

Halifax
Stanfield
International
Airport

2016

Economic Impact Report



HalifaxStanfield
connecting means the world

October 2017

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Executive Summary

Halifax Stanfield International Airport (Halifax Stanfield) is one of 26 airports in Canada's National Airports System and the eighth busiest. It is rated by passengers as one of the world's best airports based upon international airport service quality surveys. In 2016, Halifax Stanfield welcomed a record high 3,908,799 passengers on 18 scheduled or charter passenger airlines flying non-stop to 19 domestic, eight transborder and 18 international destinations.

Passengers included 701,000 arriving non-resident business and leisure travellers to Nova Scotia or 31% of all visitors to the province. The airport's 2016 passenger volume is more than half of all passengers in Atlantic Canada and a 5.6% increase from 2015. Based upon departing seats per capita, the airport ranks number one in Canada.

The Halifax International Airport Authority (HIAA) has a Standard & Poor's A+ Positive credit rating. It is implementing a strategy to market the airport as an air transport hub between Europe and North America while also targeting the Asian market to increase cargo flights and facilitate exports of lobster and other seafood products as well as tourism, trade and other areas of co-operation.

In 2016, a record 33,330 metric tonnes of air cargo were processed at the airport. This volume is a 4.1% increase from 2015. Much of that cargo was live lobster, an estimated \$187 million in seafood and lobster exports were shipped in 2016. This is an increase of \$40 million from 2015.

New air cargo services were introduced in 2016. A second weekly flight was added by Korean Air Cargo to Seoul, South Korea. Qatar Airways Cargo launched weekly service to Doha with a stop in Zaragoza, Spain in mid-2016. A B777-200 freighter was deployed on this route with capacity for 103 tonnes of cargo. Much of that cargo will be Nova Scotia lobster and silver hake. In December 2016, CAL Cargo Airlines started operations with flights to Liege, Belgium using a B747-400 freighter with connecting service to Hong Kong and Shanghai, China.

The economic and fiscal impacts of Halifax Stanfield were assessed by airport and tenant operations, Nova Scotia exporters using air cargo services and non-resident business and leisure travellers entering Nova Scotia at the facility.

Halifax Stanfield's total economic output for the economy of Nova Scotia is over \$2.8 billion or a 4.4% increase from 2015. This is composed of over \$1.1 billion dollars in direct impacts from airport and tenant operations. The total impact from air cargo exporters on the Nova Scotia economy is approaching \$490 million with some of these exporters based at the airport.

Visitors entering Nova Scotia at the airport contributed \$943 million to the province's economic output with some of these expenditures occurring at the airport.

Gross Domestic Product (GDP) at basic price is the monetary value of all goods and services produced by airport and tenant operations, Nova Scotia air cargo exporters and visitors entering the province at the facility. In 2016, Halifax Stanfield's total GDP impact on Nova Scotia is over \$2.22 billion. This value represents an increase of 3.4% from 2015. For airport and tenant operations, the total GDP impact is \$1.318 billion. The total impact from air cargo exporters on Nova Scotia's GDP is over \$364 million. Visitors entering the province at the airport contributed more than \$869 million to the province's GDP.

For 2016, there were 5,665 full-time equivalent (FTE) employees at Halifax Stanfield, an increase of 2.9% from 2015. With the head office functions of IMP and Jazz Aviation being the major employers, IMP had 997 FTE employees in 2016 and Jazz Aviation had 771 FTE employees.

Total economic activity associated with the airport and tenants, air cargo exporters and air visitors generated 31,664 FTE jobs in 2016. This level of employment is a 7.6% increase from 2015 that is largely driven by more exports in the labour intensive live lobster and other seafood sectors. The total employed labour force in Nova Scotia in 2016 was 486,600 and the airport was responsible for 6.5% of this total.

Total wages and salaries related to the airport and tenants, air cargo exporters and air visitors generated over \$1.34 billion in wages and salaries in 2016. This level of household income is an increase of 4.3% from 2015.

Halifax Stanfield has a positive fiscal impact on the Province of Nova Scotia. The total personal income and consumption taxes in 2016 to the Province of Nova Scotia resulting from airport activity, air cargo exporters and visitors entering Nova Scotia at the airport amounts to \$141.1 million. This government revenue is a 4.4% increase from 2015 and consists of \$57.0 million in direct personal income and consumption taxes, \$43.3 million in indirect taxes and \$40.8 million in induced taxes.

A portion of personal income is spent on retail trade goods and services that include HST at 15%. In 2016, \$70.5 million in retail sales taxes were created due to airport activity, air cargo exporters and visitors entering the province at Halifax Stanfield. HST payments in 2016 were up 4.3% from 2015.

HIAA and tenants also pay municipal taxes to the Halifax Regional Municipality (HRM). In 2016, the total value of taxes paid to HRM by HIAA and tenants on land covered by the HIAA - Transport Canada Ground Lease was \$4,511,522.

Since the 2000 transfer of the facility from Transport Canada, HIAA and tenants have invested approximately \$635 million in new capital development projects and the maintenance of capital. These projects represent over 70% of all capital improvements at airports in Atlantic Canada, and reflects Halifax Stanfield's regional dominance in air passenger and air cargo activity. Capital projects from 2000 to 2016 created over 11,335 person years of employment (FTE jobs) and contributed \$1.1 billion to Nova Scotia's economic output.

For 2017 to 2021, an additional \$254.3 million is expected to be spent on capital projects by HIAA and tenants. These investments do not include all of the commercial development parts of the new Master Plan that is expected to significantly increase future capital spending. Known planned future projects, as of the end of 2016, will create 4,540 FTE jobs with the direct jobs being 1,640. Planned projects to 2021 will contribute \$417 million to Nova Scotia's economic output.

The past and planned future projects have a significant impact on the HRM and Nova Scotia economies. In total, these projects impact the province's economic output by almost \$1.56 billion, GDP by over \$1.1 billion and generate 16,955 FTE jobs with wages and salaries of \$811 million.

SUMMARY OF ECONOMIC & FISCAL IMPACTS				
	Direct	Indirect	Induced	Total (% Change 2015-16)
2016 Economic Impacts				
Economic Output (Millions)	\$1,745.6	\$545.6	\$531.9	\$2,822.3 (+4.4%)
GDP Basic Price (Millions)	\$953.4	\$525.1	\$743.1	\$2,221.6 (+3.4%)
Employment FTE	13,082	9,795	8,788	31,664 (+7.6%)
Wages & Salaries (Millions)	\$542.7	\$412.1	\$389.0	\$1,343.8 (+4.3%)
2016 Fiscal Impacts				
	Direct	Indirect	Induced	Total (% Change 2015-16)
Nova Scotia Personal Income & Consumption Taxes (Millions)	\$57.0	\$43.3	\$40.8	\$141.1 (+ 4.4%)
Retail Sales Tax HST (Millions)	\$28.5	\$21.6	\$20.4	\$70.5 (+ 4.3%)
Construction Projects 2000 To 2021				
	Economic Output (Millions)	GDP Basis Price (Millions)	Labour Income (Millions)	FTE Jobs
Total	\$1,557.4	\$1,115.3	\$811.0	16,955

1 Introduction

1.1 Context

The Chris Lowe Group was retained by Halifax International Airport Authority (HIAA) to determine the 2016 economic impacts of the Halifax Stanfield International Airport (Halifax Stanfield) on Halifax Regional Municipality (HRM) and the Province of Nova Scotia. The 2016 study applies the Input Output Tables of Statistics Canada's System of National Accounts to determine the impacts of:

- Airport and tenant operations
- Airport and tenant construction (capital) projects
- Nova Scotia exporters using Halifax Stanfield air cargo services
- Visitors (non-resident business and leisure travellers) entering Nova Scotia at the airport

The study used many sources to calculate the impacts; including a survey of major airport tenants, economic impact models used by Statistics Canada, operating and financial results from HIAA, and government and industry statistics.

The report contains five sections. Section 1, Introduction, includes an overview of Halifax Stanfield and the regional economy. Section 2, Study Approach, outlines how the 2016 economic and fiscal impacts are measured. Section 3, Economic Impacts, contains Halifax Stanfield's 2016 economic impacts on HRM and Nova Scotia. Section 4, Fiscal Impacts, presents the personal, consumption and retail sales tax impacts for 2016. Section 5, Summary, presents the 2016 highlights of both economic and fiscal impacts, as well as comparisons to 2015.

1.2 Airport Overview



Halifax Stanfield is one of 26 airports in Canada's National Airports System and the eighth busiest. It is rated by passengers as one of the world's best airports based upon international airport service quality surveys. In 2016, the airport welcomed 3,908,799 passengers on 18 scheduled or charter passenger airlines flying non-stop to 19 domestic, eight transborder and 18 international destinations. Passengers included 701,000 arriving visitors to Nova Scotia. The airport's 2016 passenger volume is more than half of all passengers in Atlantic Canada and a 5.6% increase from 2015.

Halifax Stanfield began operations in 1960 with Instrument Flight Rule (IFR) operations and a 16,900 square metre Air Terminal Building (ATB). In the first year, 180,000 passengers were processed or less than 5% of the 2016 volume. In 2000, management and operation were transferred from Transport Canada to HIAA under a 60-year lease. This lease was extended in 2014 by Transport Canada by 20 years to January 31, 2080.

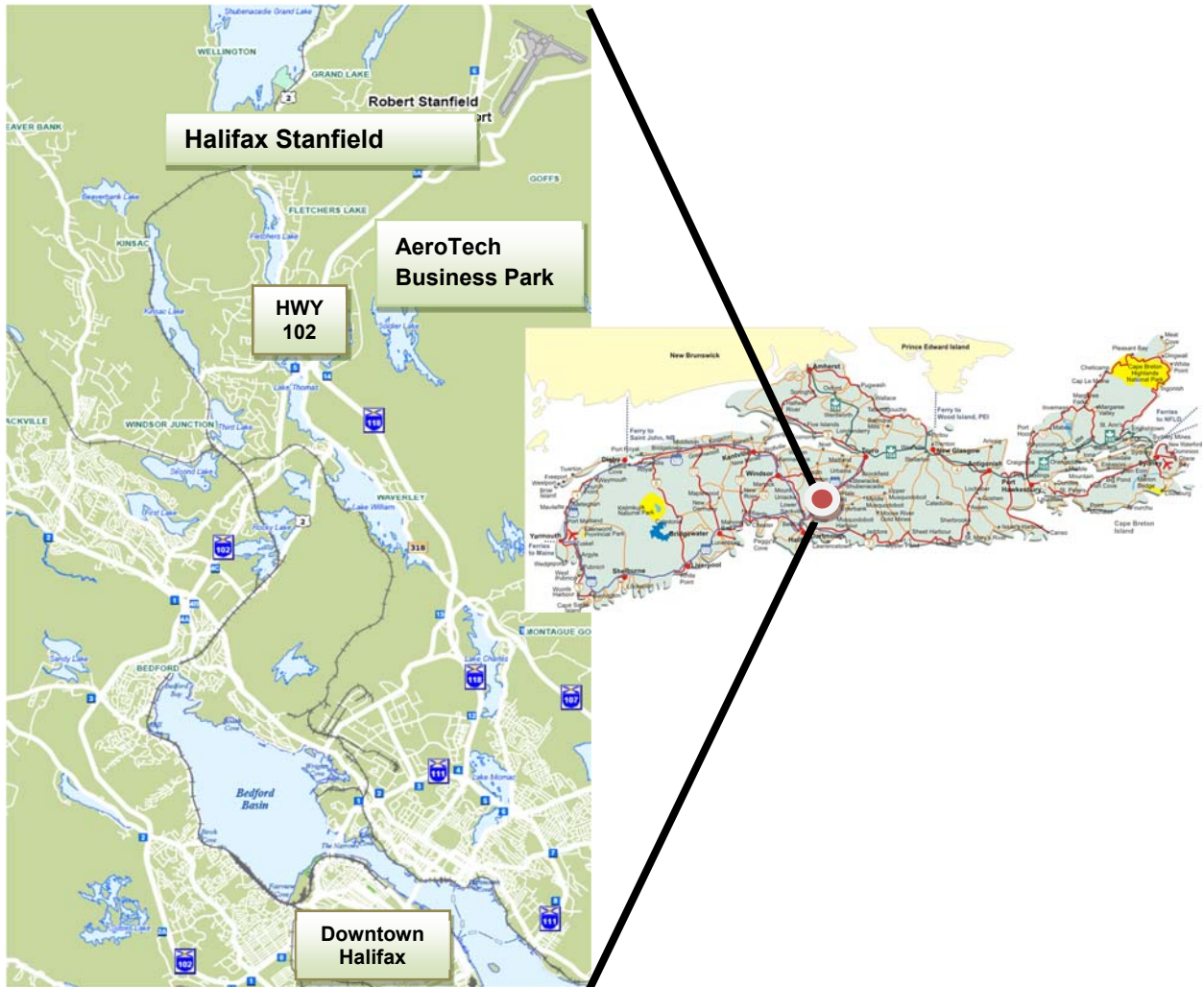
The airport's regional importance and international status are backed by strong financial performance. HIAA has achieved an A+ credit rating from Standard & Poor's. This independent credit rating agency in 2016 revised their outlook to positive from stable. This A+ positive corporate and bond credit rating is one of the highest among Canadian airport authorities.

Halifax Stanfield operates 24 hours a day without curfew and noise restrictions.

The airport has two runways (05/23 at 10,500 feet and 14/32 at 7,700 feet), which can accommodate the largest passenger and cargo planes in use today. The ATB has 32 operating gates and 13 loading bridge positions. In 2016, 33,330 metric tonnes of cargo were handled.

Halifax Stanfield is located 35 kilometres northwest of HRM's urban centre beside Highway 102. This highway is the major route to New Brunswick, Prince Edward Island and points west and south. Surrounding land uses include the AeroTech Business Park. In 2016, Halifax Regional Council amended their land use policies and controls to limit residential and non-compatible development near the airport to not restrict 24/7 operations.

**Exhibit 1.1
REGIONAL SETTING**



Halifax Stanfield is the largest airport in Atlantic Canada and accounts for 40% of the region's seat capacity and more than half of all passengers. Based on departing seats per capita, the airport ranks first in Canada. Carriers provide direct and connecting passenger and cargo service across Canada, transborder service into the U.S. and international links to the Caribbean, Europe, the Middle East and Asia. These services are provided by 18 passenger carriers and 11 cargo carriers. The international passenger catchment area is Atlantic Canada and the domestic catchment area is Nova Scotia, Southern New Brunswick and Prince Edward Island. Halifax Stanfield is unique in the national airport system as it serves four provinces, making it the hub for Atlantic Canada.



Since 2006, Halifax Stanfield has been the only airport east of Montréal to allow transborder passengers to be processed by U.S. Customs and Border Protection Services prior to departure on U.S. non-stop flights. To further improve the passenger experience, BorderXpress Automated Passport Control (APC) kiosks were installed in 2016 in the U.S. Preclearance area. These new kiosks allow U.S. Customs and Border Protection officers to process more passengers than traditional clearance methods. The result is reduced congestion and decreased wait times.

**Exhibit 1.2
2016 HALIFAX STANFIELD -
SCHEDULED AND SEASONAL PASSENGER SERVICES**

19 Domestic Destinations	8 Transborder (USA) Destinations	18 International Destinations
Calgary, AB Charlottetown, PEI Deer Lake, NL Edmonton, AB Fredericton, NB Gander, NL Goose Bay, NL Hamilton, ON Moncton, NB Montréal, PQ Ottawa, ON Saint John, NB St. John's, NL Stephenville, NL Sydney, NS Toronto, ON Toronto City Centre, ON Vancouver, BC Winnipeg, MB	Boston, MA Ft. Lauderdale, FL Newark, NJ New York (JFK), NY Orlando, FL Philadelphia, PA St. Petersburg, FL Tampa, FL	Bahamas - <i>Freeport</i> Cuba - <i>Cayo Coco, Holguin, Santa Clara, Varadero</i> Dominican Republic - <i>Puerto Plata, Punta Cana, Samana</i> France - <i>Paris (one-stop via Dublin)</i> Germany – <i>Frankfurt, Munich</i> Iceland - <i>Reykjavik</i> Ireland - <i>Dublin</i> Jamaica - <i>Montego Bay</i> Mexico - <i>Cancun</i> Scotland - <i>Glasgow</i> St. Pierre et Miquelon United Kingdom - <i>London (Heathrow)</i>
Source: Halifax International Airport Authority.		

1.3 2016 Highlights

Passengers and Freight Air Service

Since 1960, approximately 110 million passengers have used Halifax Stanfield. In 2016, the airport served an average of 180 flights each day to various points within Canada, the U.S., Europe, Mexico and the Caribbean. The airport served a record 3,908,799 passengers in 2016. This volume was a 5.6% increase over 2015. Halifax Stanfield accounted for 40% of the Atlantic Canada seat capacity. Based on departing seats per capita, the airport ranks number one in Canada.



Domestic traffic is the largest segment of air service traffic at 84% of all traffic. This segment was up by 7.4% from 2015. This includes many international passengers connecting at other airports such as those in Montréal and Toronto as thus flying domestically from Halifax. During 2016, WestJet introduced four times weekly summer service to Winnipeg and Vancouver, WestJet Encore completed its first year of operation with six additional daily flights, NewLeaf commenced service to Hamilton, and Air Canada added seat capacity to Montréal and Toronto.



The transborder segment was approximately 8% of all traffic. It was down slightly by 1.9% to 326,602 passengers in 2016 and reflects the impact of the Canada - U.S. exchange rate and pilot shortages in the U.S. During 2016, WestJet commenced daily service to Boston. More seat capacity to Florida was provided by Air Canada and WestJet, while these gains were offset by reduced seat capacity and frequency of service by American Airlines, Delta Air Lines and United Airlines.

The international segment accounts for about 8% of all traffic. Compared to 2015, it was down by 4.2% to 313,712 passengers. This decline was mostly

due to the loss of both WestJet's winter service to Punta Cana and Air Transat's summer service to London Gatwick and Punta Cana.

The Halifax International Airport Authority is implementing a strategy to market the airport as an air transport hub between Europe and North America while also targeting the Asian market to increase cargo flights and facilitate exports of lobster and other seafood products as well as tourism, trade and other areas of co-operation.

In 2016, a record 33,330 metric tonnes of air cargo were processed at the airport. This volume is a 4.1% increase from 2015. Much of that cargo was live lobster. An estimated \$187 million in seafood and lobster exports were shipped from Halifax Stanfield in 2016. This is an increase of \$40 million from 2015.

New air cargo services were introduced in 2016. A second weekly flight was added by Korean Air Cargo to Seoul, South Korea. Qatar Airways Cargo launched weekly service to Doha with a stop in Zaragoza, Spain in mid-2016. A B777-200 freighter was deployed on this route with capacity for 103 tonnes of cargo. Much of that cargo was Nova Scotia lobster and silver hake. In December 2016, CAL Cargo Airlines started operations with flights to Liege, Belgium using a B747-400 freighter, with connecting service to Hong Kong and Shanghai, China.

During December, lobster was sent to all parts of the world through the connections provided by Halifax Stanfield. Air Canada, CargoJet, FedEx, UPS, Korean Air Cargo and CAL Cargo Airlines are the major lobster carriers. Korean Air Cargo and CAL Cargo Airlines had the largest shipments of lobster. The 777s carry between 80-90 tonnes of lobster and the 747s carry up to 110 tonnes.



Looking to the future, trade agreements should enable significant increases in these exports as tariffs on lobster and seafood are reduced or eliminated in major export markets.

Current European Union tariffs for fish and seafood average 11% and can be as high as 25%. The Canada - European Union Comprehensive Economic and Trade Agreement (CETA) was signed on October 30, 2016 by Canada and all 28 EU member countries. The European Parliament approved the agreement on February 15, 2017, and remaining parts of the agreement are subject to ratification by national legislatures. When CETA is provisionally applied, close to 96% of EU tariff lines for fish and seafood products will be duty-free. All tariff lines will be duty-free after seven years if CETA is ratified by February, 2018.

Korean, China and Japan are three other major seafood export markets for Atlantic Canada.

The Canada - Korea Free Trade Agreement (CKFTA) became effective in 2015. At that time, tariffs were eliminated on frozen lobster. By 2018, the 20% tariff will be eliminated on fresh lobster, mussels, smoked shrimps and prawns, and snow crab. HIAA in 2016 signed an expanded sister airport agreement with the Incheon International Airport in South Korea that lays out a continued commitment to work together to foster partnerships and initiatives with a focus on cargo exports.

In February 2016, Canada and 11 other countries (including Japan) signed the Trans-Pacific Partnership (TPP) Agreement. In January 2017, the United States exited TPP while the remaining members remain committed to ratification. Canada and the other member countries have up to two years (February 2018) to ratify their participation. Under the TPP, Japan duties would be eliminated at a declining rate over five or 10 years.

Canada is also undertaking exploratory trade talks with China on a proposed Canada - China Free Trade Agreement. A China agreement will have a larger market price impact than TPP as the current duty rate on live lobster is 1% in Japan and 15% in China.

Awards



Halifax Stanfield continued to receive third-party recognition and rewards in 2016.

For many years, passengers have rated them as one of the best airports in the world based on the Skytrax World Airport Awards. These awards are based on over 13.25 million customer nominations covering more than 550 airports in 112 countries. The survey includes customer satisfaction for such airport features as check-in, arrivals, transfers, shopping and immigration.

Awards for 2016 were:

- 3rd Best Airport in the World for its size (under 5 million passengers)
- 10th Best Airport in North America
- 10th Best Domestic Airport in the World
(The only Canadian airport in the top 10 in this category)
- 4th Best Regional Airport in North America
- 9th Best Airport Staff in North America

In the 2016 Airport Service Quality (ASQ) ratings, Halifax Stanfield tied for third best for overall passenger satisfaction in North America. ASQ awards are presented to airports whose passengers have rated them the highest over the course of a year, based on their demonstrated commitment to providing an excellent customer experience.



Locally, Halifax Stanfield is regarded as having the best reputation among the 43 large and mostly private sector organizations in the region based upon a Corporate Research Associates survey.

The many awards received by the airport community reflect a corporate culture that is advanced through The Stanfield Way, a distinctive airport service culture program. This service quality program had almost 150 new graduates in 2016 for a total of 930 since launching in 2012. A refresher workshops was also introduced in 2016 for former graduates.

Capital and Real Estate

During 2016, HIAA invested more than \$34 million in infrastructure upgrades; including the following:

- A new 17,000 square metre apron located near cargo facilities.
- A new 300-space employee parking area.
- Apron replacement at Gate 22 and a new bridge at Gate 26.
- Upgraded lighting on the approaches to Runways 05 and 32.
- Air Terminal Building space reconfiguration for new retail and food service outlets, and airline operations (airside).
- Automated passport kiosks in the U.S. Preclearance area to reduce congestion and decrease wait times.

HIAA continued a multi-year project to improve the airport's electrical power supply and back-up systems. The heavy equipment fleet was also upgraded with the purchase of two new multipurpose snow and ice removal machines.

A new employee parking lot was opened in 2016. It is a project enabled by a new one-way loop road system that opened in 2015. This road configuration improved traffic safety and capacity while reducing congestion. The road layout opened an inner core for future serviced commercial development.

Operations

Halifax Stanfield is one of the most important pieces of transportation infrastructure in Atlantic Canada. HIAA's prudent fiscal management at the airport is confirmed by Standard & Poor's A+ Positive credit rating. Management decisions are based upon a four-tier planning process that includes a 20-Year Master Plan, 10-Year Capital and Financial Plan, Five-Year Strategic Plan and annual Business Plan. During 2016, HIAA updated both its Five-Year Strategic Plan and 10-Year Capital and Financial Plan. These documents will provide guidance for future actions.

HIAA also continued to focus on generating more non-aeronautical revenue. With record passenger numbers and air cargo volumes in 2016, total revenues rose to \$97.4 million from \$91.7 million in 2015. Expenses also increased in 2016 to \$92.3 million from \$89.1 million in 2015.



Community Engagement



Halifax Stanfield is connected to over 36,000 followers on Facebook and Twitter, and millions more on its web site.

At Halifax Stanfield, there is an active program to enhance the travel experience. The cornerstone of volunteer engagement is the Tartan Team made up of a group of dedicated volunteers who wear Nova Scotia tartan vests and provide traveller assistance. The Team Tartan began with 18 volunteers in 2000 and now has more than 100 volunteers. Over the past 16 years, the volunteers have logged over 250,000 hours of service.

The volunteer program expanded in 2015 to include the first therapy dog program at an airport in Atlantic Canada in partnership with St. John Ambulance.

In addition, the Airport Authority has volunteers who are screened through police checks to assist in airport security under the Halifax Airport Watch (HAW) Program. This new program involves aviation enthusiasts who have partnered with HIAA Security to watch for any security or safety concerns and report to HIAA Security. HAW is an extension of Halifax Stanfield's iWatch program, an airport community security initiative that encourages the reporting of suspicious activity to airport security.

In the larger community, HIAA's Community Outreach Program provided over \$300,000 in donations and in-kind support to more than 200 charities, business and community groups and local sports teams. The Signature Partnership is a cornerstone of HIAA's Community Outreach Program. In 2016, the Dartmouth North Community Food Centre became a new Signature Partner. Habitat for Humanity Nova Scotia was the first Signature Partner (2010-2012) followed by Parker Street Food & Furniture Bank (2013-2015).

1.4 Operations

An estimated 15,000 people pass through the Air Terminal Building every day.

Halifax Stanfield had 3,908,799 enplaned/deplaned passengers in 2016. This represents the airport's busiest year in its 56-year history.

The following passenger and cargo carriers operated from the airport in 2016.

Passenger

Air Canada
 Air St. Pierre
 Air Transit
 American Airlines
 ASL Airlines France
 Condor Flugdienst
 Delta Air Lines
 Exploits Valley Air Services (EVAS)
 Icelandair
 Jazz Aviation
 NewLeaf
 Nolinor Aviation
 Porter Airlines
 Provincial Airlines
 Sunwing Airlines
 United Airlines
 WestJet
 WestJet Encore

Cargo

Air Canada
 Air St. Pierre
 Air Transat
 Cargojet
 CAL Cargo
 Condor Flugdienst
 Federal Express (FedEx)
 Icelandair
 Korean Air Cargo
 Qatar Air Cargo
 WestJet

Halifax Stanfield in 2016 had the most domestic service to and from the Atlantic region with Air Canada (operated by Air Canada and Air Canada rouge), Air Canada Express (operated by Jazz, EVAS and Sky Regional), WestJet, WestJet Encore, Provincial Airlines, Porter and NewLeaf with daily flights to Toronto, Toronto City Centre, Montréal, Ottawa, Calgary, Edmonton, Charlottetown, Deer Lake, Fredericton, Gander, Goose Bay, Hamilton, Moncton, Saint John, St. John's and Sydney. Seasonal service was offered to Vancouver, Winnipeg and Stephenville.

In addition, Halifax Stanfield provides the most direct access to the United States and offers the only U.S. Preclearance facility in Atlantic Canada. Multiple daily transborder service was available to Boston and New York. Weekly service to Orlando and seasonal service to Fort Lauderdale, St. Petersburg and Tampa was offered by Air Canada, Air Canada Express (operated by Jazz), WestJet, Air Transat, Delta, Sunwing and United.

For international destinations, Halifax Stanfield had Air Canada's year-round service to London Heathrow, Air St. Pierre year-round service to St. Pierre & Miquelon, seasonal service was offered by WestJet to Glasgow, ASL Airlines

France to Dublin and Paris, Condor Airlines to Frankfurt and Munich, and Icelandair to Reykjavik.

Halifax Stanfield has the most comprehensive winter sun destination flights in Atlantic Canada with direct service to destinations in Florida, Bahamas, Cuba, Dominican Republic, Jamaica, and Mexico provided by Air Canada, WestJet, Air Transat and Sunwing.

Exhibit 1.3 lists the destinations of flights from Halifax Stanfield as of August, 2016 with comparisons to 2009. There were 603 flights per week to Canadian destinations, 73 to transborder destinations and 27 to international destinations. In comparison to 2009, total flights increased by 6.7%.

Air Canada and Air Canada Express had the largest market share. Their share of total weekly departing flights was 64% during August 2009 and 54% in August 2016.



The airport can accommodate large air cargo freighters with the extension of Runway 05/23. The air cargo sector includes carriers, freight forwarders, customs brokers and cargo specialists. Halifax Stanfield handled 33,330 metric tonnes of cargo in 2016 compared to 32,020 metric tonnes in 2015. The 2016 volume is an increase of 23.9% from the 26,910 tonnes handled in 2009. Forecasts by Transport Canada project cargo volume to be 41,700 metric tonnes in 2021 and 46,400 metric tonnes by 2026.

The value of all Nova Scotia air cargo exports from Halifax Stanfield in 2016 was \$330.1 million or an increase of 2.3% from 2015. The major export is live lobsters and other fish with a value of \$163.0 million followed by specialized equipment at \$40.8 million.



**Exhibit 1.3
HALIFAX STANFIELD -
WEEKLY ACTIVITY AUGUST 2009 to 2016**

Air Carrier – Domestic Service	2009 Flights Per Week	2016 Flights Per Week	2016 Destinations
Air Canada / Air Canada rouge/ Air Canada Express (Jazz, Exploits Valley Air Services (EVAS), Sky Regional)	397	380	Calgary, Montréal, St. John's, Toronto, Charlottetown, Fredericton, Moncton, Saint John, Deer Lake, Gander, Goose Bay, Ottawa, Sydney
Porter Airlines	32	67	Ottawa, Montréal, St. John's, Stephenville
New Leaf	0	2	Hamilton
Provincial Airlines	0	4	Charlo
WestJet/WestJet Encore	98	150	Calgary, Edmonton, Hamilton, Toronto, Ottawa, St. John's, Deer Lake, Gander, Sydney, Vancouver, Winnipeg
Subtotal	539 *	603	
Air Carrier – Transborder Service			
Air Canada Express (Jazz)	20	13	Boston
Delta Connection (Endeavor Air)	15	12	New York (JFK)
American Airlines	14	14	Philadelphia
United Airlines	15	26	Newark
WestJet	0	8	Boston, Orlando
Subtotal	100 *	73	
Air Carrier – International Service			
Air Canada	8	7	London (Heathrow)
Air Saint-Pierre	3	4	St. Pierre
Icelandair	3	3	Reykjavik
Condor	2	5	Frankfurt, Munich
ASL Airlines France		1	Dublin/Paris
WestJet		7	Glasgow
Subtotal	20 *	27	
Total	659 *	703	

Source: Halifax International Airport Authority.

Note: * The exhibit only lists 2016 carriers. The totals for 2009 include carriers that no longer operate at the airport or have merged with other carriers.

Halifax Stanfield is approved for Transport Canada's international air cargo transshipment program. This program allows air cargo to fly into Halifax for shipment to other countries. Cargo can arrive at Halifax from international destinations, be temporarily stored and then move onto the U.S.

International air cargo can also arrive from overseas and then be moved by highway to the United States under NAFTA. Air Canada Cargo, Korean Air Cargo, Federal Express, CAL Cargo, CargoJet, Qatar Airways Cargo and Icelandair provide regular scheduled international cargo service. The diverse range of support operators for air cargo are listed below.

Freight Forwarders

Connexion World Cargo (Canada) Ltd.
 DSV Air & Sea Inc.
 Kintetsu World Express Inc.
 Kuehne & Nagel International Ltd.
 Leisure Cargo
 MOL Logistics
 PF Collins Customs Broker Ltd.
 UPS Supply Chain Solution
 Worldwide Perishables Canada

Integrated Couriers

CargoJet
 Federal Express
 Purolator Courier

Cargo Handlers

Air Canada Cargo
 Swissport (Servisair)
 Worldwide Flight Services
 Worldwide Perishables Canada

Customs Brokers

Atlantic Customs Brokers
 DB Schenker
 EDI Custom Brokers
 Kintetsu World Express Inc.
 KN Customs Brokers
 Livingston International Inc.
 PBB Global Logistics
 PF Collins Customs Broker Ltd.

Other Cargo Services

Armour Transport Inc.
 Canadian Gold Seafood Ltd.
 Cape Nova Express
 Halifax Marine Agencies Ltd.
 Monts Transfer Ltd.
 Network Cargo Systems
 Pole Star Transport Inc.
 Summit Transportation Group

Halifax Stanfield serves a mature passenger market where volumes are influenced by regional population growth and economic activity. The global recession of 2008 and 2009 resulted in North American carriers losing over US\$22 billion as traffic declined and system capacity was reduced (source: IATA Industry Statistics Fact Sheet June 2017 and 2016 Mid-Year Report). There was a strong recovery in North American passenger traffic (revenue passenger kilometres - RPK) in 2010 at 4.5% and then more modest increases in the 1.0% to 2.7% range from 2011 to 2014. Strong domestic demand in the United States contributed to 5.3% RPK growth in 2015 and this trend has continued with 4.2% growth in 2016. This increase was below 2016 global RPK growth of 7.4%. Globally, North America-based commercial airlines were the most profitable in 2016 (13.2% EBIT) followed by Asia-Pacific (10%) and Europe (6.1%).

The two major carriers at Halifax Stanfield are Jazz Aviation and Air Canada. Four carriers (Southwest, Delta, United, American) now control 69% of the domestic U.S. market while Air Canada and WestJet control almost 85% of the Canadian domestic market. There have been fewer new airlines formed in the post 2008/09 recession period than in previous economic cycles. An exception is NewLeaf Travel Company. NewLeaf was a new ultra-low-cost travel company that launched in 2016 with a Winnipeg headquarters and bases in Hamilton and Kelowna.

The airport's diversified list of tenants enabled employment growth in recent years. The largest contributor to the airport's economic base is IMP Group, which had 997 FTE employees in 2016. This firm's airport employment was 967 FTEs in 2015. IMP is part of an aerospace cluster at Halifax Stanfield that extends to the adjacent AeroTech Business Park. Pratt & Whitney Canada and L-3 Communications Electronic Systems are located in AeroTech. These two firms had 439 FTE employees in 2016.

Air security has required more staff since 2001 and employment in this sector now reflects the mandate of both Canadian and U.S. service providers. The major security employer is Canadian Air Transport Security Authority (CATSA) and their operator, Securitas. Other security and inspection operations include the Canada Border Services Agency, Revenue Canada, Canadian Food Inspection Agency, Health Canada, Halifax Regional Police (Aviation Security Unit), Transport Canada, U.S. Customs and Border Protection, and the RCMP. The number of employees involved in airport security and government inspections approached 520 in 2016.



One sector that is dependent upon passengers is ground transportation. There were 175 active and licensed taxis and limousines, and 289 non-registered taxis / limousines and 24 shuttles through the MACPass system operating regularly at the airport. These operators made 187,954 pickups (curb tickets collected) in 2016 or a 5.8% increase from 2015. Based upon the level of activity, the airport created approximately 215 FTE taxi and limousine driver positions.

Halifax Transit's MetroX Route 320 service began in 2012 and it operates seven-day a week (half hour peak service and hourly regular service). The first bus leaves Downtown Halifax on weekdays at 4:30 am and the last bus departs the airport at 12:15 am. Daily weekday ridership was over 600 in 2016.



Exhibit 1.4 presents a list of the major employers in 2016. The head office functions of IMP and Jazz Aviation (a wholly owned subsidiary of Chorus Aviation) are the major employers. IMP had 997 FTE employees in 2016, which was an increase of 3.1% from 967 in 2015. Jazz Aviation had 771 FTE employees, which was similar to 2015. Around 55% of Halifax-based Jazz Aviation employees are operational and 45% are management and administrative.

Two major carriers (Air Canada and WestJet) adjusted their Halifax staffing in 2016. WestJet added 33 FTE employees as they expanded operations in Atlantic Canada to 78 FTE at Halifax Stanfield while Air Canada reduced their staff by 17 FTE positions or 5.2% from 328 in 2015 to 311 in 2016. The other major carrier, Porter Airlines, increased staff by over 25% from 72 FTE positions in 2015 to 91 FTE in 2016.



Overall, major retail and food service operations had stable or modest reductions in staffing while courier, cargo operations and ground support operations had an increase in employment. With record passenger activity, such support operations as Swissport, Inland Technologies and PLH Aviation (ASIG) increased their operations by 32% from 241 FTE jobs in 2015 to 317 in 2016.

**Exhibit 1.4
HALIFAX STANFIELD -
MAJOR EMPLOYERS 2016**

Employer	Full-Time Equivalent (FTE) Employees
IMP	997
Jazz Aviation	771
Air Canada/ Air Canada Cargo	311
Swissport (Servisair)	268
Halifax International Airport Authority	175
HMS Host International	95
FedEx	95
Porter Airlines	91
Avis/Budget	87
WestJet	78
Strategic Aviation / Sky Cafe	75
PAL	55
Gate Gourmet	48
Cougar Helicopters	47
ALT Hotel	45
Hudson Group	40
Purolator	40
NavCanada	40
Hertz	37
Gateway Facilities	35

Source: Chris Lowe Group and Halifax International Airport Authority.



Exhibit 1.5 lists passenger and aircraft movement activity between 2009 and 2016. During this time, total enplaned and deplaned passengers increased by 14.4% from 3,417,164 to 3,908,799 while total aircraft movements declined by 9.3% from 88,477 to 80,278. The average number of passengers per aircraft movement was a record high of 48.7 in 2016 as larger aircraft were used more frequently than in the past.

**Exhibit 1.5
HALIFAX STANFIELD -
AIR TRAFFIC STATISTICS 2009 to 2016**

Enplaned / Deplaned Passengers:		Total Aircraft Movements:	Passenger Average Per Movement:
2009	3,417,164	88,477	38.6
2010	3,508,153	87,021	40.3
2011	3,594,164	86,874	41.4
2012	3,605,701	84,486	42.7
2013	3,585,864	83,347	43.0
2014	3,663,039	81,030	45.2
2015	3,702,705	78,324	47.3
2016	3,908,799	80,278	48.7

Source: Halifax International Airport Authority.

Note: Up until 2015, Statistics Canada provided total aircraft movements. They no longer supply this information; therefore, HIAA now uses its own system to report aircraft movements. This system does not capture certain non-revenue generating aircraft movements that were included in the data provided by Statistics Canada for all previous years.

Exhibit 1.6 presents the 2016 concessionaire sales at Halifax Stanfield in comparison to previous years. Total sales (excluding gas station sales) in 2016 were a record high of \$95.1 million or \$24.33 per passenger. The car rental portion of this total was also a record high of \$50.6 million or \$12.96 per passenger.

**Exhibit 1.6
HALIFAX STANFIELD -
CONCESSIONAIRE SALES 2009 to 2016**

Year	Enplaned / Deplaned Passengers	Total Concessionaire Sales	Sales Per Passenger
2009	3,417,164	\$71,141,091	\$20.82
2010	3,508,153	\$79,711,056	\$20.47
2011	3,594,164	\$72,706,341	\$22.42
2012	3,605,701	\$72,300,108	\$20.05
2013	3,585,864	\$72,300,108	\$20.16
2014	3,663,039	\$78,455,547	\$21.42
2015	3,702,705	\$80,601,003	\$21.77
2016	3,908,799	\$95,102,673	\$24.33
		Car Rental Concessionaire Portion	
2009	3,417,164	\$40,385,453	\$11.82
2010	3,508,153	\$40,019,450	\$11.41
2011	3,594,164	\$39,976,260	\$11.12
2012	3,605,701	\$39,235,226	\$10.88
2013	3,585,864	\$40,223,673	\$11.22
2014	3,663,039	\$42,644,844	\$11.64
2015	3,702,705	\$44,364,681	\$11.98
2016	3,908,799	\$50,642,855	\$12.96

Source: Halifax International Airport Authority.

Note: Total concessionaire sales exclude gas station sales from 2009 to 2016. In previous reports, gas station sales were included in past economic impact reports. From 2009 to 2013, annual gas station (gas and concessionaire sales) averaged \$7.8 million.

1.5 The Airport Setting



Adjacent to Halifax Stanfield is the 970 hectare AeroTech Business Park that is operated by HRM. Two major aerospace companies are in AeroTech. They are Pratt and Whitney Canada and L-3 Electronic Systems Inc. Combined with tenants at the airport, this aerospace cluster had 1,436 employees in 2016.

The airport's economic spinoffs extend to four hotels. Hilton Garden Inn, Holiday Inn Express, Quality Inn and the ALT Hotel, which is connected to the ATB, had a combined 196 FTE employees in 2016.

1.6 Airport Facilities

HIAA has a 20-Year Master Plan that is applied for land planning, infrastructure, services and new development projects. The Land Use Plan as illustrated in Exhibit 1.7 was prepared in 1996, amended in 2002 and updated in 2011.

The airport's various land uses are classified as:

- Airfield District
- Future Airfield District
- Operational Services
- Air Terminal District
- Aviation Services
- Airport Industrial
- Airport Commercial
- Airport Reserve
- Future Roads / Runways / Taxiways

The major parts of the airport are the airfield, commercial development and terminal complex.

Airfield

The airport has simultaneous intersecting runway operations that enable traffic efficiency with fewer delays and lower carrier fuel costs. Runway 05/23 is 10,500 feet by 200 feet with an asphalt/concrete base and Runway 14/32 is 7,700 feet by



200 feet with an asphalt base. The majority of taxiways have an average width of 75 feet. There are seven aprons with areas ranging from 67,713 square feet to 597,070 square feet.

NavCanada operates the Air Navigation System at Halifax Stanfield and other airports across Canada. They employed 40 FTE employees in 2016.

The airfield had major restoration and upgrades in the recent past. This work included repaving of both runways and all taxiways, upgrades and expansion to the apron area and de-icing pads and the extension of Runway 05/23.

Commercial Development

Commercial land at the airport is leased and there were over 20 major commercial and industrial tenants in 2016. Airside taxiway access land is leased to tenants involved in air cargo aircraft and courier, aircraft overhaul and repair, helicopter transport and aircraft servicing. Non-taxiway access land is leased to companies involved with airline catering and provisioning, brokering, airport services, car rentals and vehicle maintenance. A service station and fast food outlet are also present.

Exhibit 1.8 shows the Airside Subdivision contains 17 parcels with airside access. Lots are designated for aircraft maintenance facilities, air cargo transshipment areas, offshore oil and gas supply centres, and aircraft servicing and maintenance activities. Major tenants added over the past decade included IMP's new \$15 million (40,000 square foot)



aerospace hangar in 2006 and Gateway Facilities ULC \$15 million multi-tenant cargo facility in 2010. Cougar Helicopters also opened a 22,000 square foot hangar to service the offshore oil and gas sector in 2011.

Air Terminal Building

The original ATB was opened in 1960 with numerous expansions and upgrades over the past 56 years. Since the facility's transfer from Transport Canada to HIAA in 2000, over \$200 million has been invested in terminal infrastructure. Improvements or upgrades include:

- Groundside improvements for access and parking including redevelopment of the centre core to efficiently move passengers from the new parking structure through the ATB by four new escalators, two elevators and an updated exterior façade. The ALT Hotel opened in 2013 and is linked into this pedestrian system.
- An expanded international arrivals area approximately three times larger than the previous size.
- A domestic arrivals area quadruple the former size.
- U.S. Preclearance facilities, and a separate and expanded international greeting area.
- State-of-the-art baggage screening for domestic/international and U.S. departures.
- New Customs, Immigration and Canadian Food Inspection Agency facilities.
- Additional retail space (including Airport Square) and approximately 5,000 square feet of additional space for retail and food concessions on the departure level.

The ATB currently has 32 operational gates and 13 aircraft loading bridge positions that can handle jets up to and including the Boeing 747. There are also two covered walkways.

Passenger services and

amenities include a visitor information centre, first aid facility, flight information display system, baggage carts, lounges, duty free shops, retail outlets and restaurants, and direct access to car rental concessionaires in the adjacent parking structure.



In 2016, 32 permanent tenant leased spaces were located in the ATB.

Main Level

Atlantic Sweet Shoppe
 Burger King
 Clearwater Seafoods
 East Coast Lifestyle
 Hudson Aeromart
 Hudson News
 International Currency Exchange
 Island Beach Company
 Maritime Ale House
 Starbucks
 Subway
 The Chicken Burger
 Tim Hortons
 Travel + Leisure Travel Store

Domestic/International Departure Level

Beaches Bar and Cafe
 Best Buy Express
 Booster Juice
 Brisket Deli
 Classic Backrub
 East Coast Lifestyle
 Halifax Market
 Hudson News
 Liquid Assets
 Legends Nova Scotia Lounge
 New Scotland Clothing Company
 Metalsmiths Sterling
 The Loop Duty Free
 Starbucks
 Tim Hortons

US Preclearance Departure Level

Hudson News
 The Loop Duty Free
 Spirit of the Maritimes



**Exhibit 1.7
LAND USE PLAN AND MASTER PLAN (2011)**

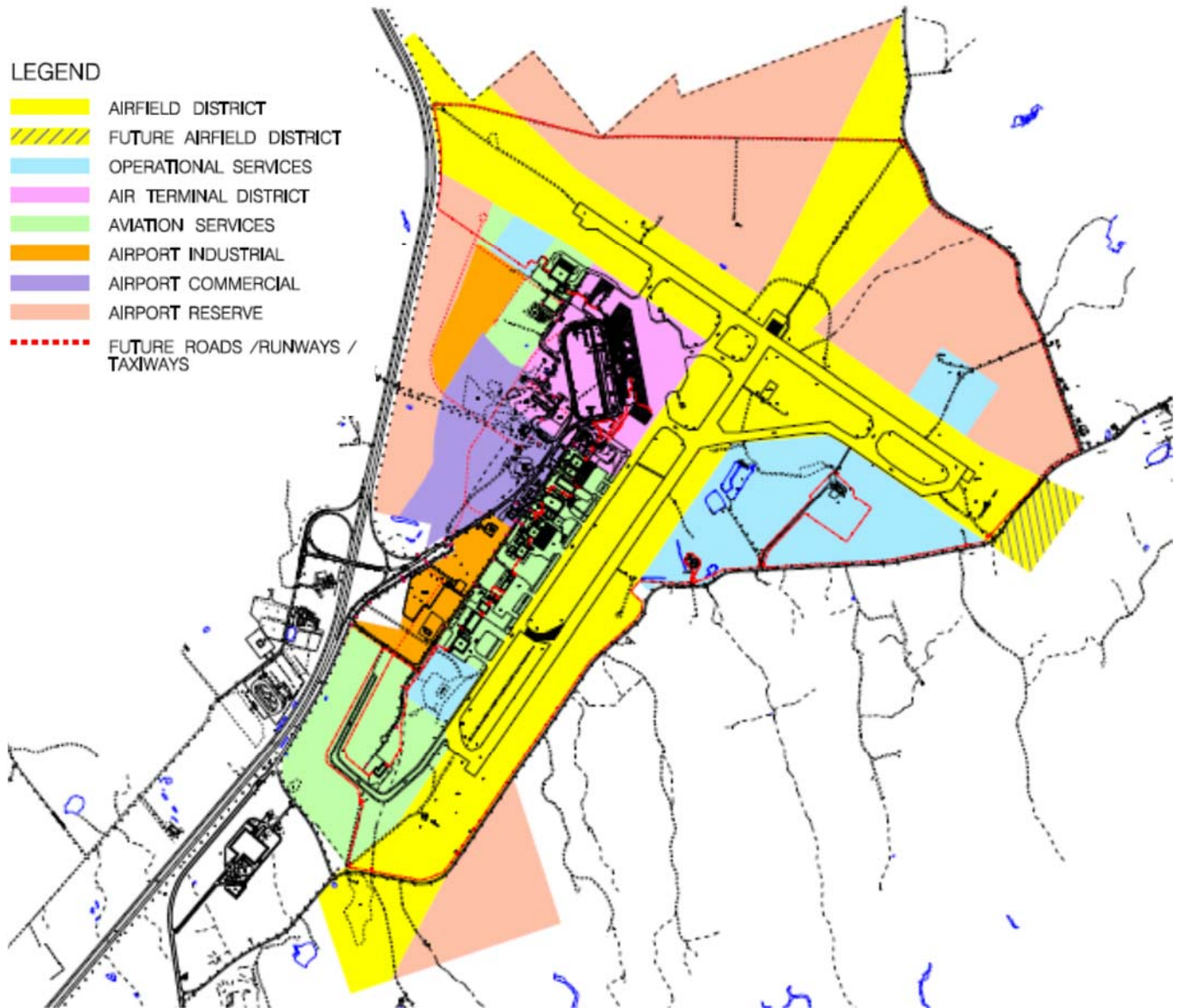


Exhibit 1.7 (Continued) LAND USE PLAN AND MASTER PLAN (2011)

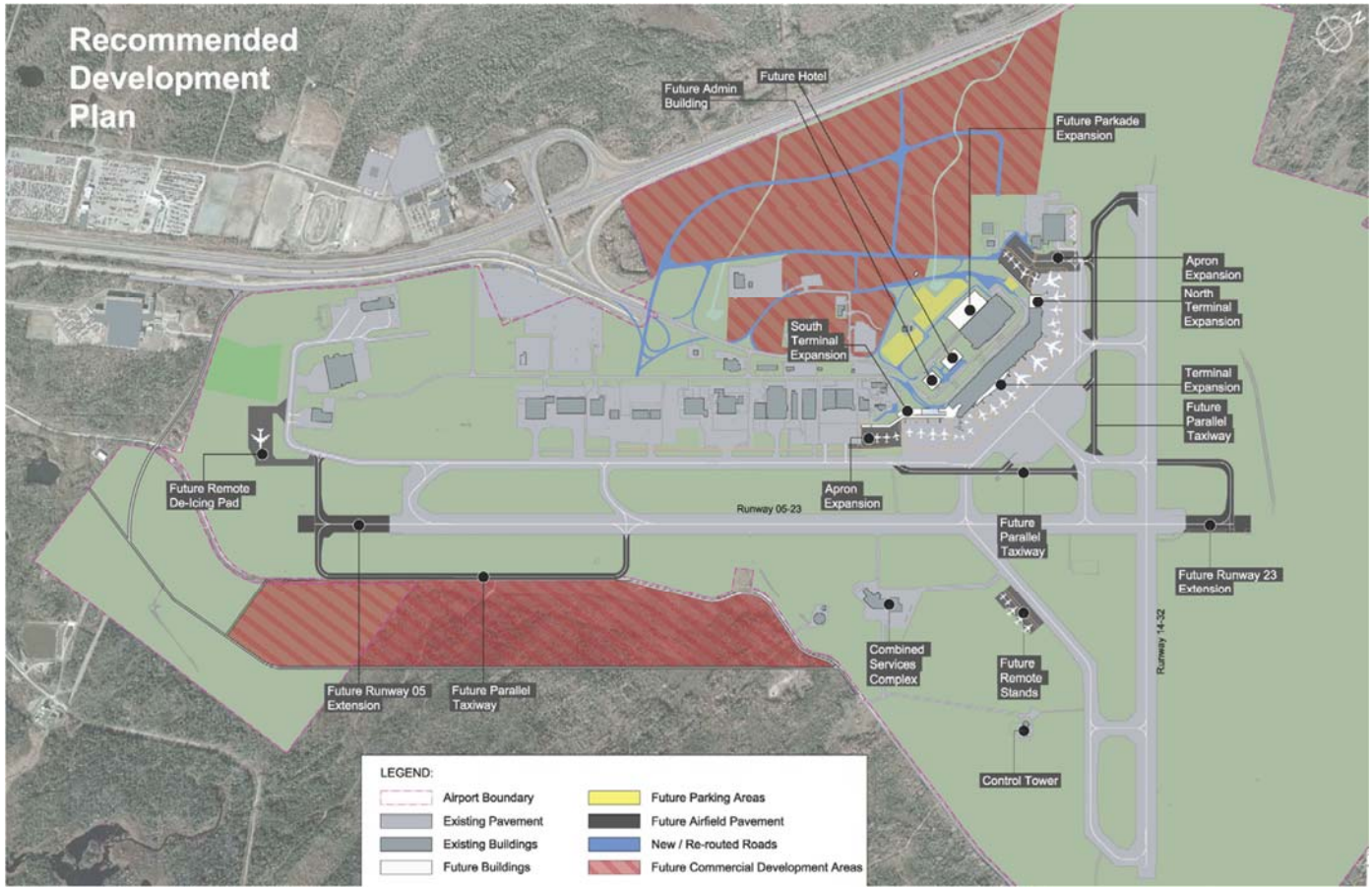
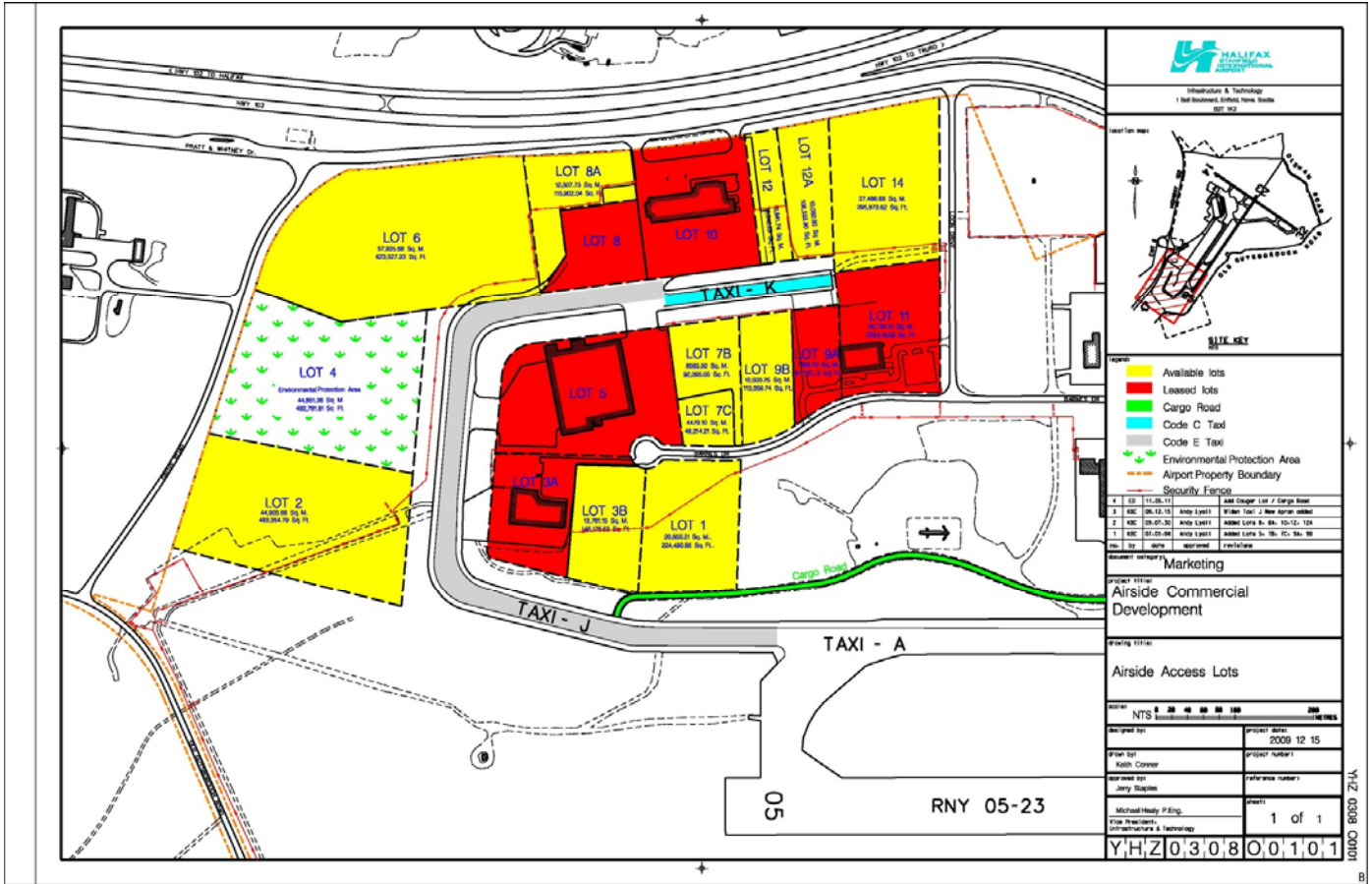


Exhibit 1.8 AIRSIDE SUBDIVISION LOTS



Updated Master Plan

An updated Master Plan that covers the period to 2030 was submitted to Transport Canada in 2011. This plan is a requirement of the HIAA - Transport Canada Ground Lease. The Master Plan determined that the airfield has capacity to meet future demand while the ATB may require an expansion if increased passenger traffic around 2020 follows the projections. The updated Master Plan includes a commercial development strategy that was in the initial development phase during 2016. It contains the following features:

- A Commercial Core in which shops and services for the travelling public and airport workers, are located.
- A Highway Commercial Core for aeronautical and other businesses with showcase visibility from Highway 102.
- A Multi-Purpose Precinct accessed by the terminal roadway system and containing businesses that meet the commercial needs of passengers, as well as meeters and greeters.
- An Aviation Precinct with facilities for passenger air service support, general aviation fixed base operators, refueling and aircraft maintenance.
- A Logistics Precinct intended to become a key transshipment centre for North America.

During 2016, HIAA continued to identify potential land development opportunities and new tenants.



1.7 Regional Economy

A key factor influencing air traffic demand is the level of growth in the Nova Scotia and Atlantic Canada economies. In 2016, real GDP growth was 0.9% in Nova Scotia, 1.9% in Newfoundland and Labrador, 2.4% on PEI and 1.4% in New Brunswick. Nationally, growth was 1.5%. (Source: RBC Economics Provincial Outlook, June 2017).

The demand for air passenger and air cargo is a function of economic growth and the ability to attract non-resident business and leisure travellers to Atlantic Canada. Canada's economic profile by region changed in 2014 with declining oil prices and the slide in the Canadian dollar against the U.S dollar. The economies of energy dependent provinces (Alberta, Saskatchewan, Newfoundland and Labrador) were negatively impacted. Lower energy costs improved manufacturing growth prospects in Ontario, British Columbia, Quebec, and most of the other oil-consuming provinces.

Nova Scotia experienced job losses in both 2013 and 2014 with a modest gain in 2015 and then a decline in 2016. During the past two years, export-oriented manufacturing and primary sectors propelled the province's economy as these sectors benefitted from solid U.S. demand and a weak Canadian dollar against the U.S. dollar and other major currencies. There was also sluggish growth in the public sector, declining natural gas production and falling construction activity.

Exhibit 1.9
NOVA SCOTIA ECONOMY AT A GLANCE - 2013 TO 2016

Indicator (% Change)	2013	2014	2015	2016 Forecast
Real GDP	0.0	0.6	1.0	0.9
Employment	-1.1	-1.1	0.1	-0.4
Unemployment Rate (%)	9.1	8.9	8.6	8.3
Retail Sales	2.9	2.3	0.2	4.6
Consumer Price Index	1.2	1.7	0.4	1.2

Source: RBC Economics, Provincial Outlook, June 2017.

The longer-term trend in Atlantic Canada is modest population and economic growth driven by resource development and the service sector. From 2006 to 2016, the region's population grew by 2.1% from 2,284,779 to 2,333,322. Population decline in Newfoundland and Labrador has been reversed in recent years with major investments in the offshore oil, mining and hydroelectric sectors. Nova Scotia experienced growth of 1.1% from 2006 to 2016 while the growth in New Brunswick was 2.3%. Growth over the same period was 2.8% in Newfoundland and Labrador and 5.2% on Prince Edward Island.

Halifax Regional Municipality (HRM) has the largest population and is the major regional service and institutional centre in Atlantic Canada. It has benefited from natural growth and in-migration. HRM has generated consistent economic growth and is the major contributor to Nova Scotia's economy. Between 2011 and 2016, the population of HRM increased by 3.3% from 390,328 to 403,390. Over the 10-year period from 2006 to 2016, the population of HRM increased by 8.2%. With 44% of Nova Scotia's population in 2016, HRM accounts for 56% of Nova Scotia's GDP. The Conference Board of Canada estimates HRM's real GDP grew by 2.2% in 2016 to \$18.6 billion. This level of economic activity places HRM 13th in Canada's 28 largest cities. Growth in 2016 was led by manufacturing, construction, transportation and warehousing, and the finance, insurance, and real estate (FIRE) industry, supported by major projects. Also in 2016, HRM's business confidence increased to an all-time high based on the Halifax Partnership's Business Confidence Index.

Exhibit 1.10
ATLANTIC CANADA POPULATION - 2006 to 2016

Province	2006	2016	Change
New Brunswick	729,997	747,101	17,104
Newfoundland & Labrador	505,469	519,716	14,247
Nova Scotia	913,462	923,598	10,136
PEI	135,851	142,907	7,056
TOTAL	2,284,779	2,333,322	48,543

Source: Statistics Canada 2006 and 2016 Census of Canada.

Note: During the 2006 to 2016 period, the population of HRM increased by 30,532 from 372,858 to 403,390.

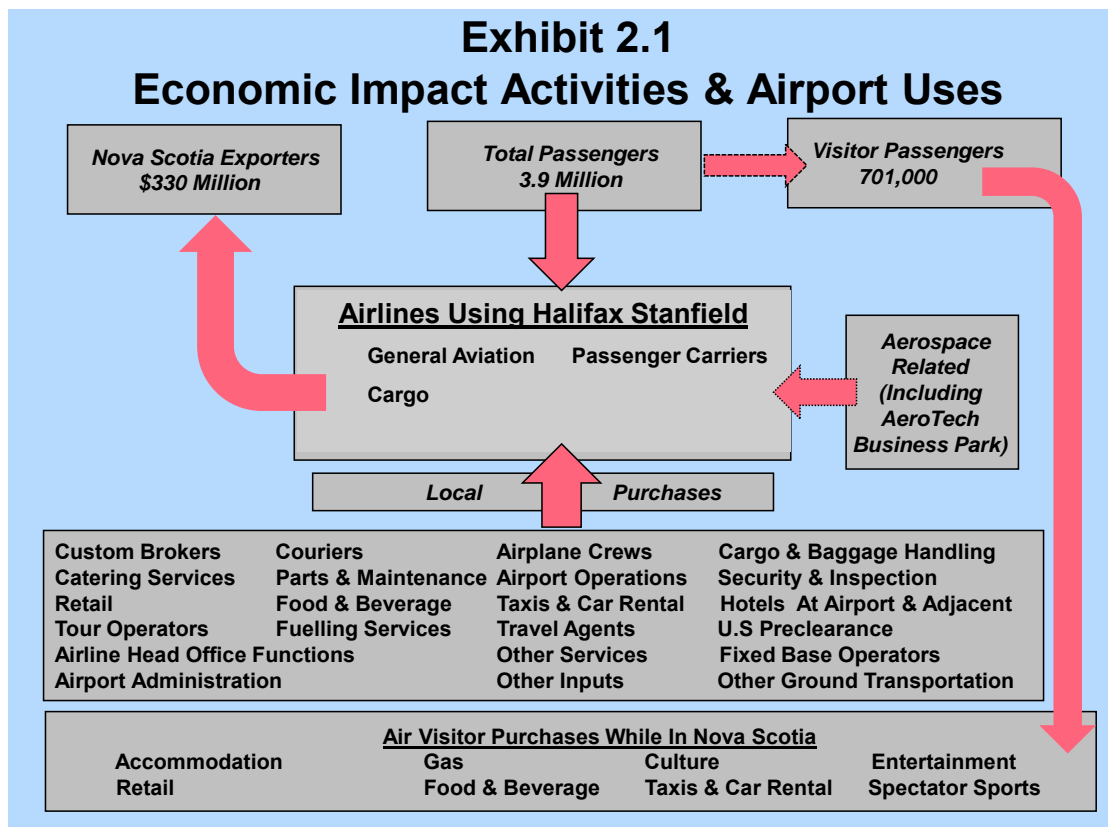
2 Study Approach

2.1 Introduction

This section outlines the approach used to calculate the impacts of Halifax Stanfield on HRM and Nova Scotia. The ongoing impacts are defined as activities related to airlines using the airport in 2016 as well as one-time capital investments by the HIAA and tenants. The aerospace cluster at the airport and the adjacent AeroTech Business Park, visitors entering Nova Scotia at the airport and Nova Scotia exporters who use air cargo to reach customers around the world were all assessed separately.

Some air cargo exporters are based at the airport and some visitor expenditures take place at the airport. The “Total” impacts of Halifax Stanfield on Nova Scotia reflect the location of these expenditures. For example, visitor expenditures at the airport are included in “Airport and Tenant Operations impacts” and also “Visitors Entering Nova Scotia At Airport impacts”. An adjustment has been made to the “Total” impacts to eliminate double counting.

Exhibit 2.1 shows how Halifax Stanfield functions within the Nova Scotia economy.



2.2 Economic Impact

The economic activity at Halifax Stanfield is calculated by direct, indirect and induced impacts. Indirect and induced activity show the effect that the direct expenditures have as they “ripple” through the economy. The measure is referred to as the multiplier effect or spinoff impacts.

To measure the economic impacts of Halifax Stanfield, the following were defined:

- The types of economic activity being considered
- The units of measurement of economic impact used
- The methods used to measure or estimate economic impact

The types of economic activity are grouped into three categories: direct, indirect and induced.

Direct Economic Activity

Direct activity refers to airport-related activity of those firms, industries or government service providers for which aviation or airport activity is a portion of total business activity. These businesses can be divided into three groups: those with primary linkage to the airport (generally aviation-related); those with a secondary linkage (generally not aviation-related); and the aerospace sector and hotels at the airport and the adjacent AeroTech Business Park and Highway 102 interchange.

Primary linkage businesses or organizations include those listed below. Many of the primary linkage businesses are located at the airport.

General Aviation: This refers to companies engaged in charter air operations (fixed and rotary), corporate aviation operations and aviation-related organizations or educational institutions.

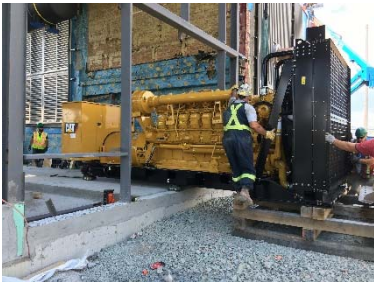
Air Carriers: This refers to companies offering scheduled air service within Nova Scotia (local), scheduled or charter air service to other points in Atlantic Canada and Canada (regional or national) or to transborder (U.S.) or international destinations.



A separate analysis is included on the impacts of Nova Scotia-based air cargo exporters on the provincial economy.

Air Support Services: This refers to companies whose business is primarily or wholly aviation-related, or who provide direct support to air carriers or general aviation businesses. Air support services include:

- Customs brokers, couriers or freight forwarders
- Flight catering services
- Fuelling services
- Sales, rentals or aircraft leasing businesses
- Parts and maintenance services
- General services (such as fixed base operators)



Airport Operations and Administration: This category includes HIAA, NavCanada, CATSA, Canada Border Services Agency, Public Health Canada, RCMP (Airport Detachment), Halifax Regional Police (Aviation Security Unit), Canadian Food Inspection Agency, Canada Revenue Agency, U.S. Customs and Border Protection and other government functions that are involved in the direct operation of the airport or which provide support services at the airport. Excluded from the impact analysis are volunteers at the airport that include the Team Tartan and Halifax Airport Watch.

Secondary linkage businesses include:

Commercial Services: These include aviation-related retail and personal service businesses operating at Halifax Stanfield.



Ground Transportation: These include car rental, taxi and limousine service, Halifax Transit and other bus transportation operations that service the airport. The offices for these businesses are both on-site and off-site.

Tourist/Travel/Hotel Industry: This group of secondary linkage businesses includes travel agencies, tour operators, hotels/motels, and other food and beverage operators who provide service to passengers travelling by air for business or pleasure.

A separate and detailed analysis is included on expenditures of the 701,000 visitors (non-resident business and leisure passengers) who entered Nova Scotia at the airport in 2016.

Indirect Economic Activity

Direct economic activity is accompanied by indirect and induced economic activity. Indirect economic activity refers to activity generated in a sector that supplies raw materials and other inputs to businesses associated with direct economic activity. The terms "direct" and "indirect" are based upon the Input Output Tables of Statistics Canada's System of National Accounts for Nova Scotia.

Induced Economic Activity

Induced economic activity refers to economic activity generated by individuals employed in the direct or indirect activity sectors who spend a portion of their household income on consumer goods. This activity is also defined by Statistics Canada's System of National Accounts.

2.3 Economic Impacts Measured and Methods of Measurement

Positive economic impacts are defined under economic output or gross revenue, GDP, employment, wages and salaries, the aerospace cluster, air cargo exporters, construction activity and visitor expenditures.

Four measures of Halifax Stanfield's economic impacts are defined as follows:

Economic Output or Gross Revenue: This measure is determined in terms of total gross revenue from all airport-related activity, and those same total gross revenues, less any revenue transferred from one airport-related activity (primary or secondary) to another airport-related activity.

Gross Domestic Product (GDP) Basic Price: This measure is the broadest quantitative measure of Nova Scotia's total economic activity. It represents the monetary value of all goods and services produced at the airport in 2016, or enabled by exporters and non-resident visitors who used the airport. The concept of GDP at basic prices includes net indirect taxes (indirect taxes less subsidies) attached to factors of production.

Employment: This measure is defined as the total amount of full-time equivalent (FTE) employment created by airport activity (excluding volunteers). Security and government inspection is defined as employees and is not classified as either full or part time.

Wages and Salaries: This measure is defined as the total amount of wages and salaries created due to airport activity.

Direct, indirect and induced economic impacts associated with the above three measures of economic activity were calculated as follows:

Direct Economic Impact: In terms of economic output, GDP, employment, wages and salaries were obtained by means of surveys of the major airport tenants. Financial statements of publicly traded companies, Input Output Tables of Statistics Canada's System of National Accounts and other data sources were also used to arrive at the final economic impact values.

Indirect and Induced Economic Impact: In terms of economic output, GDP, employment, wages and salaries were estimated by means of economic multipliers. The multipliers rely upon the same sources as those used to calculate the direct economic impacts.

2.4 Fiscal Impact

Fiscal impacts are defined under personal income taxes, retail sales taxes and municipal taxes. No impact multipliers (spinoffs) are applied to municipal taxes.

The fiscal impact measures include the following:

Personal Income Taxes: This measure refers to the personal income taxes paid to the Province of Nova Scotia by individuals employed due to airport activity. This impact was calculated from Statistics Canada's financial management system and other sources.

Retail Sales Taxes: This measure refers to retail sales taxes created by purchases of retail goods and services by individuals who earn wages and salaries due to their employment stemming from Halifax Stanfield activity. In 2016, the HST rate in Nova Scotia was 15% (5% federal part and 10% provincial part).



Fiscal impacts are measured for the same study area and in a similar manner as economic impacts in terms of direct, indirect and induced activity.

3 Economic Impacts

3.1 Introduction

The data gathered from the 2016 survey were combined with other sources, as outlined in Section 2, to develop estimates of total economic impacts in terms of:

- Economic Output
- GDP Basic Price
- Employment
- Wages and Salaries

3.2 Economic Output

The largest measure of economic impact is total economic output. It is also referred to as gross revenue. Economic impacts related to Halifax Stanfield, in terms of economic output for HRM and Nova Scotia, are summarized in Exhibit 3.1. The economic output impacts are separated into direct, indirect and induced. The direct airport operational effects all occur in HRM because the airport is located in this municipality. Visitor impacts occur throughout Nova Scotia with an estimated 54% of expenditures outside of HRM. Air cargo exporters are located throughout Nova Scotia and information on the location of exporters is not available. Some visitor expenditures occur at Halifax Stanfield while some air cargo exporters are located at the airport. The totals in Exhibit 3.1 and other tables in Section 3 reflect the location of economic activity (at the airport and other locations) and are adjusted to eliminate double counting.

Exhibit 3.1 shows that Halifax Stanfield's total economic output for the economy of Nova Scotia is over \$2.8 billion. This is composed of over \$1.1 billion in direct impacts from airport and tenant operations. The total impact from air cargo exporters on the Nova Scotia economy is approaching \$490 million while visitors who enter Nova Scotia at Halifax Stanfield contribute \$943 million to the province's economic output.

3.3 GDP Basic Price

Gross Domestic Product (GDP) at basic price is the monetary value of all goods and services produced by airport and tenant operations, Nova Scotia air cargo exporters and visitors entering the province at the facility. Exhibit 3.2 shows that Halifax Stanfield's total GDP impact on Nova Scotia is over \$2.22 billion. For airport and tenant operations, the total GDP impact is almost \$1.32 billion. This is composed of \$611.3 million in direct impacts from airport and tenant operations. The total impact from air cargo exporters on Nova Scotia's GDP exceeds \$364 million. Non-resident business and leisure travellers entering the province at the airport contributed over \$868 million to the province's GDP.

Exhibit 3.1 HALIFAX STANFIELD - ECONOMIC OUTPUT (MILLIONS) IN 2016				
	Direct	Indirect	Induced	Total
Airport & Tenant Operations	\$1,110.6	\$326.9	\$370.7	\$1,808.2
Nova Scotia Exporters Using Air Cargo Services	\$330.6	\$89.0	\$70.0	\$489.6
Visitors Entering Nova Scotia At Airport	\$593.5	\$193.9	\$155.6	\$943.0
Total	\$1,745.6	\$545.6	\$531.1	\$2,822.3
<p>Note: Some air cargo exporters are based at the airport and some visitor expenditures occur at the airport. The "Total" impacts of Halifax Stanfield on Nova Scotia reflect the location of these expenditures. For example, visitor expenditures at the airport are included in "Airport & Tenant Operations impacts" and also "Visitors Entering Nova Scotia At Airport impacts". An adjustment has been made to the "Total" impacts to eliminate double counting.</p>				

Exhibit 3.2 HALIFAX STANFIELD - GDP BASIC PRICE (MILLIONS) IN 2016				
	Direct	Indirect	Induced	Total
Airport & Tenant Operations	\$611.3	\$266.7	\$440.4	\$1,318.4
Nova Scotia Exporters Using Air Cargo Services	\$166.0	\$90.4	\$107.8	\$364.2
Visitors Entering Nova Scotia At Airport	\$332.8	\$248.9	\$286.9	\$868.6
Total	\$953.4	\$525.1	\$743.1	\$2,221.6
<p>Note: Some air cargo exporters are based at the airport and some visitor expenditures occur at the airport. The "Total" impacts of Halifax Stanfield on Nova Scotia reflect the location of these expenditures. For example, visitor expenditures at the airport are included in "Airport & Tenant Operations impacts" and also "Visitors Entering Nova Scotia At Airport impacts". An adjustment has been made to the "Total" impacts to eliminate double counting.</p>				

3.4 Employment

Employment is defined as full-time equivalent (FTE) jobs. Exhibit 3.3 presents the estimated total employment impact of the airport. For 2016, there were 5,665 FTE jobs at the airport. Airport and tenant operations created an additional 9,555 spinoff jobs throughout HRM and Nova Scotia. The result is total airport-related employment is 15,220 FTE jobs or an increase of 1.9% from 2015. Nova Scotia air cargo exporters created another 5,022 FTE jobs and visitors entering the province at the airport enabled 15,179 FTE jobs.



Total economic activity associated with the airport and tenants, air cargo exporters and air visitors generated 31,664 FTE jobs in 2016 or an increase of 7.6% over 2015 that was driven by robust growth in air visitors and lobster exports. The total employed labour force in Nova Scotia in 2016 was 486,600 and the airport was responsible for 6.5% of this total.

Exhibit 3.3 HALIFAX STANFIELD - EMPLOYMENT (FULL-TIME EQUIVALENT) IN 2016				
	Direct	Indirect	Induced	Total
Airport & Tenant Operations	5,665	4,620	4,935	15,220
Nova Scotia Exporters Using Air Cargo Services	2,143	1,601	1,278	5,022
Visitors Entering Nova Scotia At Airport	6,949	4,653	3,577	15,179
Total	13,082	9,795	8,788	31,664
<p>Note: Some air cargo exporters are based at the airport and some visitor expenditures occur at the airport. The "Total" impacts of Halifax Stanfield on Nova Scotia reflect the location of these expenditures. For example, visitor expenditures at the airport are included in "Airport & Tenant Operations impacts" and also "Visitors Entering Nova Scotia At Airport impacts". An adjustment has been made to the "Total" impacts to eliminate double counting.</p>				

3.5 Wages and Salaries

Exhibit 3.4 lists the wage and salary impact of the airport. Airport and tenant operations generated \$762.7 million in wages and salaries in 2016. The direct portion was \$309.1 million. Nova Scotia exporters created an additional \$239.9 million in wages and salaries while air visitor expenditures generated a further \$508.4 million in wages and salaries. Total wages and salaries related to the airport and tenants, air cargo exporters and air visitors generated close to \$1.344 billion in wages and salaries in 2016 or an increase of 4.3% from 2015. The average salary for all employees at Halifax Stanfield was \$50,110 while the average salary for all employees involved in direct and spinoff activity was \$42,440.

Exhibit 3.4 HALIFAX STANFIELD - WAGES AND SALARIES (MILLIONS) IN 2016				
	Direct	Indirect	Induced	Total
Airport & Tenant Operations	\$309.1	\$220.4	\$233.2	\$762.7
Nova Scotia Exporters Using Air Cargo Services	\$106.7	\$75.5	\$57.7	\$239.9
Visitors Entering Nova Scotia At Airport	\$209.6	\$157.0	\$141.8	\$508.4
Total	\$542.7	\$412.1	\$389.0	\$1,343.8
Note: Some air cargo exporters are based at the airport and some visitor expenditures occur at the airport. The "Total" impacts of Halifax Stanfield on Nova Scotia reflect the location of these expenditures. For example, visitor expenditures at the airport are included in "Airport & Tenant Operations impacts" and also "Visitors Entering Nova Scotia At Airport impacts". An adjustment has been made to the "Total" impacts to eliminate double counting.				

3.6 Sector Highlights

3.6.1 Air Cargo Exports



Every fully loaded Boeing 777 cargo freighter creates 16 FTE jobs in Nova Scotia and contributes \$1.5 million to the province's economic output.

Halifax Stanfield's air cargo operations enable Nova Scotia businesses to compete in global markets. In 2016, the total value of commodities and products exported from the airport was \$517.0 million with 64% of this total resulting from activities in the Nova Scotia economy.

The total impact on the Nova Scotia economy of air cargo exports from the airport was:

- Output: \$489.6 million (\$330.6 million direct)
- GDP: \$364.1 million (\$166.0 million direct)
- Jobs (Full Time Equivalent): 5,022 (2,143 direct)
- Wages: \$240.0 million (\$106.7 million direct)

In comparison to 2015, total output increased by 4.3% and total jobs increased by 14.5% as the seafood sector with lower paying jobs than manufacturing became more dominant with the resulting benefits to smaller communities and rural areas of Nova Scotia. A major part of cargo activity is fresh lobster and seafood exports, and demand is growing. The impacts on Nova Scotia of one Boeing 777 from Halifax that is fully loaded is \$1.5 million in economic output, \$1.2 million in GDP, \$757,000 in wages and salaries, and 16 FTE jobs.

With an extended runway to accommodate larger cargo jets, new free trade agreements with South Korea, Europe and Asia, Halifax Stanfield's position as the closest gateway airport from North America to Europe and then to Asia can support the future export needs of Nova Scotia businesses.

**Exhibit 3.5
HALIFAX STANFIELD -
TOP FIVE NOVA SCOTIA EXPORTS IN 2016**

Rank	Description	\$ Value
1.	Live Lobsters & Other Seafood	163,010,728
2.	Medical and Surgical Instruments	40,837,177
3.	Aircraft Parts	34,552,360
4.	Electric Machinery	31,537,818
5.	Industrial Machinery	23,561,283
Remainder	Others	77,893,012
Total		330,555,201

Sources: Halifax International Airport Authority, May 2017.

3.6.2 Visitors Impacts

Tourism is a major sector of the Nova Scotia economy contributing an estimated \$2.6 billion in revenues and \$928 million in GDP in 2016. During 2016, there were 2.238 million non-resident overnight visitors to Nova Scotia, up 8% from 2015. Of this total, 701,000 or 31% entered Nova Scotia at Halifax Stanfield. Visitors entering Nova Scotia at Halifax Stanfield increased by 11% from 2015. These visitors tend to stay longer (7.1 nights versus 4.3 nights for auto visitors) and spend more money than other market segments. Province-wide, the total impacts of visitors entering at Halifax Stanfield were:



Every Condor flight from Germany creates seven person-years of employment in Nova Scotia and contributes \$475,000 to the province's economic output.

- Output: \$943.0 million (\$593.5 million direct)
- GDP: \$868.6 million (\$332.8 million direct)
- Jobs (Full Time Equivalent): 15,179 (6,946 direct)
- Wages: \$508.4 million (\$209.6 million direct)

An example of the positive impacts of international visitors is Frankfurt-based Condor's seasonal service from Germany. The impacts on Nova Scotia of one Boeing 767 flight from Frankfurt is \$475,000 in economic output, \$443,000 in GDP, \$254,000 in wages and salaries, and seven person-years of employment.

3.6.3 Aerospace Cluster Impacts

IMP Aerospace and tenants at the adjacent AeroTech Business Park comprise an aerospace cluster with 1,436 employees in 2016. The aerospace cluster's impacts on Nova Scotia during 2016 were:

- Output: \$445.8 million (\$329.7 million direct)
- GDP: \$322.4 million (\$170.7 million direct)
- Jobs (Full Time Equivalent): 2,940 (1,436 direct)
- Wages: \$170.6 million (\$92.1 million direct)

These firms are a major part of the airport's economic contribution to the local and Nova Scotia economies. They represent around 20% of FTE jobs and labour income at the airport. The cluster is also a major contributor to construction (capital) expenditures and the resulting labour and materials inputs from the Nova Scotia economy. In 2016, aerospace firms spent \$24 million on capital projects with a further \$25 million planned for new construction over the 2017 to 2021 period.



3.7 Renovation and New Construction Impact



Capital Improvements and New Projects Since 2000 To 2016

Since the 2000 transfer of the facility from Transport Canada, HIAA and tenants have invested approximately \$635 million in new capital development projects and the maintenance of capital. These projects represent over 70% of all capital improvements at airports in Atlantic Canada, and reflects Halifax Stanfield's regional dominance in air passenger and air cargo activity. Capital projects from 2000 to 2016 created over 11,335 person years of employment (FTE jobs) and contributed \$1.1 billion to Nova Scotia's economic output.

2016 Capital Projects

In 2016, HIAA and tenants spent \$60.4 million on capital projects. These projects created 1,080 direct and spinoff FTE jobs with the direct portion being 390 FTE jobs. The 2016 projects contributed \$99 million to the province's economic output.

Future Capital Projects

HIAA's planned future spending on capital projects to 2021 is listed below.

- 2017 - \$44.8 million
- 2018 - \$43.8 million
- 2019 - \$38.1 million
- 2020 - \$42.1 million
- 2021 - \$54.2 million



For 2017 to 2021, an additional \$254.3 million is expected to be spent on capital projects by HIAA and tenants. These investments do not include all of the commercial development parts of the new Master Plan that is expected to significantly increase future capital spending. Known planned future projects, as of the end of 2016, will create 4,540 FTE jobs with the direct jobs being 1,640. Past and future projects to 2021 will contribute \$417 million to Nova Scotia's economic output.

Past and planned future projects to 2021 have a significant impact on the HRM and Nova Scotia economies. These project's economic impacts are summarized in Exhibit 3.6. In total, these projects impact the province's economic output by almost \$1.56 billion, GDP by over \$1.1 billion and generate 16,955 FTE jobs with wages and salaries of \$811 million.

**Exhibit 3.6
HALIFAX STANFIELD -
CONSTRUCTION PROJECT IMPACTS FROM 2000 TO 2021**

	Economic Output \$ Millions	GDP Basis Price \$ Millions	Labour Income \$ Millions	FTE Jobs
Direct Impacts	\$949.7	\$334.4	\$300.5	6,123
Indirect Impacts	\$379.6	\$418.5	\$308.3	6,298
Induced Impacts	\$228.1	\$362.4	\$202.3	4,534
Total	\$1,557.4	\$1,115.3	\$811.0	16,955

4 Fiscal Impacts

4.1 Introduction

The survey of tenants was the primary source for estimating the fiscal impact of Halifax Stanfield on HRM and Nova Scotia during 2016. Statistics Canada and Nova Scotia Department of Finance data were also used. These sources were drawn upon to estimate fiscal impacts from:

- Personal and Consumption Taxes (Provincial)
- Retail Sales Taxes

4.2 Personal and Consumption Taxes (Provincial)

The percentage of wages and salaries paid to the Province of Nova Scotia was calculated using estimates of the personal income and consumption taxes (provincial) created due to airport activity. According to the Nova Scotia Department of Finance, in the range of 10.5% of total Nova Scotia personal income goes to personal income and consumption taxes. By multiplying this average personal income tax rate by the wages and salaries listed in Section 3, the personal income tax impacts on the Province of Nova Scotia were calculated.

Exhibit 4.1 summarizes the 2016 personal income and consumption tax impacts of Halifax Stanfield activity within HRM and across the Province of Nova Scotia. The total personal income and consumption taxes in 2016 resulting from airport activity, air cargo exporters and visitors entering Nova Scotia at Halifax Stanfield amounts to \$141.1 million. This consists of \$57.0 million in direct personal income and consumption taxes, \$44.3 million in indirect taxes and \$40.8 million in induced taxes. This is an increase of 4.4% from 2015.

Exhibit 4.1 HALIFAX STANFIELD - NOVA SCOTIA PERSONAL INCOME & CONSUMPTION TAXES (MILLIONS) IN 2016				
	Direct	Indirect	Induced	Total
Province of Nova Scotia	\$57.0	\$43.3	\$40.8	\$141.1

4.3 Retail Sales Tax (HST)

Another fiscal impact measure of Halifax Stanfield activity is sales taxes generated by the purchase of retail goods and services by those employed due to airport activity, air cargo exporters and visitors entering Nova Scotia at Halifax Stanfield.

On average, 35% of personal income is spent on retail trade goods and services. By multiplying the wages and salaries from Section 3 times this value, the amount of retail sales generated by airport activity is determined. By multiplying this figure by the HST rate of 15%, the retail sales tax impact of airport activity can be determined.

Exhibit 4.2 lists the retail sales tax impact of airport activity on HRM and Nova Scotia. This exhibit shows that \$70.5 million in retail sales taxes were created due to airport activity, air cargo exporters and visitors entering the province at Halifax Stanfield. This is an increase of 4.3% from \$67.6 million in 2015.

Exhibit 4.2 HALIFAX STANFIELD - RETAIL SALES (HST) TAXES (MILLIONS) IN 2016				
	Direct	Indirect	Induced	Total
Province of Nova Scotia	\$28.5	\$21.6	\$20.4	\$70.5

4.4 Commercial Property and Business Occupancy Taxes

In 2016, the total value of taxes paid to HRM by HIAA and tenants on land covered by the HIAA - Transport Canada Ground Lease was \$4,511,522. Of this total, \$3,048,670 was paid by tenants and the remaining \$1,462,852 by HIAA.



5 Summary

Halifax Stanfield welcomed a record 3,908,799 passengers in 2016 on 18 scheduled or charter passenger airlines flying non-stop to 19 domestic, eight transborder and 18 international destinations. Passengers included 701,000 arriving visitors to Nova Scotia or 31% of all non-resident business and leisure travellers to the province. The airport's 2016 passenger volume is a 5.6% increase from 2015.

HIAA has a Standard & Poor's A+ Positive credit rating and is implementing a strategy to market the airport as an air transport hub between Europe and North America while also targeting the Asian market to increase cargo flights and facilitate exports of lobster and other seafood products as well as tourism, trade and other areas of cooperation.

In 2016, a record 33,330 metric tonnes of air cargo were processed at the airport. This volume is a 4.1% increase from 2015. Much of this cargo was live lobster as an estimated \$187 million in seafood and lobster exports were shipped in 2016. This is an increase of \$40 million from 2015.



New air cargo services were introduced in 2016. A second weekly flight was added by Korean Air Cargo to Seoul, South Korea while Qatar Airways Cargo launched weekly service to Doha with a stop in Zaragoza, Spain in mid-2016. In December 2016, CAL Cargo Airlines started operations with flights to Liege, Belgium with connecting service to Hong Kong and Shanghai, China.

Halifax Stanfield's total economic output for the economy of Nova Scotia is over \$2.8 billion, a 4.4% increase from 2015. This is composed of over \$1.1 billion dollars in direct impacts from airport and tenant operations. The total impact from air cargo exporters on the Nova Scotia economy is approaching \$490 million with some of these exporters based at the airport. Non-resident business and leisure travellers entering Nova Scotia at the airport contribute \$943 million to the province's economic output with some of these expenditures occurring at the airport.

Halifax Stanfield's total GDP impact on Nova Scotia is over \$2.22 billion and this is an increase of 3.4% from 2015. For airport and tenant operations, the total GDP impact is \$1.318 billion. The total impact from air cargo exporters on Nova Scotia's GDP is over \$364 million. Visitors entering the province at the airport contributed more than \$868 million to the province's GDP.

There were 5,665 full-time equivalent (FTE) employees at Halifax Stanfield in 2016 or an increase of 2.9% from 2015. The head office functions of IMP and Jazz Aviation are the major employers. IMP had 997 FTE employees in 2016 and Jazz Aviation had 771 FTE employees.

Total economic activity associated with the airport and tenants, air cargo exporters and air visitors generated 31,664 FTE jobs in Nova Scotia during 2016. This employment is a 7.6% increase from 2015 that is largely a result of increased exports in the labour intensive live lobster and other seafood sectors. The total 2016 employed labour force in Nova Scotia was 486,600 and the airport contributed to 6.5% of this total.



Total wages and salaries related to the airport and tenants, air cargo exporters and air visitors generated over \$1.34 billion in wages and salaries in 2016. This level of household income is an increase of 4.3% from 2015.

Halifax Stanfield has a positive fiscal impact on the Province of Nova Scotia. The total personal income and consumption taxes in 2016 to the Province of Nova Scotia resulting from airport activity, air cargo exporters and visitors entering Nova Scotia at the airport amounts to \$141.1 million. This government revenue is a 4.4% increase from 2015. A major portion of personal income is spent on retail trade goods and services that include HST at 15%. In 2016, \$70.5 million in retail sales taxes were created due to airport activity, air cargo exporters and visitors entering the province at Halifax Stanfield. HST payments in 2016 were up 4.3% from 2015. HIAA and tenants also pay municipal taxes to HRM. The total value of taxes paid to HRM in 2016 by HIAA and tenants on land covered by the HIAA - Transport Canada Ground Lease was \$4,511,522.

Since the 2000 transfer of the facility from Transport Canada, HIAA and tenants have invested around \$635 million in new capital development projects and the maintenance of capital. These projects represent over 70% of all capital improvements at airports in Atlantic Canada, and reflects Halifax Stanfield's regional dominance in air passenger and air cargo activity. Capital projects from 2000 to 2016 created over 11,335 person years of employment (FTE jobs) and contributed \$1.1 billion to Nova Scotia's economic output.

For 2017 to 2021, an additional \$254.3 million is expected to be spent on capital projects by HIAA and tenants. Known planned and future projects, as of the end of 2016, will create 4,540 FTE jobs with the direct jobs being 1,640. Planned projects to 2021 will contribute \$417 million to Nova Scotia's economic output.

Past and planned future projects to 2021 have a significant impact on HRM and Nova Scotia economies. In total, these projects impact the province's economic output by almost \$1.56 billion, GDP by over \$1.1 billion and generate 16,955 FTE jobs with wages and salaries of \$811 million.

Exhibit 5.1 SUMMARY OF ECONOMIC & FISCAL IMPACTS				
	Direct	Indirect	Induced	Total (% Change 2015-16)
2016 Economic Impacts				
Economic Output (Millions)	\$1,745.6	\$545.6	\$531.9	\$2,822.3 (+4.4%)
GDP Basic Price (Millions)	\$953.4	\$525.1	\$743.1	\$2,221.6 (+3.4%)
Employment FTE	13,082	9,795	8,788	31,664 (+7.6%)
Wages & Salaries (Millions)	\$542.7	\$412.1	\$389.0	\$1,343.8 (+4.3%)
2016 Fiscal Impacts				
	Direct	Indirect	Induced	Total (% Change 2015-16)
Nova Scotia Personal Income & Consumption Taxes (Millions)	\$57.0	\$43.3	\$40.8	\$141.1 (+ 4.4%)
Retail Sales Tax HST (Millions)	\$28.5	\$21.6	\$20.4	\$70.5 (+ 4.3%)
Construction Projects 2000 To 2021				
	Economic Output (Millions)	GDP Basis Price (Millions)	Labour Income (Millions)	FTE Jobs
Total	\$1,557.4	\$1,115.3	\$811.0	16,955