



# **When is Best Time To Visit The 4 Major Cities of Canada ?**

**(Vancouver - Toronto- Montreal- Halifax)**

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# Hypothesis

When is the best time to visit the four major cities in Canada based on Flight prices, Weather, Hotel costs and Popularity?

**The best city to visit is the city that has the lowest flight cost, lowest hotel cost, the best weather, and highest popularity within a specific quarter of the year.**



## Four Factors

Flight Prices

Hotel Cost

Weather

Popularity

2015 → 2016 → 2017 → 2018 → 2019

Five Year Timeline



## Data Sources

**Flight Prices:** Statistic Canada Average domestic fares for Canada and ten major cities, quarterly

**Hotel:** Ontario Ministry of Tourism, Culture and Sports Hotel Industry Statistics for Average Daily Rate, quarterly

**Weather:** Government of Canada Historical Climate Data

**Popularity:** Non-residents entering or returning to Canada, by province of entry and Hotel Occupancy Rate from Ontario Ministry of Tourism, Culture Hotel Industry Statistic



# Flight Prices

## Hypothesis

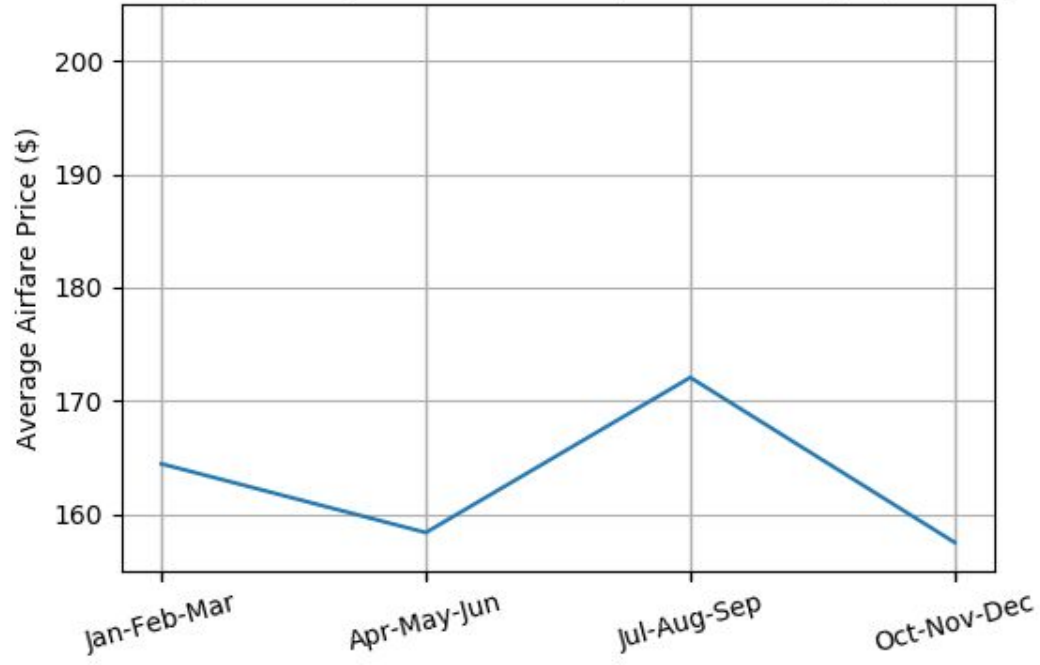
- The city with the lowest airfare price is the best city to travel to

## Parameters looked at

- Domestic average fare price
- Quarterly airfare price from 2015 to 2019

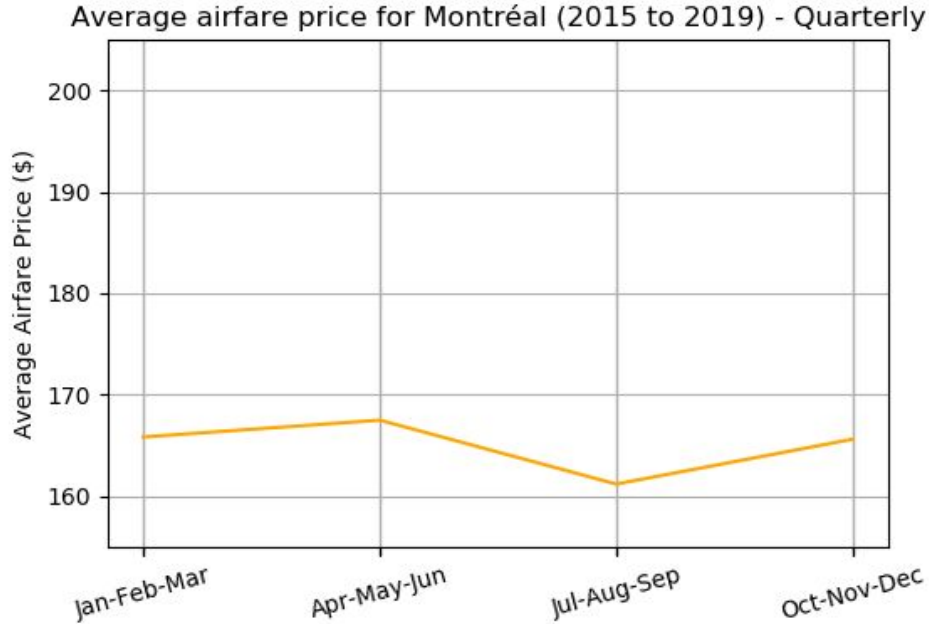
# Halifax Flight Prices

Average airfare price for Halifax (2015 to 2019) - Quarterly



- Based on a 5 year average the lowest flight prices to Halifax occurs second quarter ( April, May and June) of the year
- The highest flight prices to Halifax occurs during the third quarter (July, August, and September) of the year

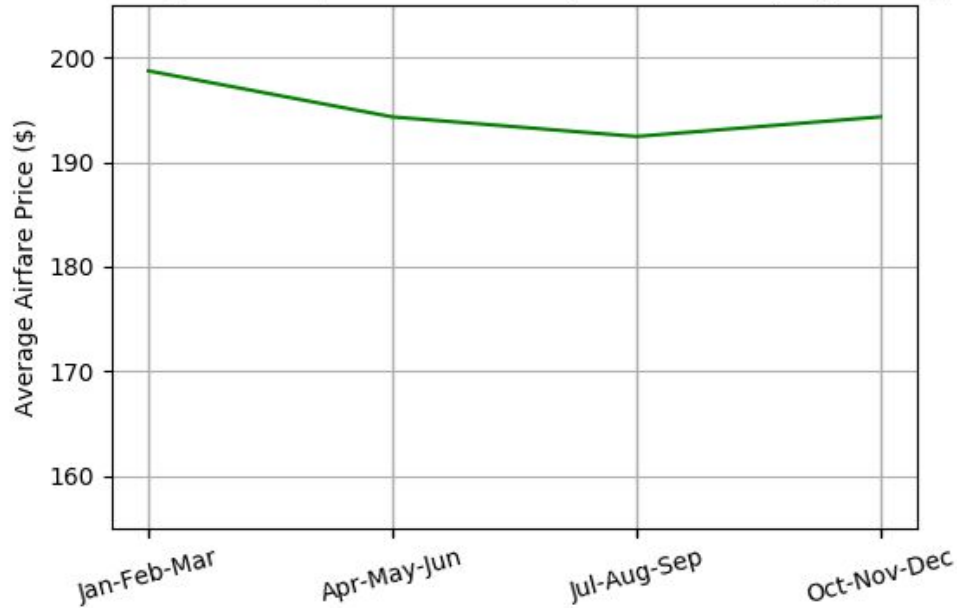
# Montreal Flight Prices



- The lowest flight prices to montreal occurs during the third quarter (July, August, and September) of the year
- The highest flight price occurs during the second quarter of the year (April, May, and June)

# Toronto Flight Prices

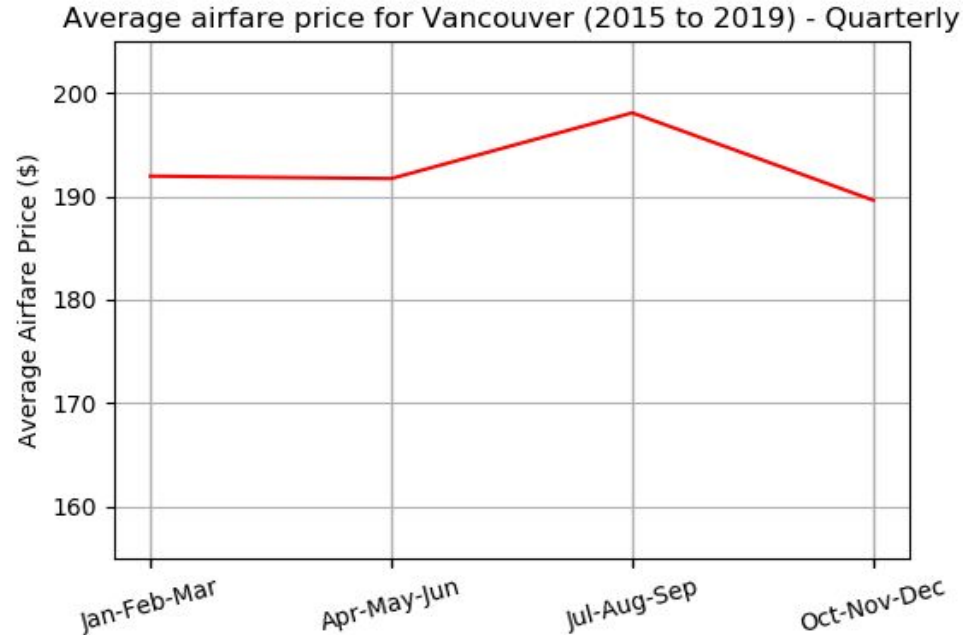
Average airfare price for Toronto (2015 to 2019) - Quarterly



- The lowest flight price to Toronto occurs during the third quarter (July, August, and September) of the year
- The highest flight price occurs during the first quarter of the year (January, February and March)

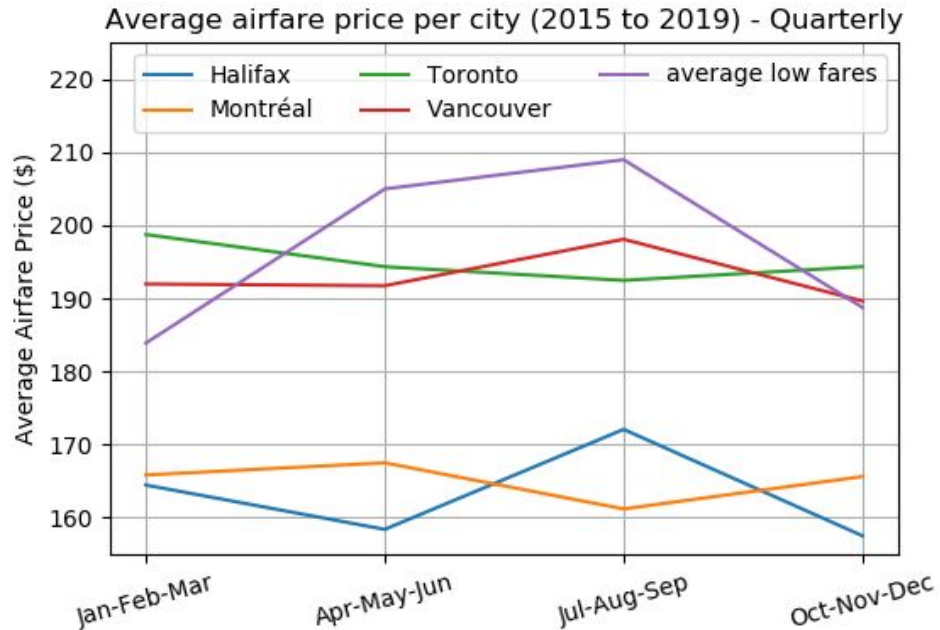


# Vancouver Flight Prices



- The lowest flight price to Vancouver occurs during the first quarter of the year ( January, February and March)
- The highest flight price occurs during third quarter of the year (July, August and September)

# Flight Price Comparison



- The city with the highest airfare price is Toronto
- The city with the lowest price rate is Halifax
- The time period with the average lowest airfare occurs in the second quarter of the year (April, May, and June)



## City With Lowest Airfare Price Based on Time Period

Jan-Feb-Mar

Apr-May-Jun

Jul-Aug-Sep

Oct-Nov-Dec

Flight Prices

Halifax

Halifax

Montreal

Halifax



## City Ranking Lowest Airfare Price

**Flight Prices**

**Weather**

**Hotel Costs**

**Popularity**

1. Halifax
2. Montreal
3. Vancouver
4. Toronto



# Weather

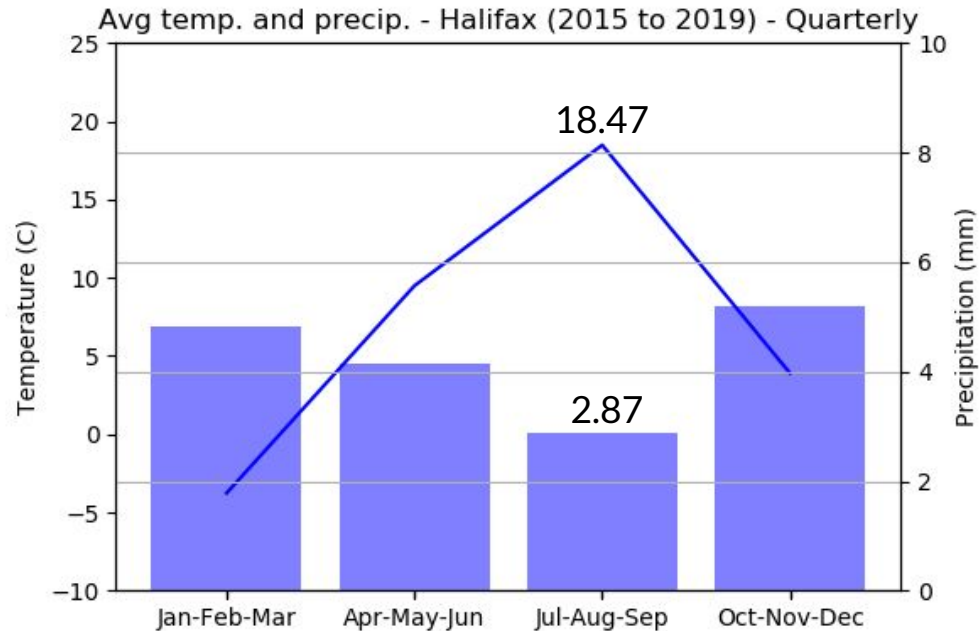
## Hypothesis

- The city with the best weather is the city with the lowest average precipitation and with the average temperature closest to 25 degrees celsius

## Parameters

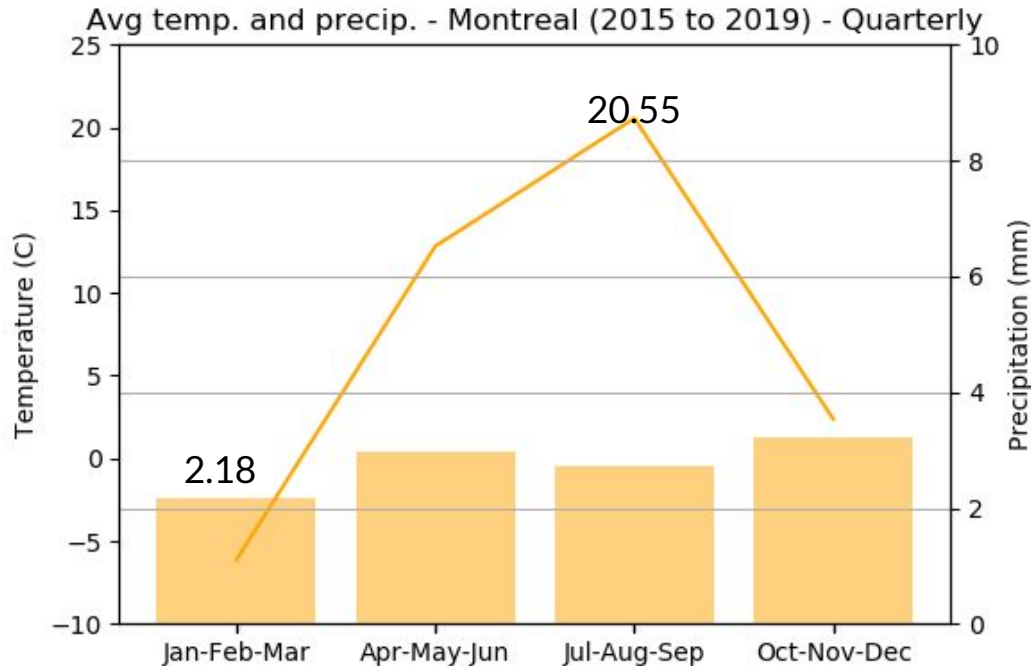
- Average temperature per city from 2015-2019
- Average amount of precipitation from the 2015-2019

# Halifax Mean Temperature & Precipitation



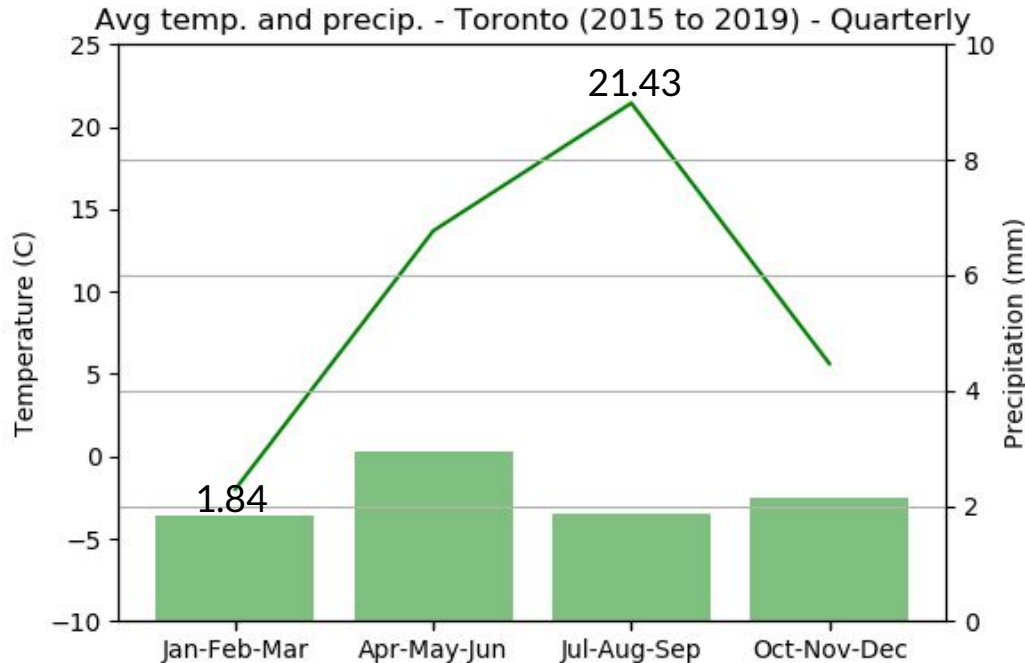
- Based on the 5 year dataset the time period with the average temperature closest to 25 degree celsius during the third quarter (July, August, and September)
- The time period with the lowest average precipitation during the third quarter (July, August and September)

# Montreal Mean Temperature & Precipitation



- The time period with the average temperature closest to 25 degree celsius during the third quarter (July, August and September)
- The time period with the lowest average precipitation during the first quarter (January, February and March)

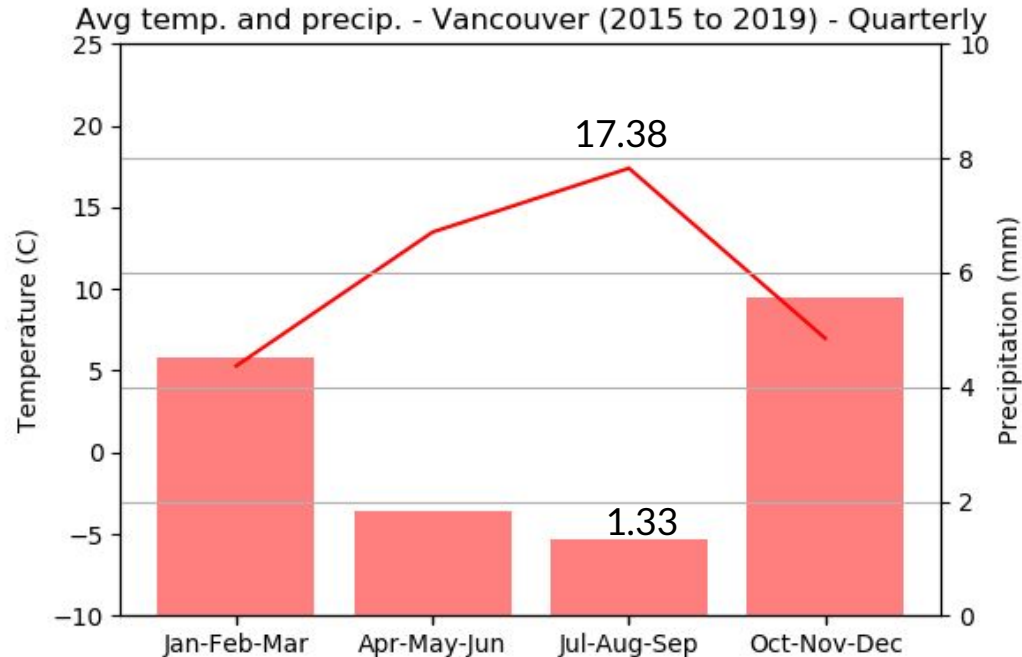
# Toronto Mean Temperature & Precipitation



- The time period with the average temperature closest to 25 degree celsius during the third quarter (July, August and September)
- The time period with the lowest average precipitation during the first quarter (January, February and March)



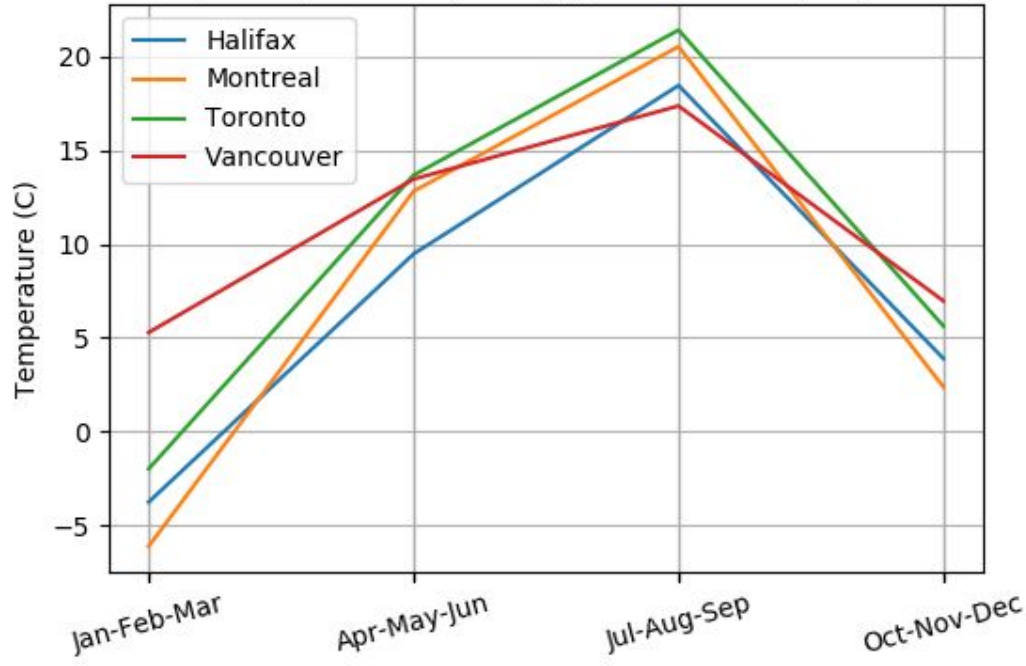
# Vancouver Mean Temperature & Precipitation



- The time period with the average temperature closest to 25 degree celsius during the third quarter (July, August, and September)
- The time period with the lowest average precipitation during the third quarter ( July, August, and September)

# Mean Temperature Comparison

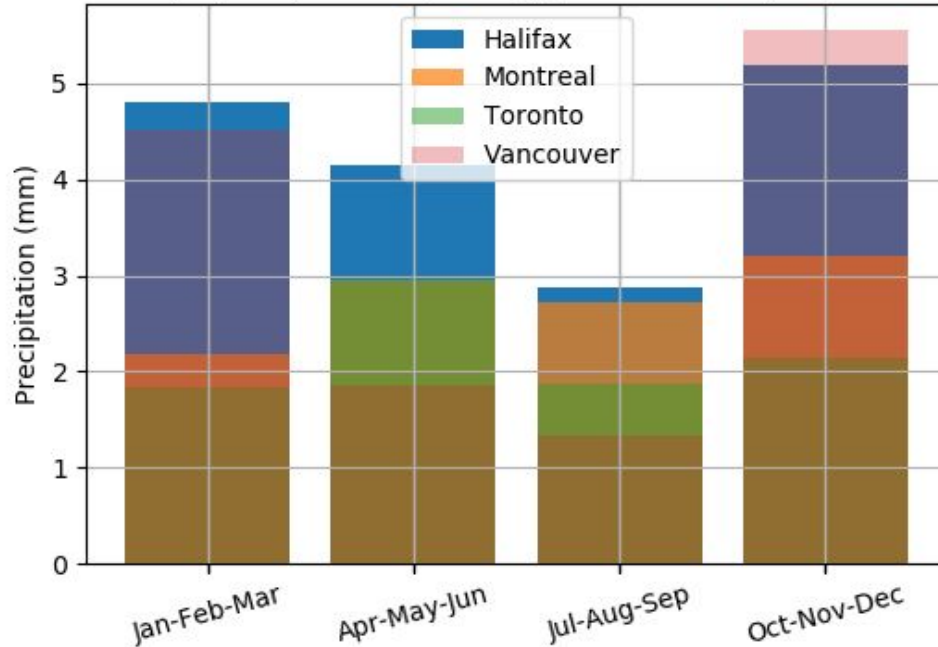
Average temperature per city (2015 to 2019) - Quarterly



- The city with the average temperature closest to 25 degree celsius is Toronto with average temperature of 21.43 degree celsius
- The time period for all cities with the average temperature closest to 25 degree celsius occurs during the third quarter (July, August and September)

# Average Precipitation Comparison

Average precipitation per city (2015 to 2019) - Quarterly



- The city with the lowest average precipitation rate of 1.33 mm is Vancouver during the third quarter (July, August and September)
- The lowest precipitation rate for all cities is occurs during the third quarter



	City	Quarter	Avg Temp (°C)	Avg Precip (mm)
0	Halifax	Q1	-3.76	4.81
1	Halifax	Q2	9.48	4.14
2	Halifax	Q3	18.47	2.87
3	Halifax	Q4	3.90	5.19
4	Montreal	Q1	-6.12	2.18
5	Montreal	Q2	12.83	2.96
6	Montreal	Q3	20.55	2.72
7	Montreal	Q4	2.38	3.21
8	Toronto	Q1	-1.99	1.84
9	Toronto	Q2	13.69	2.95
10	Toronto	Q3	21.43	1.88
11	Toronto	Q4	5.63	2.15
12	Vancouver	Q1	5.29	4.52
13	Vancouver	Q2	13.47	1.85
14	Vancouver	Q3	17.38	1.33
15	Vancouver	Q4	6.97	5.55

Ideal Avg Temperature

Lowest Avg Precip



## City With Lowest Precipitation & Ideal Temperature Based on Time Period

	Jan-Feb-Mar	Apr-May-Jun	Jul-Aug-Sep	Oct-Nov-Dec
Flight Prices	Halifax	Halifax	Montreal	Halifax
Precipitation	Toronto	Vancouver	Vancouver	Toronto
Temperature	Vancouver	Toronto	Toronto	Vancouver



## City Ranking Idea Weather

### Flight Prices

1. Halifax
2. Montreal
3. Vancouver
4. Toronto

### Weather

1. Toronto
2. Vancouver
3. Montreal
4. Halifax

### Hotel Costs

### Popularity



# Hotel Costs

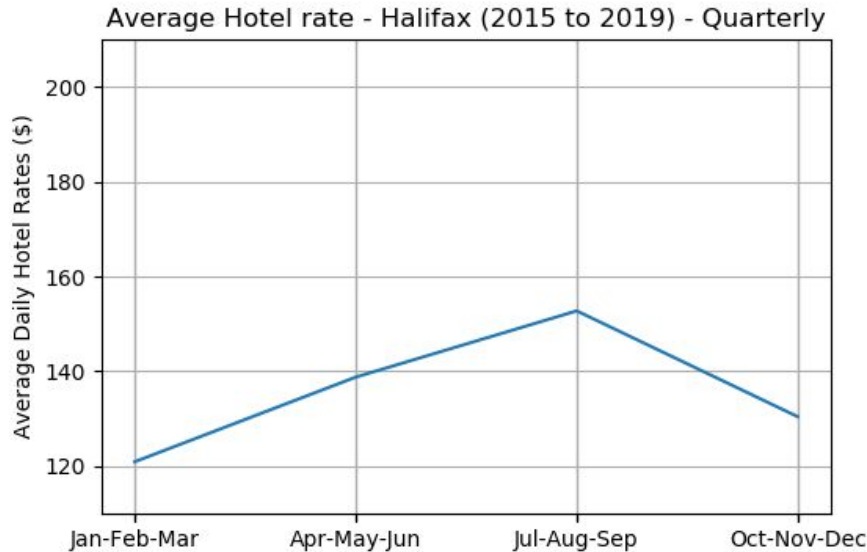
## Hypothesis

- The city with the lowest hotel cost is the ideal city to visit

## Parameters

- Average daily hotel rates
- Quarterly hotel rates from the year 2015 to 2019

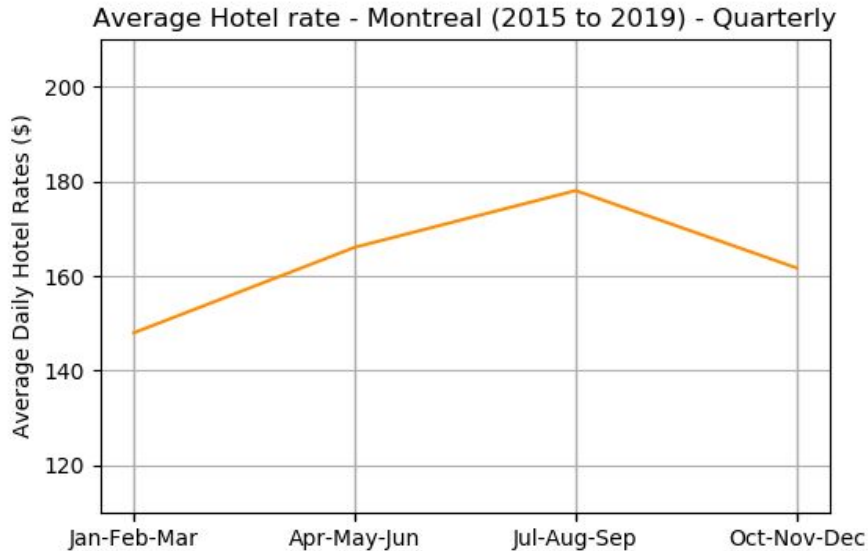
# Halifax Hotel Costs



- Based on a 5 year average the hotel cost in Halifax is low (\$120.92) during Jan, Feb and March time period
- During th July, August, and September time period, the average hotel cost is high (\$152.73) in Halifax

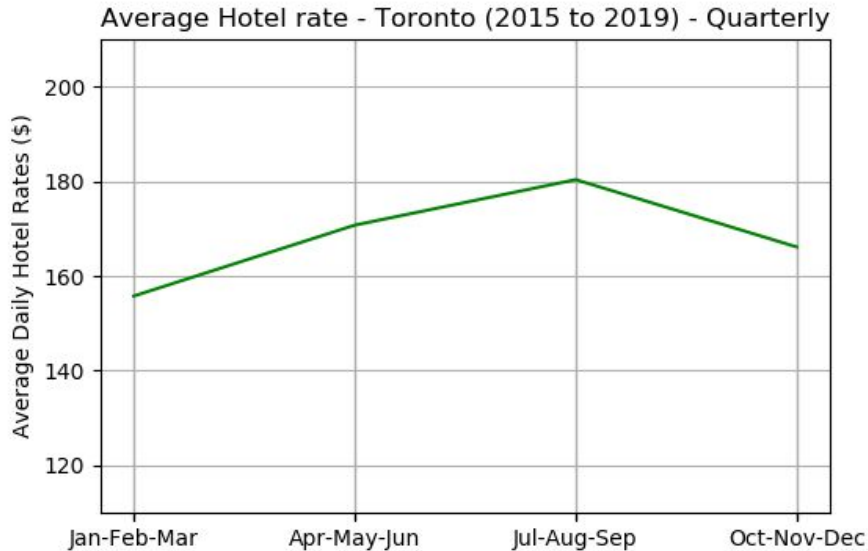


# Montreal Hotel Costs



- Based on a 5 year average the hotel cost in Montreal is low (\$147.97) during Jan, Feb and March time period
- During th July, August, and September time period, the average hotel cost is high (\$178.03) in Montreal

# Toronto Hotel Costs



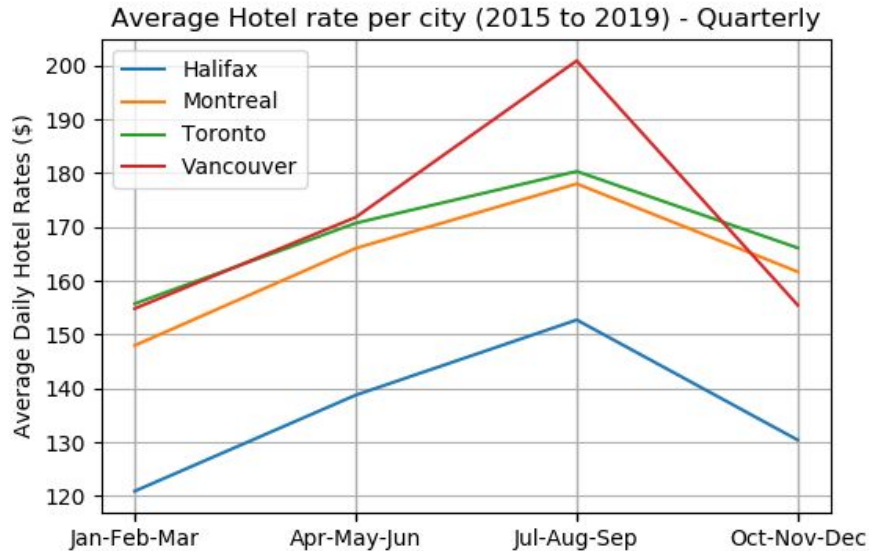
- Based on a 5 year average the hotel cost in Toronto is low (\$155.75) during Jan, Feb and March time period
- During th July, August, and September time period, the average hotel cost is high (\$180.34) in Toronto

# Vancouver Hotel Costs



- Based on a 5 year average the hotel cost in Vancouver is low during Jan, Feb and March (\$154.84) as well as Oct, Nov and Dec (\$155.48) time frames
- During th July, August, and September time period, the average hotel cost is high (\$200.89) in Vancouver

# Hotel Costs Comparison



- The city with the highest Hotel cost is Vancouver \$200.89
- The city with the lowest Hotel cost is Halifax \$120.92
- The time period with the lowest Hotel Cost is the Jan, Feb and Mar and it is observed to be at peak during July, Aug and Sep



# City With Lowest Hotel Costs Based on Time Period

	Jan-Feb-Mar	Apr-May-Jun	Jul-Aug-Sep	Oct-Nov-Dec
Flight Prices	Halifax	Halifax	Montreal	Halifax
Precipitation	Toronto	Vancouver	Vancouver	Toronto
Temperature	Vancouver	Toronto	Toronto	Vancouver
Hotel Costs	Halifax	Halifax	Halifax	Halifax



## City Ranking Hotel Costs

### Flight Prices

1. Halifax
2. Montreal
3. Vancouver
4. Toronto

### Weather

1. Toronto
2. Vancouver
3. Montreal
4. Halifax

### Hotel Costs

1. Halifax
2. Montreal
3. Toronto
4. Vancouver

### Popularity



# Popularity

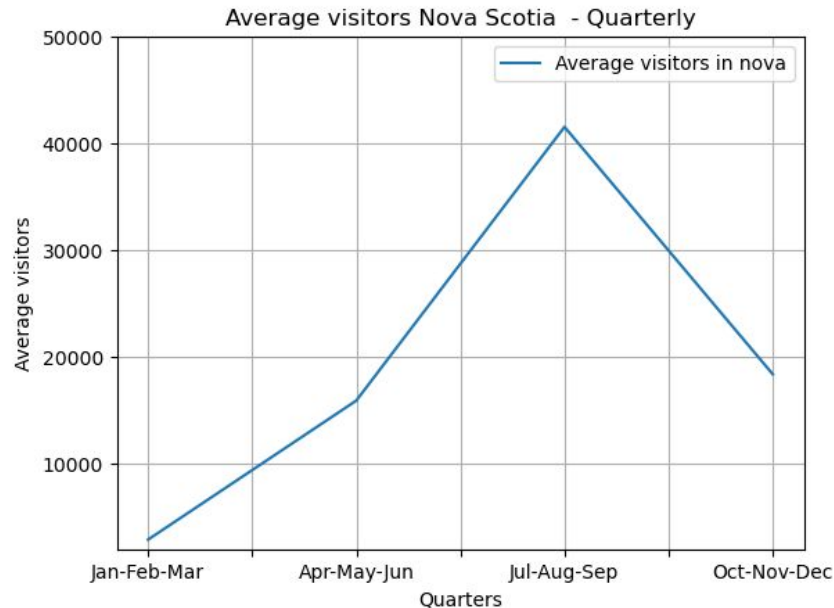
## Hypothesis

- The province with the highest visitors and the city with the highest occupancy rate could be considered the most popular place to visit in Canada

## Parameters

- Average monthly visitors per quarter from the years 2015-2019
- Quarterly hotel occupancy rates from the year 2015 to 2019
- Average Hotel Occupancy rates
- Quarterly hotel Occupancy from the year 2015 to 2019

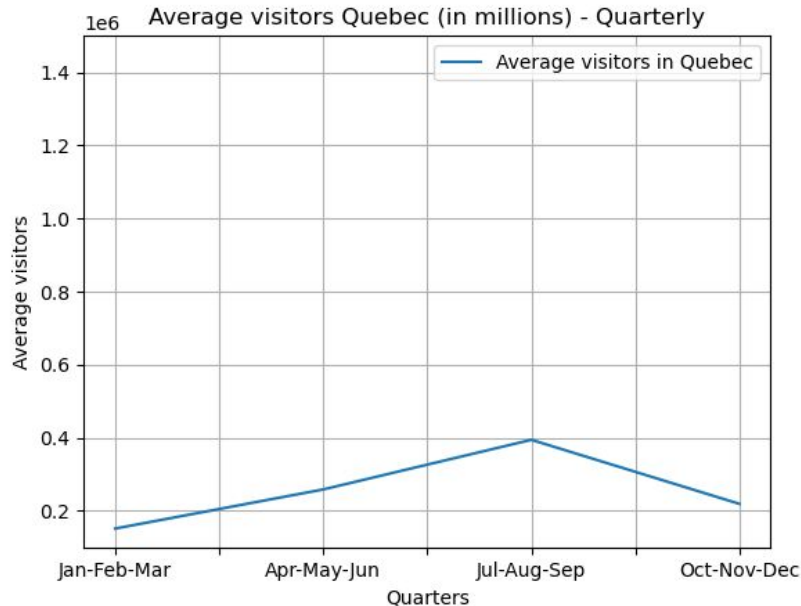
# Nova Scotia Average Monthly Visitors



- Nova Scotia sees the highest amount of Visitors during Q3 (July-Aug-Sep) with average monthly visitors of 41,555 from 2015-2019.
- However, the least amount of visitors are during Q1 (Jan-Feb-Mar) with average monthly visitors of only 2894 during the same period.

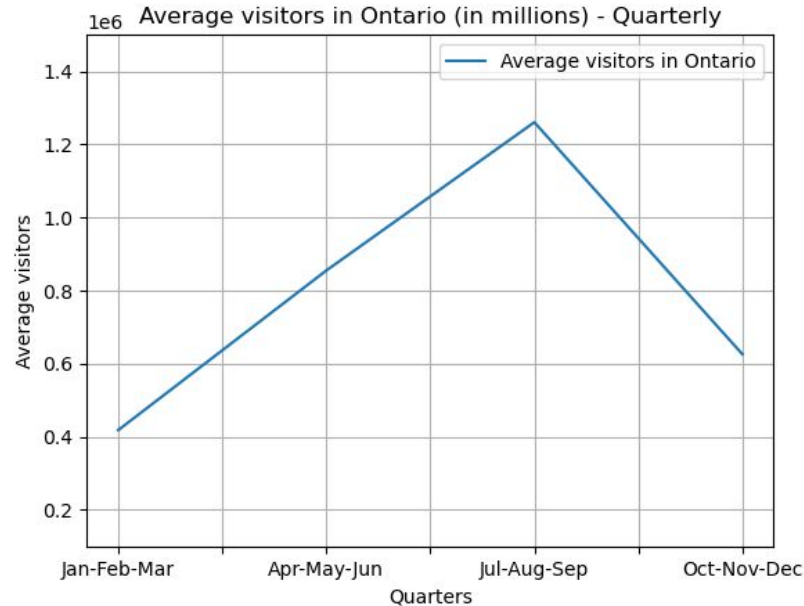


# Quebec Average Monthly Visitors



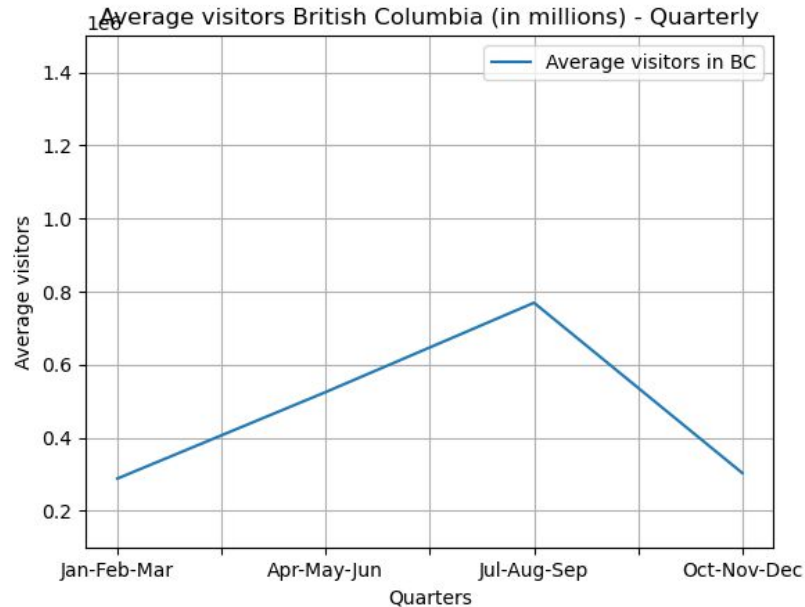
- Quebec sees the highest amount of Visitors during Q3 (July-Aug-Sep) with average monthly visitors of 394,044 from 2015-2019.
- However, the least amount of visitors are during Q1 (Jan-Feb-Mar) with average monthly visitors of only 151,152 during the same period.

# Ontario Average Monthly Visitors



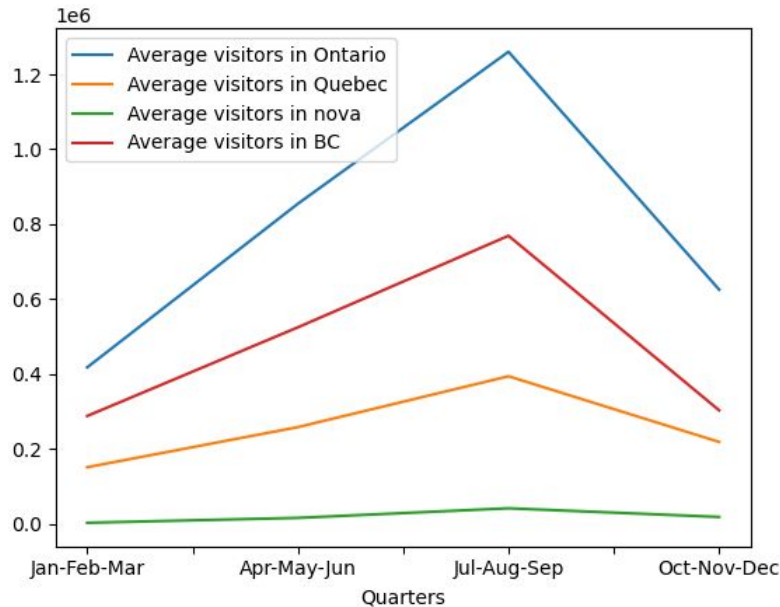
- Ontario sees the highest amount of Visitors during Q3 (July-Aug-Sep) with average monthly visitors of 1,260,338 from 2015-2019.
- However, the least amount of visitors are during Q1 (Jan-Feb-Mar) with average monthly visitors of only 417,760 during the same period.

# British Columbia Average Monthly Visitors



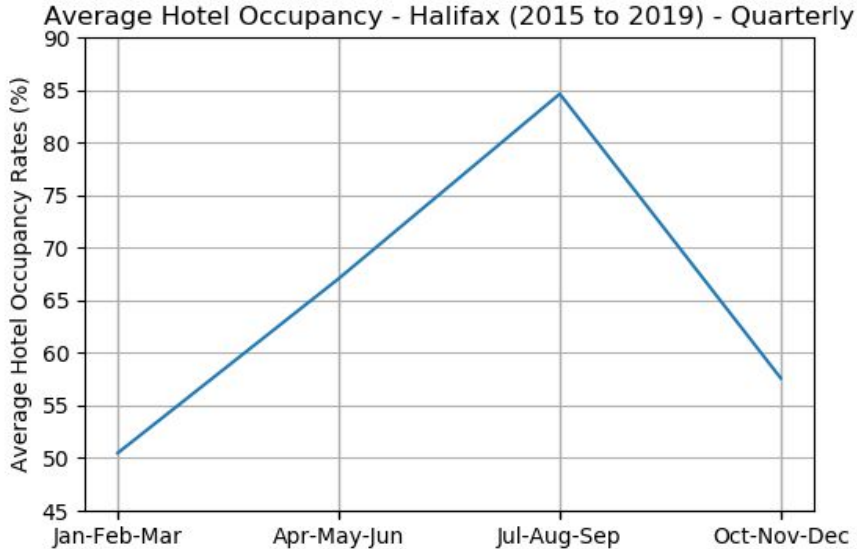
- British Columbia sees the highest amount of Visitors during Q3 (July-Aug-Sep) with average monthly visitors of 769,116 from 2015-2019.
- However, the least amount of visitors are during Q1 (Jan-Feb-Mar) with average monthly visitors of only 287,959 during the same period.

## Most Popular Province/Region in Canada during the 4 Quarters in a Year



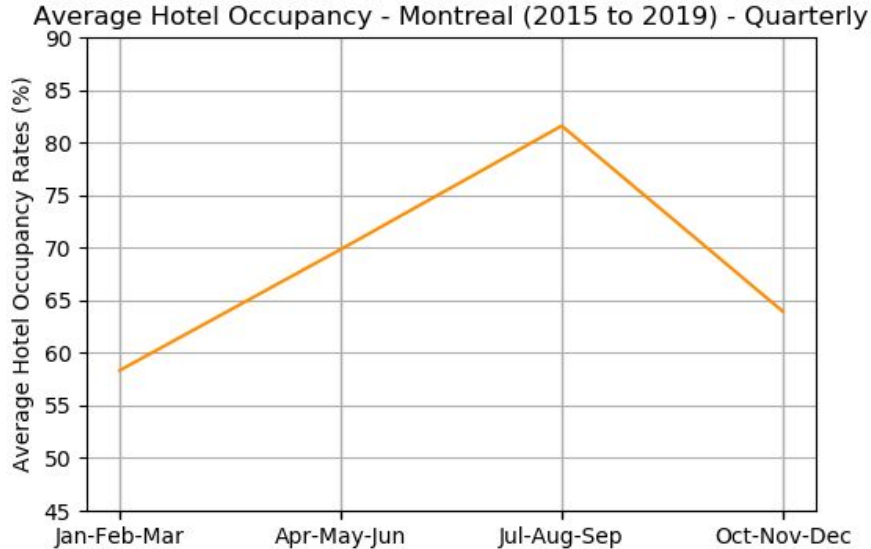
- Ontario maintains the record of being the most popular Province across all 4 quarters throughout the year.
- Followed by British Columbia and Quebec coming 2nd and 3rd respectively in terms of popularity.
- While Nova Scotia is consistently the least popular province to visit throughout the year.

# Halifax Hotel Occupancy



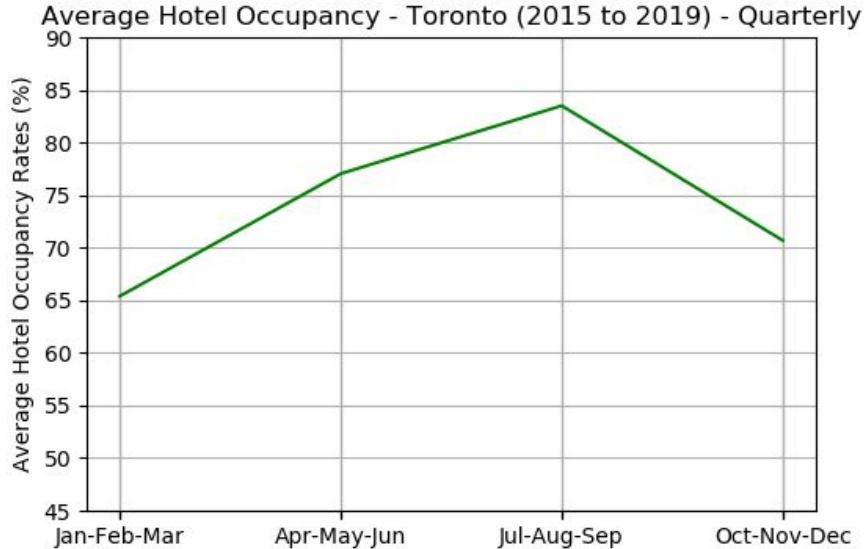
- The Hotel Occupancy is low (50.48%) in Halifax during Jan, Feb and March time period
- During the July, August, and September time period, the Hotel Occupancy is high (84.61%) in Halifax

# Montreal Hotel Occupancy



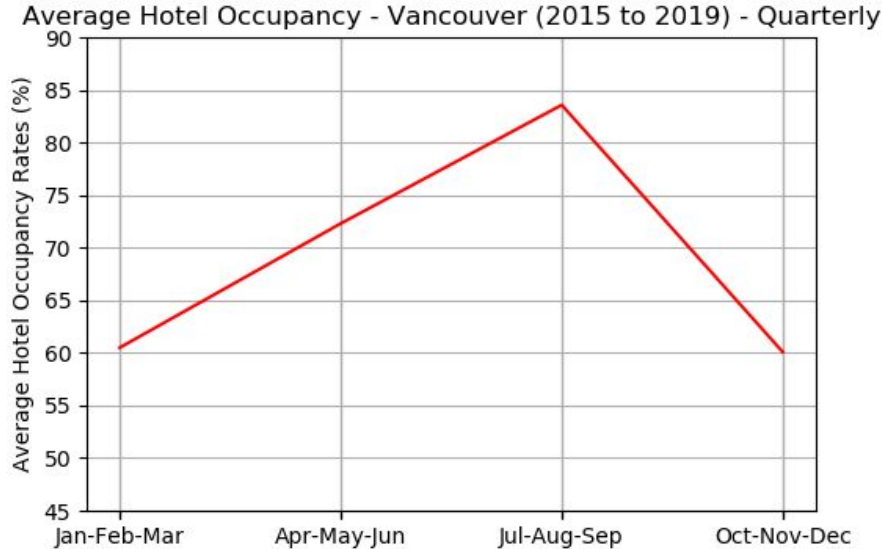
- Based on a 5 year average the Hotel Occupancy in Montreal is low (58.33%) during Jan, Feb and March time period
- During th July, August, and September time period, the hotel occupancy is high (81.58%) in Montreal

# Toronto Hotel Occupancy



- Based on a 5 year average the hotel occupancy in Toronto is low (65.38%) during Jan, Feb and March time period
- During th July, August, and September time period, the average hotel occupancy is high(83.49%) in Toronto

# Vancouver Hotel Occupancy

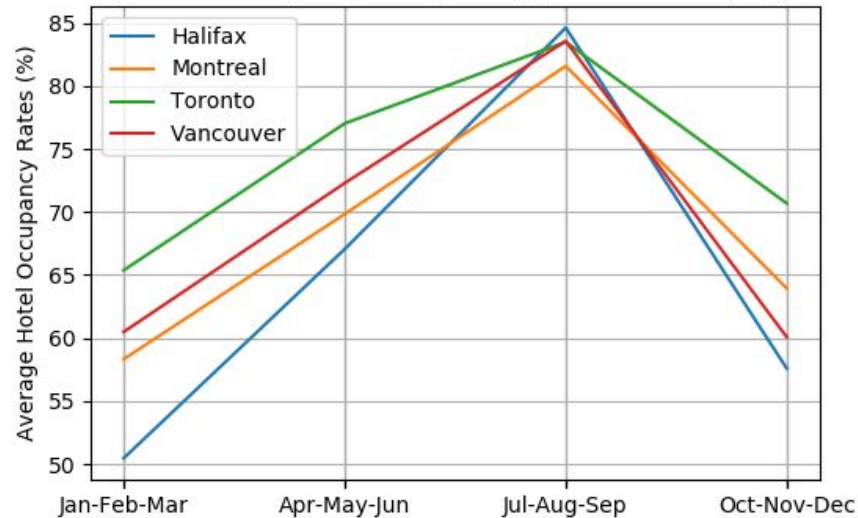


- Based on a 5 year average the hotel occupancy in Vancouver is low (60.49%) during Jan, Feb and March time frame
- During the July, August, and September time period, the average hotel occupancy is high (83.56%) in Vancouver



# Hotel Occupancy Comparison

Average Hotel Occupancy rate per city (2015 to 2019) - Quarterly



- The city with the highest (84.61%) and lowest (50.48%) Hotel Occupancy both is Halifax
- The time period with the highest Hotel Occupancy is the July, August and September



## Best city to visit in Canada based on Time Period

	Jan-Feb-Mar	Apr-May-Jun	Jul-Aug-Sep	Oct-Nov-Dec
Flight Prices	Halifax	Halifax	Montreal	Halifax
Precipitation	Toronto	Vancouver	Vancouver	Toronto
Temperature	Vancouver	Toronto	Toronto	Vancouver
Hotel Costs	Halifax	Halifax	Halifax	Halifax
Popularity	Toronto	Toronto	Toronto	Toronto



## City Ranking based on Factors

### Flight Prices

1. Halifax
2. Montreal
3. Vancouver
4. Toronto

### Weather

1. Toronto
2. Vancouver
3. Montreal
4. Halifax

### Hotel Costs

1. Halifax
2. Montreal
3. Toronto
4. Vancouver

### Popularity

1. Toronto
2. Vancouver
3. Montreal
4. Halifax



# Final Results

*Based on the four factors the best city to visit in Canada would be:*

1. Flight Prices - Halifax
2. Weather - Vancouver
3. Hotel Costs - Halifax
4. Popularity - Toronto



**THANK YOU**