the city's cycling community stay safe and secure on Toronto's streets. As Toronto continues to promote cycling as a sustainable mode of transport, addressing bike theft risks will be essential in building a more bike-friendly city.