



## What is the Service?

Roads services provide affordable, well-managed and safe traffic flow for pedestrians, cyclists, drivers, public transit and commercial traffic while contributing to the environment and the quality of community life. A municipality's transportation system affects the economic vitality and quality of life of residents.

Transportation infrastructure generally includes roads, bridges, culverts, sidewalks, traffic control systems, signage and boulevards. In addition to constructing and repairing infrastructure, roads services include clearing the transportation network of snow and debris to ensure that it is safe and convenient to use.



## Influencing Factors

**Capitalization Policy:** Dollar thresholds for the capitalization of roads expenditures differ. In one municipality, an activity could be considered an operating expenditure while in another municipality, it could be considered as capital.

**Economic Conditions:** Inflationary increases in the cost of asphalt, concrete, fuel and contract services can reduce the amount of maintenance done with a given level of funding.

**Level of Government:** Single-tier municipalities are responsible for maintaining all types of roads, including arterial, collector and local roads and, in some cases, expressways and laneways. Upper-tier governments are not responsible for maintenance of local roads.

**Maintenance Standards:** Different standards, set by their respective municipal councils, can have an impact on costs and affect municipal backlog of roads rated in poor condition and general levels of service.

**Traffic Volumes & Urban Form:** Traffic volumes can accelerate the rate at which roads deteriorate and increase the frequency and costs of road maintenance. Traffic congestion, narrow streets, additional traffic signals and after-hour maintenance can also lead to higher costs.

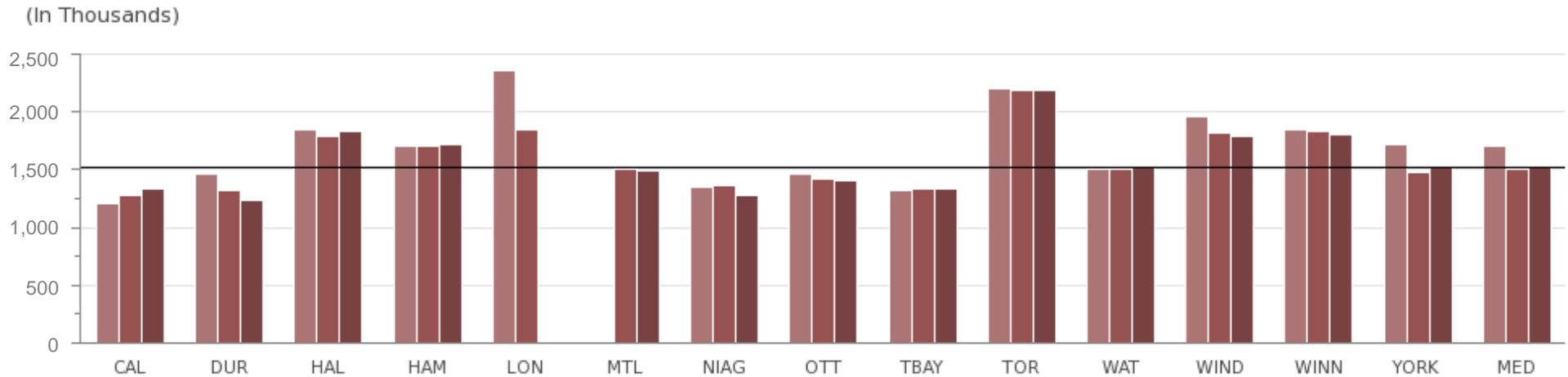
**Utility Cut Repairs:** Cost of utility cuts can vary significantly from one year to another.

**Weather Conditions:** Frequency and severity of weather events can impact operation and maintenance costs, each municipality's service threshold for responding to weather incidents, and service standards for road conditions.

# Roads

## What is the volume of traffic on our main roads?

Fig 28.1 Vehicle Km Traveled per Lane Km (Major Roads)



2012	1,208,190	1,460,844	1,852,330	1,701,920	2,362,910	N/A	1,347,412	1,467,372	1,321,395	2,200,159	1,506,116	1,965,028	1,848,673	1,713,125	1,701,920
2013	1,273,059	1,326,084	1,797,976	1,712,038	1,852,877	1,502,488	1,360,952	1,417,763	1,336,375	2,193,428	1,512,929	1,815,361	1,833,007	1,483,307	1,507,709
2014	1,341,766	1,241,319	1,827,649	1,720,598	N/A	1,485,565	1,282,862	1,411,522	1,336,375	2,192,307	1,513,979	1,795,127	1,808,530	1,521,583	1,513,979

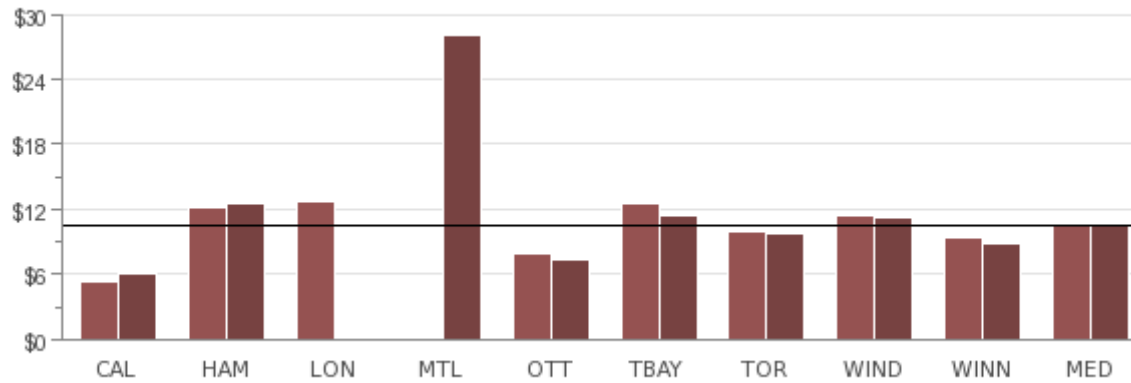
Source: ROAD112 (Community Impact)

Note: The measure indicates the number of times a vehicle travels over each lane Km of road; and demonstrates road congestion.

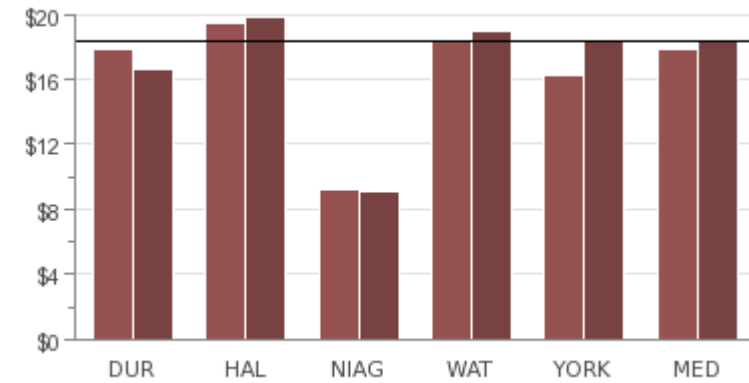
## How much does it cost to maintain one Km of paved road?

Fig 28.2 Total Cost for Paved "Hard Top" Roads per Lane Km (includes amortization)

Single-Tier (In Thousands)



Upper-Tier (In Thousands)



2013	\$5,327	\$12,187	\$12,758	N/A	\$7,918	\$12,575	\$9,955	\$11,522	\$9,429	\$10,739
2014	\$6,126	\$12,521	N/A	\$27,988	\$7,355	\$11,349	\$9,860	\$11,263	\$8,838	\$10,562

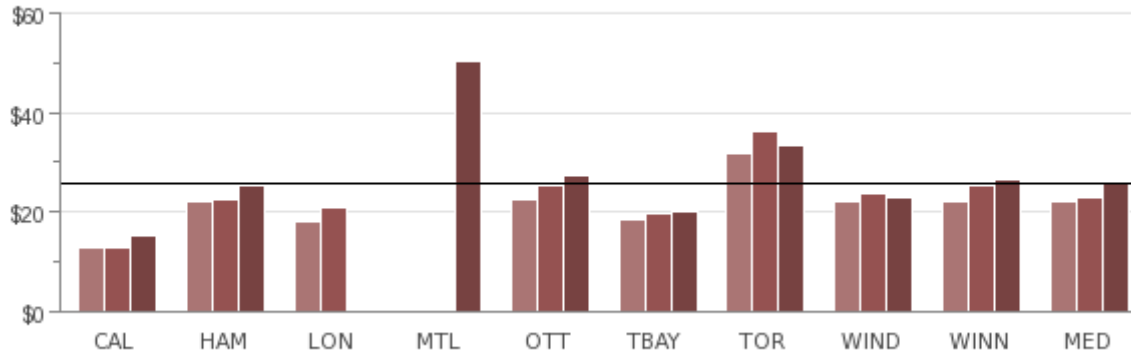
\$17,876	\$19,485	\$9,249	\$18,333	\$16,217	\$17,876
\$16,680	\$19,851	\$9,097	\$18,920	\$18,350	\$18,350

Source: ROAD307T (Efficiency)

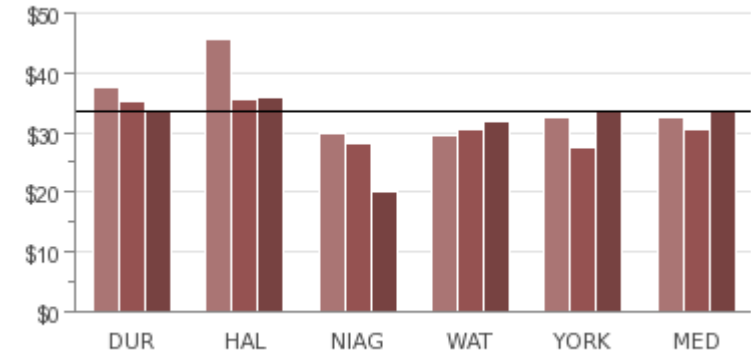
# What is the total cost to maintain our roads per lane Km?

Fig 28.3 Total Cost for Roads per Lane Km – All Functions (includes amortization)

Single-Tier (In Thousands)



Upper-Tier (In Thousands)



2012	\$12,798	\$22,145	\$18,233	N/A	\$22,491	\$18,682	\$31,947	\$22,162	\$22,164	\$22,154
2013	\$12,804	\$22,395	\$20,928	N/A	\$25,246	\$19,661	\$36,137	\$23,764	\$25,289	\$23,080
2014	\$15,259	\$25,145	N/A	\$50,148	\$27,381	\$20,118	\$33,575	\$22,943	\$26,680	\$25,913

\$37,546	\$45,577	\$29,833	\$29,398	\$32,464	\$32,464
\$35,217	\$35,565	\$28,272	\$30,544	\$27,522	\$30,544
\$33,389	\$35,723	\$20,161	\$31,966	\$33,625	\$33,389

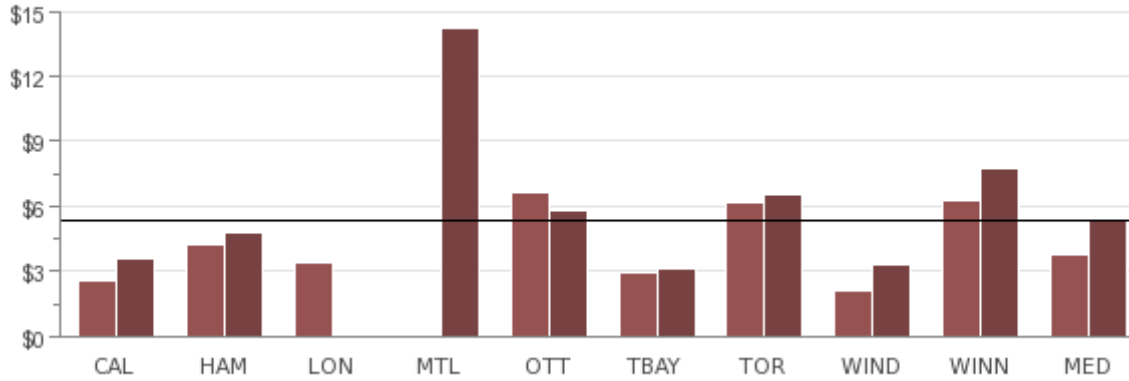
Source: ROAD308T (Efficiency)

Note: Total cost per lane Km is impacted by the disposal of capital assets associated with the expansion of existing road assets to meet growth.

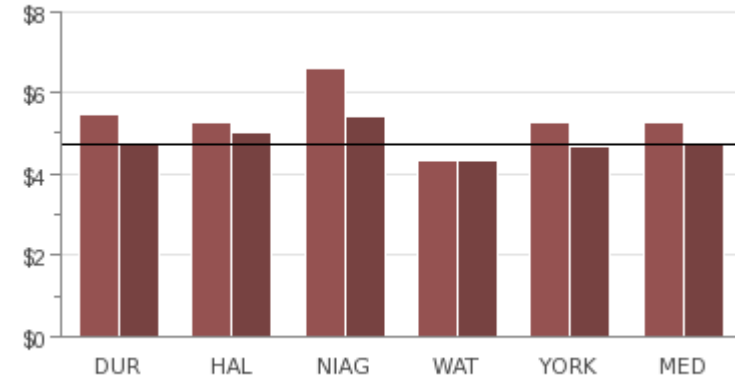
## How much does it cost to maintain our roads in winter?

Fig 28.4 Total Cost for Winter Maintenance of Roadways per Lane Km Maintained (includes amortization)

Single-Tier (In Thousands)



Upper-Tier (In Thousands)



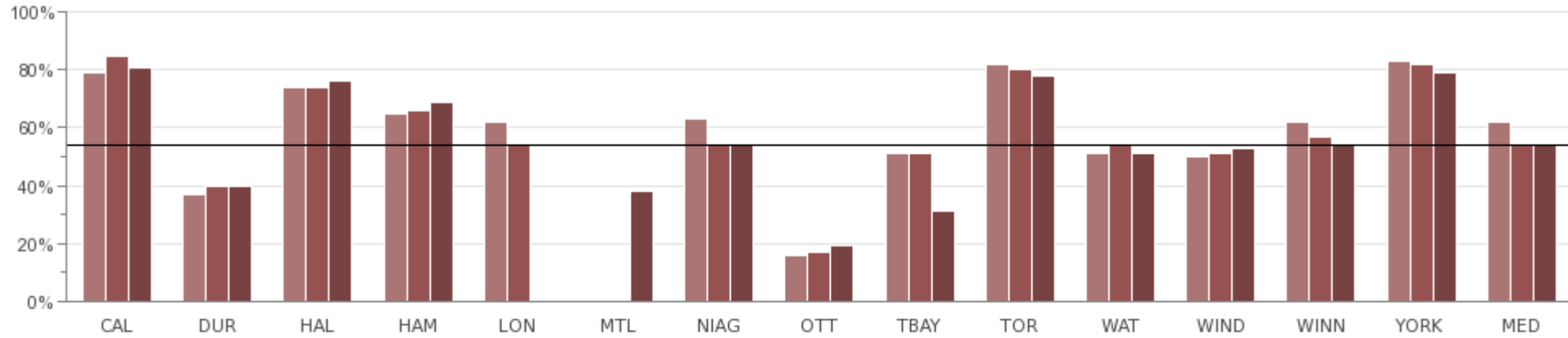
2013	\$2,600	\$4,194	\$3,379	N/A	\$6,614	\$2,900	\$6,190	\$2,139	\$6,279	\$3,787
2014	\$3,605	\$4,823	N/A	\$14,196	\$5,813	\$3,133	\$6,582	\$3,345	\$7,715	\$5,318

\$5,478	\$5,266	\$6,620	\$4,310	\$5,286	\$5,286
\$4,741	\$5,009	\$5,394	\$4,355	\$4,675	\$4,741

Source: ROAD309T (Efficiency)

## What percent of paved roads are rated good to very good?

Fig 28.5 Percent of Paved Lane Km where the Condition is Rated as Good to Very Good

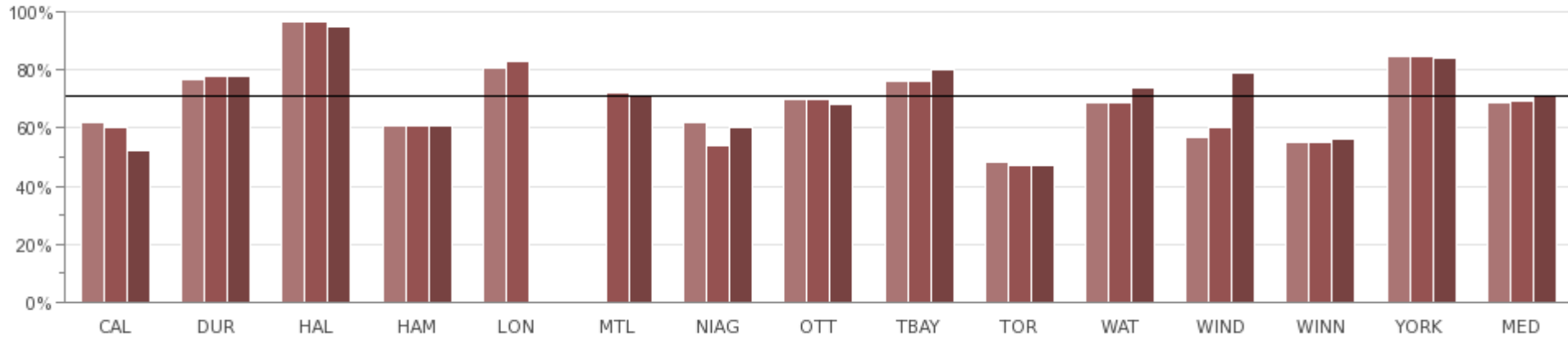


<b>2012</b>	<b>79%</b>	<b>37%</b>	<b>74%</b>	<b>65%</b>	<b>62%</b>	<b>N/A</b>	<b>63%</b>	<b>16%</b>	<b>51%</b>	<b>82%</b>	<b>51%</b>	<b>50%</b>	<b>62%</b>	<b>83%</b>	<b>62%</b>
<b>2013</b>	<b>85%</b>	<b>40%</b>	<b>74%</b>	<b>66%</b>	<b>54%</b>	<b>N/A</b>	<b>54%</b>	<b>17%</b>	<b>51%</b>	<b>80%</b>	<b>54%</b>	<b>51%</b>	<b>57%</b>	<b>82%</b>	<b>54%</b>
<b>2014</b>	<b>81%</b>	<b>40%</b>	<b>76%</b>	<b>69%</b>	<b>N/A</b>	<b>38%</b>	<b>54%</b>	<b>19%</b>	<b>31%</b>	<b>78%</b>	<b>51%</b>	<b>53%</b>	<b>54%</b>	<b>79%</b>	<b>54%</b>

Source: ROAD405M (Customer Service)

## What percent of bridges, culverts and viaducts are rated good to very good?

Fig 28.6 Percent of Bridges, Culverts and Viaducts where the Condition is Rated as Good to Very Good



<b>2012</b>	<b>62%</b>	<b>77%</b>	<b>97%</b>	<b>61%</b>	<b>81%</b>	<b>N/A</b>	<b>62%</b>	<b>70%</b>	<b>76%</b>	<b>48%</b>	<b>69%</b>	<b>57%</b>	<b>55%</b>	<b>85%</b>	<b>69%</b>
<b>2013</b>	<b>60%</b>	<b>78%</b>	<b>97%</b>	<b>61%</b>	<b>83%</b>	<b>72%</b>	<b>54%</b>	<b>70%</b>	<b>76%</b>	<b>47%</b>	<b>69%</b>	<b>60%</b>	<b>55%</b>	<b>85%</b>	<b>70%</b>
<b>2014</b>	<b>52%</b>	<b>78%</b>	<b>95%</b>	<b>61%</b>	<b>N/A</b>	<b>71%</b>	<b>60%</b>	<b>68%</b>	<b>80%</b>	<b>47%</b>	<b>74%</b>	<b>79%</b>	<b>56%</b>	<b>84%</b>	<b>71%</b>

Source: ROAD415M (Customer Service)