



PLAYHOUSE SQUARE

A Regional Economic
Engine

**Economic & Fiscal
Impacts**

2019



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PLAYHOUSE SQUARE

PLAYHOUSE SQUARE



INTRODUCTION PROJECT BACKGROUND



In addition to being one of Northeast Ohio's brightest cultural gems, Playhouse Square drives significant economic activity that supports businesses, households, and government finances in the regional Cleveland economy.

Playhouse Square, along with three other major arts and culture sites, requested a comprehensive analysis of their impact on the segment in the Cleveland regional economy. In addition to the broader impacts, each site also requested an analysis of the impact of their

individual site, which is detailed for Playhouse Square in this report. Playhouse Square drew fans from a wide area, driving significant levels of spending in the regional economy.

Tourism Economics, an Oxford Economics company, developed a customized framework to analyze the impact of Playhouse Square on the regional Cleveland economy and conducted an in-depth analysis of the economic impacts in terms of economic output, labor income,



KEY FINDINGS

DIRECT SPENDING IMPACTS

Playhouse Square generates significant economic impacts as it spends money in the local economy to sustain daily operations. In addition, out-of-town attendees spend money while attending events and frequenting off-site establishments during their stay in Cleveland, including local restaurants, hotels, retailers, and recreation / entertainment venues.



\$225.7M

Total Direct Spending Impact



\$89.5M

Playhouse Square Local Operating Investment



\$136.1M

Off-site Spending by Out-of-Town Attendees

TOTAL IMPACTS

Playhouse Square's direct spending impact of \$225.7 million generated a total economic impact of \$359.1 million in the regional economy. This total economic impact of \$359.1 million supported more than 2,500 total jobs and generated \$25.7 million in state and local taxes in 2019.

OUT-OF-TOWN VISITORS

Playhouse Square welcomed more than 1.3 million total attendees in 2019. Of these 1.3 million total attendees, more than 645,000 traveled to Playhouse Square from outside Cleveland.



645,000

Out-of-Town Attendees
in 2019

PLAYHOUSE SQUARE ECONOMIC IMPACTS (2019)



\$359.1M

Total
Economic
Impact



2,500

Total
Jobs
Generated



\$25.7M

Total
State & Local
Taxes Generated



DIRECT IMPACTS

Playhouse Square generated a direct impact of \$225.7 million in Cleveland in 2019. The direct impact of \$225.7 million included \$89.5 million in Playhouse Square local operating expenditures and \$136.1 million in off-site spending by out-of-town event attendees

SUMMARY DIRECT IMPACTS



\$89.5M

Playhouse Square
Local Operating
Expenditures



+ **\$136.1M** **=**

Off-Site Spending
by Out-of-Town
Attendees



\$225.7M

Total
Direct
Impacts

PLAYHOUSE SQUARE

LOCAL OPERATING EXPENDITURES

Playhouse Square spent \$89.5 million in local operating expenditures, including theater operations, general and administrative expenses, promotions and advertising, fundraising, community engagement expenses, and real estate operations. The operating expenditure is collected on a fiscal year basis and reflects operating expenditures for FY19.



PLAYHOUSE SQUARE **OUT-OF-TOWN ATTENDEES**

Playhouse Square welcomed more than 1.3 million total attendees in 2019. Approximately 645,000 of the 1.3 million total attendees traveled to Playhouse Square from outside Cleveland. These 645,000 total non-locals included more than 181,000 non-local daytrip attendees and 464,000 non-local overnight attendees.



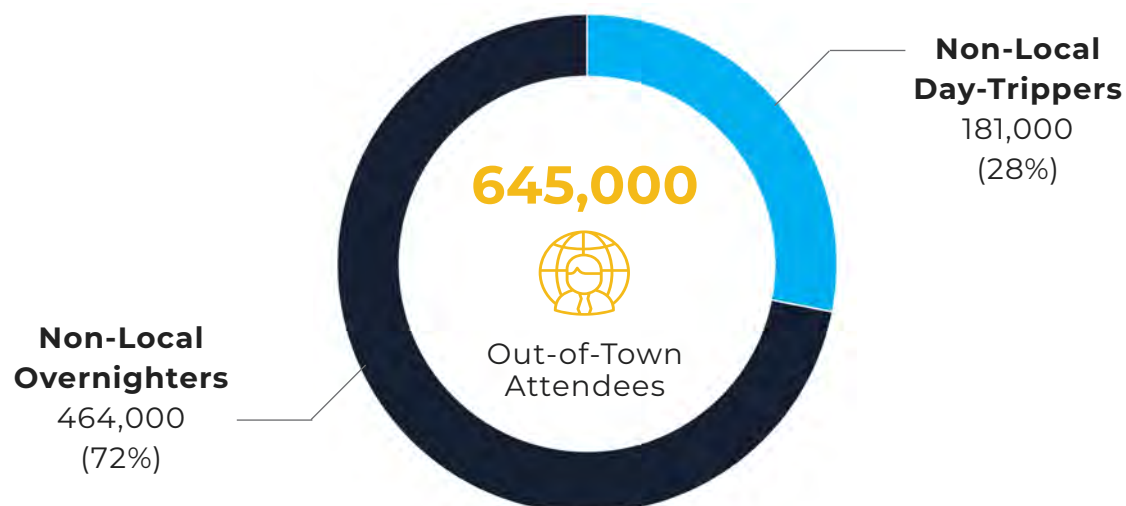
VISITOR SPENDING

NON-LOCAL VISITORS

Playhouse Square visitors from Cuyahoga County were excluded from the impact analysis since the money spent by locals would have been spent elsewhere in the economy even if they had not visited Playhouse Square. Based on this assumption, the number of attendees included in the impact analysis only includes attendees originating from outside Cuyahoga County.

The chart below presents the incremental, non-local attendees that attended Playhouse Square in 2019. As previously mentioned, Playhouse Square welcomed a total of 645,000 out-of-town attendees who originated from outside Cuyahoga County. These out-of-town attendees included 181,000 non-local

PLAYHOUSE SQUARE OUT-OF-TOWN ATTENDANCE BY VISITOR TYPE



OFF-SITE SPENDING

In 2019, Playhouse Square attendees spent a total of \$136.1 million at off-site establishments in the local economy, including local restaurants, hotels, retailers, and recreation / entertainment venues. These purchases represent net new spending in the regional economy since they would not have occurred but for Playhouse Square.



\$136.1M

Off-Site Spending by Playhouse Square Attendees



\$45.5M FOOD & BEVERAGE

Full-service restaurants, fast food, convenience stores, alcohol



\$32.8M RETAIL

Souvenirs, general merchandise, malls



\$28.1M LOCAL TRANSPORTATION

Taxis, buses, parking, public transportation



\$16.1M LODGING

Hotels, motels, private home rentals



\$13.7M RECREATION

Theaters, amusements, entertainment venues, and other recreation (excluding on-site spending at Playhouse Square on tickets, concessions, etc.)



ECONOMIC IMPACT METHODOLOGY

Our analysis of Playhouse Square's economic impact begins with direct spending (including local operating expenditures and off-site spending by out-of-town visitors) and also considers the downstream effects of this injection of spending into the local economy. To determine Playhouse Square's total economic impact, we input direct spending into a model of the local Cleveland economy created in IMPLAN, which traces the full extent of industry impacts. IMPLAN is recognized as an industry standard in local-level input-output (I-O) models.

An I-O model represents a profile of an economy by measuring the relationships among industries and consumers and produces estimates of the following components:

- 1. Direct impacts:** Local operating expenditures and off-site visitor spending create direct economic value within a discreet group of sectors (e.g. recreation, transportation). This supports a relative proportion of spending, jobs, wages, and taxes within each sector.
- 2. Indirect impacts:** Each directly affected sector also purchases goods and services as inputs (e.g. food wholesalers, utilities) into production. These impacts are called indirect impacts.
- 3. Induced impacts:** Lastly, the induced impact is generated when employees whose wages are generated either directly or indirectly by off-site visitor spending and local operating investment, spend those wages in the local economy.

IMPLAN calculates three levels of impact - direct, indirect and induced - for a broad set of

- Spending
- Wages
- Employment
- Federal Taxes
- State Taxes
- Local Taxes

ECONOMIC IMPACT FRAMEWORK

Direct Impacts



RETAIL



ENTERTAINMENT/REC



FOOD & BEVERAGE



LOCAL TRANSPORTATION



LODGING



LOCAL OPERATING
INVESTMENT

Indirect Impacts



SUPPLY CHAIN
EFFECTS



B2B GOODS &
SERVICES
PURCHASES

Induced Impacts



INCOME
EFFECT



HOUSEHOLD
CONSUMPTION



SALES



GDP



JOBS



WAGES



TAXES



ECONOMIC IMPACT FINDINGS

ECONOMIC IMPACT RESULTS **BUSINESS SALES IMPACTS**

Playhouse Square generated a direct impact of \$225.7 million in 2019, which included local operating expenditures and off-site visitor spending. This direct impact of \$225.7 million generated \$76.1 million in indirect impacts and \$57.3 million in induced impacts, resulting in a total economic impact of \$359.1 million in the regional economy.

BUSINESS SALES IMPACTS



\$225.7M +

Direct
Business
Sales



\$76.1M +

Indirect
Business
Sales



\$57.3M =

Induced
Business
Sales



= \$359.1M

**Total
Economic
Impact**



PLAYHOUSE SQUARE BUSINESS SALES IMPACTS (\$ MILLIONS) BY INDUSTRY (2019)

	Direct Impacts	Indirect Impacts	Induced Impacts	Total Impacts
Total, all industries	\$225.7	\$76.1	\$57.3	\$359.1
Recreation and Entertainment	\$75.0	\$4.8	\$1.1	\$80.8
Finance, Insurance and Real Estate	\$22.8	\$24.3	\$19.2	\$66.4
Food & Beverage	\$45.5	\$2.3	\$3.7	\$51.4
Retail Trade	\$32.8	\$0.7	\$3.6	\$37.2
Business Services	\$7.8	\$22.3	\$5.6	\$35.7
Other Transport	\$12.7	\$4.3	\$1.2	\$18.2
Lodging	\$16.1	\$0.0	\$0.0	\$16.1
Education and Health Care		\$0.5	\$11.5	\$12.0
Gasoline Stations	\$11.1	\$0.1	\$0.3	\$11.4
Personal Services	\$2.0	\$2.1	\$3.6	\$7.6
Communications		\$4.4	\$2.2	\$6.6
Construction and Utilities		\$4.5	\$1.2	\$5.7
Wholesale Trade		\$3.0	\$2.5	\$5.5
Government		\$1.5	\$0.8	\$2.2
Manufacturing		\$0.9	\$0.3	\$1.3
Air Transport		\$0.4	\$0.4	\$0.8
Agriculture, Fishing, Mining		\$0.1	\$0.0	\$0.1

Source: Tourism Economics (2021)

The economic impacts attributable to Playhouse Square are far reaching, as a number of industries benefit from direct, indirect, and induced spending impacts. As shown in the accompanying table, the majority of sales occurred in the recreation and entertainment industry, totaling \$80.8 million. Additional, significant benefits accrued to other industries, including the food & beverage, FIRE (finance, insurance, and real estate), retail trade, and business services industries.

ECONOMIC IMPACTS

JOB & LABOR INCOME IMPACTS

Playhouse Square's total economic impact of \$359.1million supported more than 2,500 total jobs (including full-time and part-time jobs) with associated labor income of approximately \$95.4 million in 2019. Refer to the Appendix for additional details on job and labor income impacts by industry.



\$359.1M

Total Economic Impact



2,500

Total Jobs Impact
(Full-Time & Part-Time)



\$95.4M

Total Labor Income Impact





FISCAL IMPACTS

TAX REVENUES

The economic impacts attributable to Playhouse Square generated significant fiscal (tax) impacts as they cycled through the regional economy. Overall, Playhouse Square generated a total fiscal impact of \$48.0 million in 2019, including \$22.3 million in federal tax revenues and \$25.7 million in state and local tax revenues.



\$48.0M
Total Tax Revenues



\$22.3M
Federal Tax Revenues



\$25.7M
State & Local Tax Revenues



EDUCATIONAL IMPACTS



Playhouse Square understands its vital role as an educator in the local community, and is committed to providing arts learning opportunities of the highest quality to enrich the lives of students, families, teachers and adults.

Since its inception in 1998, the Education Department has offered thousands of events, workshops, classes and more, most with minimal or no fees, to people of all ages from all areas of Northeast Ohio. The generous support of individual and corporate donors and foundations makes it all possible.



PLAYHOUSE SQUARE **EDUCATION PROGRAMS**

- Broadway Buzz
- Broadway Summer Camp for Teens
- Disney Musicals in Schools
- Teacher Resource Guides
- Stars: Student Volunteers
- Dazzle Awards
- Children's Theater Series
- Family Theater Day
- Sensory-Friendly Programming
- High School Senior Project Program
- Field Trips: 26,555 students attended a School Matinee Performance in FY2019-20
- Bus Subsidy Program
- Classroom Connections
- Dance Showcase
- Launch: Performance Creation Residencies
- Staging Success Career Fair



APPENDIX

PLAYHOUSE SQUARE LABOR INCOME IMPACTS (\$ MILLIONS) BY INDUSTRY (2019)

	Direct Labor Income	Indirect Labor Income	Induced Labor Income	Total Labor Income
Total, all industries	\$59.0	\$20.8	\$15.6	\$95.4
Recreation and Entertainment	\$19.4	\$1.2	\$0.4	\$20.9
Food & Beverage	\$16.8	\$0.8	\$1.1	\$18.8
Business Services	\$1.9	\$9.7	\$2.3	\$13.9
Finance, Insurance and Real Estate	\$3.5	\$2.6	\$2.0	\$8.1
Other Transport	\$5.6	\$1.8	\$0.4	\$7.9
Lodging	\$6.9	\$0.0	\$0.0	\$6.9
Retail Trade	\$4.3	\$0.2	\$1.1	\$5.6
Education and Health Care		\$0.2	\$5.2	\$5.3
Personal Services	\$0.2	\$1.1	\$1.4	\$2.6
Wholesale Trade		\$0.9	\$0.6	\$1.5
Communications		\$0.7	\$0.3	\$1.1
Government		\$0.7	\$0.3	\$1.0
Construction and Utilities		\$0.6	\$0.2	\$0.8
Gasoline Stations	\$0.5	\$0.0	\$0.1	\$0.6
Manufacturing		\$0.2	\$0.0	\$0.2
Air Transport		\$0.1	\$0.1	\$0.2
Agriculture, Fishing, Mining		\$0.0	\$0.0	\$0.0

Source: Tourism Economics (2021)

Note: Totals may not add due to rounding.

Playhouse Square's total economic impact of \$359.1 million included \$95.4 million in labor income, including \$59.0 million in direct labor income, \$20.8 million in indirect labor income, and \$15.6 million in induced labor income. As shown in the accompanying table, the majority of labor income occurred in the recreation and entertainment industry, totaling \$20.9 million.

PLAYHOUSE SQUARE JOBS IMPACTS BY INDUSTRY (2019)

	Direct Jobs	Indirect Jobs	Induced Jobs	Total Jobs
Total, all industries	1,793	398	338	2,530
Food & Beverage	637	32	49	718
Recreation and Entertainment	492	25	10	527
Finance, Insurance and Real Estate	163	87	42	292
Other Transport	161	37	12	210
Business Services	25	143	36	204
Retail Trade	135	6	35	177
Lodging	166	0	0	166
Education and Health Care		5	97	102
Personal Services	4	23	36	63
Wholesale Trade		10	7	17
Communications		10	5	14
Gasoline Stations	10	1	2	12
Government		8	3	12
Construction and Utilities		8	3	11
Manufacturing		3	1	4
Air Transport		1	1	2
Agriculture, Fishing, Mining		0	0	0

Source: Tourism Economics (2021)

Note: Jobs include full-time and part-time jobs. Totals may not add due to rounding.

Playhouse Square's total economic impact of \$359.1 million supported more than 2,500 total jobs, including approximately 1,800 direct jobs, 400 indirect jobs, and 340 induced jobs. The majority of jobs are in the food & beverage industry, amounting to nearly 720 total jobs.

PLAYHOUSE SQUARE FISCAL (TAX) IMPACTS (\$ MILLIONS) BY TAX TYPE (2019)

	Direct Taxes	Indirect & Induced Taxes	Total Taxes
Total Tax Revenues	\$31.6	\$16.4	\$48.0
Federal Taxes	\$13.9	\$8.4	\$22.3
Personal Income	\$3.7	\$2.4	\$6.1
Corporate	\$1.2	\$0.9	\$2.1
Indirect Business	\$0.6	\$0.3	\$0.9
Social Insurance	\$8.4	\$4.7	\$13.1
State and Local Taxes	\$17.7	\$8.0	\$25.7
Sales	\$8.7	\$4.3	\$13.0
Bed Tax	\$1.5	\$0.0	\$1.5
Admissions Tax	\$1.1	\$0.0	\$1.1
Personal Income	\$1.5	\$1.0	\$2.4
Corporate	\$0.1	\$0.0	\$0.1
Social Insurance	\$0.3	\$0.2	\$0.5
Excise and Fees	\$0.6	\$0.3	\$1.0
Property	\$3.9	\$2.2	\$6.1

Source: Tourism Economics (2021)

Note: Totals may not add due to rounding.

Playhouse Square's total economic impact of \$359.1 million generated a total fiscal (tax) impact of \$48.0 million.

Total Federal taxes amounted to \$22.3 million, including \$13.1 million in social insurance taxes and \$6.1 million in personal income taxes.

Total state and local taxes amounted to \$25.7 million, including \$13.0 million in sales taxes, \$1.1 million in admissions taxes, \$1.5 million in bed taxes, and \$6.1 million in property taxes.

METHODOLOGY AND DATA

NOTES

1. Direct spending

The economic impact of Playhouse Square is captured as a demand-side activity through direct spending and its subsequent ripple effects. The development of direct spending estimates is a key part of the process and was constructed on an individual organizational basis and included operational expenditures and visitor spending in the local economy.

For operational expenditures we rely on information provided directly by the respective organizations, including attendance, ticket sales data, attendee origin, staffing levels, payroll, taxes paid, administrative and other operational spending, complemented by Form 990 tax filings, and data taken from respective annual reports.

Estimates of visitor spending were generated based on separating out Cuyahoga County residents using zip codes associated with ticket sales and mobile geolocation data. Once non-locals were identified, a visitor spending profile was developed based on surveys of visitors to the Cuyahoga County region. The spending profile includes average visitor spending in the local economy across industries, such as accommodations, food and beverage, retail, recreation, and local transportation. Some of this visitor spending would have occurred on-site and the rest off-site, and estimates of this split were cross checked with client financial data where available, for on-site recreation and food and beverage spending for example.

Data sources incorporated into the detailed spending estimates by category included:

- Client financial pro forma
- Organization annual reports
- Client data on attendees, ticket sales and origin of attendees
- For 990 tax filings publicly available
- Visitor spending profile estimates, developed by Tourism Economics based on data from national consumer research firms Longwood's International and DK Shifflet.
- Mobile geolocation data obtained from Near
- Hotel sector metrics covering demand, supply, occupancy rates and average room rates in Cuyahoga County

Estimates of per visitor spending combined with the volume of day and overnight non-local visitors allowed for estimates of total incremental spending in the local economy. Together, operational expenditures and visitor spending, adds to total new, direct spending in the local economy. This direct spending is then input into a proprietary input-output model of the Cuyahoga County economy. The model allows for the input of direct spending which represent an incremental change in industry sales.

2. Indirect and induced impacts

The direct spending described above were input into the input-output model constructed in IMPLAN, an industry standard impact modelling software. Economic impact analysis measures the total effects of an incremental change in a regional or national economy. The initial change could be in the form of new spending, employment, income or investment, and the change will have additional impacts on employment, income, and output (also called business sales). The approach is based on making estimates of the initial change, for example the amount of net new spending or investment as a direct result of a project or event, and this is considered the direct effect. In this case, the direct tourism spending comes in several industries including lodging, food and beverage, recreation, retail, local transportation, and air transportation.

Beyond this initial direct spending, other effects ripple throughout the economy and these indirect effects are usually calculated in two categories: First, indirect effects result from the supply chain impact when new spending generates additional demand in related industries that provide inputs. For example, spending at hotels and restaurants both require inputs from other industries in the form of goods and services. Producers of those inputs will experience additional demand for their goods and services such as legal or accounting services, agricultural goods and unprepared food items, and energy inputs such as gasoline and electricity. Some of this supply chain effect occurs in the local economy, some of the additional demand is placed on producers elsewhere in the national economy, and some may be imported from outside of the national economy. Second, the direct spending and the additional demand placed on other industries both generate additional income for workers in those industries. A portion of the additional income earned is again spent in the economy, and this is considered the induced effect. The direct effect plus the indirect and induced effects combined make up the total economic impact, and this can be calculated for the local region, the broader region, or national economy.

These ripple effects that stem from an initial change in the local economy is captured in the “multiplier” concept. For example, \$1.0 million in direct spending could result in a total of \$1.5 million of spending in the economy, for a multiplier of 1.5. The actual multiplier effect in a regional economy depends on many factors, such as productivity by industry and the regional distribution of productive resources in the economy.

These characteristics of a regional economy are captured in an input-output model (I-O model). An I-O model can quantify the relationship between not only industries but also geographies. Fundamentally, an I-O model is an accounting method to describe a specific regional economy and the flow of money through the industries. In a matrix, the columns usually represent the buyers (demand) and the rows represent the sellers (supply). The value at the intersection a column and row reflects the flow of money between the buyer and seller of a good or service. The sum of a row is the total supply (in value of output or sales) of that industry and the sum of any column is the total demand of the industry. In competitive markets total demand is equivalent to total supply; the sum of the row sums must equal the sum of the column sums. The richness of I-O modelling is that it serves as an accounting of the total economy and allows the analyst to measure the total impact in the broader economy of a small change in one region or industry.

The IMPLAN input-output model used in this analysis contains supply and use data for more than 500 industries across the local economy. In this analysis these industries have been grouped into 16 major groups. The major industries included are:

- Agriculture, Fishing, Mining
- Construction and Utilities
- Manufacturing
- Wholesale Trade
- Air Transport
- Other Transport
- Retail Trade
- Communications
- Finance, Insurance and Real Estate
- Business Services
- Education and Health Care
- Recreation and Entertainment
- Lodging
- Food & Beverage
- Personal Services
- Government

Conceptually, the input-output model is set up as follows:

$$x = Ax + y$$

where the first x represents a vector of gross output by industry and the second x vector represents intermediate demand generated by production in other industries; A is the input-output coefficient matrix that represents how much output from industry x is needed to generate output in other industries of the economy; y is a vector that represents final demand by industry. In words, total demand for x equals intermediate demand plus final demand. Household demand is assumed to be a part of final demand. A few additional steps yield:

$$x - Ax = y$$

$$(I - A)x = y$$

$$x = (I - A)^{-1} y$$

The matrix $(I - A)^{-1}$ is the inverse of the identity matrix less the input-output matrix, and this result is called the multiplier matrix. Once the multiplier matrix is determined, the total change in x (the impact in the economy) can be derived by knowing the total change in y , the final demand vector. This is where use the estimated direct spending as model inputs since they represent the change in the final demand, the vector y . The multiplier matrix multiplied by the final demand vector gives the total change in the economy, including indirect and induced impacts.

Oxford Economics is one of the world's foremost independent global advisory firms, providing reports, forecasts and analytical tools on 200 countries, 100 industrial sectors and over 3,000 cities. Our best-of-class global economic and industry models and analytical tools give us an unparalleled ability to forecast external market trends and assess their economic, social and business impact. Headquartered in Oxford, England, with regional centers in London, New York, and Singapore, Oxford Economics has offices across the globe in Belfast, Chicago, Dubai, Miami, Milan, Paris, Philadelphia, San Francisco, and Washington DC, we employ over 250 full-time staff, including 150 professional economists, industry experts and business editors—one of the largest teams of macroeconomists and thought leadership specialists.

Tourism Economics is an Oxford Economics company with a singular objective: combine an understanding of the travel sector with proven economic tools to answer the most important questions facing our clients. More than 500 companies, associations, and destination work with Tourism Economics every year as a research partner. We bring decades of experience to every engagement to help our clients make better marketing, investment, and policy decisions. Our team of highly-specialized economists deliver:

- Global travel data-sets with the broadest set of country, city, and state coverage available
- Travel forecasts that are directly linked to the economic and demographic outlook for origins and destinations
- Economic impact analysis that highlights the value of visitors, events, developments, and industry segments
- Policy analysis that informs critical funding, taxation, and travel facilitation decisions
- Market assessments that define market allocation and investment decisions

Tourism Economics operates out of regional headquarters in Philadelphia and Oxford, with offices in Belfast, Buenos Aires, Dubai, Frankfurt, and Ontario.

