

THE ECONOMIC AND FISCAL IMPACTS OF THE ACTIVITIES AT MONTRÉAL-TRUDEAU AIRPORT SITE

PUBLISHED IN JUNE 2015



STUDY OBJECTIVES

Measuring the impacts

- This impact study is based on an economic analysis approach and tries to identify the impacts generated by the economic activity carried out on the Montréal-Trudeau site in 2014.
- This study also includes an estimate of impacts associated with various investment programs and more specifically with spending in 2014.
- The estimated impacts include direct, indirect and induced effects.

Main concepts

- **DIRECT EFFECT:** Economic effect generated by the value of production of all organizations on the Montréal site.
- **INDIRECT EFFECT:** Economic effect generated by the production of primary suppliers of companies being studied, and their respective suppliers, and so on.
- **INDUCED EFFECT:** Economic effect generated by the consumer spending of direct and indirect workers.

THE ECONOMIC IMPACT RESULTS PRESENTED IN THIS DOCUMENT RELATE TO EMPLOYMENT, GROSS WORKFORCE REMUNERATION AND CONTRIBUTION TO GDP OF PRODUCTION TAKING PLACE ON THE MONTRÉAL-TRUDEAU SITE IN 2014.



APPROACH – THE INPUT-OUTPUT MODEL

CONCEPT

An initial expenditure in Québec made by a business or a public authority generates direct and indirect economic impacts across the province's supplier network. The Québec input-output model calculates the impact of the initial expenditure based on several indicators:

JOB: Full-time workload, measured in "person-years"

GROSS EARNINGS OF THE WORKFORCE

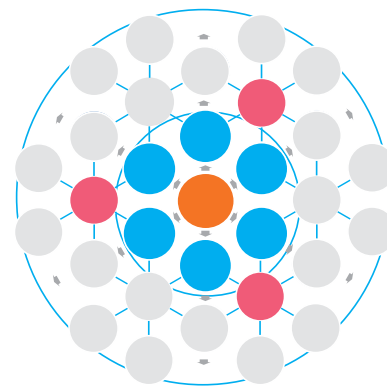
VALUE ADDED: Contribution to GDP

COMBINED TAX REVENUE*: Taxes and other contributions paid to government authorities on both the provincial and federal levels

The model applies to both operational and capital expenditures (investments).

* Includes tax revenue on individuals' salaries and wages, sales tax and fuel tax, as well as contributions by employers and employees to various government programs (RRQ, FSS, CSST, RQAP, employment insurance). Based on 2014 fiscal structure.

Propagation of demand captured by the input-output model



INITIAL PURCHASES
FIRST SUPPLIERS
IMPORTS
OTHER SUPPLIERS

LIMITATIONS

- Linear, static model (no economies of scale)
- Impacts are not regionalized
- Municipal tax revenue is not calculated
- Externalities are not taken into account

STRUCTURE OF EMPLOYMENT AT THE SITE

Distribution of the number of direct jobs related to day-to-day operations by sector on the Montréal-Trudeau site – 2014

| SECTOR OF ACTIVITY | NUMBER OF JOBS | SHARE OF EMPLOYMENT |
|--|----------------|---------------------|
| Airlines, including general aviation and maintenance | 10,381 | 39% |
| Manufacturing of aeronautical products and parts | 8,897 | 33% |
| Aeronautical and air transportation support services | 3,052 | 11% |
| Airport administration and government services | 1,387 | 5% |
| Ground transportation companies | 1,265 | 5% |
| Commercial services | 800 | 3% |
| Hotel/tourism | 749 | 3% |
| Other | 237 | 1% |
| Total | 26,768 | 100% |

SOURCE: E&B DATA based on first-hand (businesses) and second-hand data (databases).

MORE THAN ONE-THIRD (39%) OF DIRECT JOBS ON THE MONTRÉAL-TRUDEAU SITE ARE RELATED TO AIR CARRIERS, WHILE MANUFACTURING ACCOUNTS FOR ONE-THIRD (33%) OF ALL DIRECT JOBS.



HIGHLIGHTS SUMMARY TABLE

Impacts attributable to all activities of the businesses and organizations established at the Montréal-Trudeau site – 2014

| CATEGORY | TYPES OF EFFECTS | | | | | |
|---------------------------------------|--|------------|------------|------------|------------|------------|
| | DIRECT AND INDIRECT | | | INDUCED | TOTAL | |
| | DIRECT | INDIRECT | TOTAL | | | |
| Workforce (person-years) | 27,821 | 16,208 | 44,030 | 11,543 | 55,572 | |
| Gross earnings of the workforce (\$M) | 1,655 | 846 | 2,501 | 454 | 2,955 | |
| Contribution to GDP (\$M) | 3,186 | 1,564 | 4,749 | 850 | 5,600 | |
| Québec government revenue (\$M) | Income tax on salaries and wages | 209 | 93 | 302 | 38 | 340 |
| | Sales taxes | - | 16 | 16 | 84 | 100 |
| | Specific taxes | - | 22 | 22 | 54 | 76 |
| | Incidental taxation (RRQ, RQAP, CSST, FSS) | 257 | 128 | 385 | 70 | 455 |
| | Total | 466 | 260 | 725 | 247 | 972 |
| Federal government revenue (\$M) | Income tax on salaries and wages | 171 | 74 | 245 | 34 | 280 |
| | Sales taxes | - | 6 | 6 | 46 | 52 |
| | Specific taxes | - | 12 | 12 | 15 | 26 |
| | Incidental taxation (employment insurance) | 51 | 25 | 77 | 17 | 94 |
| | Total | 223 | 118 | 340 | 112 | 452 |
| Municipal revenue (\$M) | Property tax | 37 | n.a. | 37 | n.a. | 37 |

SOURCES: E&B DATA based on the input-output model of the Institut de la statistique du Québec and Aéroports de Montréal.

NOTE: The impacts shown in this table constitute the sum of the impacts associated with day-to-day operations and capital expenditures for the year 2014. Excluding corporate taxes.

DAY-TO-DAY OPERATIONS – ECONOMIC IMPACTS 2014

Impacts attributable to the day-to-day operations of the businesses and organizations established at the Montréal-Trudeau site – 2014

| CATEGORY | TYPES OF EFFECTS | | | | |
|---------------------------------------|---------------------|----------|--------|---------|--------|
| | DIRECT AND INDIRECT | | | INDUCED | TOTAL |
| | DIRECT | INDIRECT | TOTAL | | |
| Workforce (person-years) | 26,768 | 15,471 | 42,239 | 11,132 | 53,371 |
| Gross earnings of the workforce (\$M) | 1,594 | 811 | 2,405 | 437 | 2,842 |
| Contribution to GDP (\$M) | 3,099 | 1,505 | 4,604 | 820 | 5,424 |

SOURCE: E&B DATA based on the input-output model of the Institut de la statistique du Québec.

IN 2014, THE DAY-TO-DAY OPERATIONS OF THE BUSINESSES AND ORGANIZATIONS ESTABLISHED AT THE MONTRÉAL-TRUDEAU AIRPORT SITE, MADE IT POSSIBLE TO MAINTAIN MORE THAN 53,000 QUÉBEC JOBS.



DAY-TO-DAY OPERATIONS – TAX IMPACTS 2014

Tax impacts attributable to the day-to-day operations of the businesses and organizations established at the Montréal-Trudeau site – 2014

| CATEGORY | | TYPES OF EFFECTS | | | | |
|----------------------------------|--|---------------------|------------|------------|------------|------------|
| | | DIRECT AND INDIRECT | | | INDUCED | TOTAL |
| | | DIRECT | INDIRECT | TOTAL | | |
| Québec government revenue (\$M) | Income tax on salaries and wages | 202 | 90 | 292 | 37 | 329 |
| | Sales taxes | - | 15 | 15 | 81 | 96 |
| | Specific taxes | - | 22 | 22 | 52 | 74 |
| | Incidental taxation (RRQ, RQAP, CSST, FSS) | 244 | 123 | 367 | 68 | 435 |
| | Total | 446 | 250 | 696 | 239 | 935 |
| Federal government revenue (\$M) | Income tax on salaries and wages | 166 | 71 | 238 | 33 | 271 |
| | Sales taxes | - | 4 | 4 | 45 | 49 |
| | Specific taxes | - | 9 | 9 | 14 | 23 |
| | Incidental taxation (employment insurance) | 46 | 23 | 69 | 16 | 85 |
| | Total | 212 | 107 | 319 | 108 | 427 |
| Municipal revenue (\$M) | Property tax | 37 | n.a. | 37 | n.a. | 37 |

SOURCES: E&B DATA based on the input-output model of the Institut de la statistique du Québec and Aéroports de Montréal.

NOTE: Excluding corporate taxes.

THE DAY-TO-DAY OPERATIONS OF THE BUSINESSES AND ORGANIZATIONS ESTABLISHED AT THE MONTRÉAL-TRUDEAU SITE ALLOWED THE GOVERNMENT OF QUÉBEC TO GENERATE TAX REVENUE OF \$935 MILLION IN 2014. THIS AMOUNT COMES TO \$427 MILLION FOR THE FEDERAL GOVERNMENT.

WITH THE PROPERTY TAXES PAID BY THE BUSINESSES AND ORGANIZATIONS ESTABLISHED AT THE MONTRÉAL-TRUDEAU SITE, MUNICIPALITIES COLLECTED CLOSE TO \$40 MILLION IN 2014.

CAPITAL EXPENDITURE ECONOMIC IMPACTS 2014

Economic impacts attributable to capital expenditure of the businesses and organizations established at the Montréal-Trudeau site – 2014

| CATEGORY | TYPES OF EFFECTS | | | | |
|---------------------------------------|---------------------|----------|-------|---------|-------|
| | DIRECT AND INDIRECT | | | INDUCED | TOTAL |
| | DIRECT | INDIRECT | TOTAL | | |
| Workforce (person-years) | 1,053 | 737 | 1,791 | 411 | 2,201 |
| Gross earnings of the workforce (\$M) | 61 | 35 | 96 | 16 | 112 |
| Contribution to GDP (\$M) | 87 | 59 | 145 | 30 | 176 |

SOURCE: E&B DATA based on the input-output model of the Institut de la statistique du Québec.

IN 2014, \$195 MILLION OF CAPITAL EXPENDITURE WAS SPENT AT THE MONTRÉAL-TRUDEAU SITE, LEADING TO THE CREATION OR MAINTENANCE OF OVER 2,200 JOBS.



CAPITAL EXPENDITURE TAX IMPACTS 2014

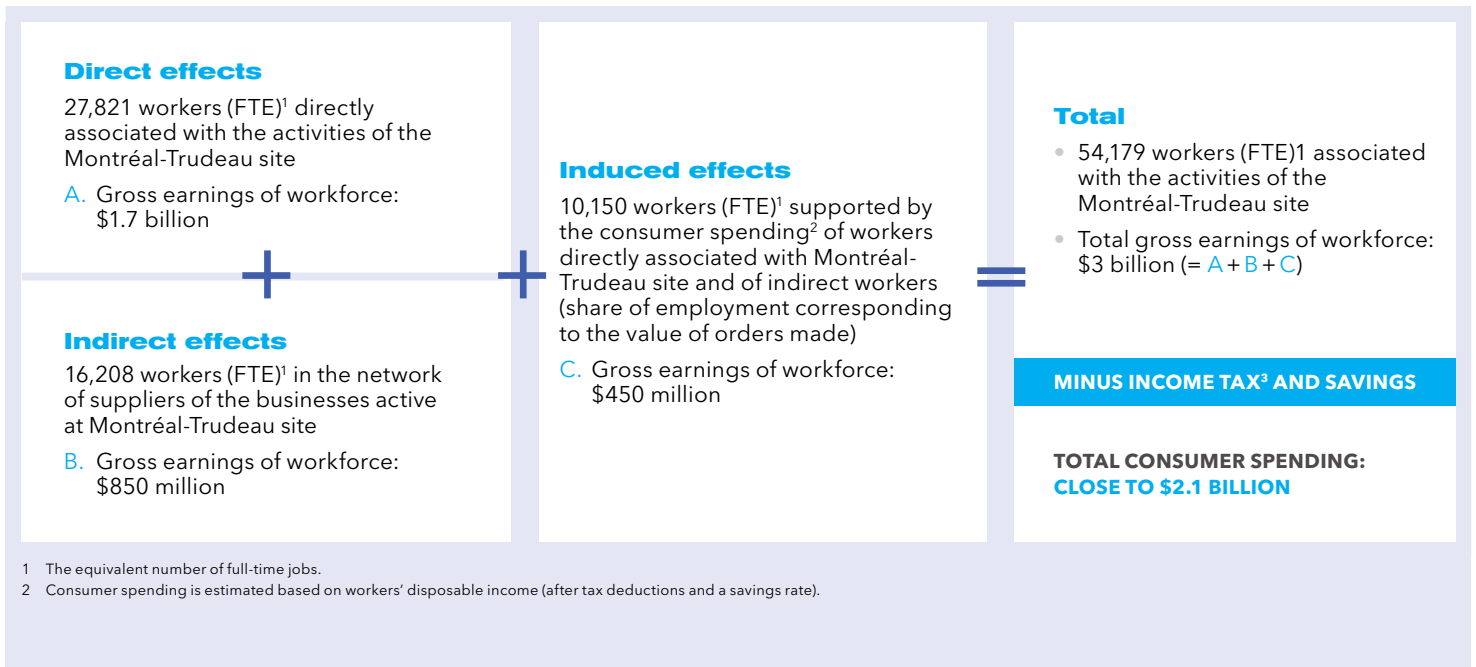
Tax impacts attributable to capital expenditure of the businesses and organizations established at the Montréal-Trudeau site – 2014

| CATEGORY | | TYPES OF EFFECTS | | | | |
|----------------------------------|--|---------------------|------------|-------------|------------|-------------|
| | | DIRECT AND INDIRECT | | | INDUCED | TOTAL |
| | | DIRECT | INDIRECT | TOTAL | | |
| Québec government revenue (\$M) | Income tax on salaries and wages | 6.4 | 3.4 | 9.8 | 0.9 | 10.7 |
| | Sales taxes | - | 1.0 | 1.0 | 3.0 | 4.0 |
| | Specific taxes | - | ngl. | ngl. | 1.9 | 2.0 |
| | Incidental taxation (RRQ, RQAP, CSST, FSS) | 13.1 | 5.2 | 18.3 | 2.2 | 20.5 |
| | Total | 19.5 | 9.7 | 29.1 | 8.1 | 37.2 |
| Federal government revenue (\$M) | Income tax on salaries and wages | 5.1 | 2.8 | 7.9 | 0.9 | 8.8 |
| | Sales taxes | - | 0.1 | 0.1 | 1.7 | 1.8 |
| | Specific taxes | - | 0.2 | 0.2 | 0.5 | 0.8 |
| | Incidental taxation (employment insurance) | 1.8 | 1.2 | 3.0 | 0.5 | 3.6 |
| | Total | 6.9 | 4.3 | 11.3 | 3.6 | 14.9 |

SOURCE: E&B DATA based on the input-output model of the Institut de la statistique du Québec.
NOTE: Excluding corporate taxes.

IN 2014, CAPITAL EXPENDITURES (\$195 MILLION) ALLOWED THE GOVERNMENT OF QUÉBEC TO COLLECT OVER \$35 MILLION. MEANWHILE, THE FEDERAL GOVERNMENT COLLECTED CLOSE TO \$15 MILLION.

CONTRIBUTION TO CREATING PURCHASING POWER – ALL ACTIVITIES 2014

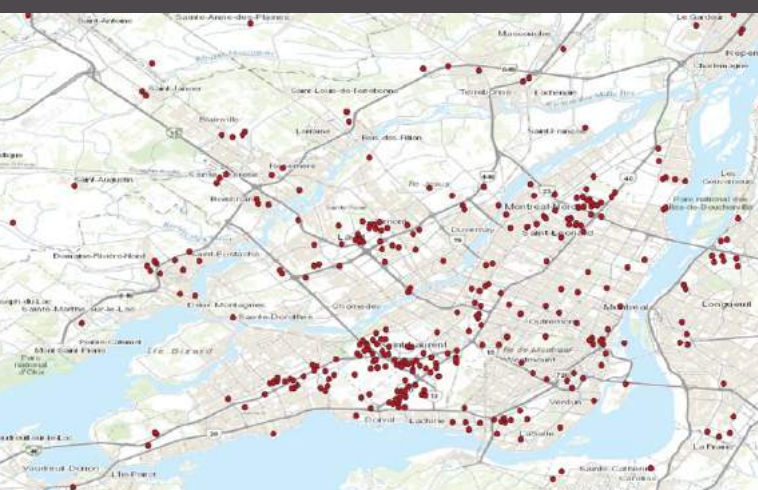


TAKING INTO ACCOUNT THE INCOME FROM DIRECT, INDIRECT AND INDUCED JOBS, THE ACTIVITIES ASSOCIATED WITH THE MONTRÉAL-TRUDEAU SITE GENERATE CONSUMER SPENDING ESTIMATED AT CLOSE TO \$2.1 BILLION ACROSS QUÉBEC.

CONCLUSIONS

- IMPACTS OF AGGLOMERATION.**
Montréal-Trudeau airport is home to more than 200 companies active in a large number of complementary and connected industry segments (e.g., ground transportation, transportation support services, hotels, security). Also present on the site is a group of aerospace-industry companies that form an advanced-knowledge cluster (e.g., design, training); the fact that they are in close proximity is one reason they enjoy a competitive advantage.
- A PRODUCTIVE, HIGHLY LABOUR-INTENSIVE INFRASTRUCTURE.**
With close to 27,000 direct jobs, Montréal-Trudeau is the leading employment hub in Montréal after the downtown area. In addition, for every job at the airport site, another position is supported elsewhere in Québec.
- AN ENGINE FOR GROWTH IN THE MONTRÉAL REGION.**
GDP generated at Montréal-Trudeau airport accounts for more than 4% of GDP in the Montréal Administrative Region. This economic activity does not take into account that of the many Montréal companies located away from the airport, but whose competitiveness is fueled in part by proximity and access to an international airport.
- ONGOING INVESTMENTS.**
An effective and efficient international airport depends on an ongoing process of infrastructure optimization and modernization. In 2014 alone, close to \$200 million has been invested in Montréal-Trudeau as part of the 2013-2033 Master Plan, including improvements to passenger flow, among others. The results are particularly observable in increased productivity—a reflection of better use of space and improved work organization.
- A WEALTH-CREATION ZONE.**
Activity at Montréal-Trudeau airport generates purchasing power in excess of \$2 billion, nearly \$40 million in municipal taxes, and more than \$1.4 billion per year for the provincial and federal governments.

MAP OF SUPPLIERS

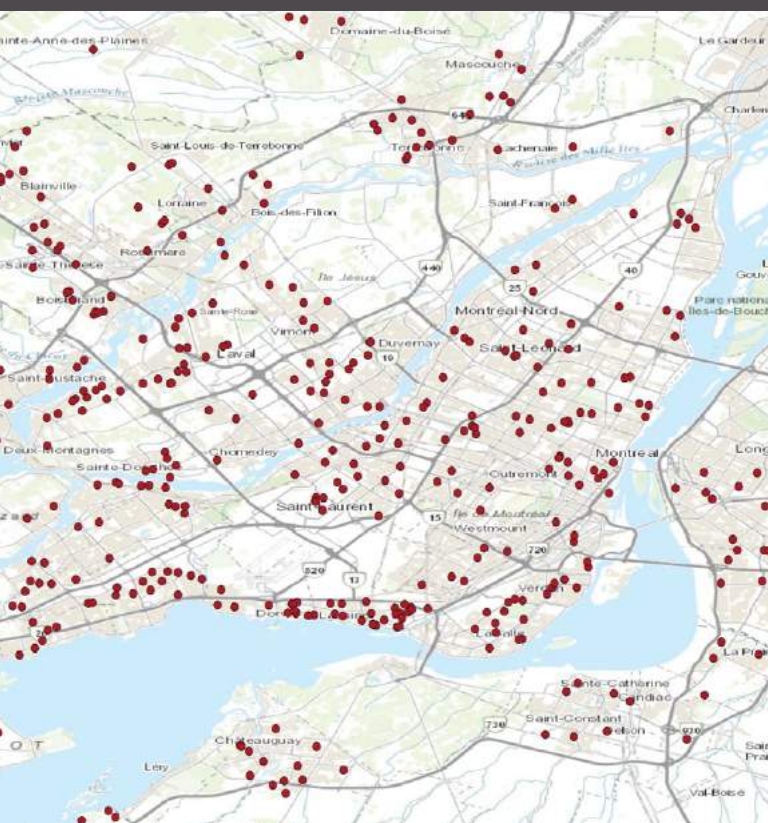


Distribution of a sample of suppliers of businesses and organizations established at the Montréal-Trudeau site by region – Sample 2014

| ADMINISTRATIVE REGIONS | NUMBER OF SUPPLIERS | SHARE OF SPENDING |
|------------------------|---------------------|-------------------|
| Montréal | 251 | 79% |
| Montérégie | 80 | 12% |
| Laval | 51 | 2% |
| Laurentians | 51 | 2% |
| Lanaudière | 22 | 1% |
| Other | 23 | 3% |
| Total | 478 | 100% |

SOURCE: E&B DATA based on the files of suppliers of businesses of Aéroports de Montréal. Sample: n=478.

EMPLOYEE MAP



HIGHLIGHTS

Organizations and businesses

- Nearly **200 ORGANIZATIONS AND PRIVATE COMPANIES** operating at the Montréal-Trudeau site
- Close to **27,000 DIRECT JOBS** at these companies and organizations in 2014 (not including positions related to capital expenditures at Montréal-Trudeau in 2014)

Employment

- Close to **55,000 TOTAL JOBS** (direct, indirect and induced) attributable to the operations of organizations and companies at Montréal-Trudeau in 2014:
 - More than **52,000 JOBS** in day-to-day operations and more than **2,000** related to investment projects in 2014
 - Total payroll of **\$3 BILLION** in 2014, i.e., purchasing power of \$1.7 billion

Contribution to Québec GDP

- **\$5.5 BILLION** in 2014
 - Day-to-day operations contributed approximately **\$5.3 BILLION** in 2014
 - Investment projects in 2014 resulted in a contribution to GDP of nearly **\$200 MILLION** in 2014

Contribution to governments' revenues

- Economic activity at Montréal-Trudeau generated more than **\$1.4 BILLION** (2014) in revenues for the federal and provincial governments (not including corporate taxes)
- Nearly **\$40 MILLION** in property taxes was paid to **MUNICIPAL ADMINISTRATIONS** in 2014



APPROACH – QUANTIFYING PURCHASING POWER

Input

- Number of jobs
- Value of payroll
- Value of capital expenditure

Direct effects

- Workers (FTE)¹ directly associated with Montréal-Trudeau site
- Gross earnings of “direct” workforce

Indirect effects

- Workers (FTE)¹ in the network of suppliers of the businesses directly associated with Montréal-Trudeau site
- Gross earnings of “indirect” workforce

Induced effects

- Workers (FTE) supported by the consumer spending² of workers directly associated with Montréal-Trudeau site and indirect workers (share of employment corresponding to the value of orders made)
- Gross earnings of “induced” workforce

Overall effects

- Total workers (FTE) associated with Montréal-Trudeau site
- Total gross earnings of workforce

1 The equivalent number of full-time jobs.

2 Consumer spending is estimated based on workers' disposable income (after tax deductions and a savings rate).

THE ECONOMIC IMPACT STUDY MAKES IT POSSIBLE TO QUANTIFY THE CONTRIBUTION OF PRODUCTION ACTIVITIES TO THE CREATION OF PURCHASING IN QUÉBEC.



CORPORATE PROFILE

Aéroports de Montréal is a not-for-profit corporation without share capital and is responsible for the management, operation, and development of Montréal-Pierre Elliott Trudeau International Airport (formerly Montréal-Dorval International Airport) and Montréal-Mirabel International Airport under the terms of a lease signed with Transport Canada in 1992 and expiring in 2072.



THE MISSION OF AÉROPORTS DE MONTRÉAL IS THREEFOLD

- PROVIDE QUALITY AIRPORT SERVICES THAT ARE SAFE, SECURE, EFFICIENT AND CONSISTENT WITH THE SPECIFIC NEEDS OF THE COMMUNITY
- FOSTER ECONOMIC DEVELOPMENT IN THE GREATER MONTRÉAL AREA, ESPECIALLY THROUGH THE DEVELOPMENT OF FACILITIES FOR WHICH IT IS RESPONSIBLE
- CO-EXIST IN HARMONY WITH THE SURROUNDING ENVIRONMENT, PARTICULARLY IN MATTERS OF ENVIRONMENTAL PROTECTION

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