



Information and Communications Technology Council  
Conseil des technologies de l'information et des communications

# ICT LABOUR FORCE MONTHLY SNAPSHOT

## AUGUST 2012

Information and Communications Technology Council

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## At a Glance

- Total Canadian employment in August 2012: 17,513,600 (+34,000)
- The jobless rate in Canada in August 2012: 7.3% (0.0)
- Total digital economy employment in August 2012: 1,009,000 (0)
- Core ICT employment in August 2012: 716,000 (+3,500)
- Total employment in Canada's ICT sector in August 2012: 653,000 (-15,000)
- The jobless rate in Canada's digital economy in August 2012: 3.0% (-0.2)
- Core ICT occupations jobless rate in August 2012: 2.7% (-0.4)
- Highest numbers of new jobs in August 2012 were created for: Computer programmers (+9,500) and User support technicians (+5,700)
- Employment growth in August 2012 was the highest for: Telecommunication carrier managers (+57%) and e-Commerce managers (+43%)
- ICT labour force grew in: Health care (+26%) and Utilities (+23%) sectors
- 41% of senior managers in ICT companies are women, compared to 50% in other companies
- 23% of C-suite positions in ICT companies are held by women, compared to 42% in other companies
- 20% of Boards of Directors in ICT companies are women, compared to 34% in other companies

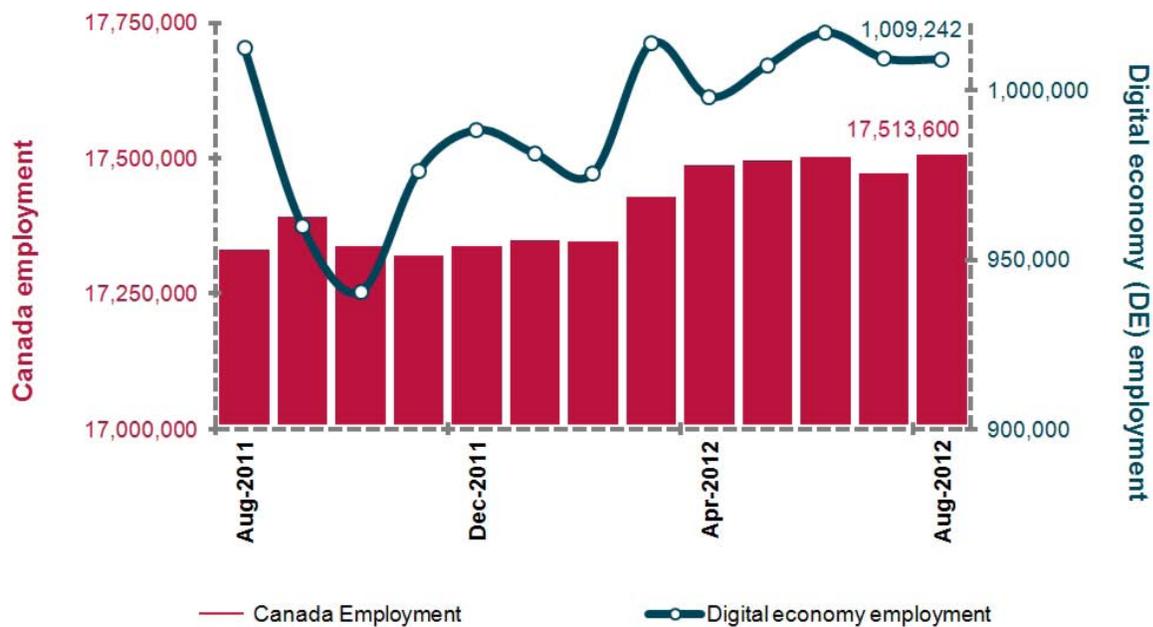
## July Job Losses Recovered in August 2012

In August 2012, the Canadian economy recovered all of the 30,000 jobs that were lost in July 2012. Total Canadian employment increased by 34,000 in August. Increase in part-time employment was the catalyst for this recovery. 46,000 more workers found part-time work in August, while 12,000 full-time workers lost jobs, both likely a function of the impending start of the academic year.

This large employment increase, however, did not put a dent on the jobless rate, since out of work people are counted as jobless only if they are actively looking for work, and more workers looking for work means more jobless workers. Combined with 30,000 people joining the labour force, the jobless rate in Canada in August 2012 remained steady at 7.3%.

A total of 17,513,600 workers were gainfully employed in Canada in August 2012 (Figure 1), increasing by 175,000 since August 2011, signifying a 1% (+) year-over-year (YOY) employment growth.

Figure 1: Canada and DE Employment – August 2011 to August 2012



Source: Statistics Canada; ICTC

## Digital economy (DE) employment remains unchanged, jobless rate decreases

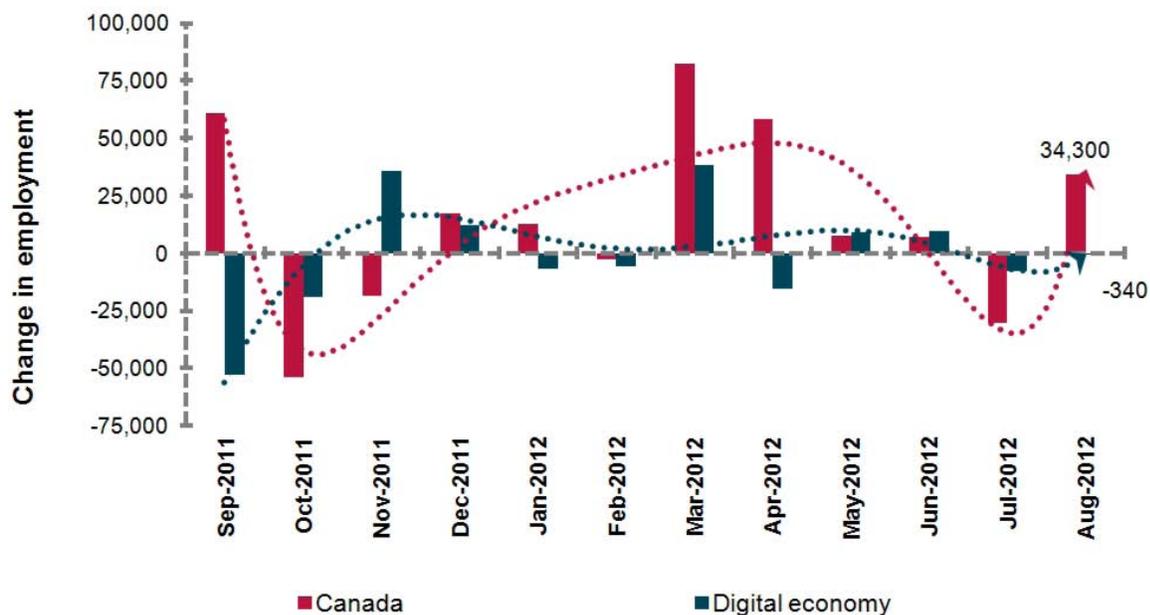
There are two major groups of professionals that work in Canada’s digital economy: ‘core’ ICT professionals that are engaged throughout the Canadian economy and other non-ICT professionals that work in the ICT sector (a discussion of the core ICT occupations is available at the end of this document). Core ICT professionals develop, maintain, and innovate the technologies that drive all sectors of the economy. In addition to these core ICT professionals, non-ICT workers employed in the ICT sector are also included in the DE workforce because they contribute to the success of Canada via its ICT sector.

Among core ICT professionals in all sectors of the Canadian economy, 3,500 jobs were created in August 2012, nudging the total employment up to 716,000 and pushing the jobless rate down to 2.7%.

Among non-ICT workers in the ICT sector, 3,800 jobs were cut in August 2012, reducing the total employment to 292,000 and increasing the jobless rate was 4.0% in August 2012.

The overall digital economy employment – combined employment of ICT professionals in all sectors and other workers in the ICT sector – remained unchanged at 1,009,000. With 2,000 people leaving the labour force, jobless rate in Canada’s digital economy decreased further to 3.0%. Figure 2 below contrasts the changes in employment level in the Canadian and the digital economy.

Figure 2: Changes in employment levels – Canada vs. the digital economy



Source: Statistics Canada; ICTC

## Job Gains

Employment level among ICT professionals in all sectors of the economy rose by 3,500. Between July 2012 and August 2012, a significant number of jobs were created for:

- Computer programmers (+9,500);
- User support technicians (+5,700); and
- Computer and information system managers (+5,500).

Two-thirds of 2012 has passed and the total employment of 716,000 in ICT occupations is 27,000 higher than the employment level in 2011. That reflects a 4% employment growth in eight months, translating to an annualized growth of 6%. Notwithstanding the occasional blip in the employment level, the DE is on target to outpace the employment growth (+3%) forecasted for 2012 by ICTC in its 2011 to 2016 ICT Human Resources Outlook Report.

## Employment Growth

The highest employment growth was enjoyed by:<sup>1</sup>

- Telecommunication carrier managers (+57%);
- e-Commerce managers (+43%); and
- Database administration analysts (+17%).

## Job Losses

Increases in employment in many of the ICT occupations were offset by job losses in other, particularly the following, occupations:

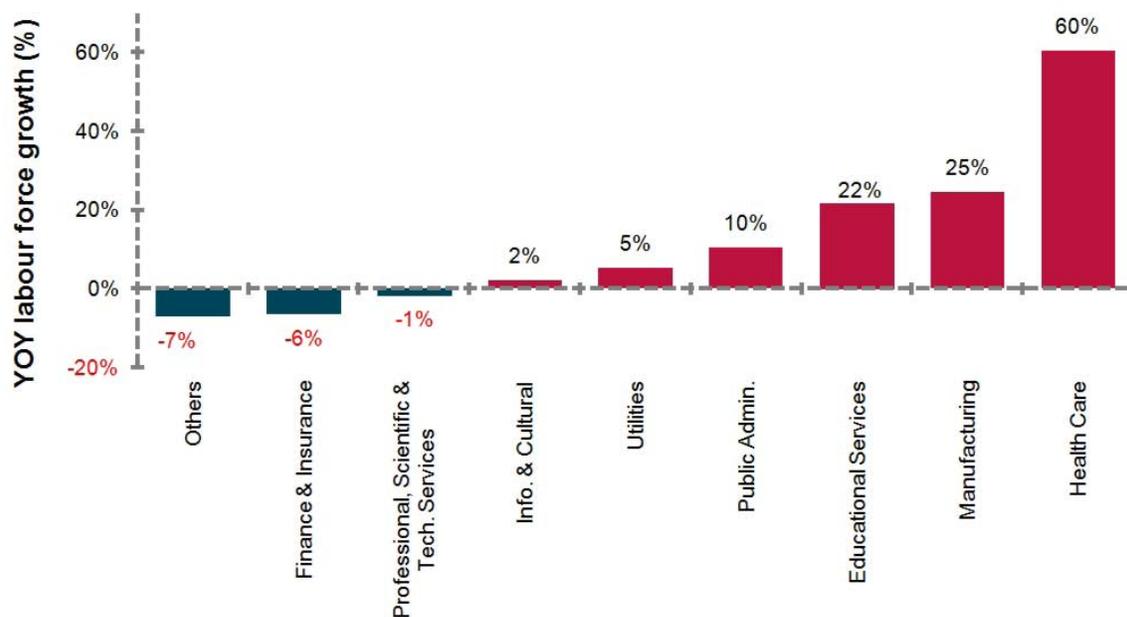
- Interactive media developers (-9,600);
- Information systems business analysts (-5,000); and
- Computer network technicians (-3,400).

<sup>1</sup> Comparison between July 2012 and August 2012 figures

## Sectoral Composition of the ICT Labour Force

The most notable change in the sectoral composition of ICT professionals was observed in the health care sector, in which the labour force grew by 4,600 (+26%) within a month. This is indicative of growing inclination to adopt technology in the health care sector to reduce costs, gain efficiency, improve productivity, and increase output. Other sectors that experienced considerable near-term growth in the ranks of their ICT professionals were utilities (+23%) and educational services (+12%). In contrast, the manufacturing sector (-10%) witnessed the highest Month-Over-Month (MOM) decline in its core ICT labour force.

Figure 3: YOY ICT labour force growth by sector



Source: Statistics Canada; ICTC

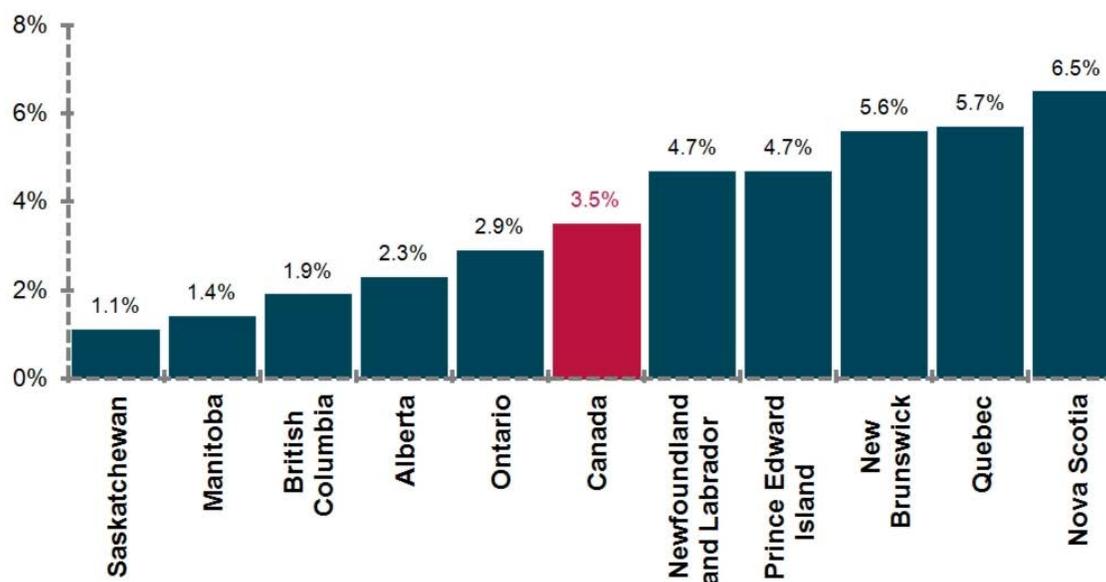
Over a longer horizon and compared with a year ago in August 2011, the ICT labour force experienced growth in most of the economic sectors, lead by health care (+60%) and manufacturing (+25%). Sectors that experienced slight decreases in their ICT labour forces include professional, scientific & technical services (-1%), finance & insurance (-6%), and the cluster of other sectors grouped under "others" <sup>2</sup> (-7%).

<sup>2</sup> Examples include agriculture, forestry, fishing, and hunting sector, other services (except public administration) sector etc.

## Provincial Snapshot

The jobless rate in Canada's ICT sector – that is, combined jobless rate of ICT professionals and non-ICT workers in other occupations in the sector – is 3.5%. There appears a prominent geographic divide in terms of the performance of the ICT labour market. The jobless rates in the ICT sectors of all the provinces inclusive and westward of Ontario are well below the national average of 3.5%, with Saskatchewan, Manitoba, and British Columbia virtually employing all available workers with jobless rates of below 2%. In contrast, the jobless rates in the ICT sectors of all the provinces inclusive and eastward of Québec are 4.7% or above, with Nova Scotia having the highest ICT sector jobless rate at 6.5% (Figure 4).

Figure 4: Jobless rate in the ICT sector by province – August 2012



Source: Statistics Canada; ICTC

The Atlantic provinces need to respond with responsive and effective policy measures without delay to combat the high jobless rates in their respective ICT sector. Otherwise, these provinces can easily be left with an increasing pool of workers lacking all the required skills in the concurrent job market. Long term implications of such a scenario will be profound. Provincial governments must consider providing incentives to students and jobseekers in the form of targeted scholarships or reduced tuition in such academic majors as software engineering or software development. Encouraging and providing incentives to companies in the form of tax credits for career development fees will help fast-track growth in in-demand skills. If corporate tax deduction/credit is tied to career development, ICT companies will have incentive to up-skill

their workers. Sound skills policy, an attractive investment climate, and collaboration among all stakeholders of skilled workforce are all key ingredients of growth and for attracting Foreign Direct Investment, as well as for these provinces to gain maximum benefits from workers' productivity gains.

Increasing initiatives to learn from other jurisdictions' success is vital. For instance, what measures are allowing all four Western Canada provinces' ICT labour markets to be significantly stronger than those of the Atlantic region, as evident from their low jobless rates?

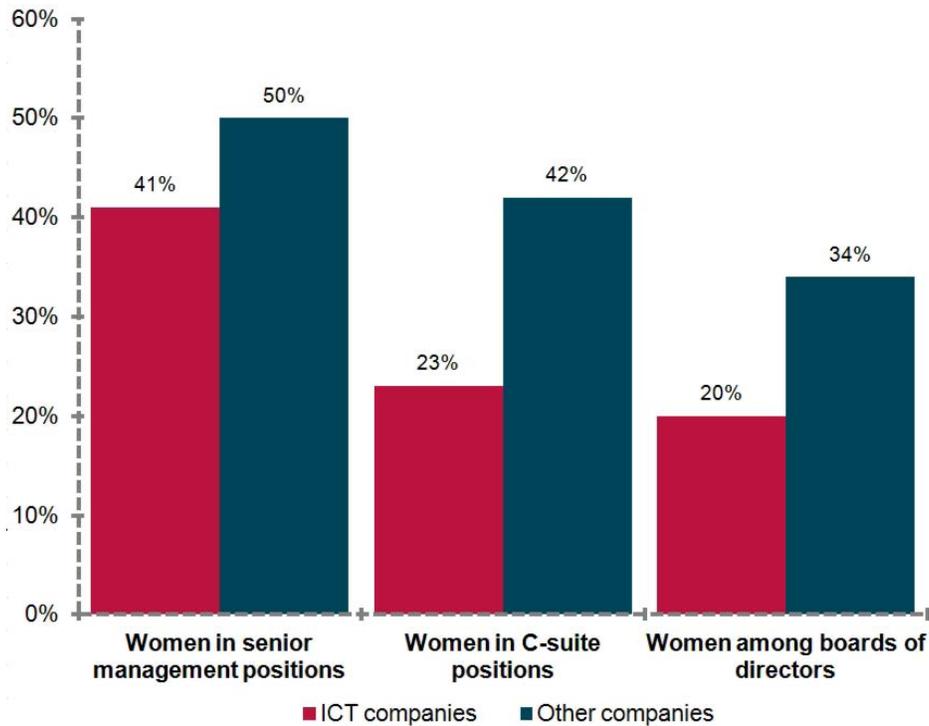
## Gender Diversity

There were 153,000 women in the core ICT labour force in August 2012, declining quite dramatically by 25,000 (-14%) from a year ago. In contrast, the male labour force increased by 25,000 (+5%) in this period.

ICTC's latest monthly survey consulted with employers of 190,000 Canadians. 160,000 of these employees were employed in companies/organizations that offer ICT products and services. The main focus of this survey was the current and future outlook of women in leadership positions.

The gender composition of core ICT employment in Canada is 21% women and 79% men. The percentage of female employment in Canada's ICT sector is 29%. Women rising through the ranks and occupying senior management positions, however, is twice as prevalent in the ICT sector and thus very encouraging. 41% of senior management positions (e.g. director, vice president) in ICT companies are occupied by women, compared to 50% in other companies. Technical prowess, business acumen, and interpersonal abilities are known essential skills in management roles and women in the ICT sector prove to have that in abundance. Percentage of women in C-suite positions (e.g. CFO, CIO, COO) and among Boards of Directors in ICT companies, however, are reflective of female employment in technical occupations. 23% of C-suite positions in ICT companies are occupied by women, compared to 42% in other companies. In addition, 20% members of the Boards of Directors in ICT companies are women, compared to 34% in other companies.

Figure 5: Share of female decision-makers

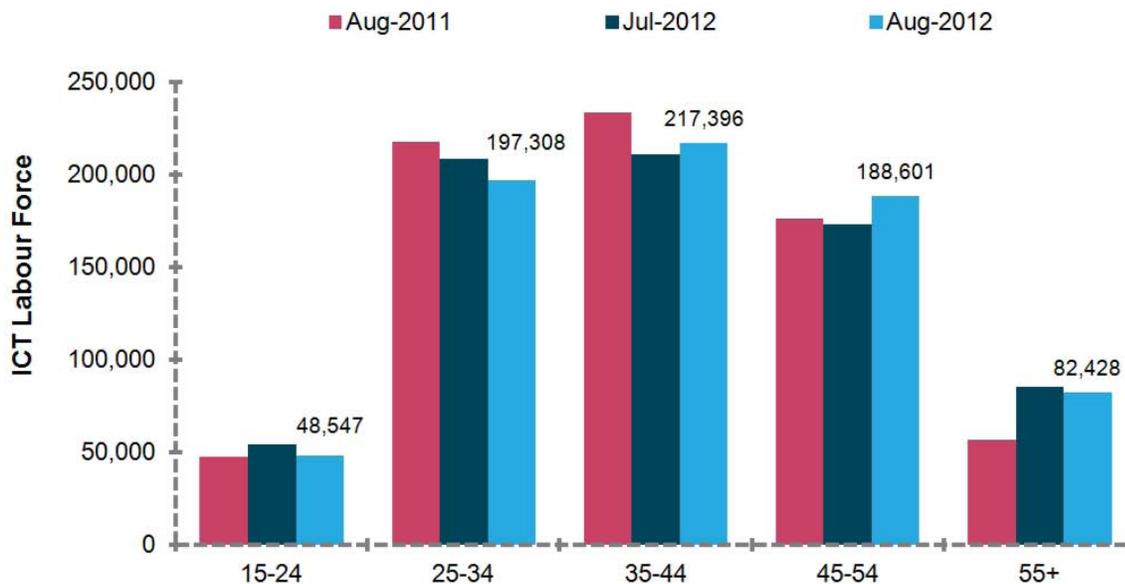


Source: ICTC Employer Survey

## Youth participation decreases

The number of workers aged 25 years or less in the ICT occupations was 48,000 in August 2012, experiencing a large monthly decline (-11%) since July 2012. This decline of 6,000 is two-third of the youth labour force decline in the overall Canadian economy (-9,400), likely in response to the impending start of the academic year. The labour force in the 25-34 years (-5%) and 55 and above (-3%) age groups also experienced declines, although not as large.

Figure 6: Labour Force by Age - June 2011 to June 2012



Source: Statistics Canada; ICTC

## Recent immigrants not faring well in the job market

Of the total employed workers in Canada in August 2011, 3,682,800 (21%) were landed immigrants.<sup>3</sup> Of the total employed immigrants, 527,700 (14%) were recent immigrants,<sup>4</sup> while 2,574,400 (70%) were established immigrants.<sup>5</sup> While the total Canadian employment increased by 1% by August 2012, the number of employed immigrants increased by 104,000 (+3%) in this period, taking the employment level of landed immigrants to 3,786,600. Of the total employed immigrants in August 2012, 528,000 (14%) were recent immigrants, while 2,634,000 (70%) were established immigrants. The fact that employment of recent immigrants remained unchanged since August 2011 gives credence to the notion that the labour market outcomes of recent immigrants are worse than that of their predecessors, despite possessing higher human capital attributes such as schooling and work experience.

<sup>3</sup> Total Canadian Employment, not limited to the ICT sector or the digital economy.

<sup>4</sup> Immigrated within the previous 5 years.

<sup>5</sup> Immigrated over 10 years ago.

## Earnings in ICT occupations increasing

Average weekly gross income of paid ICT employees in August 2012 was \$1,258, translating to \$65,400 per annum. This was a 2% increase compared to the average income in July 2012 and a 5% YOY gain compared to August 2011. 33% of the paid ICT employees earned up to \$1,000 per week in August 2012, 59% earned between \$1,000 and \$2,000, while the remaining 8% earned more than \$2,000 a week. This is further evidence that the ICT workers enjoy one of the highest pay-packets in Canada.

## Notes

1. Any changes in figures reported in previous editions of this series is reflective of the recalculation undertaken in response to the amendments adopted in ICTC's reporting in recent months.
2. Month-Over-Month (MOM) comparisons compare the figures of two consecutive months. For example, MOM changes in June 2012 portray comparisons between May 2012 and June 2012 figures.
3. Year-Over-Year (YOY) comparisons compare the figures of the same month in two consecutive years. For example, YOY changes in June 2012 portray comparisons between June 2011 and June 2012 figures.

## About ICTC

The Information and Communications Technology Council (ICTC) is Canada's leader in the domain of Labour Market Intelligence (LMI), policy development, and workforce preparation in regard to the Information and Communications Technology (ICT) sector. ICTC is proud to offer the largest and most rigorous ICT data analysis and research infrastructure in Canada, allowing real-time monitoring of Canada's ICT workforce requirements, including the intersection of ICT with emerging occupations, enabling technologies, and sub-sectors.

## Digital Economy Labour Force

ICTC's LMI captures critical economic and labour market indicators to inform competitive business and human resource strategy planning, decision-making and career development in ICT, thereby driving the development of a more prosperous Canadian ICT workforce and industry in a global digital economy.

The table below summarizes the core digital economy occupations. The sum total of workers – workers that are employed in these occupations as well as workers that are currently unemployed, but actively looking for work in these occupations – in these occupations and workers in all other occupations in the ICT sector, explained below, is the total core digital economy labour force in Canada:

Index	National Occupational Classification	Occupation Title
1	0131	Telecommunication Carrier Managers
2	0213	Computer and Information System Managers
3	6115	e-Commerce Managers
4	2133	Electrical and Electronics Engineers
5	2147	Computer Engineers
6	21711	Information Systems Business Analysts
7	21712	Systems Security Analysts
8	21713	Information Systems Quality Assurance Analysts
9	21714	Systems Auditors
10	21721	Database Administrators
11	21722	Database Administration Analysts
12	2173	Software Engineers
13	21741	Computer Programmers
14	21742	Interactive Media Developers
15	2175	Web Designers and Developers
16	2241	Electrical and Electronics Engineering Technologists and Technicians
17	22811	Computer Network Technicians
18	22812	Web Technicians
19	2282	User Support Technicians
20	2283	Systems Testing Technicians
21	51212	Technical Writers
22	5224	Broadcast Technicians
23	5224	Graphic Designers and Illustrators

## ICT Sector

The table below summarizes the ICT sector:

Index	NAICS Code	ICT Sub-sector
1	3333	Commercial & Service Industry Mach. Manuf.
2	3341	Computer & Peripheral Equip. Manuf.
3	3342	Communications Equip. Manuf.
4	3343	Audio & Video Equip. Manuf.
5	3344	Semiconductor & Other Electronic Component Manuf.
6	3345	Navigational, Medical & Control Instruments Manuf.
7	4173	Computer & Comm. Equip. & Supplies Wholesale distribution
8	5112	Software Publishers
9	5171	Wired Telecommunications Carrier
10	5172	Wired Telecommunications Carrier (except satellite)
11	5174	Satellite Telecommunications
12	5179	Other Telecommunications
13	5182	Data Processing, Hosting, and Related Services
14	5415	Computer Systems Design & Related Serv.
15	8112	Electronic & Precision Equip. Repair & Maintenance