Toronto Bicycle Thefts Analysis

Key Findings (2014-2024)

November 2025

Executive Summary

Analysis of Toronto bicycle theft data reveals declining theft trends, clear seasonal and temporal patterns, and critical recovery challenges across all police divisions.

1 Temporal Trends: Declining Since 2018

After peaking in 2018 with 3,956 thefts, Toronto has seen consistent decline. 2024 shows 2,711 thefts (-9.06% from 2023).

```
7   -- 1. Theft trends by year (2014-2024)
8   SELECT
9       occ_year,
10      COUNT(*) as total_thefts,
11      ROUND(COUNT(*) * 100.0 / (SELECT COUNT(*) FROM bicycle_thefts), 2) as percentage
12  FROM bicycle_thefts
13  WHERE occ_year BETWEEN 2014 AND 2024
14  GROUP BY occ_year
15  ORDER BY occ_year;
16
```

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Result Grid Filter Rows: Search Export:

occ_year	total_thefts	percentage
2014	3031	7.75
2015	3288	8.40
2016	3810	9.74
2017	3872	9.89
2018	3956	10.11
2019	3720	9.51
2020	3886	9.93
2021	3153	8.06
2022	2949	7.54
2023	2981	7.62
2024	2711	6.93

Figure 1: Theft trends by year showing decline from 2018 peak

Key points:

- Peak: 2018 (3,956 thefts)
- Largest drop: 2021 (-18.86%, likely COVID-related)
- 2024: Continuing downward trend

```sql
-- 14. Year-over-year change analysis (is it getting better or worse?)
SELECT
    occ_year,
    COUNT(*) as thefts,
    COUNT(*) - LAG(COUNT(*)) OVER (ORDER BY occ_year) as change_from_previous_year,
    ROUND((COUNT(*) - LAG(COUNT(*)) OVER (ORDER BY occ_year)) * 100.0 /
          LAG(COUNT(*)) OVER (ORDER BY occ_year), 2) as percent_change
FROM bicycle_thefts
WHERE occ_year BETWEEN 2014 AND 2024
GROUP BY occ_year
ORDER BY occ_year;
```

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Result Grid Filter Rows: Search Export:

occ_year	thefts	change_from_previous_year	percent_change
2014	3031	NULL	NULL
2015	3288	257	8.48
2016	3810	522	15.88
2017	3872	62	1.63
2018	3956	84	2.17
2019	3720	-236	-5.97
2020	3886	166	4.46
2021	3153	-733	-18.86
2022	2949	-204	-6.47
2023	2981	32	1.09
2024	2711	-270	-9.06

Figure 2: Year-over-year percentage changes

2 Seasonal Patterns: Summer Peak

Summer months experience 6x more thefts than winter. June-August account for 43% of annual thefts.

```sql
-- 2. Peak theft months (seasonal patterns)
SELECT
    occ_month,
    COUNT(*) as theft_count,
    ROUND(AVG(bike_cost), 2) as avg_bike_value
FROM bicycle_thefts
WHERE occ_month IS NOT NULL
GROUP BY occ_month
ORDER BY theft_count DESC;
```

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Result Grid Filter Rows: Search Export:

occ_month	theft_count	avg_bike_value
JULY	5996	990.39
AUGUST	5657	984.54
JUNE	5241	1015.29
SEPTEMBER	4979	1004.08
MAY	4150	998.19
OCTOBER	3718	1048.15
APRIL	2501	1146.54
NOVEMBER	2174	1151.08
MARCH	1488	1246.93
DECEMBER	1224	1400.36
JANUARY	1055	1451.46
FEBRUARY	950	1300.08

Figure 3: Monthly theft patterns showing summer concentration

Month	Thefts	Avg Value
July	5,996	$990.39
August	5,657	$984.54
June	5,241	$1,015.29
February	950	$1,300.08
January	1,055	$1,451.46

3 Daily Patterns: Evening Rush Hour

6pm is the most dangerous hour with 2,723 thefts. Evening commute hours (5-7pm) account for over 5,000 thefts.

```sql
-- 4. Peak theft hours (when cyclists should be most careful)
SELECT
    occ_hour as hour_of_day,
    COUNT(*) as theft_count,
    CASE
        WHEN occ_hour BETWEEN 6 AND 11 THEN 'Morning (6am-12pm)'
        WHEN occ_hour BETWEEN 12 AND 17 THEN 'Afternoon (12pm-6pm)'
        WHEN occ_hour BETWEEN 18 AND 21 THEN 'Evening (6pm-10pm)'
        ELSE 'Night (10pm-6am)'
    END as time_period
FROM bicycle_thefts
```

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esult Grid Filter Rows: Search Export: Fetch rows:

hour_of_day	theft_count	time_period
18	2723	Evening (6pm-10pm)
17	2540	Afternoon (12pm-6p…
12	2365	Afternoon (12pm-6p…
19	2282	Evening (6pm-10pm)
0	2204	Night (10pm-6am)
16	2112	Afternoon (12pm-6p…
20	2107	Evening (6pm-10pm)
9	2054	Morning (6am-12pm)
15	2007	Afternoon (12pm-6p…
21	1892	Evening (6pm-10pm)

Figure 4: Hourly theft distribution

Time Period	Peak Hour	Risk
Evening (6pm-10pm)	2,723 at 6pm	HIGHEST
Afternoon (12pm-6pm)	2,540 at 5pm	High
Morning (6am-12pm)	2,054 at 9am	Moderate
Night (10pm-6am)	2,204 at 12am	Moderate

4 Location Analysis: Outside & Apartments

29.40% of thefts occur outside, 24.45% at apartments. All locations show recovery rates under 2%.

```sql
-- 5. Top 15 theft hotspot neighborhoods
SELECT
    premises as neighborhood,
    COUNT(*) as theft_count,
    ROUND(COUNT(*) * 100.0 / (SELECT COUNT(*) FROM bicycle_thefts WHERE premises IS NOT NULL), 2) as percentage,
    COUNT(CASE WHEN status = 'RECOVERED' THEN 1 END) as recovered,
    ROUND(COUNT(CASE WHEN status = 'RECOVERED' THEN 1 END) * 100.0 / COUNT(*), 2) as recovery_rate
FROM bicycle_thefts
WHERE premises IS NOT NULL
GROUP BY premises
ORDER BY theft_count DESC
LIMIT 15;
```

Result Grid

neighborhood	theft_count	percentage	recovered	recovery...
OUTSIDE	11507	29.40	155	1.35
HOUSE	5610	14.34	66	1.18
OTHER	5071	12.96	45	0.89
COMMERCIAL	4816	12.31	42	0.87
APARTMENT	9567	24.45	72	0.75
TRANSIT	839	2.14	5	0.60
EDUCATIONAL	1723	4.40	7	0.41

Figure 5: Top theft locations by premises type

Location	Thefts	% Total	Recovery
OUTSIDE	11,507	29.40%	1.35%
APARTMENT	9,567	24.45%	0.75%
HOUSE	5,610	14.34%	1.18%
COMMERCIAL	4,816	12.31%	0.87%

```sql
    location_type,
    COUNT(*) as theft_count,
    ROUND(COUNT(*) * 100.0 / (SELECT COUNT(*) FROM bicycle_thefts WHERE location_type IS NOT NULL), 2) as percentage,
    ROUND(AVG(bike_cost), 2) as avg_bike_value
FROM bicycle_thefts
```

Result Grid

location_type	theft_count	percentage	avg_bike_value
APARTMENT (ROOMING HOUSE, CONDO)	9567	24.45	1102.61
BANK AND OTHER FINANCIAL INSTITUTION...	258	0.66	1058.56
BAR / RESTAURANT	880	2.25	1153.68
COMMERCIAL DWELLING UNIT (HOTEL, MO...	119	0.30	1025.10
COMMUNITY GROUP HOME	8	0.02	519.71
CONSTRUCTION SITE (WAREHOUSE, TRAIL...	44	0.11	1281.84
CONVENIENCE STORES	372	0.95	998.15
DEALERSHIP (CAR, MOTORCYCLE, MARINE,...	23	0.06	1611.10
GAS STATION (SELF, FULL, ATTACHED CON...	34	0.09	824.04
GO BUS	9	0.02	774.29
GO STATION	310	0.79	652.74
GO TRAIN	16	0.04	621.80
GROUP HOMES (NON-PROFIT, HALFWAY HO...	14	0.04	1067.40
GROUP HOMES (NON-PROFIT, HALFWAY HO...	36	0.09	876.12
HOMELESS SHELTER / MISSION	57	0.15	1485.55
HOSPITAL / INSTITUTIONS / MEDICAL FACILI...	411	1.05	1024.71
JAILS / DETENTION CENTRES	2	0.01	400.00
NURSING HOME	108	0.28	993.94
OPEN AREAS (LAKES, PARKS, RIVERS)	725	1.85	897.36
OTHER COMMERCIAL / CORPORATE PLACE...	3086	7.89	1201.78
OTHER NON COMMERCIAL / CORPORATE P...	501	1.28	1031.63
OTHER PASSENGER TRAIN	1	0.00	300.00
OTHER PASSENGER TRAIN STATION	8	0.02	706.25
OTHER REGIONAL TRANSIT SYSTEM VEHIC...	3	0.01	775.00
OTHER TRAIN ADMIN OR SUPPORT FACILITY	2	0.01	390.00
OTHER TRAIN TRACKS	1	0.00	NULL
OTHER TRAIN YARD	2	0.01	1300.00
PARKING LOTS (APT., COMMERCIAL OR NO...	3654	9.34	1141.96
PHARMACY	695	1.78	988.81
POLICE / COURTS (PAROLE BOARD, PROBA...	58	0.15	965.27
PRIVATE PROPERTY STRUCTURE (POOL, S...	2932	7.49	1184.30

Figure 6: Detailed location type breakdown

5 Bike Brands: All Types Targeted

Generic and "Other" brands most stolen. Premium brands show marginally better recovery (under 3%).

```sql
-- 8. Most stolen bike makes (brands thieves target)
SELECT
    bike_make,
    COUNT(*) as times_stolen,
    ROUND(AVG(bike_cost), 2) as avg_value,
    COUNT(CASE WHEN status = 'RECOVERED' THEN 1 END) as recovered,
    ROUND(COUNT(CASE WHEN status = 'RECOVERED' THEN 1 END) * 100.0 / COUNT(*), 2) as recovery_rate
FROM bicycle_thefts
WHERE bike_make IS NOT NULL
  AND bike_make != ''
  AND bike_make != 'UNKNOWN'
```

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Result Grid Filter Rows: Search Export: Fetch rows:

bike_make	times_stolen	avg_value	recovered	recovery_rate
OT	7879	1021.76	51	0.65
UK	4209	887.57	11	0.26
GI	2267	982.58	14	0.62
OTHER	2172	1492.28	34	1.57
TR	2044	1008.26	8	0.39
NO	1275	822.87	6	0.47
UNKNOWN MAKE	945	966.70	12	1.27
CC	859	419.10	1	0.12
TREK	844	1545.46	16	1.90
SU	832	270.73	0	0.00
GIANT	804	1261.60	19	2.36
CA	782	1397.46	4	0.51
RA	728	579.93	6	0.82
SPECIALIZED	708	1880.00	21	2.97
SC	705	498.78	0	0.00

Figure 7: Most stolen bike makes

Brand	Thefts	Avg Value	Recovery
OT	7,879	$1,021.76	0.65%
UK	4,209	$887.57	0.26%
GI	2,267	$982.58	0.62%
SPECIALIZED	708	$1,880.00	2.97%
TREK	844	$1,545.46	1.90%

6 Police Division Performance

No division exceeds 2% recovery rate. Best performer (D31) recovers 1.64%.

```sql
-- 7. Police division performance (which divisions have best recovery rates?)
SELECT
    division,
    COUNT(*) as total_thefts,
    COUNT(CASE WHEN status = 'RECOVERED' THEN 1 END) as recovered,
    COUNT(CASE WHEN status = 'STOLEN' THEN 1 END) as still_stolen,
    ROUND(COUNT(CASE WHEN status = 'RECOVERED' THEN 1 END) * 100.0 / COUNT(*), 2) as recovery_rate_percent
FROM bicycle_thefts
WHERE division IS NOT NULL
GROUP BY division
ORDER BY recovery_rate_percent DESC;
```

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Result Grid Filter Rows: Search Export:

division	total_thefts	recovered	still_stolen	recovery_rate_percent
D31	672	11	637	1.64
D43	702	11	652	1.57
D54	386	5	372	1.30
D11	2618	33	2546	1.26
D14	6718	79	6514	1.18
D41	774	9	731	1.16
D22	1672	19	1624	1.14
D42	455	5	436	1.10
D33	661	7	640	1.06
D51	6339	66	6184	1.04
D12	400	4	392	1.00
D55	3643	35	3559	0.96
D13	1418	13	1380	0.92
D53	3372	31	3289	0.92
D23	367	3	360	0.82
D52	6915	49	6822	0.71
D32	2021	12	1970	0.59

Figure 8: Police division recovery rates

Division	Thefts	Recovered	Rate
D31	672	11	1.64%
D43	702	11	1.57%
D54	386	5	1.30%
D14	6,718	79	1.18%
D52	6,915	49	0.71%

7 Key Takeaways

Positive Trends:

- 9.06% decline in 2024
- Sustained downward trend since 2019

High-Risk Factors:

- Summer months (June-August)
- Evening hours (5-7pm)
- Outside/street parking (29.40%)
- Apartment buildings (24.45%)

Critical Issue:

- Recovery rates under 2% across all divisions
- Prevention is essential - recovery nearly impossible

8 Recommendations

For Cyclists:

- Avoid parking outside during summer evenings
- Use quality locks (2-lock minimum)
- Register bike serial numbers
- Consider insurance given low recovery rates

For Infrastructure:

- Secure indoor bike storage at apartments
- Better lighting and surveillance
- Monitored parking facilities

For Policy:

- Bike registration programs
- Increased patrols during peak times
- GPS tracking promotion
- Online marketplace monitoring