

# Eastern Ontario Regional Network

## **Recovering the Government Contributions to the Gig Project through Population Growth and Increased Income and Sales Tax Revenues**

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One model for financing the Gig Project includes funds from the federal and provincial governments (\$400m), the Canada Infrastructure Bank (\$400m to \$600m), and private-sector participation (\$400m to \$600m). These components would fulfill the financial requirements of the \$1.2b to \$1.6b Gig Project.

One question to be considered is: How long would it take to generate \$400m in tax revenue in eastern Ontario to cover the \$400m government contribution?

To address this question, a general model has been constructed that considers population growth in eastern Ontario over the short-term, the proportion of federal and provincial income and sales taxes paid by the eastern Ontario population, and the increase in tax revenues from population growth that would cover the governments' contributions to the Gig Project.

### Eastern Ontario Population as a Percentage of the Canadian and Ontario Population

In 2019, the eastern Ontario population was 3.2% of the Canadian population and 8.3% of the Ontario population.

Table 1: Eastern Ontario's Population relative to Canada's and Ontario's

Eastern Ontario population - 2019 =	1,214,692
Canadian population 2019 =	37,500,000
Eastern Ontario - percentage of the Canadian population =	3.2%
Ontario population 2019 =	14,600,000
Eastern Ontario - percentage of the Ontario population =	8.3%

### Canadian and Ontario Income and Sales Tax Revenues – 2018-2019

The total incomes and sales tax revenues collected by the Canadian and Ontario governments helps establish the percentage of federal and provincial tax paid by eastern Ontario.

Table 2: Canadian and Ontario Income and Sales Tax Revenues – 2018-2019

Canadian Personal Income Tax Revenues - 2018-2019 =	\$163,900m
Canadian Sales Tax Revenues - 2018-2019 =	\$38,120m
Ontario Personal Income Tax Revenues - 2018-2019 =	\$24,300m
Ontario Sales Tax Revenues - 2018-2019 =	\$19,160m

### Eastern Ontario's Share of Canadian and Ontario Income and Sales Tax Revenues

Based on eastern Ontario's share of the Canadian and Ontario population, an estimate of the share (total and *per capita*) of income and sales taxes paid by the eastern Ontario population can be determined.

Table 3: Eastern Ontario Share of Canadian and Ontario Income and Sales Tax Revenue

Eastern Ontario - Canadian Personal Tax Revenue Share =	\$5,309m	<i>per capita</i> =	\$4,370.66
Eastern Ontario - Canadian Sales Tax Revenue Share =	\$1,234.7m	<i>per capita</i> =	\$1,016.53
		Total <i>per capita</i> =	\$5,387.19
Eastern Ontario - Ontario Personal Tax Revenue Share =	\$2,021.7m	<i>per capita</i> =	\$1,664.38
Eastern Ontario - Ontario Sales Tax Revenue Share =	\$1,594m	<i>per capita</i> =	\$1,312.33
		Total <i>per capita</i> =	\$2,976.71
	Grand	Total <i>per capita</i> =	\$8,363.90

### Eastern Ontario Population Growth

The tax revenues paid by eastern Ontario will grow with the increase in population. Assuming constant shares of federal and Ontario taxes paid over the next few years, an estimate of the rate of population growth, and the increase in tax revenues from it, can be made. Assuming an annual increase in the Ontario population were 0.78%, and total *per capita* taxes remained the same, the \$400m contribution from government would be recouped between 2020 and 2024.

This requires that the total increase in tax revenues as the result of the increased population goes toward the investment required for the Gig Project. That is, none of the increased tax revenue would be used to increase the government services provided to the increase population. Therefore, an increase in population above the minimum requirement of 0.78% annually, would generate revenues over-and-above the \$400m required for the Gig Project.

With the Gig Project providing reliable, high-speed broadband, eastern Ontario would become a more attractive region to live and work – especially in the post-COVID-19 era – and the population could reasonably be expected to grow faster than its current rate.

Table 4: Eastern Ontario Population Increase of 0.78% per year and Estimated Increase in Tax Revenue

	Eastern Ontario	Annual	Average Total	Increase in Taxes	Increase in Taxes
	Population	Population	Tax paid	Paid <i>per capita</i>	Paid
Year	Increase at 0.78% each year	Increase	<i>per capita</i>	Annually	Cumulative
2019	1,214,692				
2020	1,224,167	9475	\$ 8,363.90	\$ 79,244,681.61	\$ 79,244,681.61
2021	1,233,715	9548	\$ 8,363.90	\$ 79,862,790.13	\$ 159,107,471.74
2022	1,243,338	9623	\$ 8,363.90	\$ 80,485,719.89	\$ 239,593,191.63
2023	1,253,036	9698	\$ 8,363.90	\$ 81,113,508.51	\$ 320,706,700.14
2024	1,262,810	9774	\$ 8,363.90	\$ 81,746,193.87	\$ 402,452,894.02

From 2016 to 2019 the eastern Ontario population grew from 1,176,062 to 1,214,692. This is, on average, a 1.08% rate of growth, compounded annually. Therefore, the 0.78% annual rate required to raise \$400 million more in tax revenue over the next five years, is less than the rate of growth in the population experienced from 2016 to 2019.

Various population growth scenarios, and their implications for recovering the contributions by government, are worth considering.

If population growth remained at the current trend of 1.08% per year, from 2020 to 2024, the \$400m government contributions would be recovered and there would be about \$161 million in excess of from what would be collected in eastern Ontario from the increase in income and sales taxes collected by Canada and Ontario.

If, due to economic decline in the region and/or a decline in the post-COVID-19 population because of the necessity of having reliable, high-speed access to the internet , population growth fell to 0.5% (from the current level of 1.08% per year), the increase in income and sales tax revenue by 2024 would be \$257 million - \$143 million short of the \$400 million government contributions. It would take about 8 years to recover the contributions, with no excess over the \$400 million

If the population growth fell even further, to 0.4%, the increase in income and sales tax revenue to 2024 would be \$205 million – \$195 million short of the \$400 million government contributions. It would take about 10 years to recover the contributions, with no excess over the \$400 million.

If, because of reliable access to high-speed broadband in eastern Ontario, lead to a rate of population growth greater than the current rate of 1.08% per year, more revenue would be collected than would be necessary to cover the \$400m government contributions in the Gig Project.

Table 5: Tax Revenue Estimates of Various Rates of Population Growth

	Five-year	Excess or Deficiency
	Cumulative Income	re: \$400 m Gov't
Population Growth	& Sale Tax Revenue	Investment
1.20%	\$624 million	+\$224 million
1.08%	\$561 million	+\$161 million
0.78%	\$402 million	+\$2 million
0.50%	\$257 million	-\$143 million
0.40%	\$205 million	-\$195 million

For a rate of growth in population growth of 1.2% per year, \$224m more than the \$400m required to cover the public contributions for the Gig Project would be raised.