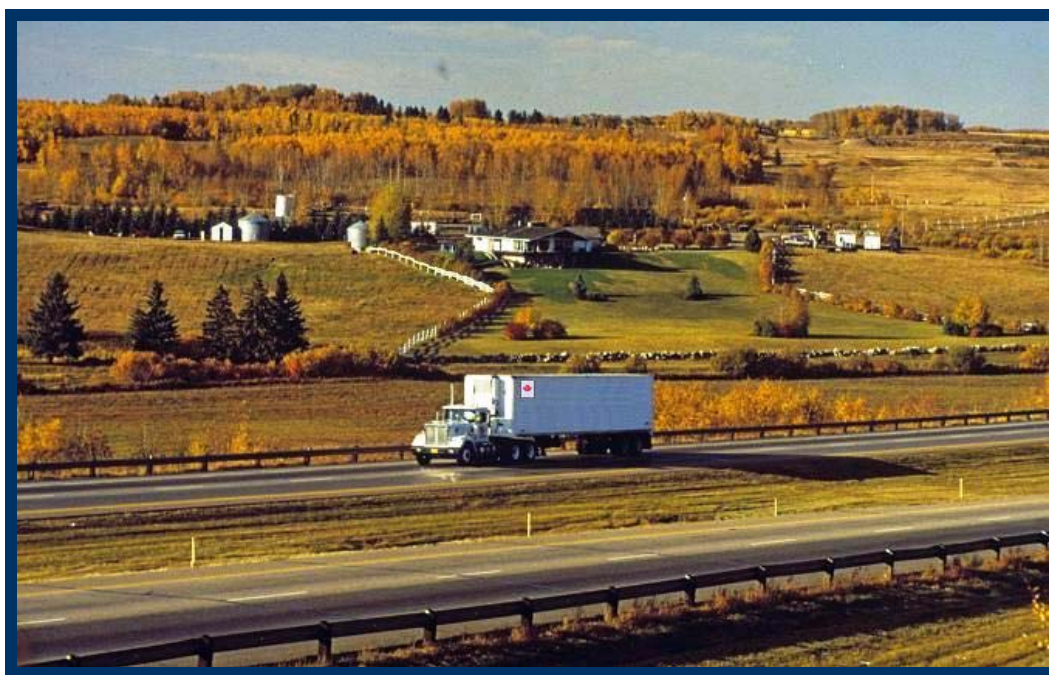


Canada's National Highway System

An Overview



April 2008

Introduction

Canada's National Highway System (NHS) was established in 1988 by the Council of Ministers Responsible for Transportation and Highway Safety. The 24,500 kilometre network of key interprovincial and international highway linkages was identified through a federal-provincial-territorial cooperative study carried out over the period 1988 to 1992.

In September 2004 the Council of Ministers approved the addition of 2700 kilometres of new routes to the NHS, as a result of a study undertaken by Transport Canada. In September 2005, following a comprehensive review of the NHS by a federal, provincial and territorial Task Force, further expansion of the system to include an additional 8800 km of routes was endorsed by the Council of Ministers.

Canada's National Highway System now encompasses over 38,000 kilometres of key highway linkages. It is vital to both the economy and to the mobility of Canadians, and while it represents only 3% of the road network, it carries over 37% of the annual travel by road.

Core Routes

- Key interprovincial and international corridor routes (including links to intermodal facilities and important border crossings)

Feeder Routes

- Key linkages to the Core Routes from population and economic centres (including links to intermodal facilities and important border crossings)

Northern and Remote Routes

- Key linkages to Core and Feeder routes that provide the primary means of access to northern and remote areas, economic activities and resources.

The information contained in the report which follows offers insight to the role played by the National Highway System, its performance, the state of its infrastructure and the investment being made in its restoration and improvement.

This is the first report on the condition of the NHS in its current configuration.

The report was assembled using statistical information provided by the provincial and territorial departments of transportation, and while effort was taken to ensure completeness and consistency, it should be noted that:

- data for federal and municipal roads on the NHS was not readily available, and except where explicitly noted, is not included in the summaries
- there are several important limitations and cautions on the use of the information as outlined in the Endnotes.

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System Map



National Highway System – Length by Jurisdiction

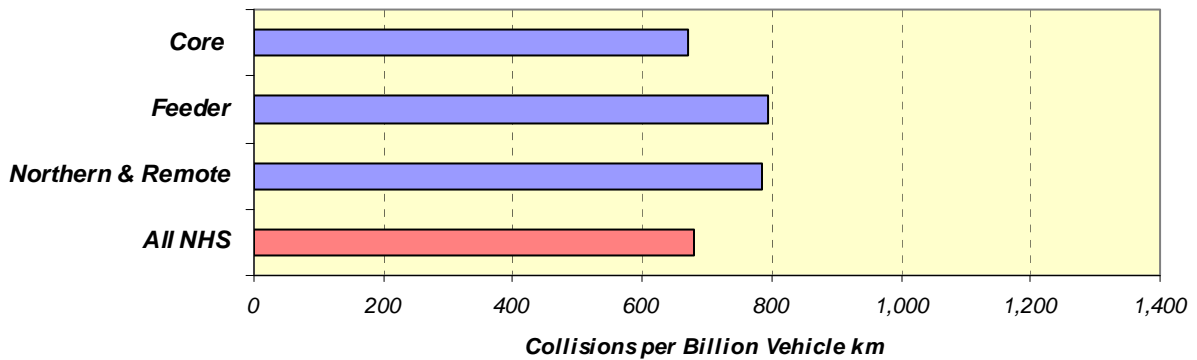
(December 2006)

Jurisdiction	Core Network (km)	Feeder Network (km)	Northern & Remote Network (km)	Total – National Highway System (km)
Yukon	1079.0		948.0	2027.0
Northwest Territories	575.6		847.2	1422.8
Nunavut	-	-	-	-
British Columbia	5869.3	446.7	724.0	7040.0
Alberta	3968.2	217.0	196.6	4381.8
Saskatchewan	2449.7		238.2	2687.9
Manitoba	982.3	741.9	367.9	2092.1
Ontario	6130.7	705.6		6836.3
Quebec	3447.8	765.6	1435.8	5649.2
New Brunswick	991.1	834.5		1825.6
Prince Edward Island	208.2	188.0		396.2
Nova Scotia	903.0	295.5		1198.5
Newfoundland and Labrador	1007.6	298.0	1163.0	2468.6
	27612.5	4492.8	5922.4	38026.0

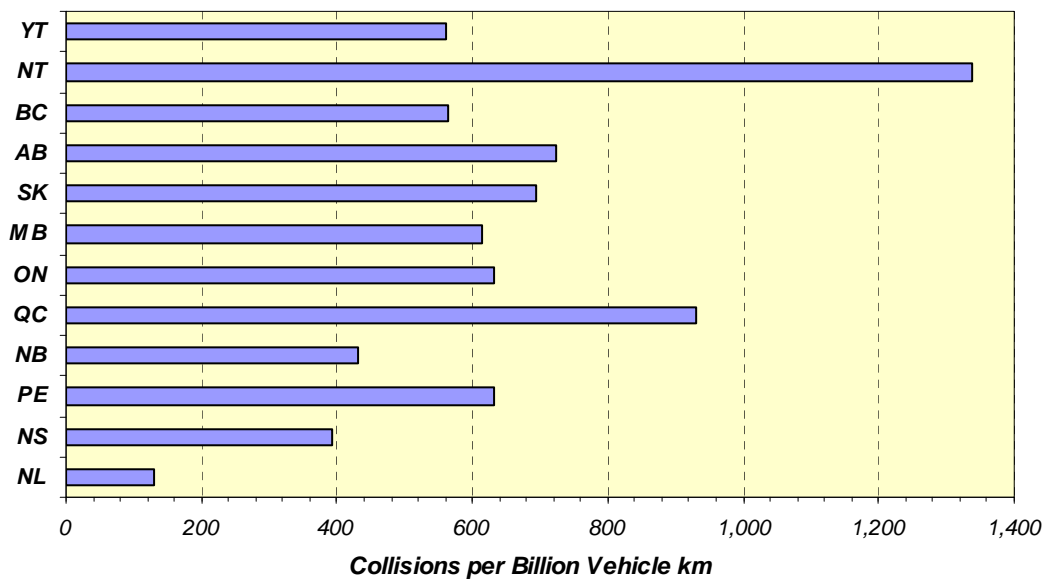
Collisions on the National Highway System – 2005

	<i>Core Routes</i>	<i>Feeder Routes</i>	<i>Northern & Remote</i>	<i>Total</i>
YT	163	-	42	205
NT	90	-	49	139
BC	8,499	749	16	9,264
AB	8,737	230	82	9,049
SK	2,554	-	104	2,658
MB	1,322	192	95	1,609
ON	26,406	971	-	27,377
QC¹	24,721	2,722	261	27,704
NB	1,048	619	-	1,667
PE	342	146	-	488
NS	1,257	254	-	1,511
NL	272	55	-	327
Total	75,411	5,938	649	81,998

Collision Rates 2005



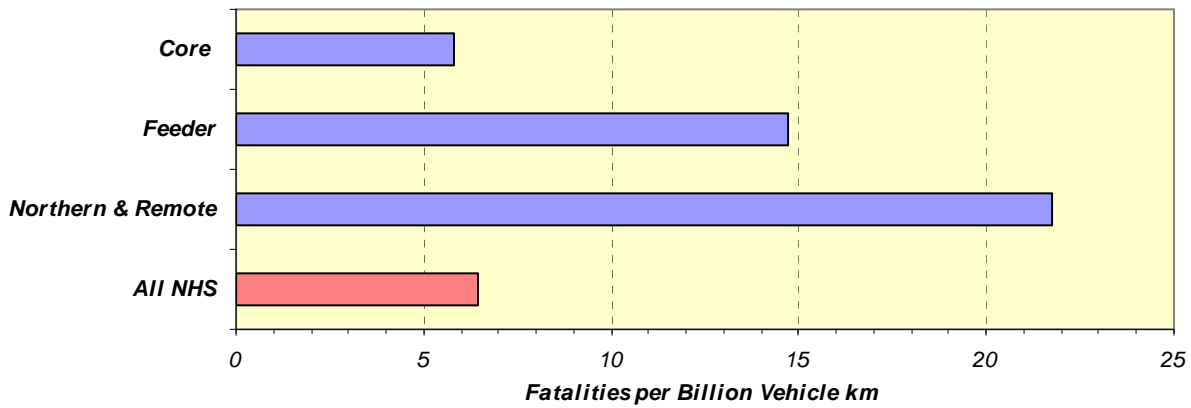
National Highway System – Collision Rates by Jurisdiction¹



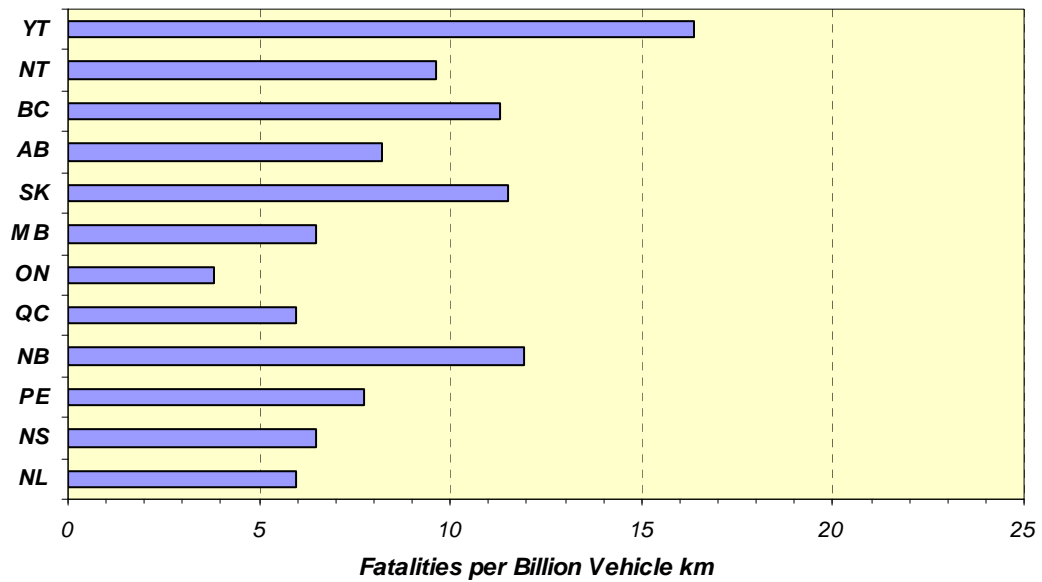
Fatalities on the National Highway System – 2005

	<i>Core Routes</i>	<i>Feeder Routes</i>	<i>Northern & Remote</i>	<i>Total</i>
YT	5	-	1	6
NT	1	-	-	1
BC	167	15	4	186
AB	94	5	4	103
SK	40	-	4	44
MB ²	13	3	1	17
ON	145	20	-	165
QC	141	33	4	178
NB	25	21	-	46
PE	2	4	-	6
NS	17	8	-	25
NL	13	2	-	15
Total	663	111	18	792

Fatality Rates 2005



Fatality Rates by Jurisdiction²

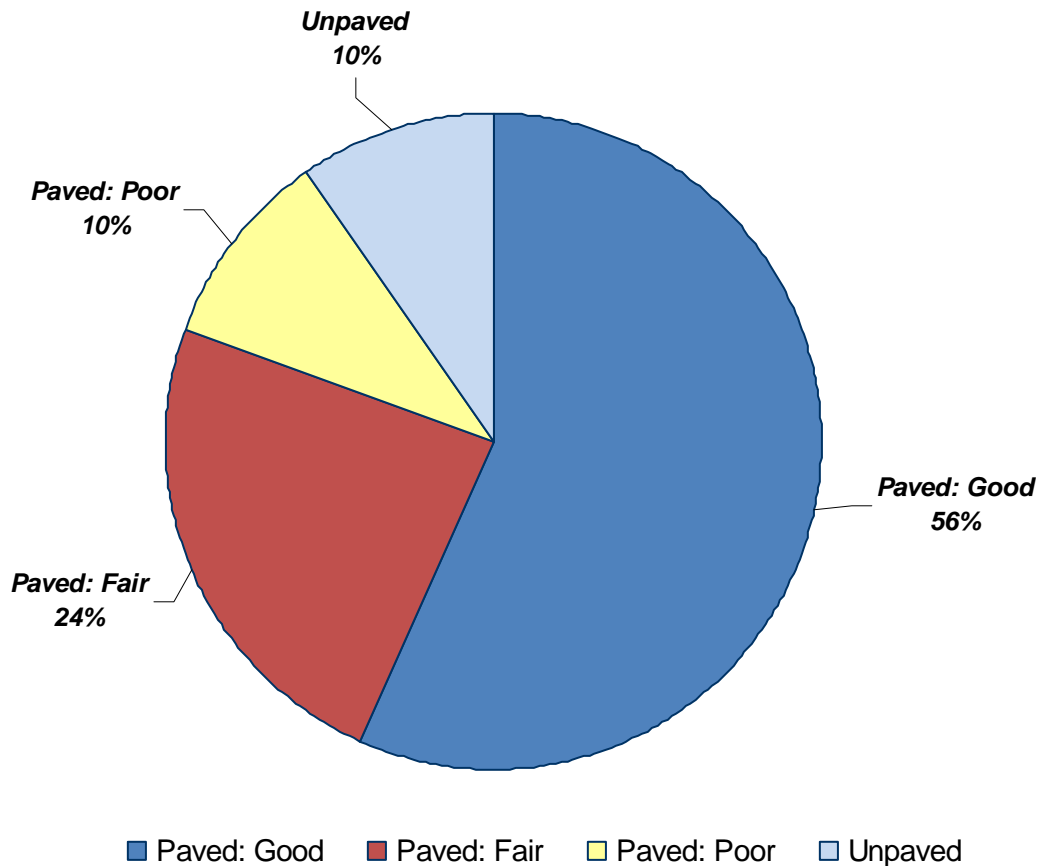


Pavement Condition

Surface Condition – All NHS Routes³

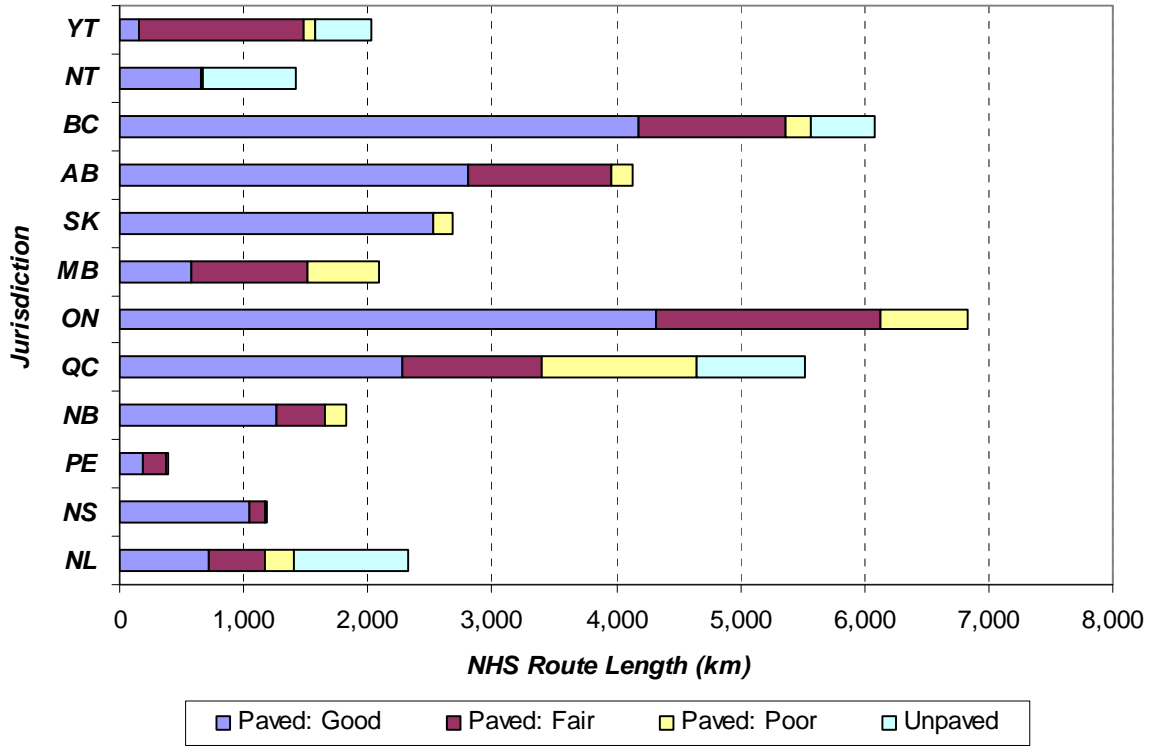
	<i>Length</i>	<i>Paved - Good</i>	<i>Paved - Fair</i>	<i>Paved - Poor</i>	<i>Unpaved</i>	<i>Planned</i>
YT	2,027	153	1,321	94	459	-
NT	1,423	655	22	-	746	-
BC ⁴	7,040	4,183	1,184	206	503	-
AB ⁵	4,382	2,806	1,154	168	-	-
SK ⁶	2,688	2,528	-	160	-	-
MB ⁷	2,092	575	940	578	-	-
ON	6,836	4,313	1,814	709	-	-
QC ^{8 & 9}	5,651	2,280	1,118	1,252	870	-
NB	1,826	1,269	386	169	-	-
PE	396	186	188	15	-	-
NS	1,199	1,042	134	8	-	-
NL	2,469	710	460	226	923	150
Total	38,029	20,699	8,721	3,586	3,501	150

National Highway System – Surface Condition³ 2006

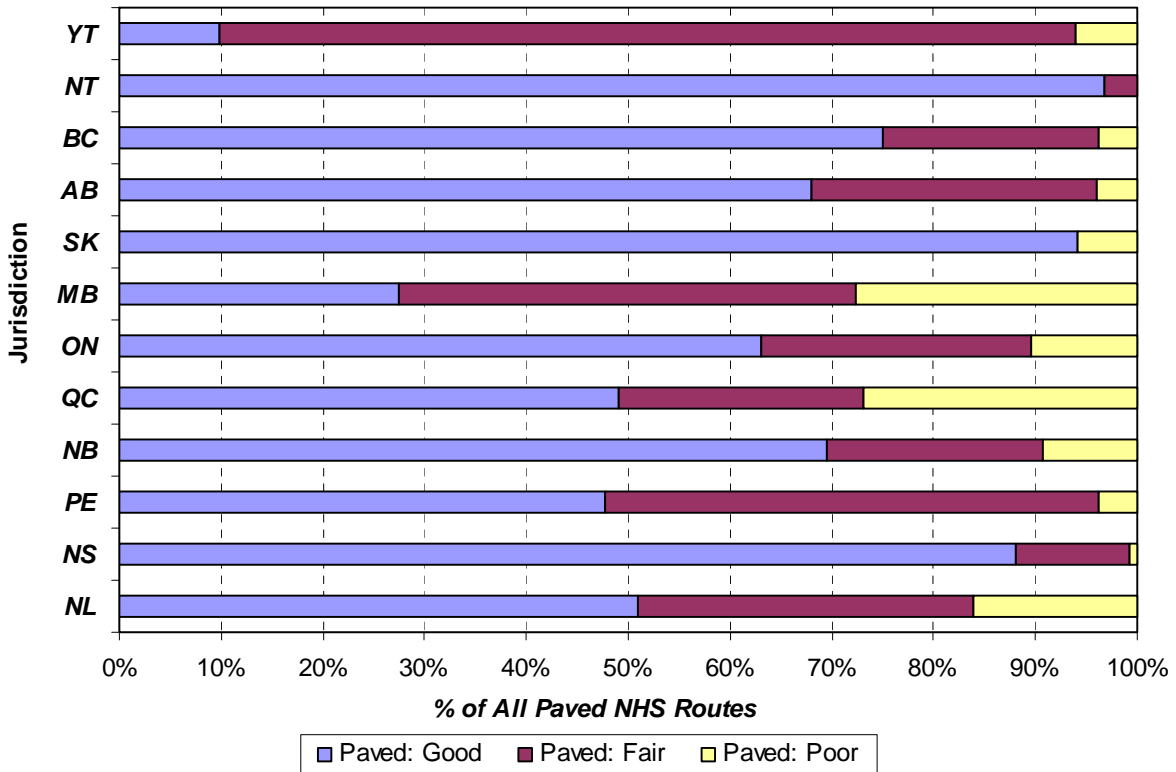


NHS Route Condition by Jurisdiction – 2006

Length of NHS Routes by Surface Condition^{3,4,6 & 9}



Percent of Paved NHS Routes by Surface Condition^{3,4,6 & 9}



National Highway System – Core Routes³
Surface Condition – Km by Category (December 2006)

	<i>Length</i>	<i>Paved - Good</i>	<i>Paved - Fair</i>	<i>Paved - Poor</i>	<i>Unpaved</i>
YT	1,079	88	940	51	-
NT	576	554	22	-	-
BC	5,869	3,658	1,109	190	-
AB	3,968	2,549	1,020	145	-
SK	2,450	2,306		144	-
MB ⁷	982	323	426	233	-
ON	6,131	4,034	1,588	509	-
QC ⁹	3,448	1,786	833	732	-
NB	991	762	182	49	-
PE	208	103	93	4	-
NS	903	746	134	8	-
NL	1,008	560	264	184	-
Total	27,616	17,468	6,611	2,248	-

National Highway System – Feeder Routes³
Surface Condition – Km by Category (December 2006)

	<i>Length</i>	<i>Paved - Good</i>	<i>Paved - Fair</i>	<i>Paved - Poor</i>	<i>Unpaved</i>
YT	-	-	-	-	-
NT	-	-	-	-	-
BC	447	394	37	4	-
AB	217	148	69	0	-
SK	-	-	-	-	-
MB ⁷	742	231	328	183	-
ON	706	279	226	200	-
QC ⁹	767	410	163	161	-
NB	835	507	205	120	-
PE	188	83	95	11	-
NS	296	296	-	-	-
NL	298	150	106	42	-
Total	4,494	2,498	1,229	721	-

National Highway System – Northern and Remote Routes³
Surface Condition – Km by Category (December 2006)

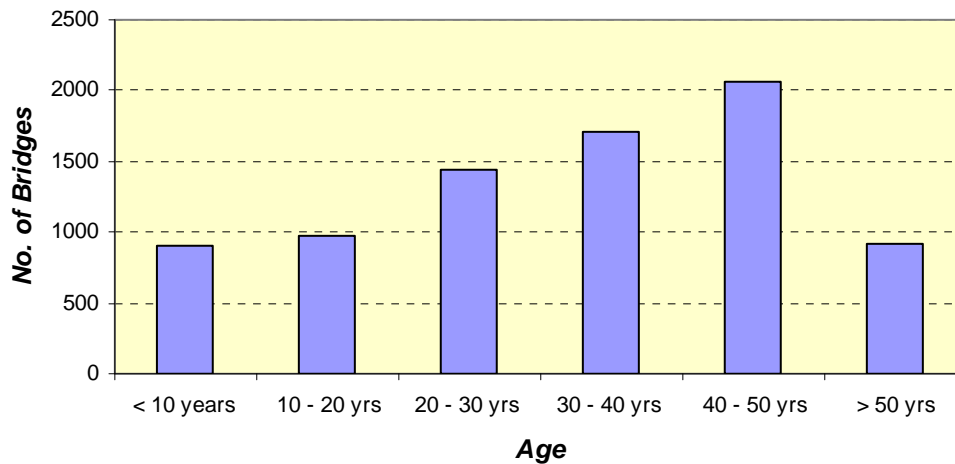
	<i>Length</i>	<i>Paved - Good</i>	<i>Paved - Fair</i>	<i>Paved - Poor</i>	<i>Unpaved</i>	<i>Planned</i>
YT	948	65	381	43	459	-
NT	847	101	-	-	746	-
BC	724	131	38	12	503	-
AB	197	110	64	23	-	-
SK	238	222	-	17	-	-
MB ⁷	368	21	186	161	-	-
ON	-	-	-	-	-	-
QC ⁹	1,436	84	122	359	870	-
NB	-	-	-	-	-	-
PE	-	-	-	-	-	-
NS	-	-	-	-	-	-
NL	1,163	-	90	-	923	150
Total	5,921	734	881	615	3,501	150

Bridges and Structures

Number of Bridges and Structures: All NHS Routes¹⁰ December 2006

	Number of Structures	Core	Feeder	Northern & Remote
YT	44	26	-	18
NT	75	13	-	62
BC	1,848	1,613	155	80
AB	480	464	11	5
SK	112	104	-	8
MB	296	254	32	10
ON	2,040	1,892	148	-
QC ¹¹	1,787	1,500	196	91
NB	606	439	167	-
PE	56	32	24	-
NS	433	352	81	-
NL	213	149	32	32
Total	7,990	6,838	846	306

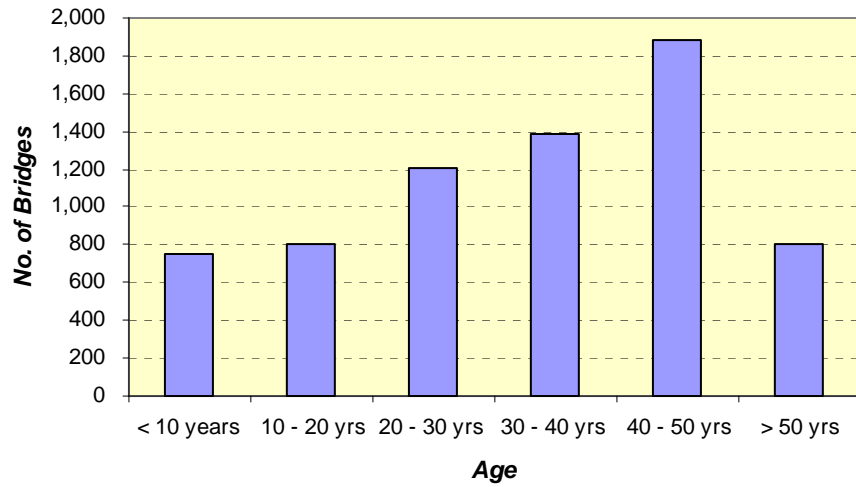
Bridges on the National Highway System – Age Profile¹⁰



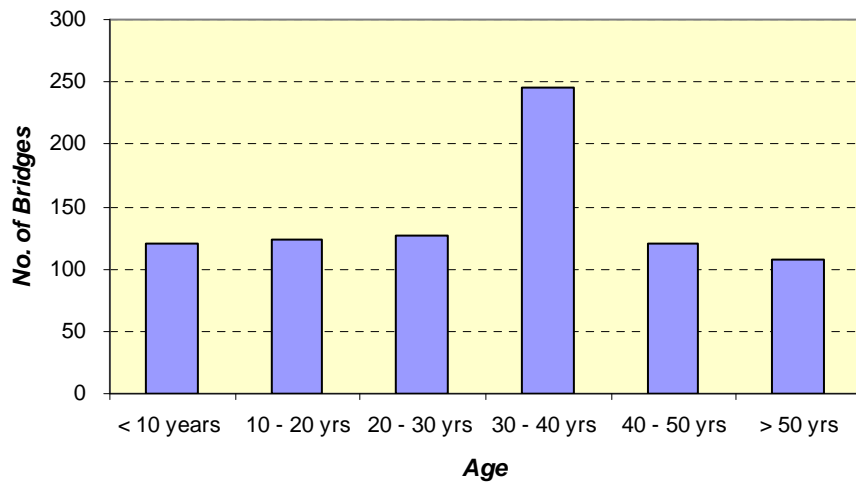
NHS Bridges – Age Profile by Jurisdiction¹⁰

	Number of Bridges	< 10 years	10 - 20 yrs	20 - 30 yrs	30 - 40 yrs	40 - 50 yrs	> 50 yrs
YT	44	3	9	7	7	14	4
NT	75	6	14	30	22	2	1
BC	1,848	255	337	426	245	361	224
AB	480	92	62	102	79	110	35
SK	112	7	6	9	38	37	15
MB	296	7	47	36	63	76	67
ON	2,040	47	109	418	448	670	348
QC ¹¹	1,787	184	98	210	514	640	141
NB	606	221	157	77	70	45	36
PE	56	3	7	10	12	8	16
NS	433	30	75	97	165	45	21
NL	213	45	49	18	44	53	4
Total	7,990	900	970	1,440	1,707	2,061	912

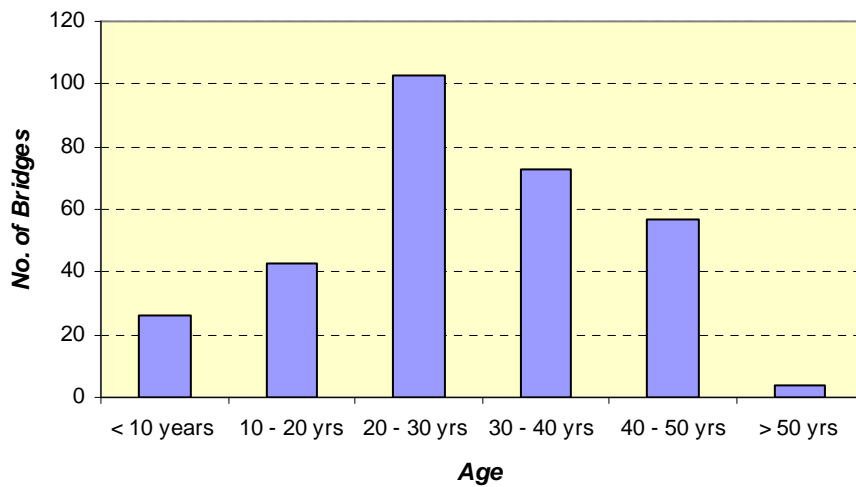
NHS Core Routes: Bridge Age Profile¹⁰



NHS Feeder Routes: Bridge Age Profile¹⁰



NHS Northern and Remote Routes: Bridge Age Profile¹⁰



Traffic and Travel

Total Vehicle Kilometres of Travel 2005¹²

(millions)

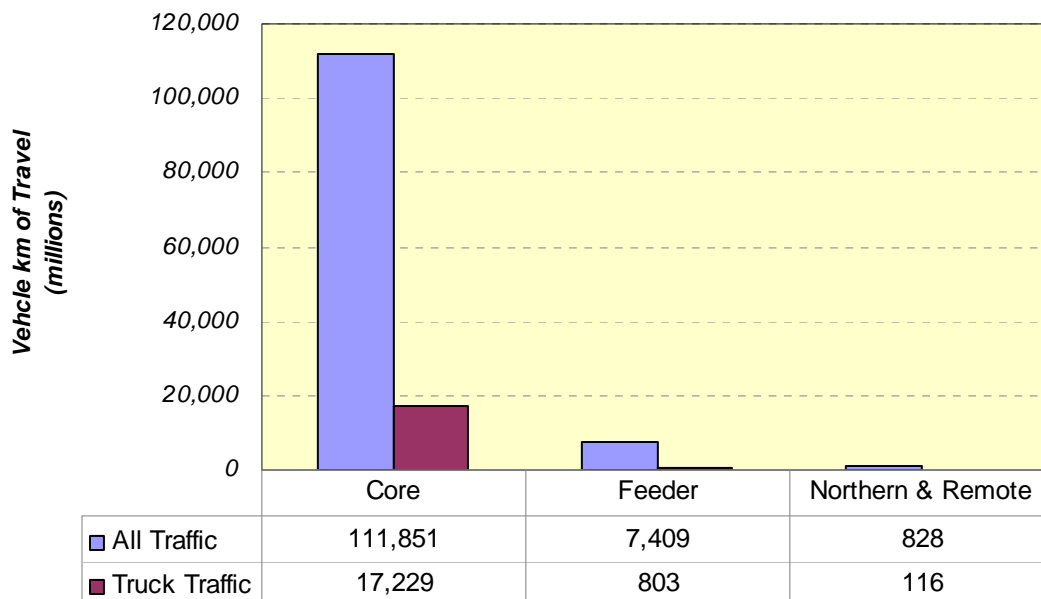
	Core	Feeder	Northern & Remote	Total
YT	264	-	102	366
NT	76	-	28	104
BC	15,330	1,059	73	16,462
AB	12,250	216	58	12,524
SK	3,695	-	128	3,823
MB	2,241	282	99	2,622
ON	42,131	1,277	-	43,408
QC	27,300	2,200	300	29,800
NB	2,737	1,117	-	3,854
PE	493	281	-	774
NS	3,255	591	-	3,846
NL	2,080	386	39	2,505
Total	111,851	7,409	828	120,087

Vehicle Kilometres of Truck Travel 2005¹²

(millions)

	Core	Feeder	Northern & Remote	Total
YT	n/a	n/a	n/a	
NT	23	-	4	27
BC	2,070	110	15	2,195
AB	1,826	27	16	1,869
SK	807	-	14	821
MB	511	40	11	562
ON	7,338	160	-	7,498
QC ¹³	3,450	220	50	3,720
NB	509	134	-	643
PE	47	24	-	71
NS	416	52	-	468
NL	232	36	7	
Total	17,229	803	116	18,148

Travel on the National Highway System - 2005¹²



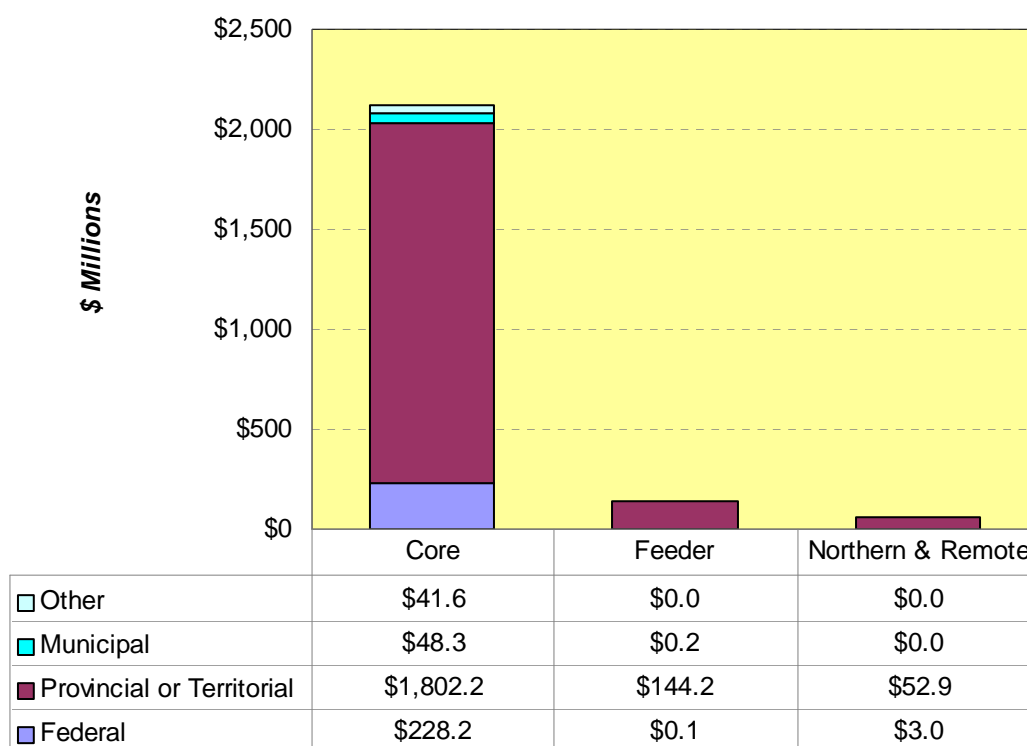
Investment in the National Highway System

Investment in the NHS by Jurisdiction – Fiscal Year 2006/07 (\$ millions)

	<i>Federal</i>	<i>Provincial or Territorial</i>	<i>Municipal</i>	<i>Private Sector</i>	<i>Other</i>	<i>Total</i>
YT	\$3.0	\$9.5	-	-	\$41.6	\$54.1
NT	\$3.2	\$10.1	-	-	-	\$13.4
BC	\$43.0	\$415.9	N/A	-	-	\$458.9
AB	\$29.8	\$200.2	\$47.2	-	-	\$277.2
SK	\$20.4	\$49.8	N/A	-	-	\$70.2
MB	\$5.5	\$61.1	\$1.2	-	-	\$67.8
ON	\$55.0	\$659.6	N/A	-	-	\$714.6
QC¹⁴	\$27.9 ¹⁵	\$395.1	N/A	-	-	\$423.0
NB	\$27.4	\$98.0	-	-	-	\$125.4
PE	\$3.6	\$11.2	-	-	-	\$14.8
NS	\$6.2	\$48.5	N/A	-	-	\$54.7
NL	\$6.2	\$40.2	-	-	-	\$46.4
Total	\$231.3	\$1,999.2	\$48.4	-	\$41.6	\$2,320.5

N/A – Not available

Investment in the National Highway System - Fiscal Year 2006/07



Border Crossings and Trade

Major Canada-United States Border Crossings: 2006

NHS	Border Crossings on NHS	Total Traffic (millions of trips)		Trade (\$ billions)		Tourism (\$ billions)
		Cars	Trucks	Inbound	Outbound	
YT	2	0.1	0.0	0.1	-	0.1
NT	-	-	-	-	-	-
BC	5	6.3	1.0	9.4	9.6	2.9
AB	1	0.3	0.3	5.2	5.5	0.3
SK	1	0.1	0.2	4.8	2.2	0.1
MB	1	0.5	0.4	8.2	6.4	0.4
ON	14	31.7	8.3	112.5	132.7	9.6
QC	4	2.5	1.3	8.2	18.9	2.1
NB	2	2.0	0.2	1.4	3.9	0.6
PE	-	-	-	-	-	-
NS	-	-	-	-	-	-
NL	-	-	-	-	-	-
Total NHS	28	43.5	11.7	149.8	179.2	16.1
Non-NHS	99	12.5	1.3	16.5	2.6	2.7
Total	127	56.0	13.0	166.3	181.8	18.8

Source: Statistics Canada, Transport Canada (Tourism)

Note (1): Includes crossings on both NHS Core and Feeder routes

Note (2): Two-way traffic data are estimated by doubling northbound traffic flows.

Note (3): Imports (i.e. inbound trade) are assigned to the port of clearance, which in some cases may be an inland location and not the land crossing that was used to enter the country. The value of imports passing through NHS crossings is therefore underestimated.

Note (4): Value of tourism spending has been estimated by applying average spending and trip duration information to car traffic.

Endnotes

- 1 Data provided for Québec includes collisions of all degrees of severity, including those only involving property damage.
2. Fatality figures reported by Manitoba are the number of fatal collisions; the actual number of fatalities associated with these collisions is not available.
3. Pavement condition rating information provided by jurisdictions is not based on identical criteria and thresholds; variations exist in the factors considered and approaches used to classify pavements as good, fair or poor.
4. Pavement condition information reported by British Columbia does not include information for roads under federal and municipal jurisdiction (~ 960 km).
5. Pavement condition information reported by Alberta does not include complete information for roads under federal and municipal jurisdiction (~ 250 km).
- 6 Saskatchewan normally uses only two pavement condition rating categories; “Good” and “Poor”.
7. Manitoba provided pavement condition information by 2-lane equivalent kilometers (rather than by section length). The figures presented in the tables were calculated by pro-rating survey data to reflect the percentage of the system that is divided. Manitoba's portion of the NHS includes 663.8 km of divided highways.
8. The data provided on the condition of roadways in Québec is based on information available for 4,650 km of routes (or approximately 1,000 km less than the full NHS network).
9. Transports Québec does not normally use the categories of “Good”, “Fair” and “Poor” in depicting the condition of pavements. The thresholds used to differentiate “Good” from “Fair” are not used in Quebec, and the thresholds to differentiate “Fair” from “Poor” are based on thresholds for intervention, which vary from one class of road to another.
10. Information presented on the number and age of bridges does not include complete information for bridges on NHS roads under federal or municipal jurisdiction.
- 11 Québec is in the process of changing its system to include culverts from 3.0 to 4.5 m in diameter in its structures inventory. As this process is not yet complete, the data provided does not yet include all culverts over 3.0 m in diameter.
12. Total travel information statistics (vehicle-km) are understated, as complete data was not available for roads under federal and municipal jurisdiction.

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13. For Québec, the kilometers of truck travel provided are estimates based on the percentage of trucks in the traffic stream. While this approach is commonly used, the accuracy can be quite variable.
 14. The assumptions used in preparing the investment figures presented may not be completely consistent between jurisdictions. The data provided by Québec includes only the direct costs of work projects; related and indirect expenses are not included.
 15. The reported investments of the federal government are for federal contributions to Québec projects.