

Digital supply and use tables, 2017 to 2019

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The contribution of the digital economy to total gross domestic product (GDP) trended up from 5.2% (\$103 billion) in 2017 to 5.4% (\$111 billion) in 2018 and 5.5% (\$118 billion) in 2019. The share of the sector in overall jobs also followed a similar trend, increasing from 4.1% (772,000) of total jobs in 2017 to 4.5% (882,000) in 2019.

Measuring the digital economy: the Canadian digital supply and use tables, 2017 to 2019

Data on the role of the digital economy are now available from the experimental newly released Canadian digital supply and use tables (SUTs) for 2017, 2018 and 2019. These tables will present an important benchmark for understanding the changes brought about by the health crisis caused by the COVID-19 pandemic in 2020 on the digitization of economic activities. The Canadian digital SUTs present enhanced details on digitally enabling infrastructure and the supply and uses of digital products, and digitally ordered and delivered goods and services. The figures are based on the Organization for Economic Cooperation and Development framework for measuring the digital economy and complement the article [Measuring digital economic activities in Canada: initial estimates](#) published by Statistics Canada in 2019.

The [information and communications technology](#) (ICT) sector dominated production in the digital industries, contributing to 4.8% of total GDP in 2019. Retailers and wholesalers operating only online, digital-only firms providing financial and insurance services, and digital intermediary platforms (for example, firms that provide restaurant delivery services) ranked next highest in contributions, at 0.24%, 0.16%, and 0.15% of GDP, respectively.

The software and telecommunications industries made the largest contributions to the digital economy. In 2019, software accounted for 2.2% of GDP and 2.1% (405,000) of jobs. Telecommunications contributed to 1.7% of GDP and 0.6% (125,000) of jobs.

Among the digital industries, contributions to jobs differed noticeably from the contribution to GDP. The ICT sector contributed 88.5% of the GDP of the digital sector, but a noticeably lower 76.7% of jobs in 2019. This was driven mainly by the telecommunications industry, which made a lower contribution to jobs than to GDP and, conversely, by the digital intermediaries and online distributors, which made a larger contribution to jobs than to GDP. The differing contributions can be seen through the large differences in the GDP-to-jobs ratio of these industries, which ranged from \$299,000 in telecommunications to \$84,000 for online-only retailers and wholesalers, and a low of \$35,000 among digital intermediaries.



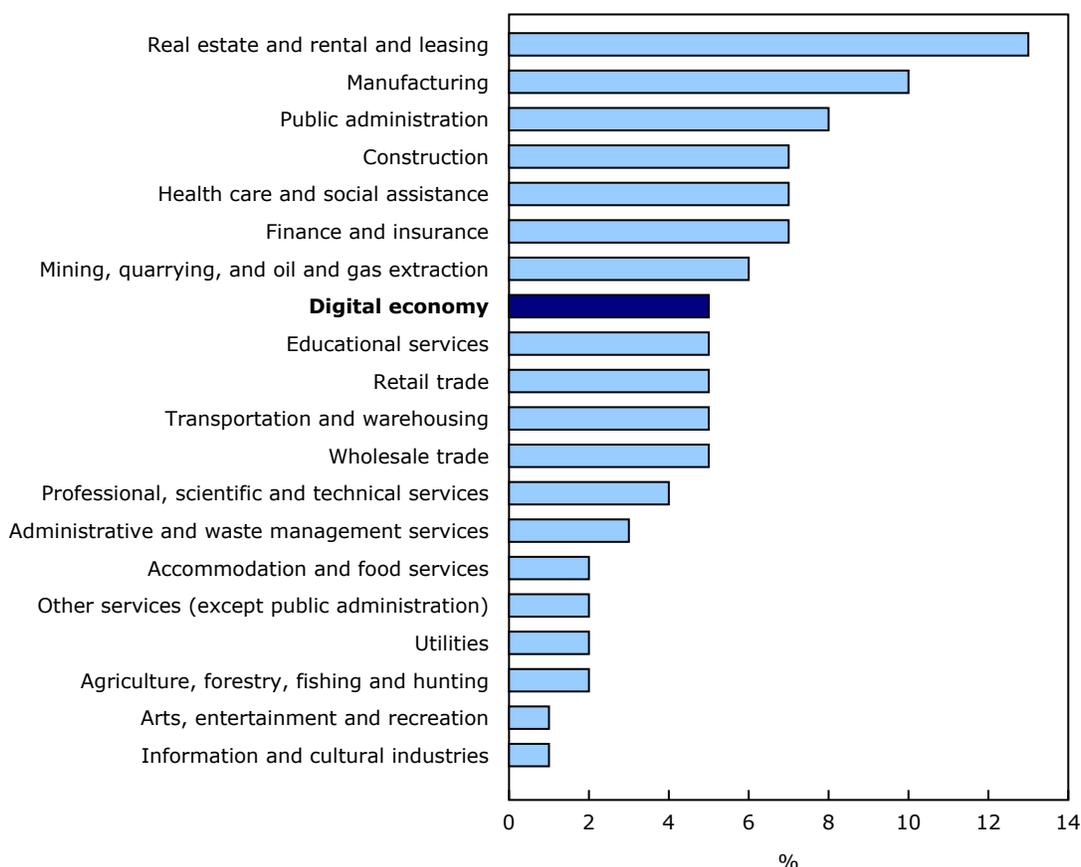
Table 1
Digital industries gross domestic product and jobs

| | 2017 | 2018 | 2019 |
|---|---------------------|------------------|------------------|
| | millions of dollars | | |
| Total, all industries | 1,991,534 | 2,079,869 | 2,157,352 |
| Total digital industries | 103,298 | 111,384 | 117,788 |
| Information and communications technology | | | |
| Hardware | 6,536 | 7,012 | 7,243 |
| Software | 41,891 | 45,726 | 48,013 |
| Telecommunications | 36,166 | 37,175 | 37,460 |
| Other services | 9,912 | 10,669 | 11,511 |
| Digital intermediary platforms | 1,728 | 2,374 | 3,183 |
| Data- and advertising-driven digital platforms | 835 | 846 | 979 |
| Online retailers and wholesalers | 3,748 | 4,248 | 5,187 |
| Digital-only firms providing finance and insurance services | 2,340 | 2,752 | 3,392 |
| Other producers only operating digitally | 448 | 582 | 821 |
| | 2017 | 2018 | 2019 |
| | thousands of jobs | | |
| Total, all industries | 18,817 | 19,066 | 19,444 |
| Total digital industries | 772 | 825 | 882 |
| Information and communications technology | | | |
| Hardware | 54 | 55 | 58 |
| Software | 347 | 377 | 405 |
| Telecommunications | 130 | 130 | 125 |
| Other services | 83 | 85 | 89 |
| Digital intermediary platforms | 68 | 81 | 91 |
| Data- and advertising-driven digital platforms | 10 | 10 | 12 |
| Online retailers and wholesalers | 52 | 55 | 62 |
| Digital-only firms providing finance and insurance services | 19 | 21 | 25 |
| Other producers only operating digitally | 9 | 12 | 16 |

Source(s): Statistics Canada, Digital Supply and Use Tables, 2017 to 2019, special tabulations, and table [36-10-0480-01](#).

At 5.5% (\$118 billion) of Canadian GDP in 2019, the digital economy ranked slightly below mining, quarrying and oil and gas extraction (\$119 billion) in relative size. It was slightly above educational services (\$117 billion).

Chart 1
Industry shares of gross domestic product, 2019



Source(s): Statistics Canada, Digital Supply and Use Tables, 2019, special tabulations.

The digital industries accounted for 5.0% (\$205 billion) of total gross output in 2019. Digitally-ordered products represented 6.8% (\$336 billion) of total supply and digitally-delivered services represented 2.3% (\$116 billion) of total supply.

Most digitally-ordered products (71%) were sourced directly from the supplier, whereas 27% were purchased through domestic retailers and wholesalers. Digital intermediary platforms were responsible for the remaining 2%, with non-resident platforms dominating activity relative to domestic platforms.

Approximately 7.2% of imports (\$52 billion) were digitally ordered, which slightly exceeded the share of digital orders from domestic producers at 6.8% (\$278 billion).

Digital industries provided 79% of the domestic supply of digitally-delivered products. The share of digitally-delivered products in domestic production (2.4%) was higher than its share in imports (1.8%).

Table 2
Digital supply table, product totals, 2019

| | Output, all digital industries | Output, all digital industries, digitally delivered | Total output | Total output, industries, digitally delivered | Total imports | Imports, digitally delivered | Taxes on products | Total supply at purchaser's prices | Total supply at purchaser's prices, digitally delivered |
|---|--------------------------------|---|------------------|---|----------------|------------------------------|-------------------|------------------------------------|---|
| millions of dollars | | | | | | | | | |
| Total | 204,768 | 76,461 | 4,065,386 | 96,580 | 722,624 | 13,236 | 173,179 | 4,961,189 | 115,527 |
| Digitally ordered | 73,953 | 50,362 | 277,933 | 65,665 | 51,723 | 9,144 | 6,696 | 336,352 | 75,019 |
| Direct from a counterparty | 59,612 | 49,658 | 218,757 | 64,961 | 19,588 | 8,559 | 1,072 | 239,416 | 73,659 |
| Via a resident digital intermediary | 1,193 | 704 | 1,193 | 704 | 0 | 0 | 0 | 1,193 | 704 |
| Via a non-resident digital intermediary | 3,839 | 0 | 3,839 | 0 | 984 | 584 | 70 | 4,893 | 606 |
| Via a resident retailer or wholesaler | 9,308 | 0 | 54,144 | 0 | 31,150 | 0 | 5,555 | 90,849 | 50 |
| Not digitally ordered | 130,815 | 26,098 | 3,787,453 | 30,915 | 670,902 | 4,092 | 166,483 | 4,624,837 | 40,508 |

Source(s): Statistics Canada, Digital Supply and Use Tables, 2019, and special tabulations.

While the digital SUTs are only compiled at the Canada level, it is nonetheless possible to use industry-level information to derive impacts on production and jobs by province and territory. In 2019, the digital economy made the largest contributions to the economies of Ontario (6.8%), Quebec (5.6%) and British Columbia (5.0%). Its lowest presence was in Nunavut (2.5%), Newfoundland and Labrador (3.0%) and Saskatchewan (3.0%).

From 2017 to 2019, the share of the digital economy in provincial GDP progressed in most provinces and territories with the exception of Newfoundland and Labrador, where it has been stable, and Prince Edward Island and Nunavut, where it declined slightly.

Table 3
Digital economy gross domestic product shares by province and territory

| | 2017 | 2018 | 2019 |
|---------------------------|------------|------------|------------|
| | % | | |
| Canada | 5.2 | 5.4 | 5.5 |
| Newfoundland and Labrador | 3.0 | 3.0 | 3.0 |
| Prince Edward Island | 4.1 | 4.2 | 4.0 |
| Nova Scotia | 4.8 | 4.9 | 4.9 |
| New Brunswick | 4.1 | 4.3 | 4.3 |
| Quebec | 5.5 | 5.6 | 5.6 |
| Ontario | 6.4 | 6.6 | 6.8 |
| Manitoba | 3.4 | 3.5 | 3.6 |
| Saskatchewan | 2.8 | 2.9 | 3.0 |
| Alberta | 3.7 | 3.9 | 3.9 |
| British Columbia | 4.9 | 5.0 | 5.0 |
| Yukon | 4.1 | 4.3 | 4.1 |
| Northwest Territories | 3.2 | 3.3 | 3.3 |
| Nunavut | 2.7 | 2.7 | 2.5 |

Source(s): Statistics Canada, Digital Supply and Use Tables, 2017 to 2019, special tabulations, and table [36-10-0402-01](#).

In 2019, 82% (723,000) of digital economy jobs were concentrated in Ontario, Quebec and British Columbia. These were also the provinces that had the highest proportions of digital economy jobs: Ontario (5.4%), Quebec (4.7%) and British Columbia (4.4%). The lowest proportions were in Nunavut (1.2%), Northwest Territories (1.9%) and Newfoundland and Labrador (2.3%). Software production in Ontario and Quebec alone accounted for 305,000 jobs.

Table 4
Digital economy jobs by province and territory, 2019

| | Canada | Newfoundland and Labrador | Prince Edward Island | Nova Scotia | New Brunswick | Quebec | Ontario |
|---|-----------------|---------------------------|----------------------|------------------|---------------|-----------------------|----------------|
| thousands of jobs | | | | | | | |
| Total, all industries | 19,443.5 | 221.1 | 76.9 | 471.9 | 358.4 | 4,329.1 | 7,610.5 |
| Total digital industries | 881.8 | 5.2 | 2.1 | 16.7 | 11.8 | 201.7 | 407.8 |
| Information and communications technology | | | | | | | |
| Hardware | 57.8 | 0.1 | 0.1 | 1.0 | 0.4 | 15.6 | 29.7 |
| Software | 404.7 | 1.2 | 0.9 | 5.7 | 4.5 | 101.8 | 203.3 |
| Telecommunications | 125.4 | 1.4 | 0.2 | 3.2 | 2.8 | 27.0 | 48.7 |
| Other services | 88.7 | 0.7 | 0.2 | 1.7 | 1.3 | 18.3 | 34.8 |
| Digital intermediary platforms | 91.1 | 1.0 | 0.3 | 2.4 | 1.4 | 19.5 | 36.0 |
| Data- and advertising-driven digital platforms | 11.7 | 0.0 | 0.0 | 0.2 | 0.0 | 1.9 | 7.2 |
| Online retailers and wholesalers | 61.7 | 0.4 | 0.2 | 1.7 | 0.8 | 9.9 | 28.4 |
| Digital-only firms providing finance and insurance services | 24.8 | 0.2 | 0.0 | 0.4 | 0.3 | 4.2 | 13.1 |
| Other producers only operating digitally | 15.8 | 0.1 | 0.0 | 0.3 | 0.2 | 3.5 | 6.5 |
| | Manitoba | Saskatchewan | Alberta | British Columbia | Yukon | Northwest Territories | Nunavut |
| thousands of jobs | | | | | | | |
| Total, all industries | 687.8 | 602.9 | 2,413.4 | 2,589.8 | 27.0 | 25.9 | 19.0 |
| Total digital industries | 20.0 | 20.0 | 81.6 | 113.5 | 0.8 | 0.5 | 0.2 |
| Information and communications technology | | | | | | | |
| Hardware | 0.5 | 0.8 | 3.2 | 6.3 | 0.0 | 0.0 | 0.0 |
| Software | 5.1 | 3.6 | 29.7 | 48.8 | 0.1 | 0.0 | 0.0 |
| Telecommunications | 5.7 | 6.6 | 11.2 | 18.0 | 0.4 | 0.2 | 0.0 |
| Other services | 2.5 | 3.4 | 15.5 | 10.1 | 0.0 | 0.1 | 0.1 |
| Digital intermediary platforms | 3.0 | 2.6 | 11.0 | 13.5 | 0.2 | 0.1 | 0.1 |
| Data- and advertising driven digital platforms | 0.1 | 0.1 | 0.6 | 1.5 | 0.0 | 0.0 | 0.0 |
| Online retailers and wholesalers | 2.0 | 1.9 | 6.3 | 9.8 | 0.0 | 0.0 | 0.0 |
| Digital-only firms providing finance and insurance services | 0.6 | 0.6 | 2.6 | 2.7 | 0.0 | 0.0 | 0.0 |
| Other producers only operating digitally | 0.5 | 0.4 | 1.5 | 2.8 | 0.0 | 0.0 | 0.0 |

Source(s): Statistics Canada, Digital Supply and Use Tables, 2017 to 2019 and table [36-10-0480-01](#), special tabulation.

Note to readers

Statistics Canada continues to work on defining and measuring the digital economy in Canada. The experimental Canadian digital supply and use tables (SUTs) are based on the framework for measuring the digital economy developed by the Organization for Economic Cooperation and Development. Measurements methods and figures for the experimental Canadian digital SUTs differ from those previously published by Statistics Canada in [Measuring digital economic activities in Canada: initial estimates](#). The two approaches examine different aspects of the digital economy and should be viewed as complementary but distinct measures.

In the experimental Canadian digital SUTs, the figures for gross domestic product (GDP) and jobs cover activities in the information and communications technology (ICT) industries, digital intermediary platforms and other online-only firms in retail, wholesale and other services industries. By contrast, the figures for GDP and jobs in the previously published initial estimates covered the ICT industries, relevant post-secondary education services, ecommerce activities by exclusively- and partially-online firms in retail, wholesale, and travel arrangements, reservation and planning services, and finally all digitally produced products.

The digital supply and use tables for 2017 to 2019 are available on request.

Definitions, data sources and methods: survey number [1401](#).

The product *Supply and Use Tables* ([15-602-X](#)) is available.

For more information, or to enquire about the concepts, methods or data quality of this release, contact us (toll-free 1-800-263-1136; 514-283-8300; STATCAN.infostats-infostats.STATCAN@canada.ca) or Media Relations (613-951-4636; STATCAN.mediahotline-ligneinfomedias.STATCAN@canada.ca).