ROADS

VALUE PROPOSITION

I expect roads to be well-maintained that allow me to get where I need to go in a safe and consistent timely manner.

KEEP IN MIND:

Influencing Factors

Influencing factors can create variances in comparison data from year-to-year and from municipality-to-municipality.

Economic Conditions
Inflationary increases

Level of Government
Single-tier vs. Upper-tier municipalities

Maintenance Standards
Road ratings and levels of service

Policies
Capitalization: operating vs. capital expenditures
Amortization: varies depending on type and age of infrastructure, climate, etc.

Traffic Volumes & Urban Form
Affects frequency and cost of maintenance

Utility Cut Repairs
Costs can vary significantly year-to-year

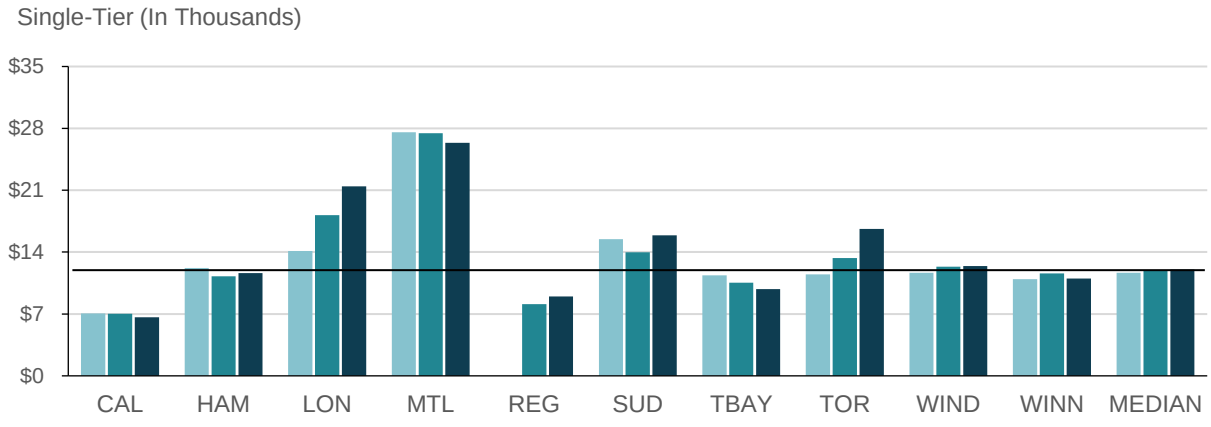
Weather Conditions
Impact operation and maintenance costs

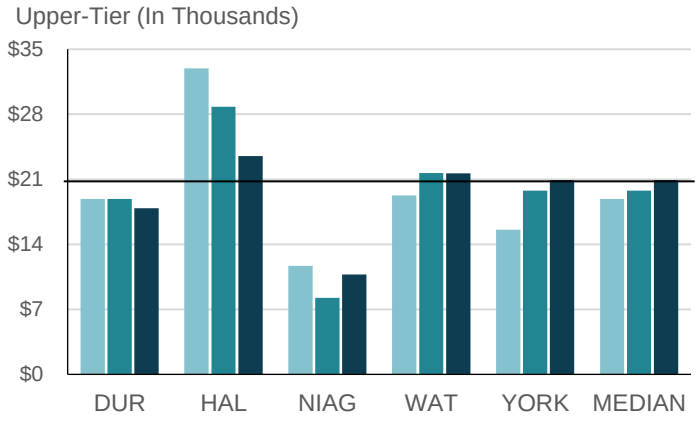
For a full description of influencing factors, please go to: www.mbncanada.ca

Roads

Figure 28.1 Total Cost for Paved Roads per Lane Km (Hard Top)

This measure represents the total cost to maintain hard top (paved) roads. It includes operating costs and amortization associated with capital costs for paved road maintenance. A lane km is defined as a kilometer-long segment of roadway that is a single lane in width. For example, a one km stretch of a standard two lane road represents two lane km.





2017	$7,077	$12,187	$14,111	$27,577	N/A	$15,468	$11,362	$11,491	$11,665	$10,928	$11,665	$18,889	$32,959	$11,681	$19,250	$15,579	$18,889
2018	$7,024	$11,280	$18,164	$27,456	$8,100	$13,976	$10,549	$13,336	$12,359	$11,577	$11,968	$18,902	$28,826	$8,237	$21,672	$19,775	$19,775
2019	$6,625	$11,624	$21,449	$26,357	$8,992	$15,889	$9,797	$16,616	$12,417	$11,027	$12,021	$17,890	$23,488	$10,753	$21,650	$20,919	$20,919

Source: ROAD307T (Efficiency)

Calgary, Hamilton, Montreal, Thunder Bay, Toronto and Winnipeg include laneways (alleys) in this measure.

Halton: Some transportation services costs are included in operating costs as opposed to tangible capital assets. The numbers are not comparable from year to year.

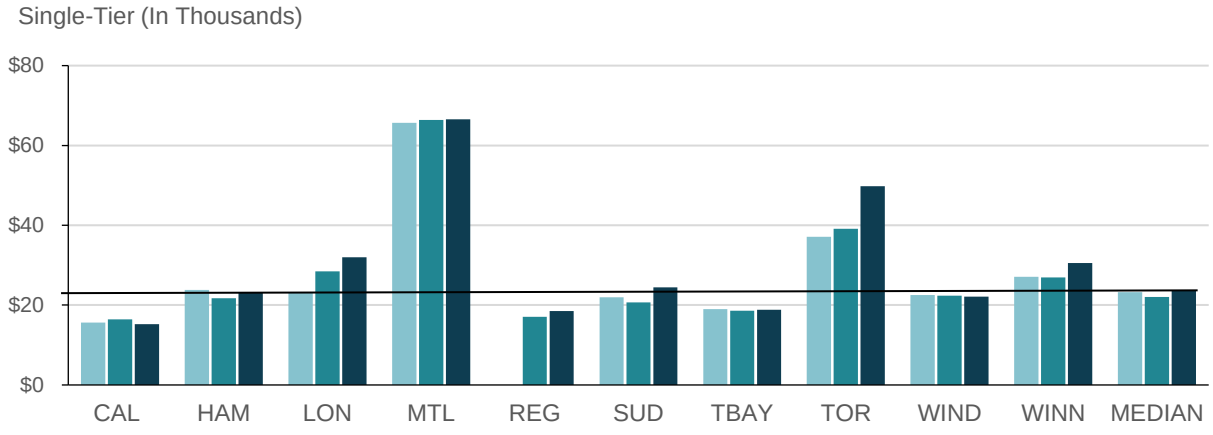
London: Increase in 2018 expenditures due to some project contributions related to non-city owned assets.

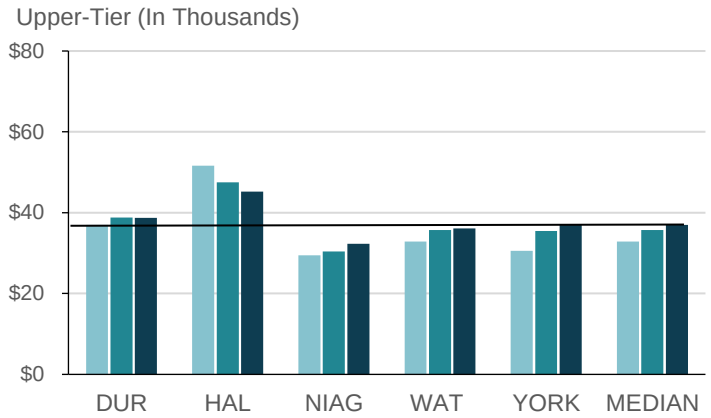
Montreal: The higher cost can be attributed to investments in infrastructure and higher amortization costs.

Roads

Figure 28.2 Total Cost for Roads - All Functions Per Lane Km

This measure represents the total cost of all functions related to road maintenance. This includes operating costs and amortization associated with capital costs for paved and unpaved roads, bridges and culverts, traffic operations, roadside maintenance, and winter control for roadways, sidewalks, and parking lots.





2017	$15,607	$23,785	$23,250	$65,657	N/A	$21,958	$18,983	$37,131	$22,506	$27,128	$23,250		$36,956	$51,644	$29,461	$32,838	$30,538	$32,838
2018	$16,394	$21,722	$28,430	$66,366	$17,045	$20,704	$18,560	$39,117	$22,356	$26,953	$22,039		$38,775	$47,542	$30,425	$35,718	$35,441	$35,718
2019	$15,198	$23,082	$31,990	$66,552	$18,531	$24,411	$18,861	$49,758	$22,116	$30,510	$23,747		$38,734	$45,193	$32,343	$36,132	$36,956	$36,956

Source: ROAD308T (Efficiency)

Calgary, Hamilton, Montreal, Thunder Bay, Toronto and Winnipeg includes laneways (alleys) in this measure.

London: Increase in 2018 expenditures due to some project contributions related to non-City owned assets.

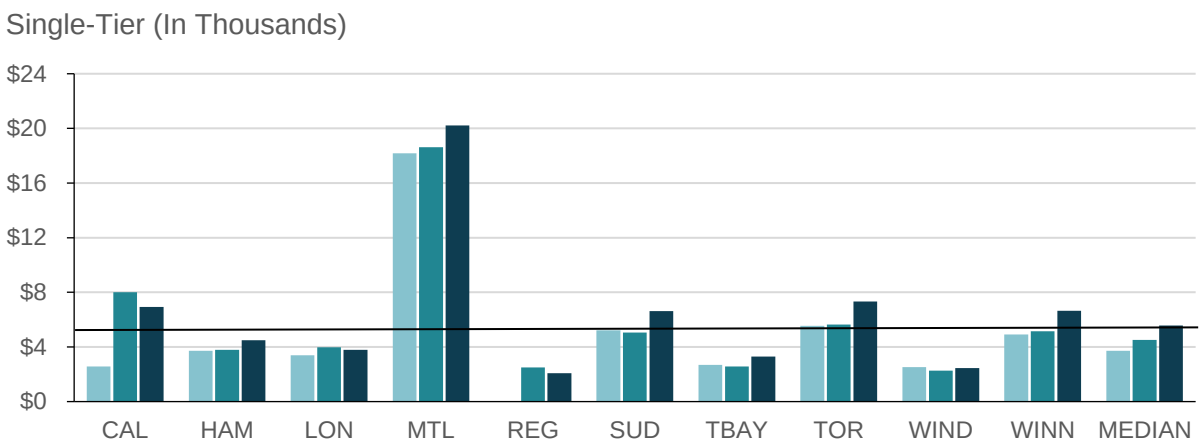
Montreal: The higher cost can be attributed to investments in infrastructure and higher amortization costs.

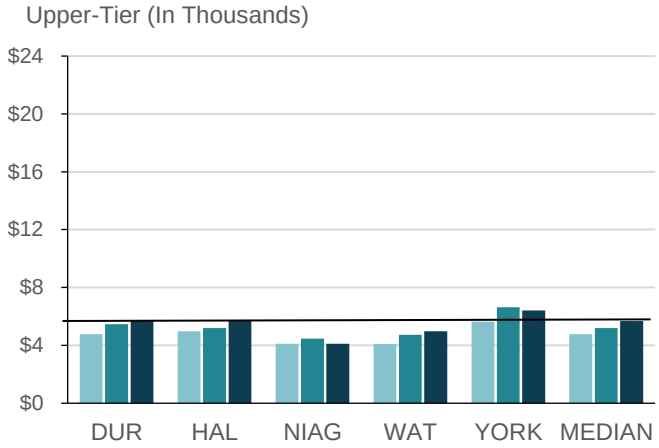
Sudbury: Weather conditions in 2019 resulted in a significant increase in winter maintenance services to ensure roads were maintained to standard.

Roads

Figure 28.3 Total Cost for Winter Maintenance of Roads per Lane Km Maintained

This measure represents the total cost for winter maintenance of a single lane km. It includes all functions included in clearing and maintaining the roadway and is not inclusive of sidewalk snow clearing and parking lots. Costs will vary from year to year due to winter weather conditions.





2017	$2,566	$3,725	$3,383	$18,167	N/A	$5,215	$2,693	$5,553	$2,534	$4,905	$3,725		$4,779	$4,975	$4,108	$4,089	$5,642	$4,779
2018	$8,013	$3,788	$3,974	$18,624	$2,496	$5,065	$2,580	$5,643	$2,275	$5,159	$4,520		$5,450	$5,202	$4,459	$4,729	$6,643	$5,202
2019	$6,938	$4,495	$3,781	$20,225	$2,077	$6,624	$3,290	$7,334	$2,451	$6,657	$5,560		$5,758	$5,682	$4,113	$4,971	$6,409	$5,682

Source: ROAD309T (Efficiency)

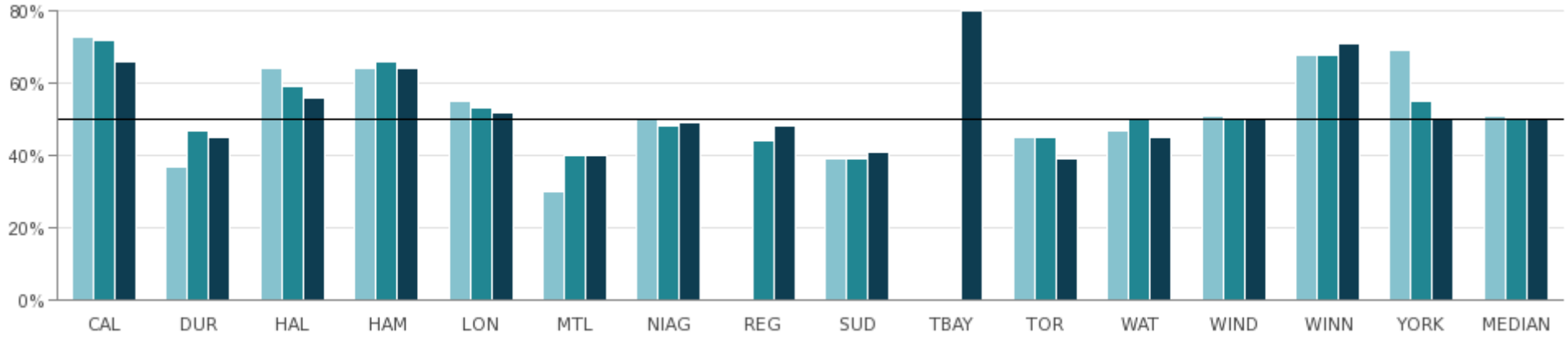
Calgary, Hamilton, Montreal, Thunder Bay, Toronto and Winnipeg include laneways in this measure.

Montreal: The service thresholds for responding to weather incidents and the volume and type of snow removal required due to population density contribute to Montreal's higher cost.

Roads

Figure 28.4 Percent of Paved Lane Km Where the Condition is Rated as Good to Very Good

This measure reflects the percent of paved lane km where no maintenance or rehabilitation action is required except for minor surface maintenance. Municipalities may use different approaches to assess and rate road condition.



2017	73%	37%	64%	64%	55%	30%	50%	N/A	39%	N/A	45%	47%	51%	68%	69%	51%
2018	72%	47%	59%	66%	53%	40%	48%	44%	39%	N/A	45%	50%	50%	68%	55%	50%
2019	66%	45%	56%	64%	52%	40%	49%	48%	41%	80%	39%	45%	50%	71%	50%	50%

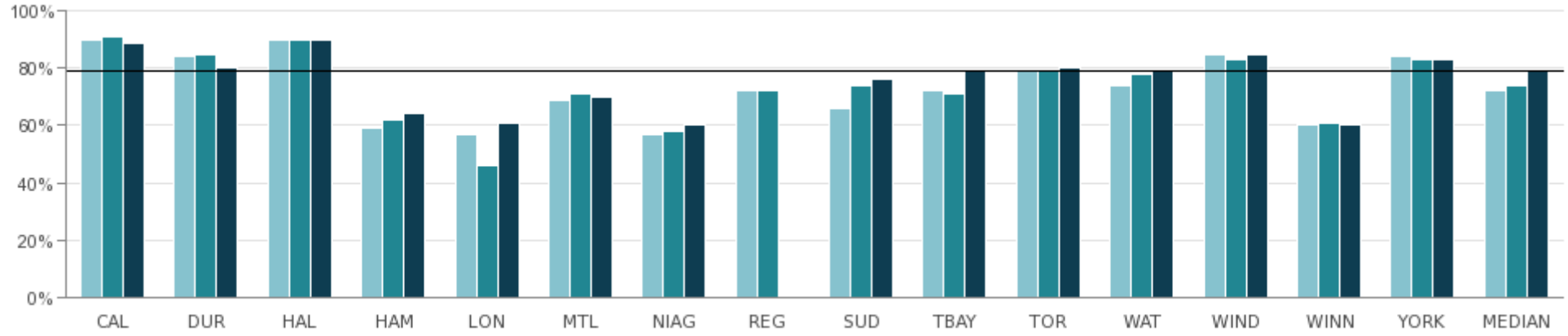
Source: ROAD405 (Customer Service)

Thunder Bay: Data is not available for 2017 and 2018.

Roads

Figure 28.5 Percent of Bridges, Culverts and Viaducts Where the Condition is Rated as Good to Very Good

This measure represents the percent of bridges, culverts and viaducts where the condition of primary components is rated as good to very good, requiring maintenance only. Municipalities may use different approaches to assess and rate the condition of these assets. Ratings are not always related to structural integrity (e.g. there may be some deterioration, but it is not structurally inadequate).



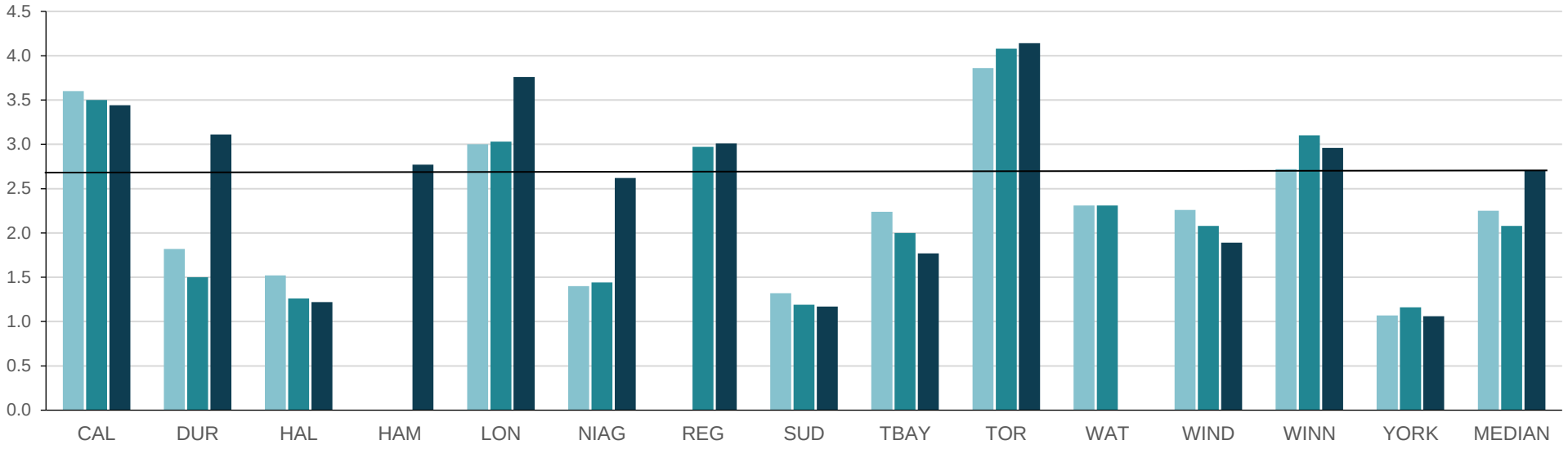
2017	90%	84%	90%	59%	57%	69%	57%	72%	66%	72%	79%	74%	85%	60%	84%	72%
2018	91%	85%	90%	62%	46%	71%	58%	72%	74%	71%	79%	78%	83%	61%	83%	74%
2019	89%	80%	90%	64%	61%	70%	60%	N/A	76%	79%	80%	79%	85%	60%	83%	79%

Source: ROAD415 (Customer Service)

Roads

Figure 28.6 On-Road Traffic Collision Rate (Collisions per Million Vehicle Km)

Vehicle Collision Rate (Collisions per Million Vehicle km)



2017	3.60	1.82	1.52	N/A	3.00	1.40	N/A	1.32	2.24	3.86	2.31	2.26	2.72	1.07	2.25
2018	3.50	1.50	1.26	N/A	3.03	1.44	2.97	1.19	2.00	4.08	2.31	2.08	3.10	1.16	2.08
2019	3.44	3.11	1.22	2.77	3.76	2.62	3.01	1.17	1.77	4.14	N/A	1.89	2.96	1.06	2.70

SOURCE: ROAD115

Montreal: Does not report on this measure

Waterloo: Unable to report in 2019.