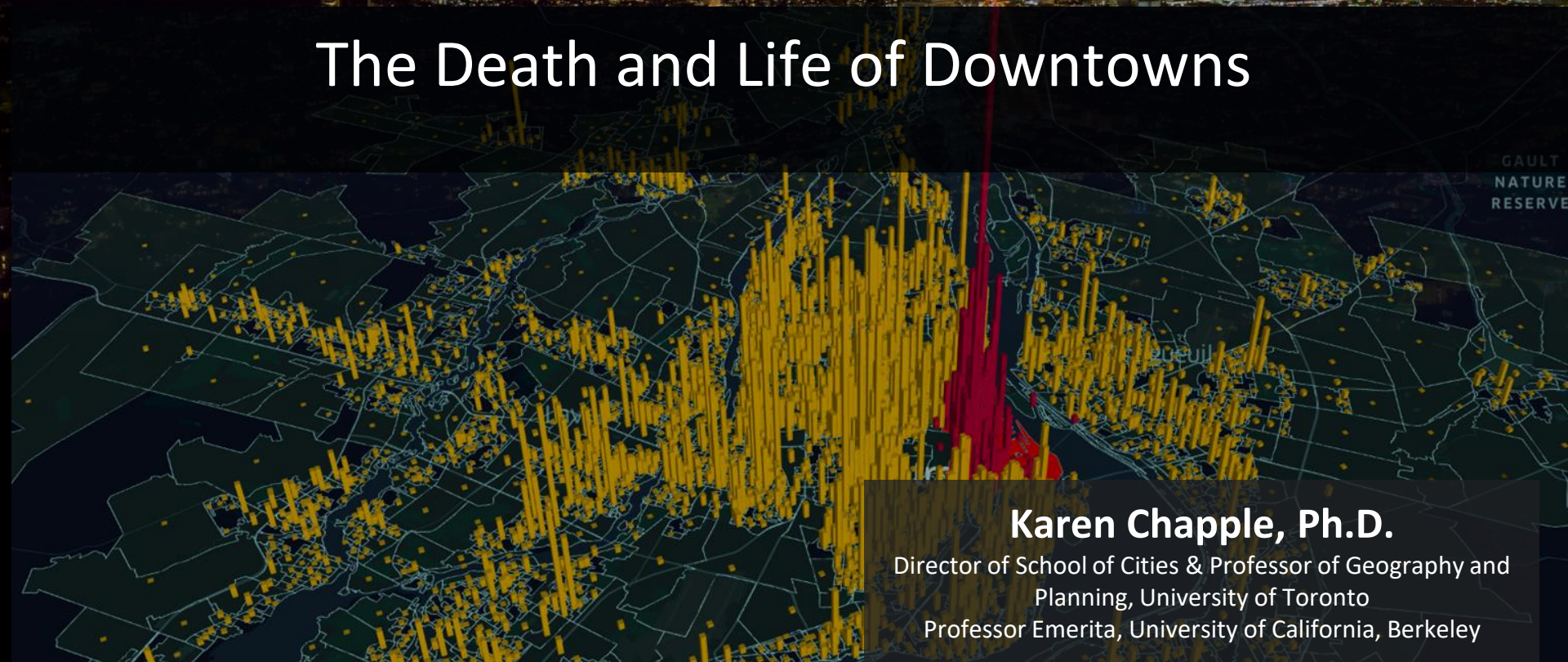




The Death and Life of Downtowns



Karen Chapple, Ph.D.

Director of School of Cities & Professor of Geography and
Planning, University of Toronto
Professor Emerita, University of California, Berkeley

New York City in 1932



Sixth Avenue in 1903



Downtown Disasters... and Resilience



VIEW OF THE TERRIFIC EXPLOSION AT THE GREAT FIRE IN NEW YORK.
Right: N.Y. Co. destroyed, and several other lost.
FROM BROAD ST. — JULY 1845.
Left: N.Y. Co. destroyed, and several other lost.
FROM BROAD ST. — JULY 1845.

Great Fire of 1845, NY

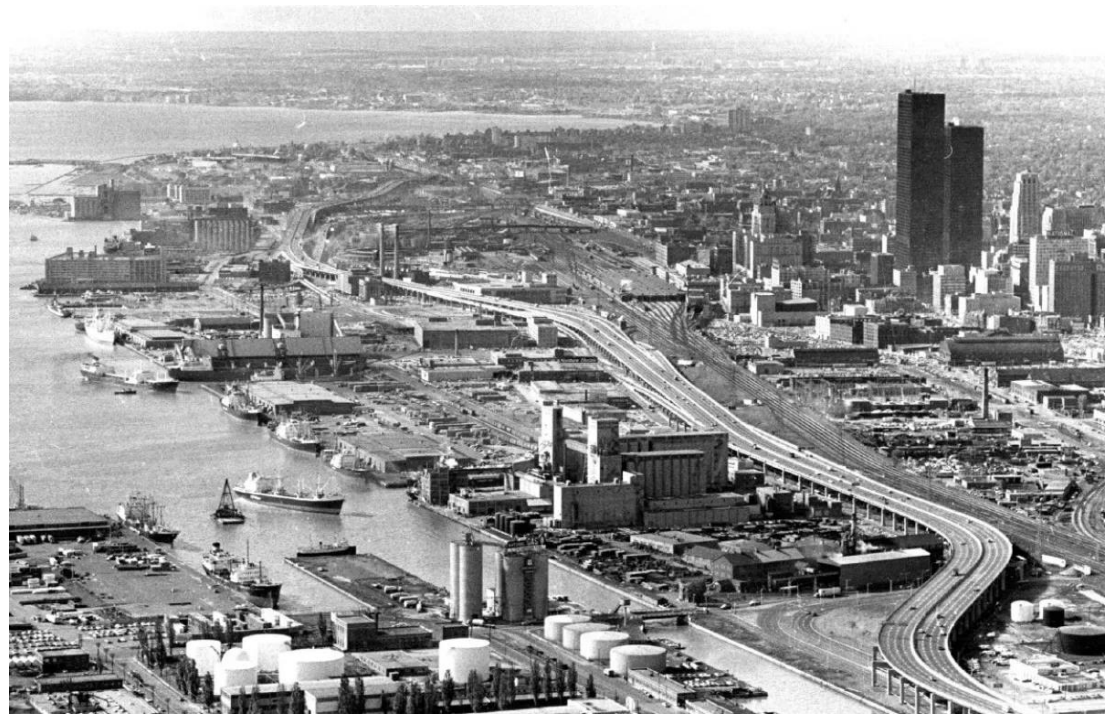
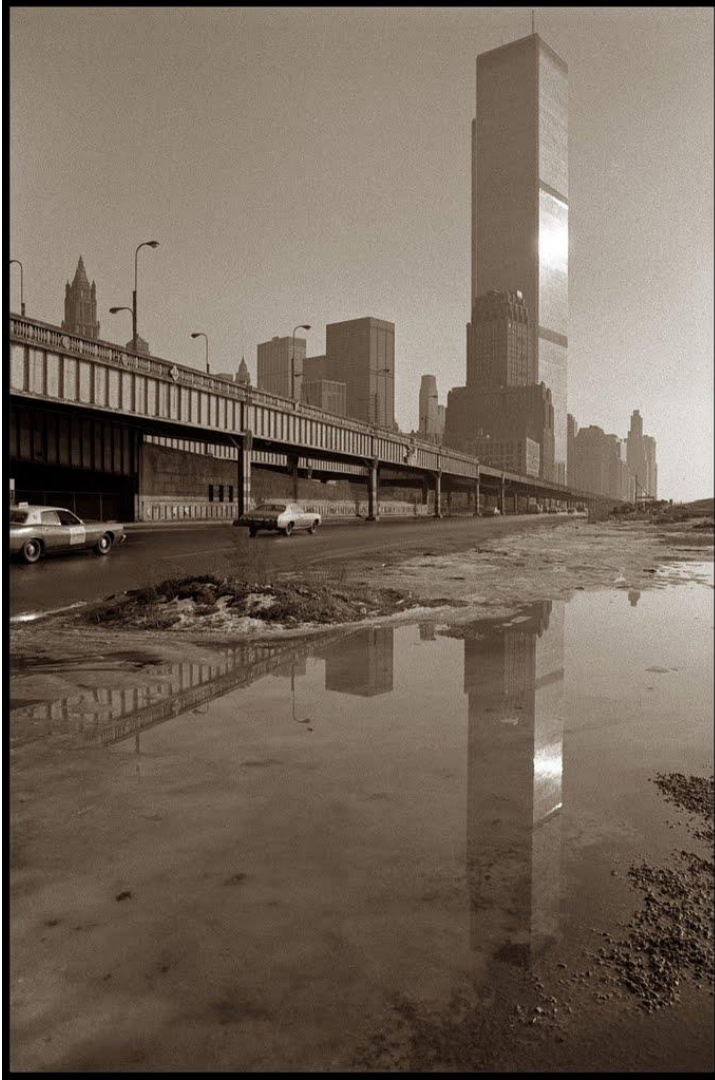
Source:

https://upload.wikimedia.org/wikipedia/commons/f/f3/Extent_of_Great_New_York_City_Fire_of_1845.jpg; NY

Public Library Digital Collections



Did downtowns survive highways?



<https://www.thestar.com/yourtoronto/once-upon-a-city-archives/2016/07/07/gardiner-expressway-big-daddys-gift-to-toronto.html>

Europe spared its cities (Boulevard périphérique in Paris)



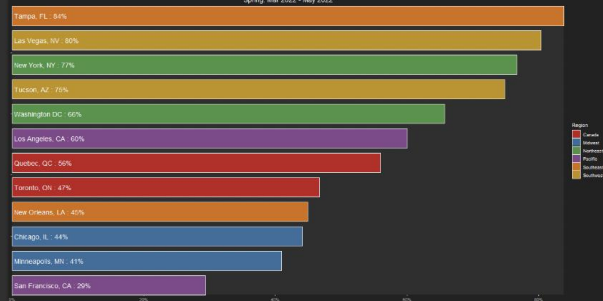
Exploring the death of downtown from Covid-19:
Are the reports greatly exaggerated?

Death of Downtown?

Pandemic Recovery Trajectories across 62 North American Cities

Read policy brief

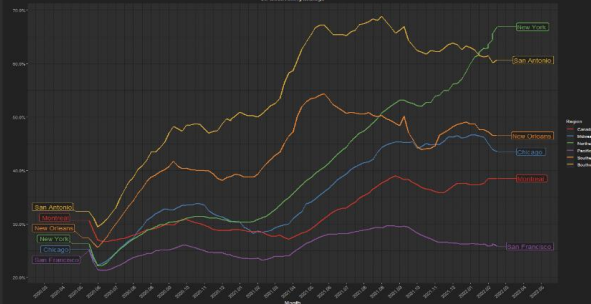
Recovery Quotient (RQ) Downtown Recovery Rankings
Spring, Mar 2022 - May 2022



Recovery rankings

Comparison of overall recovery in activity levels in our downtown and urban areas.

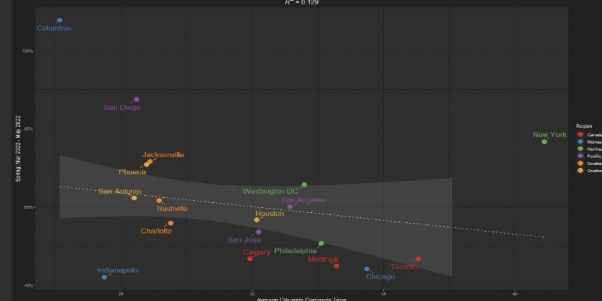
Recovery Quotient (RQ) Downtown
25 week rolling average



Recovery patterns

Explore weekly activity levels during different phases of the pandemic.

$\hat{y} = 1.2 + 0.02x$
 $R^2 = 0.129$



Explanatory variables

Experiment with downtown recovery correlations with employment, land use, and socioeconomic data.

See www.downtownrecovery.com

Place of Interest (POI)



positions in space and time



POI



POI

a computer algorithm detects **stops** in an individual's trajectory routine and matches its coordinates to available address data

(Note: Shift from SafeGraph to Spectus in 2022)

POIs could include...

Benny Painting & Decorating

296 Glen Road, Toronto, ON M4W 2X3

Ralph Thornton Community Centre

765 Queen Street East, Toronto, ON M4M 1H3

Golden Wok Chinese Restaurant

94 Halsey Avenue, Toronto, ON M4B 1A9

Walmart Rexdale Supercentre

2245 Islington Avenue, Toronto, ON M9W 3W6

CrossFit

1214 Caledonia Road,
Toronto, ON M6A 2W5

Direct Gas

9 Mulock Avenue,
Toronto, ON M6N 3C3

241 Pizza

451 Parliament Street,
Toronto, ON M5A 3A3

Hubbard Park

562 Gerrard Street East,
Toronto, ON M4M 1X8

Scotia Bank

880 Eglinton Avenue East,
Toronto, ON M4G 2L2

Canadian Tire

2129 St Clair Avenue West,
Toronto, ON M6N 5B4

Avid Technology Worldwide

219 Dufferin Street, Toronto, ON M6K
3J1

Residence Inn by Marriott

255 Wellington Street West, Toronto, ON M5V
3P9

Summerhill Nursery & Floral

301 Macpherson Avenue, Toronto, ON M4V 1A4

Metro Gifts and Smoke

112 Elizabeth Street, Toronto, ON M5G 1P5

William Osler Health Centre

Etobicoke General Hospital, 101 Humber
College Boulevard, Toronto, ON M9V 1R8

St Cecilia's Church

161 Annette Street,
Toronto, ON M6P 1P5

7-Eleven

334 Bloor Street West,
Toronto, ON M5S 1W9

Tim Hortons

550 St Clair Avenue West,
Toronto, ON M6C 1A5

Ko Burgers

3210 Danforth Avenue,
Toronto, ON M1L 1C1

KFC

2500 Danforth Avenue,
Toronto, ON M4C 1L2

Silly Goose Pub

1703 Victoria Park Avenue,
Toronto, ON M1R 1R9

Coronation Park Dog Park

711 Lake Shore Boulevard West,
Toronto, ON M5V 3T7

Runnymede Public Library

2178 Bloor Street West,
Toronto, ON M6S 1M8

University of Toronto

80 Queens Park, Toronto, ON
M5S 2C5

Ten Ren's Tea

Fairview Mall 1800 Sheppard Avenue
East Unit 2022a, Toronto, ON M2J 5A7

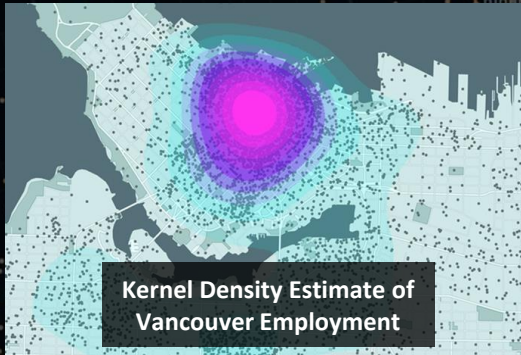
and many
more...



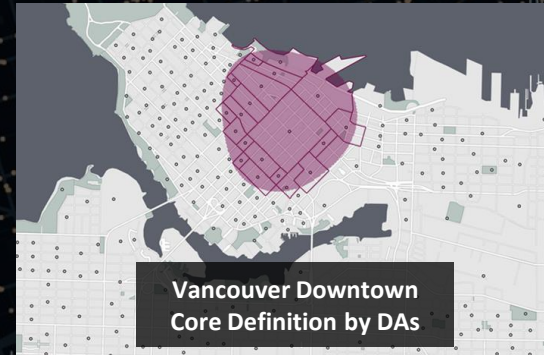
Place of Interest (POI) Locations in Downtown Toronto

Defining the Downtown

a 2021 report by **Statscan**¹ defined all downtown boundaries in Canada by **employment density**, and used a set of rules to map formal boundaries to dissemination areas



rules



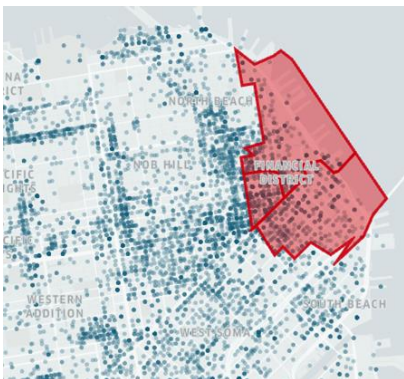
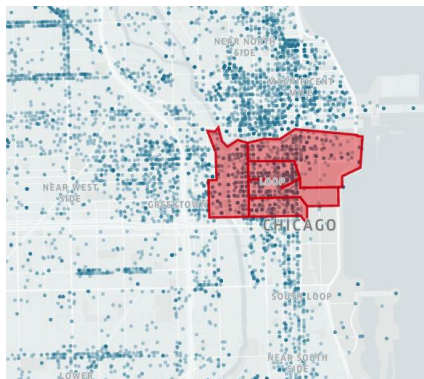
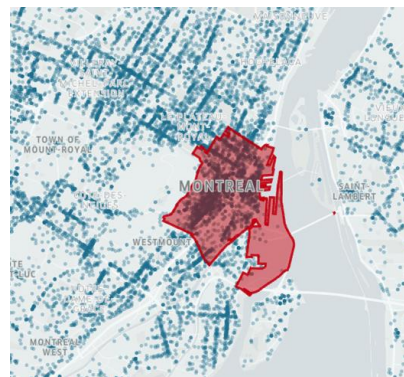
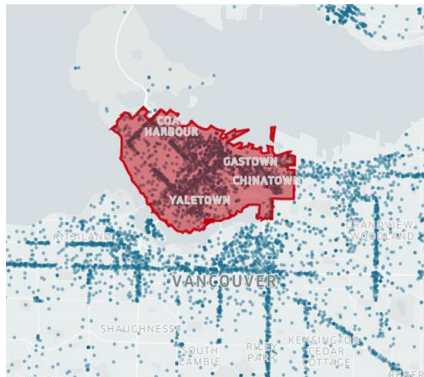
we replicated this methodology for all US cities at the **zip code level**

¹ Sergier, F., Chastko, K., Saunders, D., and Charbonneau, P.: "Defining Canada's Downtown Neighbourhoods: 2016 Boundaries" (2021). *Statistics Canada*. <https://www150.statcan.gc.ca/n1/pub/91f0015m/91f0015m2021001-eng.htm>

What is a Downtown?



, ON



Barrie

CFB
BORDEN

Device Visits to POIs

Toronto Metropolitan Area, Jan to Dec 2019

UXBRIDGE
WOODLANDS

Oshawa

Ajax

ROUGE
NATIONAL
URBAN PARK

Richmond Hill

Markham

Vaughan

Toronto

Brampton

Mississauga

Barrie

CFB
BORDEN

UXBRIDGE
WOODLANDS

Oshawa

Ajax

ROUGE
NATIONAL
URBAN PARK

Markham

Richmond Hill

Vaughan

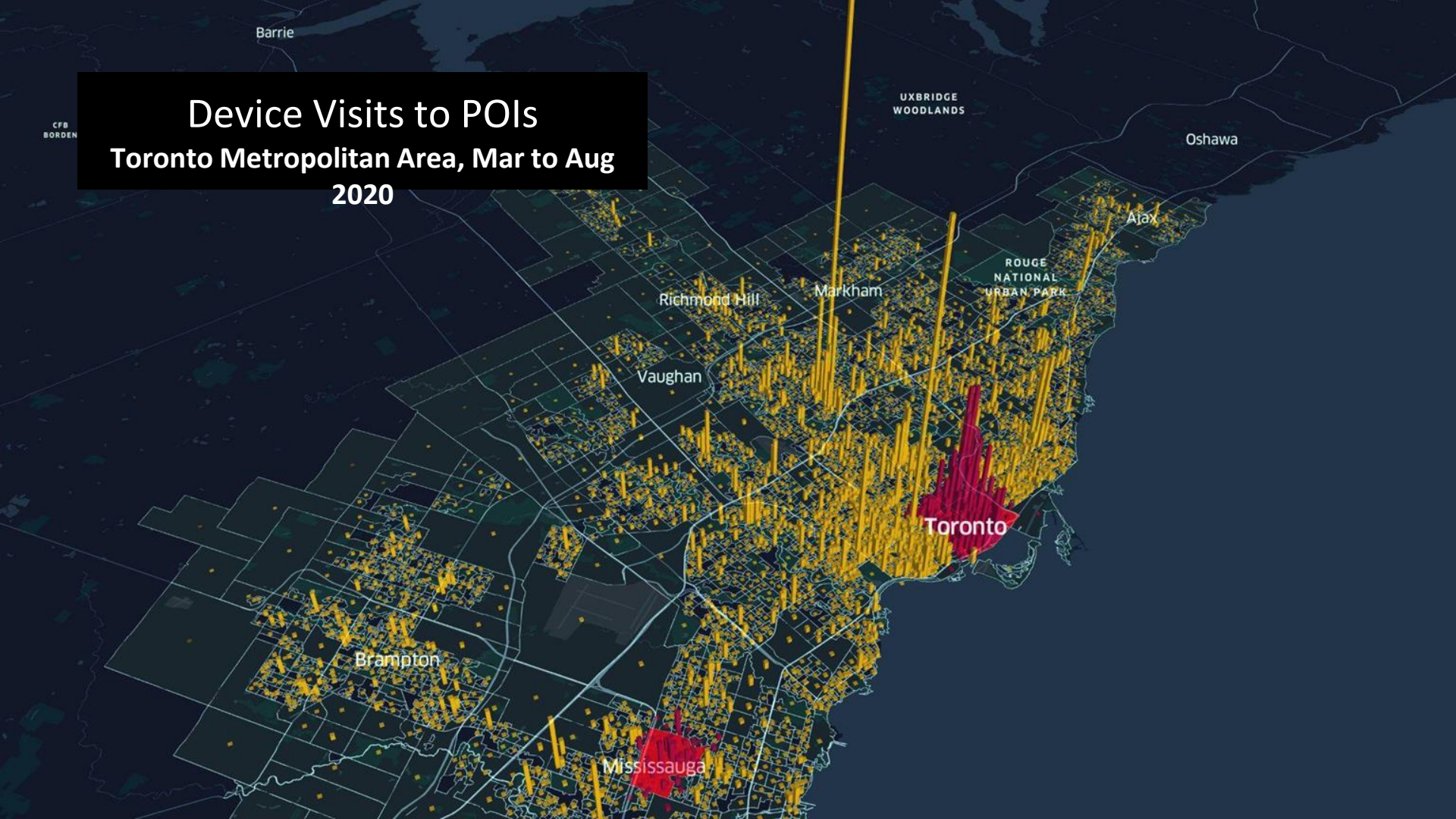
Toronto

Brampton

Mississauga

Device Visits to POIs

Toronto Metropolitan Area, Mar to Aug
2020



Barrie

CFB
BORDEN

UXBRIDGE
WOODLANDS

Oshawa

Ajax

ROUGE
NATIONAL
URBAN PARK

Richmond Hill

Markham

Vaughan

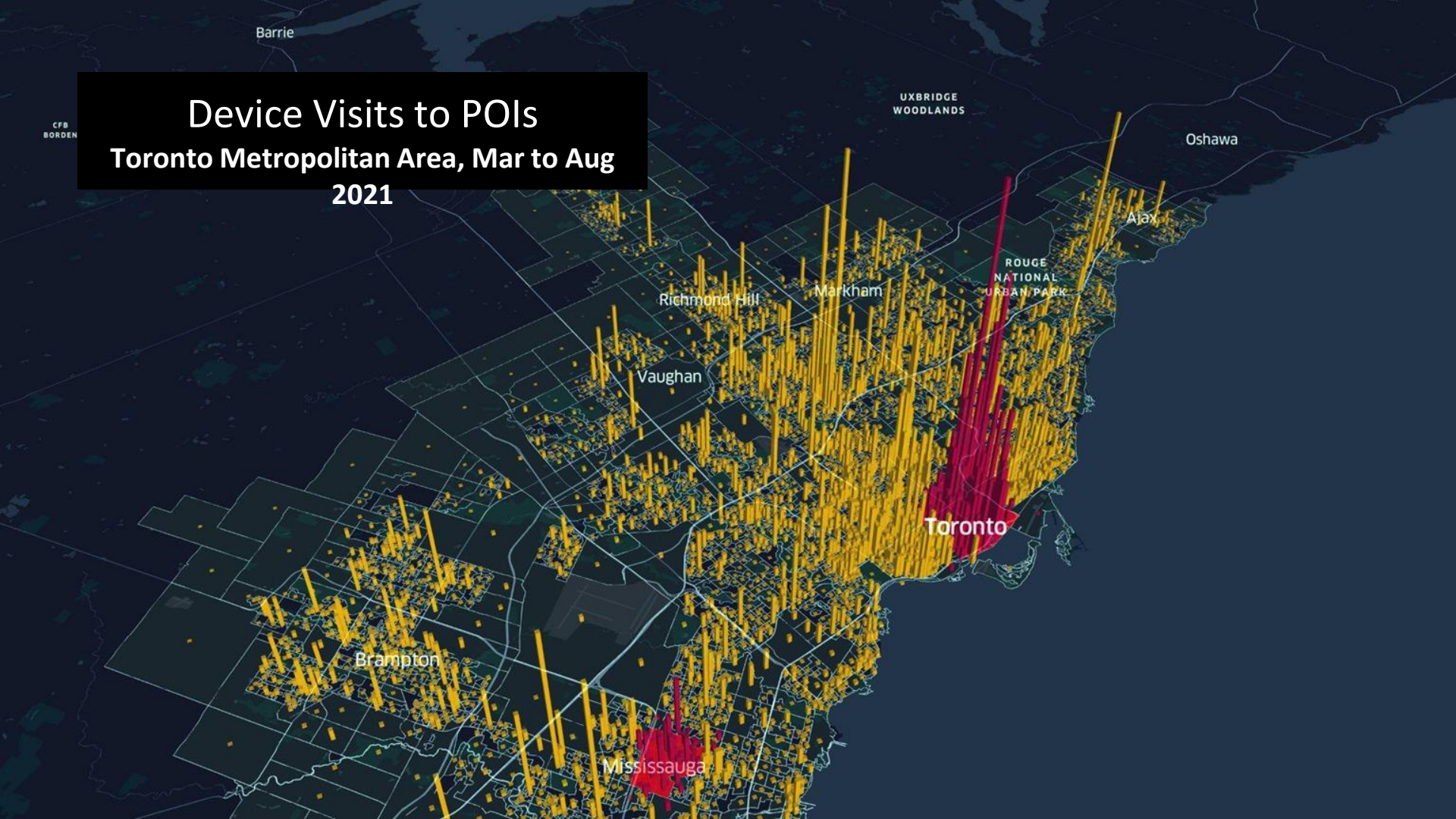
Toronto

Brampton

Mississauga

Device Visits to POIs

Toronto Metropolitan Area, Mar to Aug
2021



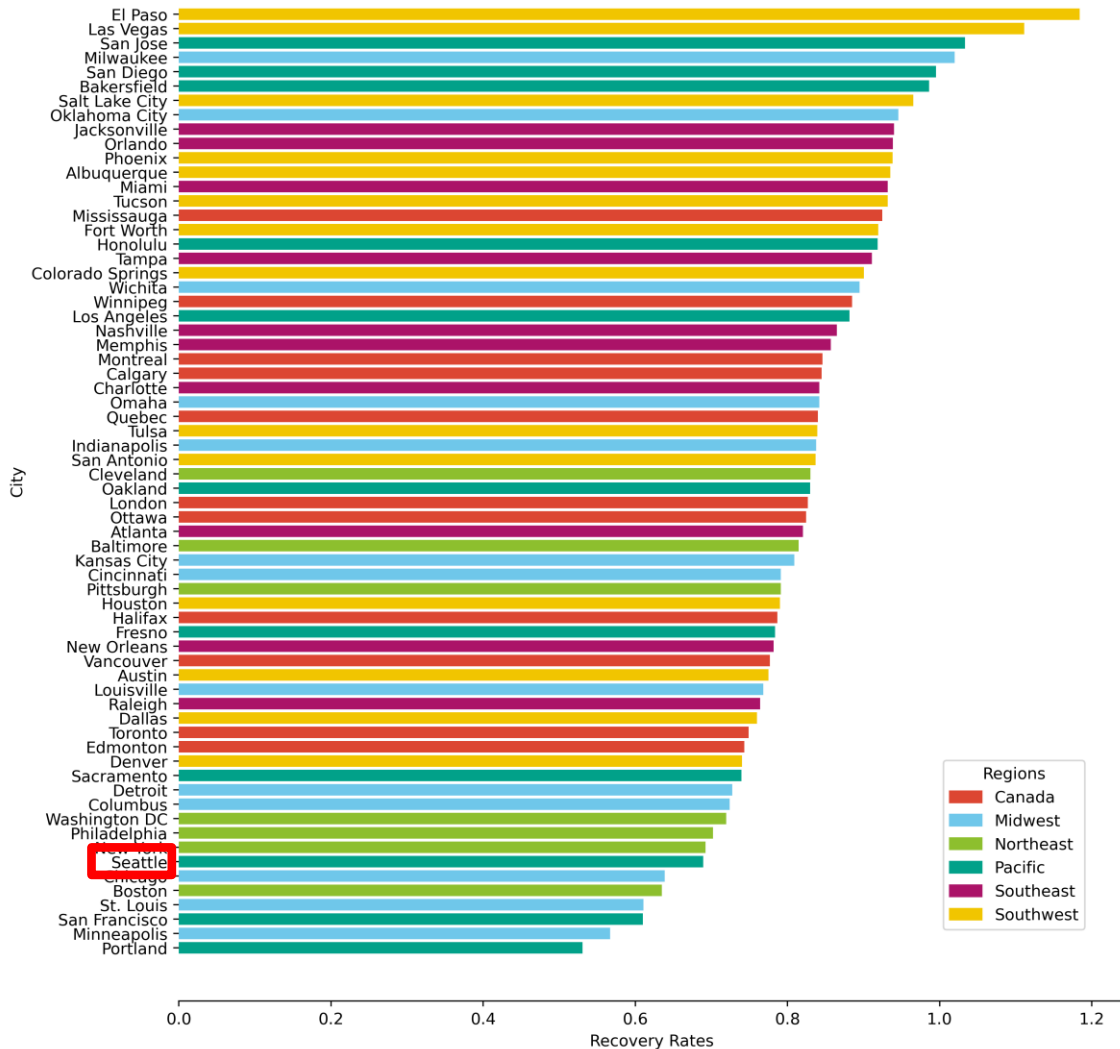


Recovery Rate

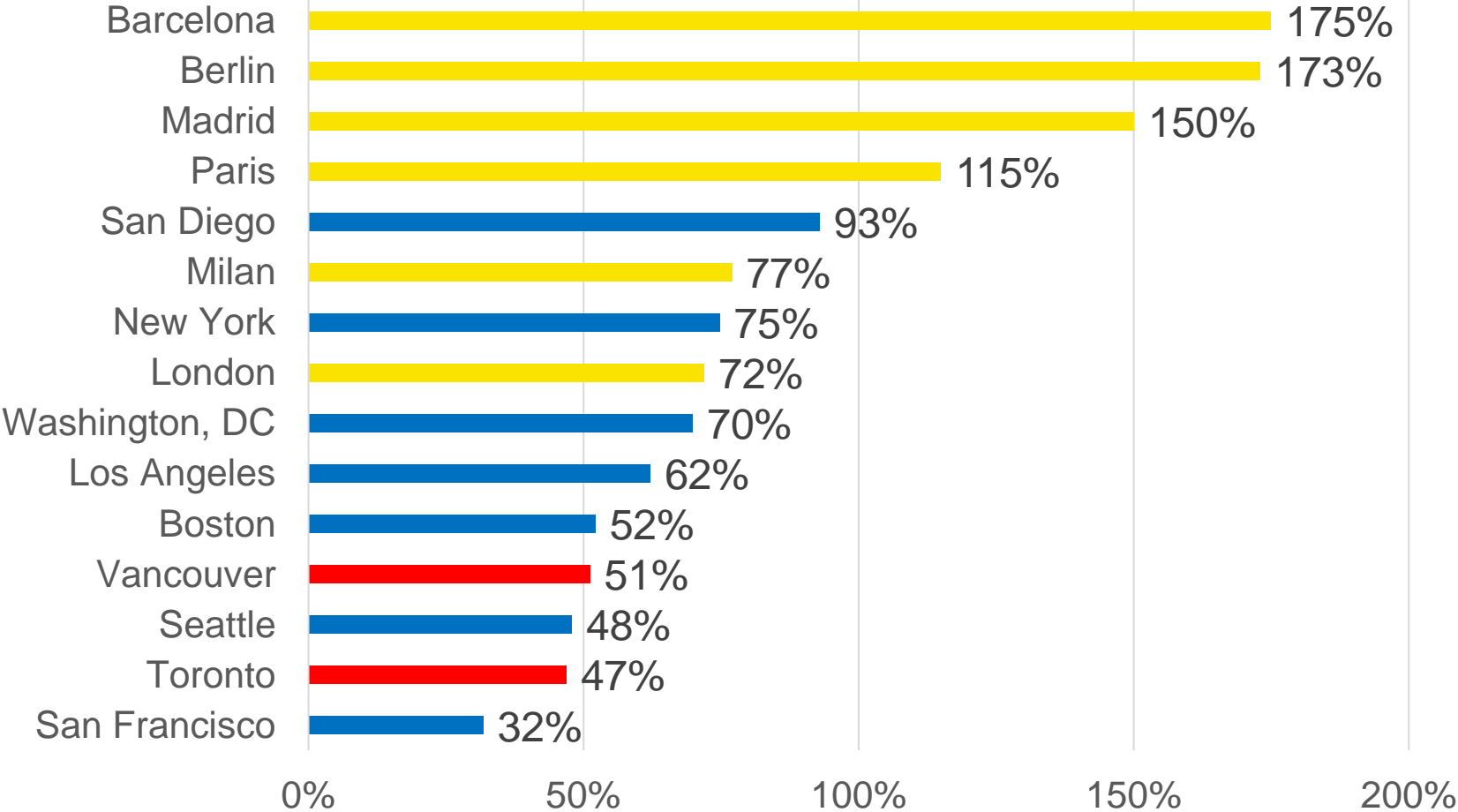
Measures the **number of raw POI visits** (scaled by state sampling rate) in post-COVID period vs. pre-COVID period

$$\text{e.g. } RR_{2023} = \frac{\text{Downtown POI Visits in 2023}}{\text{Downtown POI Visits in 2019}}$$

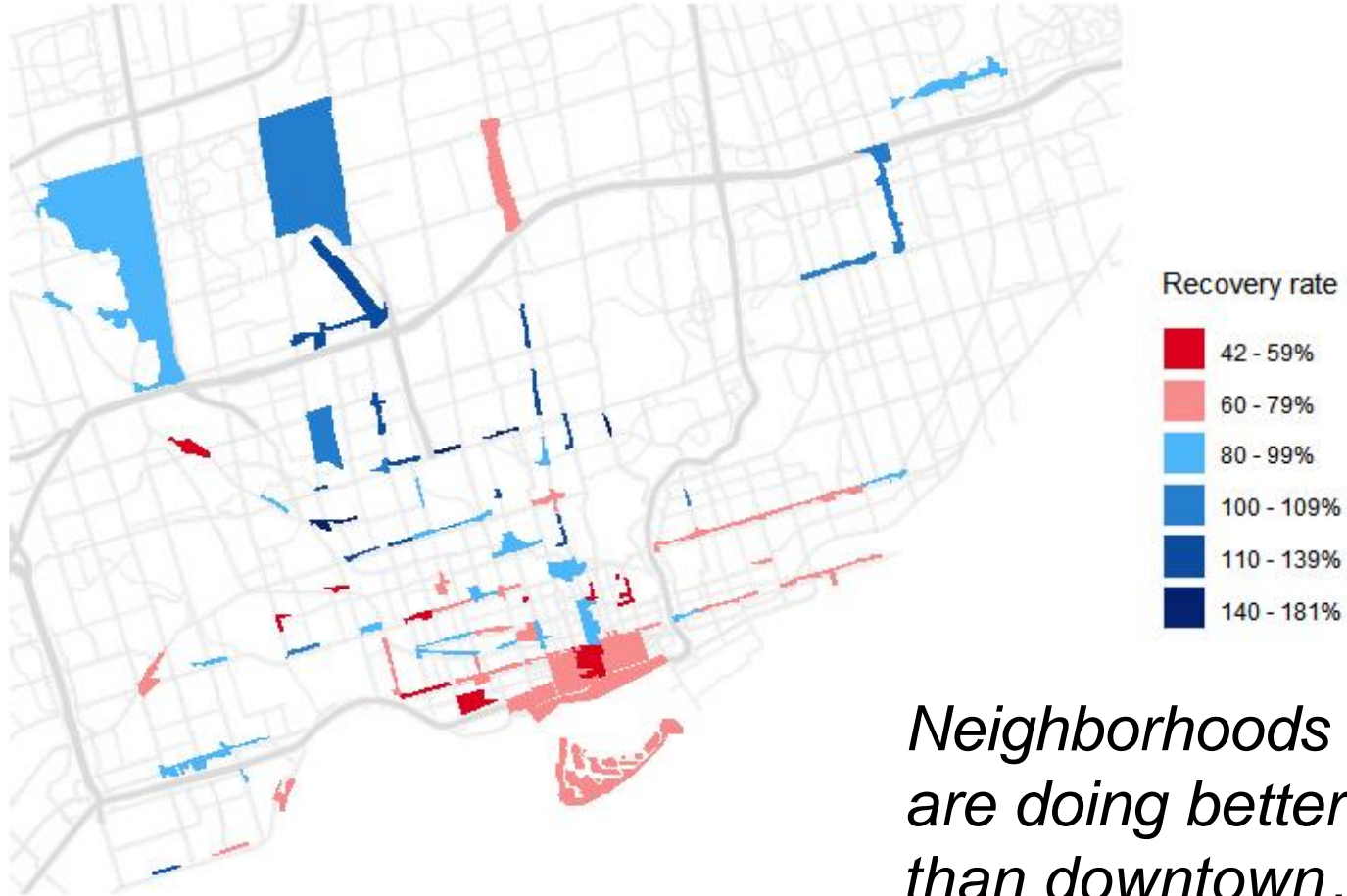
Recovery rankings, March – June 2023



Select North American and European Downtowns, Winter 2023



Recovery rate of Business Improvement Areas in
Toronto, March 1 - May 19 (2023 versus 2019)



Explanatory Factors



Covid-19
regulations

Weather

Political
leanings

College Education

Industry
Composition

Land Use
Entropy

$$-\sum_{j=1}^k p_j \ln(p_j)$$

Business Density
(Calculated)

Total Population

Median Age

Median Rent

Median Household
Income
Tenure

Industry of
Employment

Population Density
(Calculated)

Land Area of
Analysis Unit

Single Family
Households

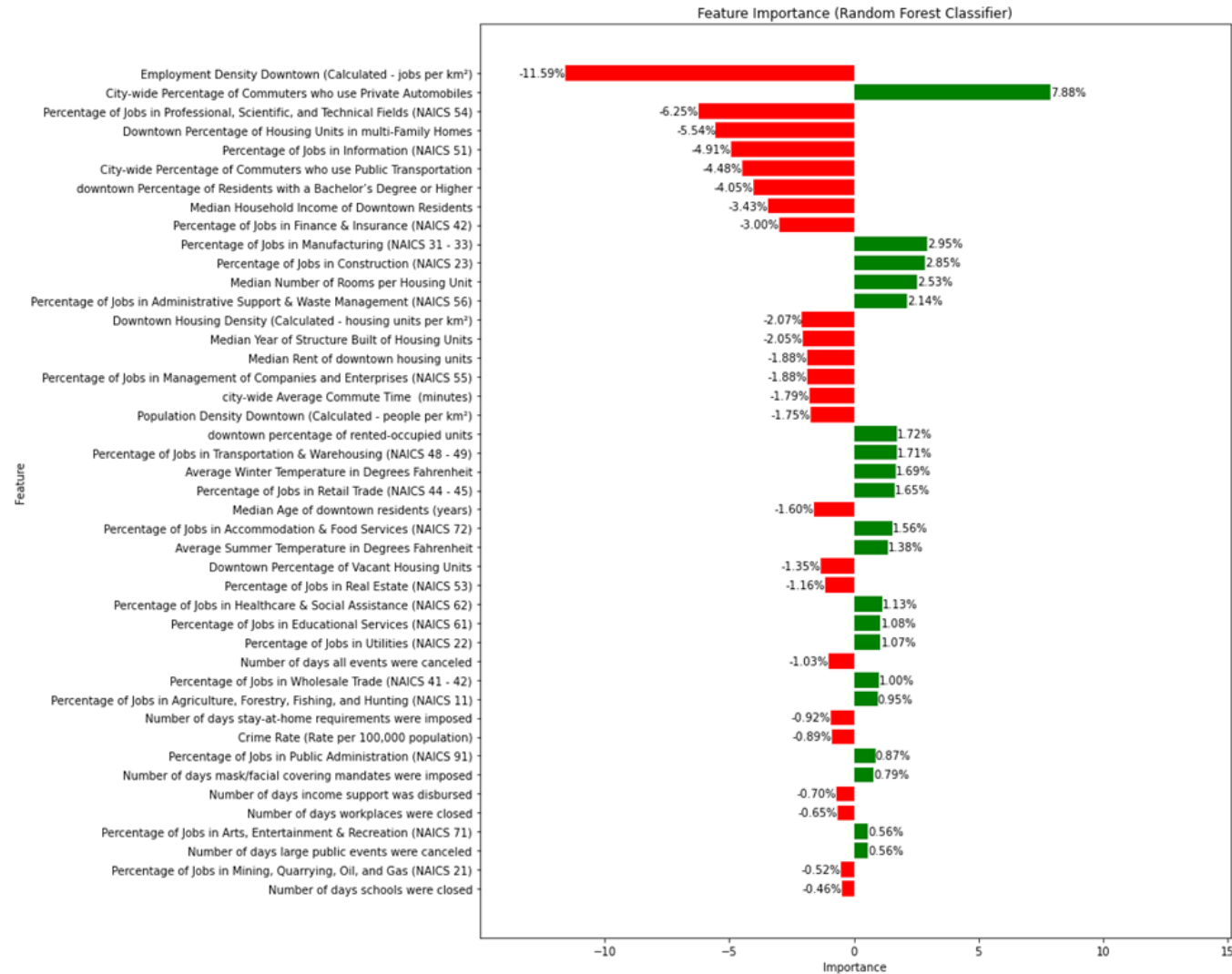
Racial/Ethnic
Composition (white, black,
Hispanic, Asian, others)

Housing Density
(Calculated)

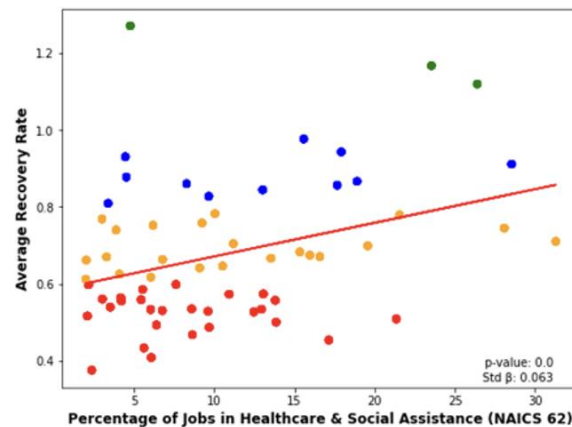
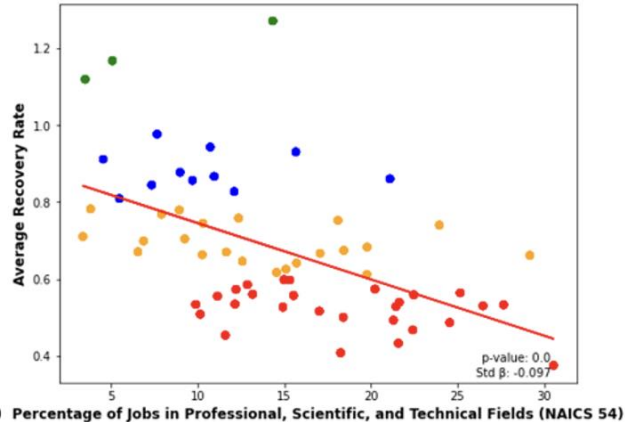
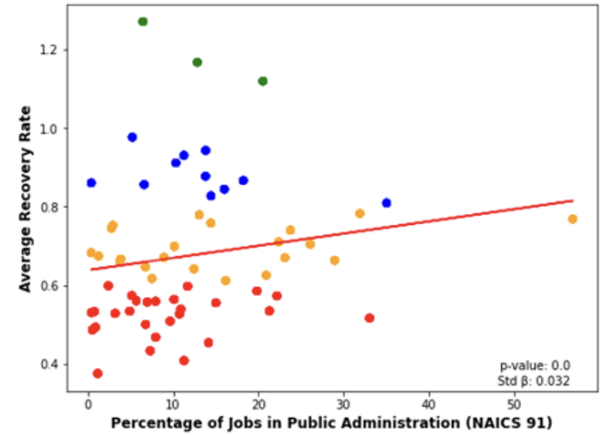
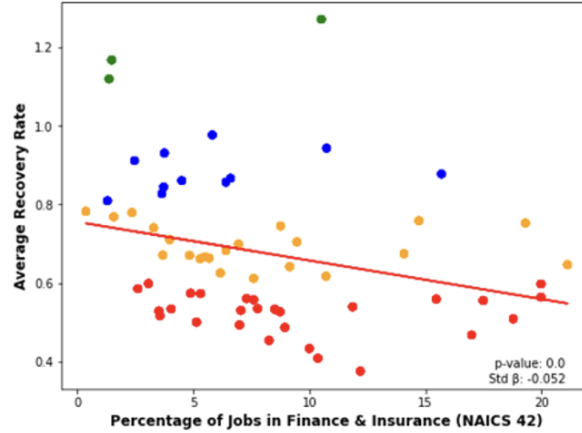
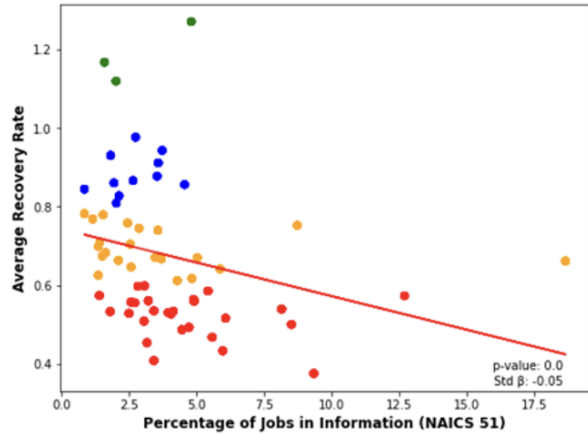
Number of
Housing Units

Occupancy

Top factors behind downtown recovery (based on random forest classification of recovery rates)



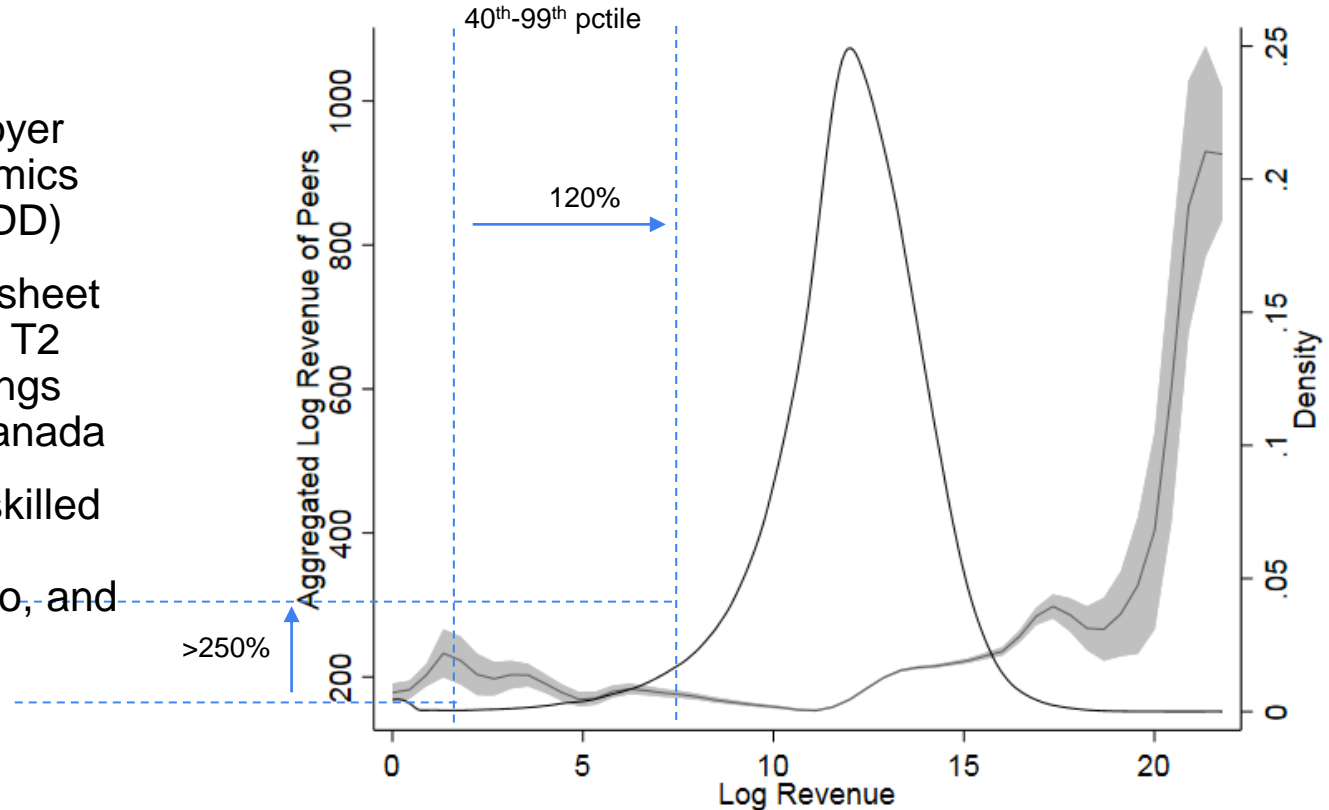
It's the economy, stupid! (Plus transport and density)



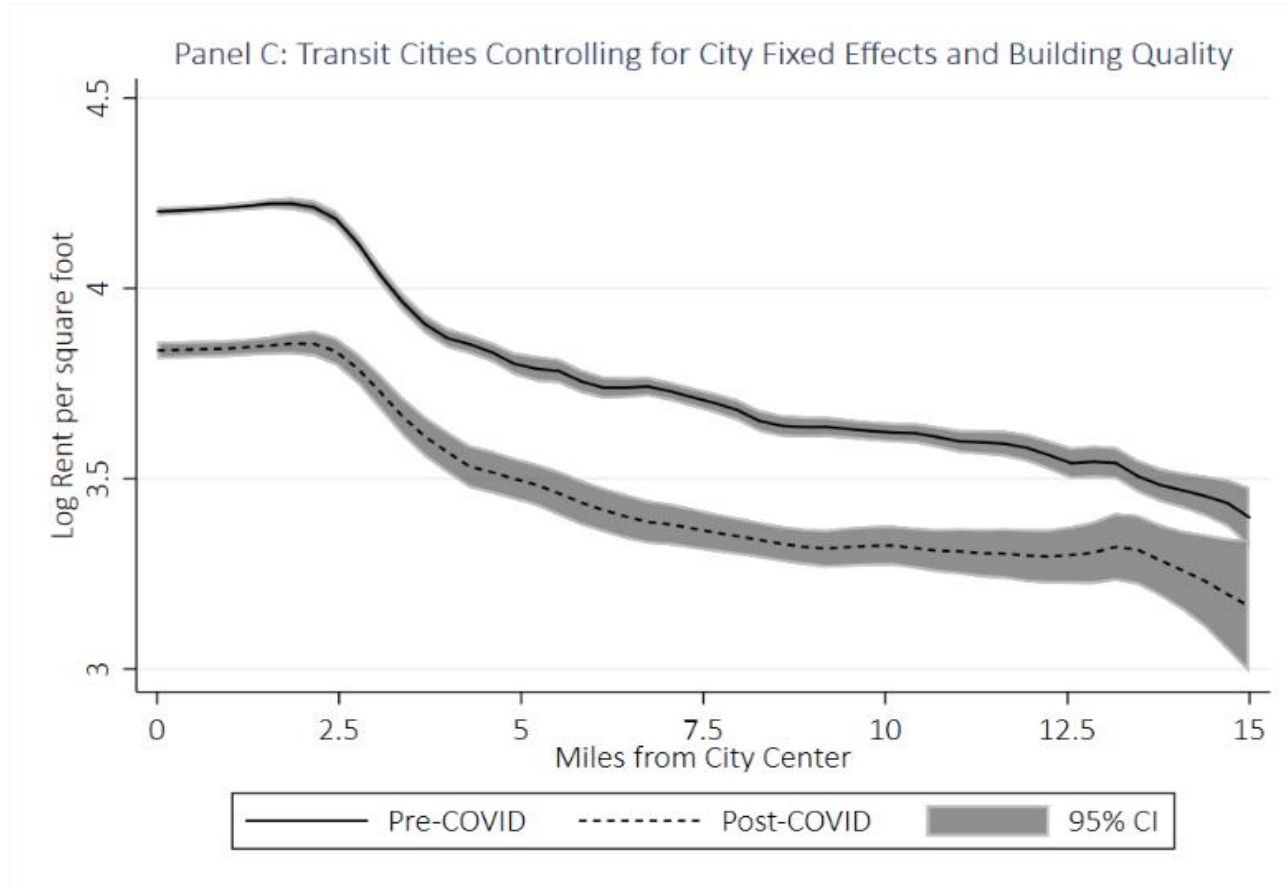
What are other researchers finding?

Higher Revenue Firms Cluster and Have More Economic Activity Nearby

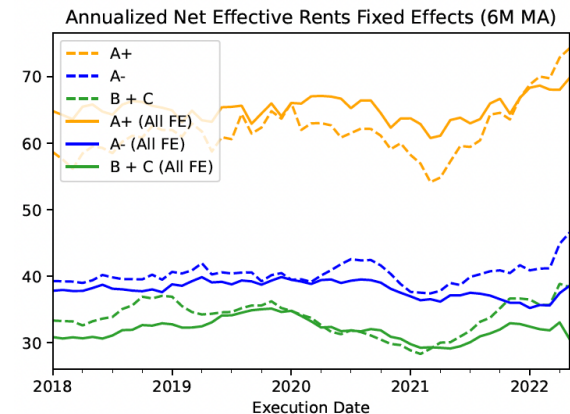
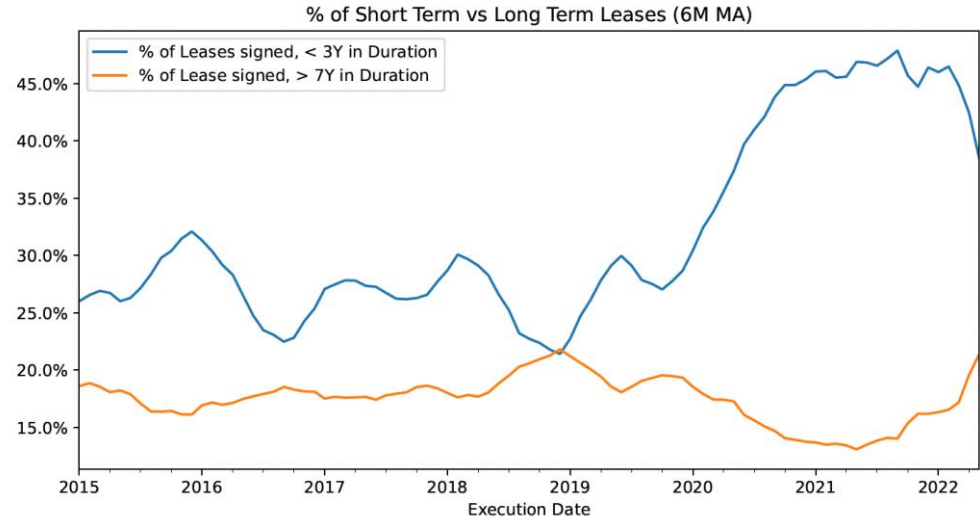
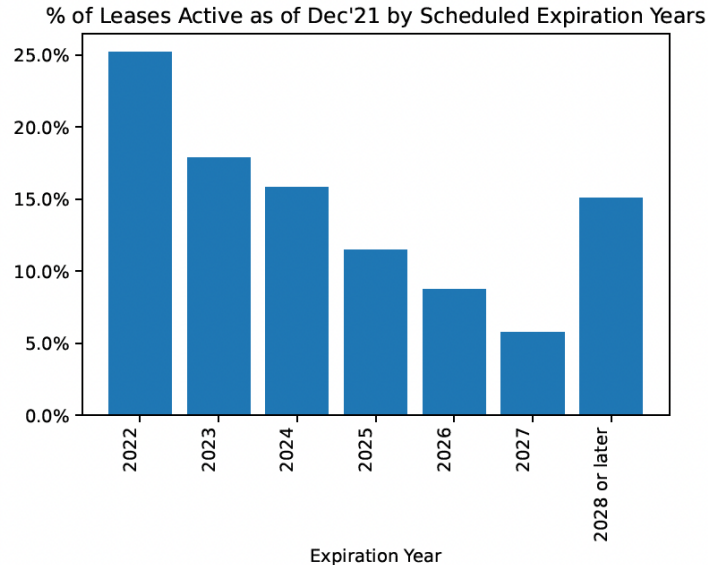
- Canadian Employer Employee Dynamics Database (CEEDD)
- Annual balance sheet information from T2 corporate tax filings for all firms in Canada
- Single-location skilled services firms in Montréal, Toronto, and Vancouver



The rent gradient has not gone away



For more: "Work From Home and the Office Real Estate Apocalypse" (Gupta, Mittal, & Nieuwerburgh, 2023)



Policy Implications: Short-Term

- Activate public and private spaces downtown



EDITORS' PICK

Anne Hidalgo Reelected As Mayor Of Paris Vowing To Remove Cars And Boost Bicycling And Walking

Carlton Reid Senior Contributor ©

I have been writing about transport for 30 years.

Follow

Jun 28, 2020, 04:28pm EDT



- 1 Des places de stationnement transformées en terrasses et jardins
- 2 Une rue apaisée pour les piétons et les vélos
- 3 Un jardin en bas de chez soi
- 4 Des parcours sécurisés pour les enfants
- 5 Plus de services de proximité

PARISEN
COMMON

N.E

The street space distributed in a 15-minute city.
Illustration by: N.Bascón / for Paris-en-commun

Tactical Urbanism is Not Enough



Source: San Francisco Chronicle, July 18, 2022.

Policy Implications: Short-Term

- Activate public and private spaces downtown
- Facilitate access to loans for small service and retail businesses
- Tolerate the continuation of work-from-home arrangements

Policy Implications: Long-Term

- Diversify downtown economies and land uses
- Ensure that downtowns are inclusive and affordable
- Invest strategically in transit and walkability



Downtown is for people! (Jane Jacobs, 1957)



Source: <https://placesjournal.org/article/downtown-a-short-history-of-american-urban-exceptionalism/?cn-reloaded=1>

Death of Downtown?

Pandemic Recovery Trajectories across 62 North American Cities

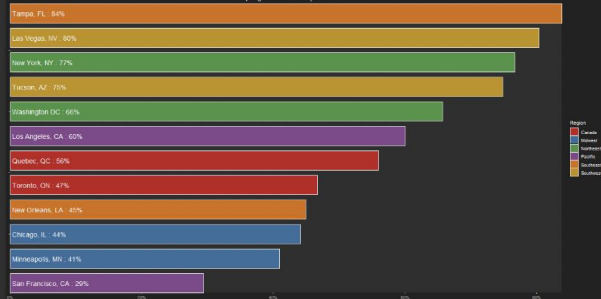
SCHOOL
OF CITIES



Read policy brief

Recovery Quotient (RQ) Downtown Recovery Rankings

Spring, Mar 2022 - May 2022

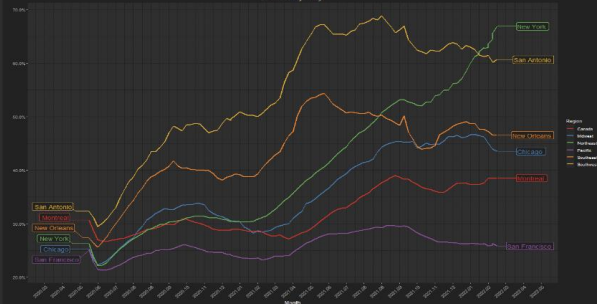


Recovery rankings

Comparison of overall recovery in activity levels in our downtown and urban areas.

Recovery Quotient (RQ) Downtown

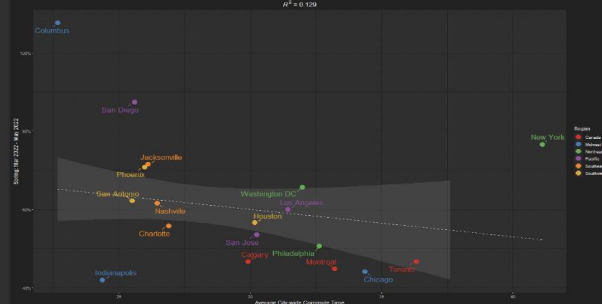
25 week rolling average



Recovery patterns

Explore weekly activity levels during different phases of the pandemic.

$\beta = 1.2 + 0.02x$
 $R^2 = 0.159$



Explanatory variables

Experiment with downtown recovery correlations with employment, land use, and socioeconomic data.

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