

UNDERSTANDING CANADA'S INFRASTRUCTURE CRISIS AND CONSTRUCTION TRENDS

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CURRENT STATE OF CANADA'S INFRASTRUCTURE

Infrastructure is the physical backbone of Canada's economy and society. Our roads, bridges, transportation systems, sewer and water systems, power generation, energy distribution and communication systems, hospitals, schools and recreational facilities – these public and private projects provide the physical framework that bind our communities together.

Economic research consistently shows that robust infrastructure is fundamental to economic growth as it helps attract investment, increases productivity, creates jobs and enhances competitive ability. Put simply, investing in infrastructure has significant economic benefits, while failing to invest has serious negative economic and social consequences.

Canada's infrastructure has aged. Much of our current infrastructure was built in the 1950s and 1960s and, on average, across the country, Canada's infrastructure is about 70 percent through its useful life and is in need of significant upgrade. The Canadian Federation of Municipalities estimates that Canada requires an immediate investment of more than \$250 billion just to bring our infrastructure up to acceptable standards, while others estimate that figure is closer to \$500 billion. This is in addition to the billions required for new infrastructure to meet the needs of our growing country, and the billions spent each year on simply maintaining what we have.

Our infrastructure shortfall has a real impact on our communities and the real economic costs are manifested in a variety of instances:

- Ontario has been spending \$11B per year since 2006, and will spend \$12B per year for next 3 years
- Quebec will spend \$9B annually over the next decade
- British Columbia spends \$6B each year
- Alberta spends \$5B annually



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A recent report in *The Economist* stated, on a global basis, spending on infrastructure is currently approximately \$2.7 trillion annually, while at least \$3.7 trillion is required. Canada is not alone in its infrastructure deficit.

The problem has emerged through decades of underinvestment, particularly at the federal government level.

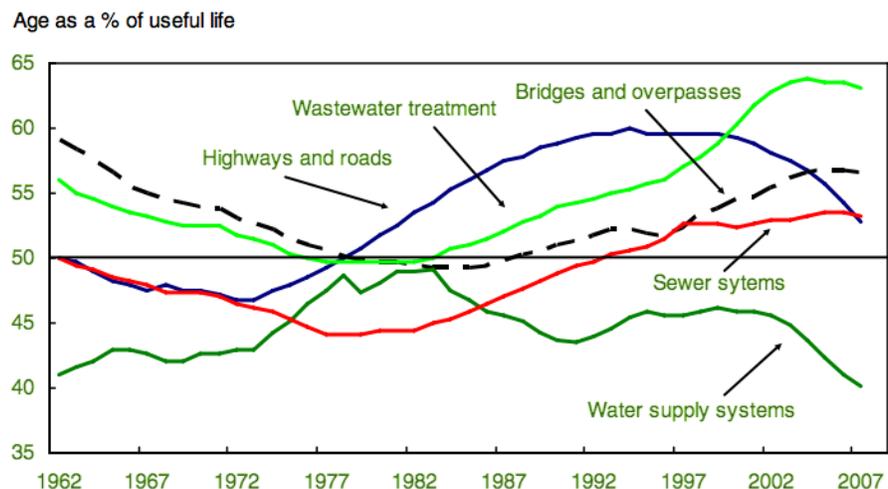
GOVERNMENT FUNDING PROGRAMS

In 1955, the federal government owned 44% of all Canadian public infrastructure, while the provinces owned 34% and municipalities owned 22%. Today the numbers have reversed with the feds owning 13%, the provinces 35% and municipalities 52%. This has happened despite the fact that the federal government has the most robust revenue source while the municipalities have the least. The burden of capital investment has followed a similar course, with the municipalities now contributing the lions' share, despite the fact that transfer payments to them have declined.

Governments at all levels – federal, provincial and municipal – have wrestled with how to fund infrastructure given competing priorities such as health care, education and an ageing demographic. The good news is that, after decades of neglect and underinvestment, particularly at the federal level, commitments from both the feds and provinces are increasing.

Useful life expended highest for water treatment infrastructure since 2000

Source: Statistics Canada.



The Government of Canada recently pledged to spend \$70 billion on public infrastructure over the next decade, including a new 10-year Building Canada Plan of some \$53 billion to assist in funding provincial, territorial and municipal needs (note critics say this is not nearly enough)

Provincial governments have been, and will remain, active contributors:

- Ontario has been spending \$11 billion per year since 2006, and will spend \$12 billion per year for the next 3 years
- Quebec will spend \$9 billion annually over the next decade
- British Columbia spends \$6 billion each year
- Alberta spends \$5 billion annually
- These 4 provinces – Ontario, Quebec, British Columbia and Alberta – will spend fully six times more than the federal government on roughly the same revenue base over the next decade.

These pledges are an excellent start, but even more commitment will be required in order to meet the massive demands of the future. Canada's more prominent infrastructure projects come with significant price tags:

- ➔ Initial estimates of replacing the Champlain Bridge in Montreal range from \$3.5 to \$5 billion
- ➔ The three largest current infrastructure projects in Canada are in the hydroelectric space and range between \$6 and \$8 billion
- ➔ Ottawa's Confederation line has a \$2.1 billion price
- ➔ The Eglinton Crosstown LRT project is estimated at \$4.9 billion
- ➔ Ongoing maintenance of Toronto's Gardiner Expressway costs hundreds of millions and a potential replacement solution will cost billions
- ➔ Toronto's subway expansion is a multi-billion dollar project. The Government of Canada recently committed \$660 million to the initiative, but a significant amount of funding is still needed
- ➔ The proposed replacement of the George Massey tunnel which connects Richmond and Delta, BC, with a new bridge will likely cost billions
- ➔ Numerous \$1 billion hospitals are being built or proposed.

While the cost is high, investment in infrastructure is an absolute necessity that will yield significant economic benefits for Canada. With dependable, world-class infrastructure, businesses and investors throughout the world will continue to select Canada as a preferred place to do business. Without adequate investment in our infrastructure, Canada's ability to compete globally will be seriously impaired. Doing nothing is not an option; doing more is imperative.

CANADA'S DEMOGRAPHIC TRENDS

Further complicating the infrastructure need is the fact that Canada is set to grow significantly in the coming decades. Consider these impressive growth statistics related to Canada's future.

- ➔ Canada's immigration rate is currently approximately 250,000 people per year, and economists predict that within 5 years Canada will begin to accept nearly 400,000 immigrants annually, in part to help offset the labour shortfall from retiring baby boomers
- ➔ Immigrants tend to locate in cities, continuing Canada's trend towards urbanization
- ➔ 63% of Canada's newcomers settle in Toronto, Montreal and Vancouver (which now account for 35% of Canada's total population), meaning all 3 will face significant future growth

- ➔ By 2050 the population of the Greater Toronto Area will surpass the combined size of today's Toronto and Montreal
- ➔ Toronto currently has more construction cranes punctuating the skyline than any other city in North America as the city builds up more and out less
- ➔ This growth will drive even greater infrastructure needs.



Canada is becoming more urbanized with significant future growth predicted for major metropolitan centres.

A silhouette of the Toronto skyline, including the CN Tower, rendered in a light green color, positioned above the main title.

TRENDS IN CANADA'S CONSTRUCTION INDUSTRY

Increased infrastructure spending and the strong pace of immigration have contributed to growth in the Canadian construction industry. Canada is the 11th largest national economy in the world, but has recently become the 5th largest construction economy. This imbalance is due in part to approximately 25 percent of construction spending in Canada taking place in the oil and gas and mining industries. The Canadian construction industry currently employs over 1.2 million people, over 7 percent of all working Canadians, and drives some 6% of GDP.

Key trends emerging in the industry include:

- Construction project sizes are increasing, and bundling of projects has become common. Small to mid-size construction firms risk being shut out of these and so are under pressure to get bigger in order to thrive and survive. This creates significant challenges for these firms.
- Public Private Partnerships (P3s) have emerged as a prevalent delivery method whereby "private" enterprises are involved in the ownership, funding, operation and maintenance of projects.
- Governments now prefer "leasing" or paying for a project over the life of the project, rather than paying for the entire amount today, even if at a premium to the taxpayer as private enterprise typically cannot borrow as cheaply as government. The cost of financing a project has become a major factor in project award and drives the ultimate cost to Canadians.



Canada has the world's 11th largest economy, but 5th largest construction economy, largely due to the oil & gas and mining sectors.

