



2015-2016 Vancouver Economic Impact Report



For the past 7 years, home sharing has allowed Vancouverites to turn their homes into a tool that helps them make ends meet.

At the same time, Airbnb guests visit stores, coffee shops and restaurants in the neighbourhood where they're staying - which supports local businesses and helps create jobs in the community.

Tourism is growing in Vancouver with overnight visits expected to grow by 4.1% in 2016¹. Airbnb is proud to play a part in helping to grow the neighbourhood economy in the city. We helped generate over \$402 million in local spending from Vancouver hosts and guests.

Airbnb worked with Dr. Brock Smith, a professor at the University of Victoria, to prepare an economic impact study. Dr. Smith's study is attached, and below are some highlights about the report and our community.

Report and Community Highlights

- Airbnb guests and hosts in the City of Vancouver generated \$402 million in local economic activity with guests spending a total of almost \$180 million during their stay.
- Roughly 267,000 guests booked their stay with Vancouver's Airbnb hosts between September 1, 2015 and August 31, 2016.
- This level of economic activity supports over 9,100 equivalent full-time jobs and accounts for almost \$32 million in taxes going to the City of Vancouver.
- 52% of daytime spending by Airbnb guests to Vancouver were spent within the neighbourhood where they stayed.
- The average Vancouver host earns \$6,500 a year in modest, supplemental income. Hosts keep 97% of their earnings from the Airbnb platform.

¹ Conference Board of Canada

(<http://www.bcbusiness.ca/vancouver-to-get-a-tourism-boost-in-2016-conference-board>)



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EXECUTIVE SUMMARY

This report documents a study of the economic activity and impact of Airbnb hosts and guests from September 1, 2015 to August 31, 2016. It was conducted by Dr. Brock Smith of the Peter B. Gustavson School of Business at the University of Victoria at the request of Airbnb. The study uses an approach developed for the Ontario Arts Council by Informetrica Limited for assessing the economic impact of tourism related events, activities, and services. This approach has been used to assess the economic activity and impact of the BMO Vancouver Marathon, the Scotia Bank Vancouver Half Marathon, the Harbour Air Seaplane service, the MV Coho ferry service, and the Clipper Navigation ferry service among many other events, activities, and services.

Data for the econometric modeling came from four sources: Airbnb listing and booking data; a survey of 230 Airbnb hosts conducted by Airbnb in September of 2016; a survey of 231 Airbnb guests conducted by Airbnb in September of 2016; and key model inputs provided by BC Statistics, Statistics Canada and other government agencies.

Economic activity is the direct contribution to GDP income of all Airbnb host revenues spent in Vancouver and the expenditures of Airbnb guests during their visit to Vancouver. From September 1, 2015 to August 31, 2016, the total economic activity of Airbnb hosts and guests was over \$236 million dollars.

Economic impact is the contribution to GDP income of the Airbnb economic activity diffused through the Vancouver economy by subsequent rounds of spending. From September 1, 2015 to August 31, 2016, the local economic impact of Airbnb hosts and guests was over \$402 million dollars. This level of income supports over 9,100 full-time equivalent jobs and this level of employment accounts for almost \$32 million in City of Vancouver taxes.

Specific economic impact is the contribution to GDP of the Airbnb host revenues spent in Vancouver and the expenditures of Airbnb guests that would not have been made in Vancouver had guests not been able to book accommodation through Airbnb. The local specific economic impact of Airbnb in Vancouver is almost \$23 million dollars. This level of spending supports 518 full-time equivalent jobs which generate \$1.8 million dollars in City of Vancouver taxes.

Economic impact is the best indicator of the contribution of Airbnb hosts and guests to the Vancouver economy. It reflects spending in Vancouver and the jobs and local taxes supported by that spending. Local specific economic impact is a conservative measure that reflects income that guests indicate would have been lost to the City of Vancouver without Airbnb's service. However, there are other electronic means by which hosts can offer accommodation to guests and local economic impact is an indicator of the size and importance of that market.

Economic impact does not consider social, cultural, or environmental impacts.

2015-2016 Airbnb Vancouver Economic Activity and Impact Report

[TABLE OF CONTENTS](#)

[SCOPE & OBJECTIVES](#)

[METHODOLOGY](#)

[Table 1: Economic Modelling Inputs](#)

[ANALYSIS](#)

[RESULTS](#)

[Table 2: Economic Activity and Economic Impact](#)

[Table 3: Local Specific Economic Impact](#)

2015-2016 Airbnb Vancouver Economic Activity and Impact Report

SCOPE & OBJECTIVES

This report documents a study of the economic activity and economic impact of Airbnb hosts and guests in the City of Vancouver for the year September 1, 2015 to August 31, 2016. The study was completed by Dr. Brock Smith of the Peter B. Gustavson School of Business at the University of Victoria at the request of Airbnb.

The objective of the study is to identify and quantify the economic contribution of the Airbnb accommodation listing and booking service to the Vancouver economy. Three key measures are reported: *Economic activity*, *economic impact*, and *specific economic impact*.

Economic activity captures the GDP income that is supported by the direct spending of Airbnb host revenues in Vancouver and the direct spending of Airbnb guests during their stay in Vancouver. Airbnb has more than 8,600 listings in the City of Vancouver and those hosts spent some of their Airbnb revenues in Vancouver on rent or mortgages, household items, groceries, and general shopping. These hosts hosted almost 1.2 million City of Vancouver guest nights from September 1, 2015 to August 31, 2016. Those guests spent money on gastronomy (food and beverage when eating out), groceries, leisure activities, shopping, local transportation, and other services.

Economic impact captures the GDP income that is supported by the Vancouver expenditures of Airbnb host revenues and the Vancouver expenditures of Airbnb guests diffused through the economy in subsequent rounds of expenditure by the recipients of previous rounds. This induced multiplier effect measure reflects an estimate of the contribution of Airbnb hosts and guests to the Vancouver economy, as a result of new income diffused into that economy.

Specific economic impact captures the GDP income that is support by Airbnb host and guest expenditures that would have been lost to the Vancouver economy had Airbnb services not been available to users. This induced multiplier effect measure reflects the unique value of Airbnb to the Vancouver economy; the solely attributable impact where visitors indicate that they would not have come to Vancouver or would not have stayed as long without access to Airbnb.

The infusion of income into the Vancouver economy through *direct* Airbnb host and guest spending has *indirect* effects on employment levels (full time equivalent jobs supported by that spending), and municipal taxes (the taxes paid by full-time equivalent workers). The direct and indirect effects of Airbnb spending in Vancouver, such as on local advertising or legal services, were not considered in this study.

It should be noted that the jobs created by Airbnb host and guest spending are full-time equivalent jobs, not necessarily actual jobs in that the spending supports the hiring of people to provide the goods and services purchased. Similarly, tax impacts reflects the municipals taxes that people in

those full-time equivalent jobs typically pay. These figures are based on the total taxes collected by the City of Vancouver (weighted average for the period of September 2015 through August of 2016) paid per full time equivalent employee in the City of Vancouver during that time period.

This study focuses on economic impact. It does not assess social impacts, cultural impacts, or environmental impacts of Airbnb activity.

METHODOLOGY

The study uses an approach developed for the Ontario Arts Council by Informetrica Limited for assessing the economic impact of tourism related events, activities, and services. This approach has been used to assess the economic activity and impact of the Scotia Bank Vancouver Half Marathon (2014), the Harbour Air Seaplanes service (2014), the BMO Vancouver Marathon (2013 and 2012), Clipper Navigation's Victoria ferry service (2013), and Blackball Transportation's MV Coho ferry service (2011 and 2007), among many other events, activities, and services.

Primary data for the Informetrica approach to econometric modeling was generated from Airbnb records of listings and bookings in 2015 and from two surveys conducted by Airbnb. A survey of 230 Airbnb hosts in the City of Vancouver was conducted in January and February 2016. This survey randomly selected hosts who had at least one Airbnb guest transaction in the 2015 calendar year. A survey of 231 Airbnb guests in the City of Vancouver was also conducted in January and February 2016. This survey randomly selected guests who stayed in an Airbnb host property in Vancouver for at least one night in the 2015 calendar year. Airbnb reports that the results of these surveys are accurate +/- 6%, 19 times out of 20 (a 95% confidence interval). Such reported accuracy is consistent with the methodology applied and is typical of market research of similar scope and focus. Bookings data shows that, on average, Airbnb hosts received \$60 of revenue per guest per night. Per survey results, Guests spent, on average, \$151 per day during their visit to Vancouver on gastronomy (food and beverage when eating out), groceries, leisure activities, shopping, local transportation, and other services. Half of this spending (51%) was done in local neighborhoods in close proximity to the accommodation.

These figures and other key inputs to the economic modelling are summarized in Table 1. To determine the employment impact of Airbnb host expenditures on cleaning services it was assumed that hosts paid, on average, \$25 per hour for cleaning services. This is the average of Vancouver cleaning service prices found on the Kijiji listing service on September 22, 2016.

The study also utilized key secondary sources. Statistics Canada reports that the average weekly wage rate in British Columbia from September 2015 through August 2016 was \$918.42.¹ The average municipal taxes paid per full-time equivalent employee in the City of Vancouver was calculated to be \$3491. This was calculated as follows: 1) the 2011 population and employment rate of the City of Vancouver, as determined by the Statistics Canada census, was adjusted by the 4% average annual growth of metro Vancouver between 2011 and 2016 (as determined by annual

Statistics Canada reporting²). This determined the number of employed people in the City of Vancouver, weighted for four months of 2015 and 8 months of 2016. 2) the number of full-time equivalent employees in the City of Vancouver in this time period was determined by assuming that part-time employment was 14% of the total (part-time employment is consistently 12% to 14% of total employment in Canada³) and by assuming that part-time work consists of 60% of the hours of full-time work. 3) The total municipal taxes paid in Greater Vancouver (weighted for 4 months of 2015 and 8 months of 2016) of just over \$1.5 billion⁴ was divided by the number of full-time equivalent employees in the City of Vancouver to determine the average amount of City of Vancouver taxes paid per full-time equivalent employee.

Table 1: Economic Modelling Inputs

Host Data		
	Vancouver Listings	8617
	Reservations	120271
	Total Guest Nights	1191868
N=230	Average Guest Payment to Host Per Night	\$60
	Total Guest Payments to Hosts	\$71,603,834
	Local Expenditures By Hosts*	\$ 57,050,269
Guest Data		
	Guests	266832
N=231	Guest Non-Accommodation Expend Per Person Per Day	\$151
	Total Guest Spending	\$ 179,695,659
Other Inputs		
	BC Average Weekly Wage (Aug 2015 - Sept 2016)	\$918.42
	Average Municipal Taxes Per Full Time Equivalent Employee	\$3,491
	(Weighted average Aug 2015 - Sept 2016)	
	Multiplier	1.7
	Average Wage of cleaning service staff	\$25/hr
<p>* Hosts indicated what proportion of guest payments they spend on different types of expenditures. Local Expenditures By Hosts includes host expenditures on: rent/mortgage; household purchases; spending money; listing cleaning; and other expenditures. It does not include revenue allocated to Long-term savings, vacation travel, and emergency funds that may not have be spent in Vancouver.</p>		

ANALYSIS

Inputs to the analysis include Airbnb host expenditures, host cleaning service contractor employment Vancouver, and the non-accommodation ancillary spending of guests. The multiplier utilized in the analysis was 1.7. While there are many methods for determining an appropriate multiplier, and many considerations, including industry, city size, and local economic conditions, 1.7 was chosen as the multiplier to be consistent with other economic impact studies conducted in Vancouver (that used multipliers between 1.4 and 2.0), to reflect the economic conditions of a rebounding event tourism industry, and to be consistent with tourism multipliers suggested by Informetrica.

RESULTS

Total economic activity is the direct GDP income contribution to City of Vancouver of Airbnb related host and guest expenditures in Vancouver. From September 1, 2015 to August 31, 2016, the total economic activity of Airbnb hosts and guests was over \$236 million dollars (Table 2). This level of income activity supports, indirectly, more than 5,300 full time equivalent jobs and more than \$18 million dollars in city taxes. Total economic activity reflects Airbnb host revenues that were spend in Vancouver. It does not include host expenditures related to long term savings, vacation travel, and emergency funds.

Local economic impact consists of *total economic activity* (direct expenditures) as well as *induced* effects of that direct spending being infused into the local economy through subsequent rounds of spending captured by an income multiplier. The local economic impact of Airbnb hosts and guests was over \$402 million dollars (Table 2). This level of income supports over 9,100 full-time equivalent jobs and this level of employment accounts for almost \$32 million in City of Vancouver taxes. Airbnb guest survey results indicate that half of the guest expenditures are made in Vancouver neighborhoods in close proximity to where the guests are staying. The remainder is spent in other parts of Vancouver.

Specific economic impact is the contribution to GDP of the Airbnb host revenues spent in Vancouver and the expenditures of Airbnb guests that would not have been made in Vancouver had guests not been able to book accommodation through Airbnb. The local specific economic impact of Airbnb in Vancouver is almost \$23 million dollars (Table 3); supporting 518 full-time equivalent jobs which generate \$1.8 million dollars in City of Vancouver taxes. Survey results indicate that just over 7% of guests would not have travelled to Vancouver or would have stayed with friends and relatives had Airbnb accommodation not been available. Local specific economic impact only considers the host spending associated with the 7% of host revenues that would have been lost to the Vancouver economy. Survey results also indicate that 9% of guest expenditures would have stayed fewer nights. Using the conservative assumption that those 30% of guests would have stayed one less night, 9% of guest expenditures would have been lost to the City of Vancouver economy had Airbnb's service not been available. Specific economic impact only considers this potentially lost 9% of guest spending.

Economic impact is the best indicator of the contribution of Airbnb hosts and guests to the Vancouver economy as it reflects spending in Vancouver and the jobs and local taxes supported by that spending. Local specific economic impact is a conservative measure that reflects income that guests indicate would have been lost to the City of Vancouver without Airbnb's service. However, there are other electronic means by which hosts can offer accommodation to guests and local economic impact is an indicator of the size and importance of that market.

Together these results suggest that Airbnb hosts and guests make a significant contribution to the City of Vancouver economy. The hosts use rental revenues to help pay their rent and mortgages, help pay for renovations, furniture and fixtures to make their room's rentable, and help pay for other household expenditures, personal shopping, and other local expenditures. Guest spending is also significant and has neighborhood impact.

1 BC Labour Statistics for 2015 and 2106 (accessed September 22, 2016), Provincial Overall Comparisons, page 21:
<http://www.bcstats.gov.bc.ca/StatisticsBySubject/LabourIncome/FAQs.aspx>

2 Vancouver population and employment rate (accessed September 22, 2016):
<http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/lfss031-eng.htm>

3 Young, L., Reality check: Are Canada's newly create jobs part-time-precarious and low-paid, Global News, August 17, 2015.
<http://globalnews.ca/news/2169728/reality-check-are-canadas-newly-created-jobs-part-time-precarious-and-low-paid/>

4 Municipal Taxes 2015 and 2016 (accessed September 22, 2016):
http://www.cscd.gov.bc.ca/lqd/infra/tax_rates/tax_rates2015.htm

Table 2: Economic Activity and Economic Impact

Airbnb Vancouver Economic Activity and Impact				
	Economic Activity	Induced	Economic Impact	
	Direct Effect	Effect	Total Effects	
LOCAL INCOME IMPACT (GDP)				
Host Income Impact	\$57,050,269	\$39,935,188	\$96,985,457	
Guest Income Impact	\$179,695,662	\$125,786,963	\$305,482,625	
Total Income Impact	\$236,745,931	\$165,722,152	\$402,468,083	
LOCAL EMPLOYMENT IMPACT (PERSON-YEARS)				
Host Net Employment Impact	1,293	906	2,200	
Guest Net Employment Impact	4,078	2,855	6,933	
Total Net Employment Impact	5,372	3,761	9,133	
LOCAL TAX IMPACT (PROPERTY TAXES)				
Host Net Tax Impact	\$4,515,607	\$3,163,892	\$7,679,499	
Guest Net Tax Impact	\$14,236,510	\$9,965,557	\$24,202,066	
Total Net Tax Impact	\$18,752,116	\$13,129,449	\$31,881,565	

Table 3: Local Specific Economic Impact

Airbnb Vancouver Specific Economic Impact			
	Economic Activity	Induced	Economic Impact
	Direct Effect	Effect	Total Effects
LOCAL INCOME IMPACT (GDP)			
Host Income Impact	\$4,056,274	\$2,839,392	\$6,895,666
Guest Income Impact	\$9,381,003	\$6,566,702	\$15,947,706
Total Income Impact	\$13,437,277	\$9,406,094	\$22,843,372
LOCAL EMPLOYMENT IMPACT (PERSON-YEARS)			
Host Net Employment Impact	92	64	156
Guest Net Employment Impact	213	149	362
Total Net Employment Impact	305	213	518
LOCAL TAX IMPACT (PROPERTY TAXES)			
Host Net Tax Impact	\$321,040	\$224,953	\$545,992
Guest Net Tax Impact	\$743,216	\$520,251	\$1,263,468
Total Net Tax Impact	\$1,064,256	\$745,204	\$1,809,460
An 2016 Airbnb survey of 261 guests indicates that 3.11% of guests would not have come to Vancouver if Airbnb was not available. Another 4% reported that they would have stayed with friends and family. This means that 7.11% of host revenue would have been lost. The specific impact of Airbnb accounts only for the 7.11% of host expenditures that would otherwise not have been spent in Vancouver.			
The same Airbnb survey found that 2.23% of guests would not have come to Vancouver if Airbnb was not available. Another 30.36% reported that they would not have stayed as long. Using the most conservative interpretation that those guests would have stayed one less night in Vancouver than average the 4.5 night of all guests, the guest expenditures that can specifically be attributed to Airbnb is 7.11% of all expenditures.			