UNIVERSITY OF TORONTO | SCHOOL OF CITIES

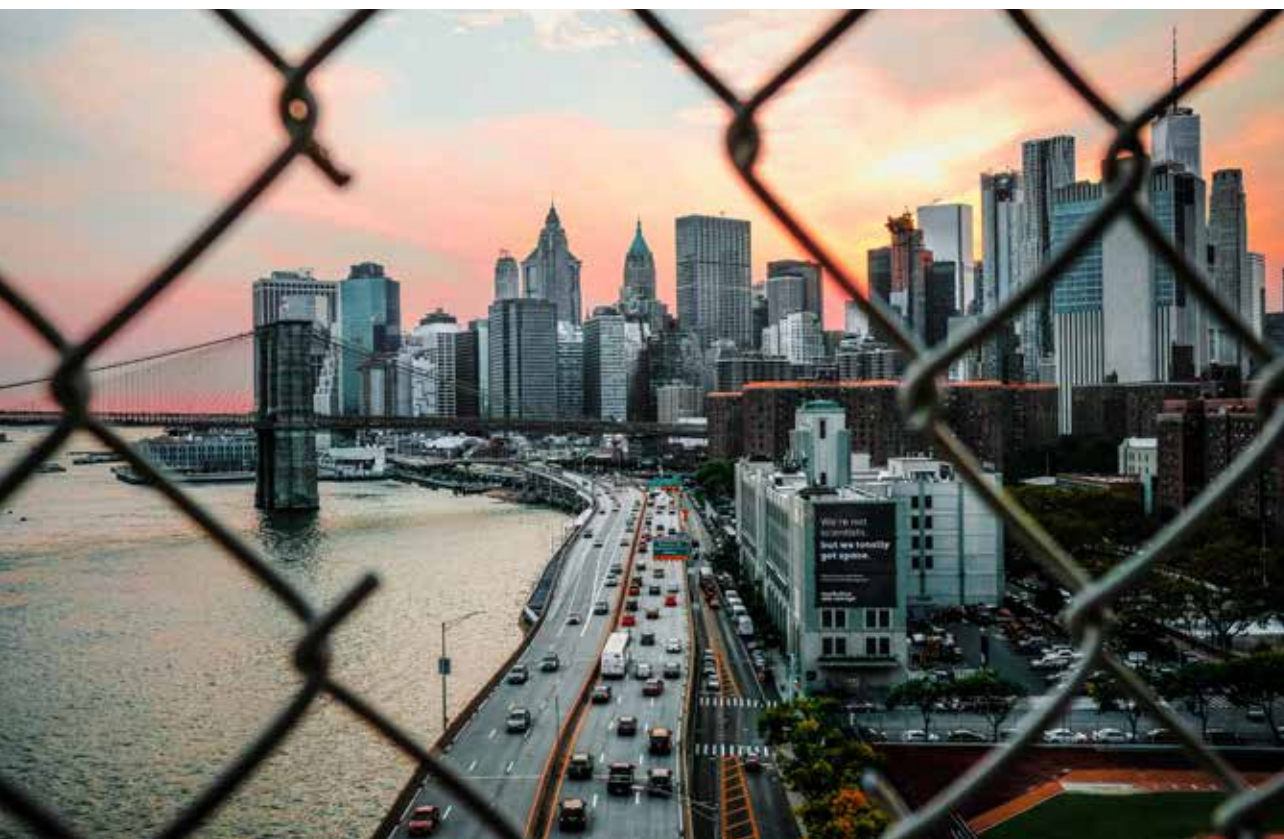# Post-pandemic Downtown Recovery: Downtown is for people

University of Toronto faculty members working on post-pandemic downtown recovery, a key theme of focus for the School of Cities in 2022/23, are showing that the shift to remote work – rather than spelling the end of downtown – has meant changes in the form and function of central business districts that will continue to shape the future of cities in the United States and Canada.

Starting in early 2020, the COVID-19 pandemic influenced major shifts to the way we work as offices emptied out and work moved online. This freed up many individuals and families previously tied to the central business district (CBD) to move to smaller cities or suburbs, and a mass exodus from urban centres ensued. More than two years later, many workers – especially professionals and knowledge workers that can easily adapt to remote work – still haven't returned: many big cities in both the US and Canada have been stalled at around half of the workforce returning fulltime in-person to the workplace. As a result, a key debate about cities has emerged as some scholars and pundits have predicted the end of downtown and the central business district as we know it. But does a shift away from downtown as the chief location of work in urban centres really spell the death of downtown?

ISSUE AT A GLANCE

In this issue of City Research Insights, we feature the work of three University of Toronto researchers – School of Cities' Director and Professor of Geography and Planning **Karen Chapple**; **Richard Florida**, University Professor at the Rotman School of Management and Distinguished Scholar-in-Residence at the School of Cities; and **Nathaniel Baum-Snow**, Professor of Economic Analysis and Policy and Premier's Research Chair in Productivity and Competitiveness at the Rotman School of Management – who are contributing to this important debate over downtown by investigating the impact of the pandemic on urban downtown areas.

> **" The change [in downtowns] is so sweeping that the old moniker 'central business district' no longer applies. Today's downtowns are more aptly considered as central connectivity districts – essential platforms where people socialize, cooperate, and collaborate. "**
>
> – Richard Florida, *Why Downtown Won't Die,* Bloomberg.com

What they have found challenges the notion that downtown is dead – though it does suggest that the future may not entail a sweeping return to pre-pandemic conditions. Rather, their research proposes that changes sparked by the pandemic may flag enduring shifts to the ways that we utilize downtown spaces – and that, with the right support from urban policymakers and leaders, these changes might just make downtowns of the future more connected and livable for people.

Project Team

Karen Chapple, Director, School of Cities and Professor of Geography and Planning, University of Toronto

Michael Leong, Master's student, Civil and Environmental Engineering, MIT

Daniel Huang, Master's student, Development Engineering, UC Berkeley

Hannah Moore, Research Analyst, Urban Displacement Project

Laura Schmahmann, PhD student, City and Regional Planning, UC Berkeley

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Tracing Pandemic Recovery Trajectories in North American Cities

A team of students led by **Dr. Karen Chapple** is contributing key research to the debate over downtown recovery (see Box 1 for an overview of how the team defines "downtown"). The project focuses on tracing the recovery of 62 cities with a population of at least 350,000 across the United States and Canada over the course of 27 months from March 2020 to May 2022, using an innovative method for measuring recovery. While researchers usually use three key indicators to measure downtown vitality – office vacancy rates, public transportation ridership, and retail spending – the team analyzed mobile phone data containing user locations to track downtown activity patterns (see Box 2 for more information on data and methods). Using this data, the team analyzed the activity levels in the months before the pandemic with levels during the pandemic and then as recovery has taken hold.

BOX 1

Defining Downtown

This project draws on several methods to define the downtown area of each of the 62 cities in the study. For Canada, the team used classification developed by Stats Canada, which uses an algorithm called kernel density estimation to identify likely downtown boundaries. For United States downtowns, the team adapted the Stats Can method using employment data from the United States Zip Code Business Patterns.

Using this pioneering method, Dr. Chapple's team have uncovered rich information about which of the 62 cities are returning to or even surpassing pre-pandemic levels of downtown activity, and which cities remain highly impacted by pandemic employment shifts. Their data reveals much about how and when cities and downtowns are most likely to recover, and what cities need to do moving into the future to increase downtown activity and potentially to pivot to new ways of utilizing downtown spaces. Their work shows that there are several key factors that influence recovery rates in urban downtown areas:

- The density of population and businesses in a downtown area;

- The mode of transportation people use to commute to and from work in the downtown core, particularly high car use;

- The presence of industry sectors that continue to support remote work, such as tech and finance.

These factors suggest that the downtowns that have struggled to return are more likely to be larger and more densely populated, and with a larger professional and tech sector. For more information about key findings and policy implications, please see pages 11 and 12 in this issue.

To learn more about this important work visit downtownrecovery.com. The website includes interactive widgets that allow for the user to customize the comparison of multiple cities' recovery trajectories over time. The research team's goal is to support the website to become an information hub for policymakers seeking to shape the future of downtown

Data and Methods BOX 2

Most mobile phones have a GPS receiver that pinpoints the phone's location on a map. Such location data are used in a number of applications, Google Maps being the most common. SafeGraph, a technology company, have collected location data from 18 million mobile phones across North America. From this data, SafeGraph can track visits to public locations called Points of Interest (POI) that include offices, shops, restaurants, parks, libraries, stadiums, and more.

To measure downtown recovery, the researchers used SafeGraph's data to count the total number of visits to POIs in downtowns before and after the height of the COVID-19 pandemic. They then calculated an index called a Recovery Quotient (RQ) that measures to what extent a downtown has recovered. The RQ is calculated by dividing the number of visits to a downtown area in spring of 2022 by the number visits to the same downtown area in spring of 2019; Recovery Quotients of less than 100% indicate that an area has not yet fully recovered to pre-pandemic levels of activity. Downtowns and cities can be ranked using this index to compare the extent of recovery.

America's Post-Pandemic Geography

Dr. Richard Florida has also been weighing in on the debate over the future of downtown. In addition to publishing a series of articles in Bloomberg and acadmic journals, Dr. Florida – author of the best-selling books *The Rise of the Creative Class (2002)* and *The New Urban Crisis (2017)* – has been in high demand by municipal governments and policy stakeholders to help them make sense of the pandemic's current and long-term impacts on their cities.

Dr. Florida's work focuses on synthesizing and translating academic and scientific research on populations and cities to put the COVID-19 pandemic in historical and cultural context. Dr. Florida spent much of the early pandemic studying the impact of past pandemics and other crisis conditions on the urban realm, discovering that cities always find a way to rebound. This context-setting has enabled Dr. Florida to put forward the argument that the COVID-19 pandemic – like other social, economic and political challenges of the past – will likely alter the form and function of the city, and especially downtown areas, but does not spell the end of downtown. Rather, Dr. Florida argues that while downtowns have often been the centre of business, they are not reducible to offices and must find a way to focus on building connectivity as they move into the future to support economic recovery.

> " Downtowns and the cities they anchor are the most adaptive and resilient of human creations; they have survived far worse. Continual works in progress, they have been rebuilt and remade in the aftermaths of all manners of crises of catastrophes – epidemics and plagues; great fires, floods and natural disasters; wars and terrorist attacks. They've also adapted to great economic transformations like deindustrialization a half century ago. "

– Richard Florida,
*Why Downtown Won't Die,
Bloomberg.com*

Downtown is for people

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Firm Spillover Effects in Central Business Districts

The research of economist **Dr. Nathaniel Baum-Snow** and his team also helps to reveal the potential future that awaits North American urban centres. Dr. Baum-Snow's research focuses on the impacts that enterprises (or "firms") in highly skilled sectors, such as knowledge work and tech, have on the productivity of other similar enterprises that are geographically close by. This research demonstrates that more highly productive enterprises have positive impacts on the productivity of firms that are 75 metres or less in proximity. For the typical firm, the impact of doubling the average quality of such nearby firms increases productivity by about 2%. However, those firms that are within 75 metres of the most productive third of firms benefit much more, with such productivity up to 9% greater relative to locating in areas with the lowest quality firms. Considering the high density of highly productive enterprises in central business districts, these spillover effects tend to play out most in downtown areas.

Project Team

Nathaniel Baum-Snow, Professor of Economic Analysis and Policy and Premier's Research Chair in Productivity and Competitiveness at the Rotman School of Management, University of Toronto

Nicolas Gendron-Carrier, Assistant Professor of Economics, McGill University

Ronni Pavan, Associate Professor of Economics, University of Rochester

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There are three mechanisms of these spillover effects, outlined in Box 3. While each mechanism is distinct, all require the kind of in-person contact that was characteristic of pre-pandemic employment conditions. Dr. Baum-Snow's research suggests that the productivity of enterprises in the high-skilled sectors – and perhaps the wider economy – will suffer under remote work conditions. However, this research has less to say about whether the same benefits of density can be generated as some workers return to the office for two or three days per week – but Dr. Baum-Snow suggests that it is definitely possible. Dr. Baum-Snow's work also suggests, like Dr. Florida's research, that downtowns will likely become more mixed-use spaces as office space declines, cutting office rents and creating more potential for residential uses.

The Mechanisms of Firm Spillover Effects

BOX 3

Matching: Firm productivity increases when there is a good match between workers' skills and their employment positions. Good matches are more likely in large labour pools where there are a high number of positions and a high number of highly-skilled workers to fill them, increasing the probability that workers are a good match for their jobs.

Shared inputs and customers: Firms that are geographically proximate are more able to easily share resources and customers, reducing the costs of doing business. For example, a law firm that provides legal services to a business nearby can more easily meet with their clients in person.

General knowledge spillovers: These are benefits generated from serendipitous interactions amongst highly-skilled workers in proximity to each other. For example, people that work in the same sector close to each other may be more likely to share ideas, perhaps at a nearby coffee shop that they both frequent.

For more key findings and recommendations from Dr. Baum-Snow's work, see pages 11 and 12 of this issue.

Policy Recommendations to Support Downtown Recovery

Cities and other downtown stakeholders should take action in the short-term to restore activity, while also planning for long-term transformation to "connectivity districts." Both efforts will require significant private-public collaboration given the extensive financial, organizational, human and other resources needed to transition downtowns.

Short-term Recommendations

1

Monitor downtown activity to identify live and dead spots. Even in the downtowns that have struggled to restore activity to pre-pandemic levels, activity is uneven: there are activity generators that are attracting normal levels of foot traffic, while other blocks remain deserted. City and university researchers should track activity at a fine-grained, block-by-block level to identify which areas have revived and which need intervention to support their transformation.

2

Facilitate access to loans for small service and retail businesses. Downtown service and retail businesses that rely on an office worker customer base are particularly vulnerable to closure. Many survived the pandemic with the help of federal funding such as the Canada Emergency Business Account loans, but are now facing a depleted market with no assistance. Cities must work to provide low-interest loans to keep these businesses open in the short-term as longer-term revitalization efforts come to fruition.

3

Tolerate the continuation of work from home arrangements when possible. Though many cities are trying to induce employees to return with incentives such as free lunches or transit passes, we see little prospect for the success of this approach in regions with tight labour markets, long commute times, and most importantly, a concentration of employers in the professional and information sectors where employees have successfully negotiated work from home accommodation.

4

Activate public and private spaces downtown. Cities should move quickly to bring activity back downtown. Some have already adopted tactical urbanist approaches such as introducing food carts or pop-up cafes, painting crosswalks, or installing temporary bike lanes. But attracting people will take more than cosmetic improvements. Property owners should fill empty storefronts and offices using steeply discounted rates for nonprofit, public sector, and small business tenants. In support of this, cities and business associations might activate public spaces by sponsoring activity generators such as art exhibits or festivals.

Medium to Long Term Recommendations

1

Diversify the economic and land uses of central business districts. Rather than continuing to focus on building downtowns back as the central district for business, city leaders should instead put energy into ensuring that the downtowns of the future are for people: places to live, work, play and connect. This might mean assisting developers to convert office buildings, particularly older ones, to recreational, cultural, nonprofit, institutional, or residential uses, as well as supporting the growth of more resilient sectors in the CBD such as health, education and government. Policymakers can also support more cultural, entertainment and arts sector growth, which will attract a diverse population into downtown areas.

2

Ensure that future downtowns are inclusive and affordable. Without incentives, developers and landlords may focus on redeveloping empty office buildings into high-end or luxury residences – but governments have an opportunity and the power to incentivize redevelopment for affordable housing or a mixture of uses. Cities must prioritize the vulnerable in policy efforts, including BIPOC-owned businesses and low-wage service workers who may need support to transition to better-paying and more stable employment.

3

Invest strategically in transit and walkability. The struggles of transit systems during the pandemic have led many to speculate about whether pre-pandemic ridership levels will ever return. With a significant share of workers now working from home two or three days per week, trains and buses will need to fill up with visitors and residents. This means redesigning streets and restricting parking so that walking, biking, and riding transit are appealing options.
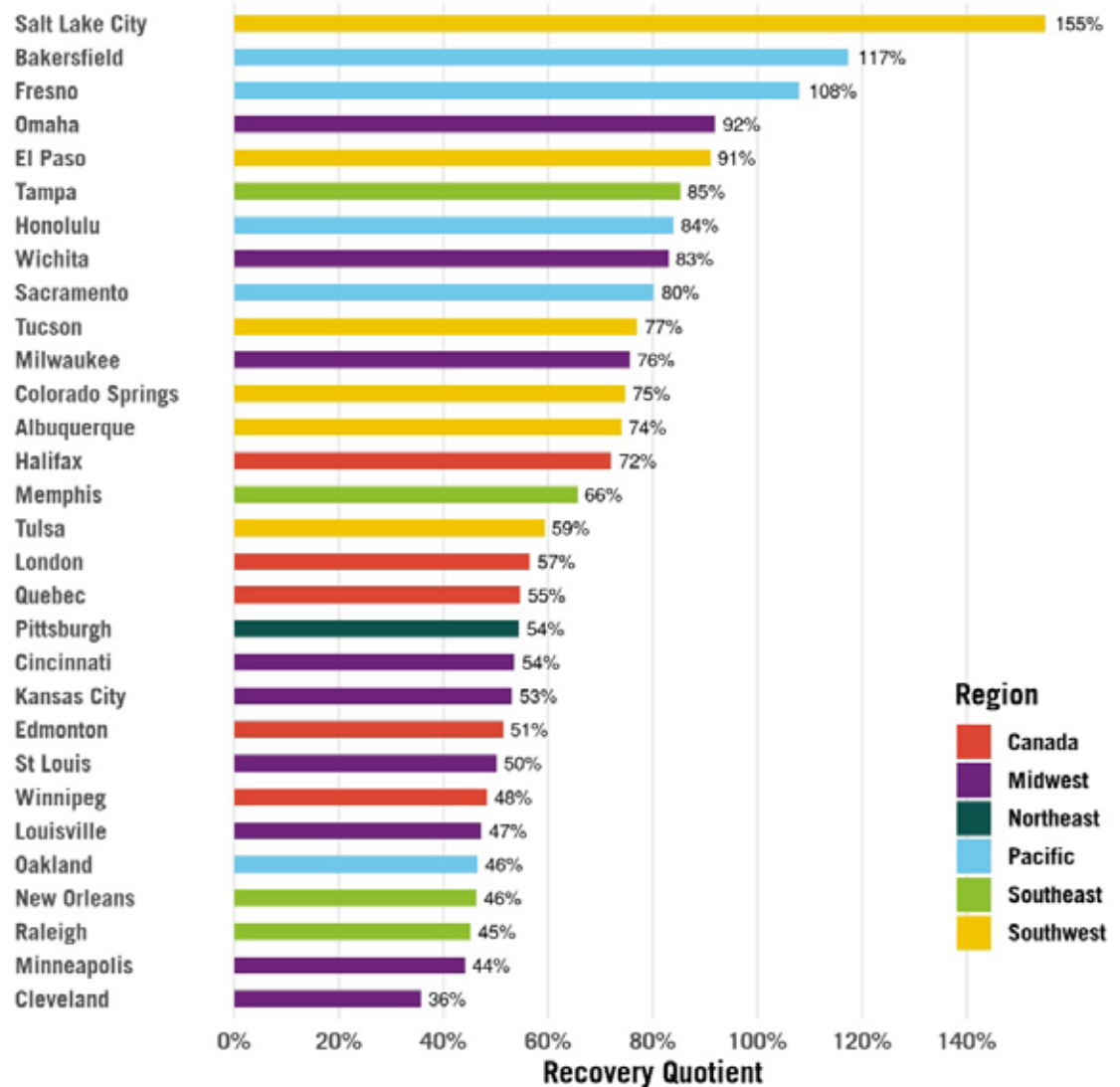
With the right stratagies and collaboration between government stakeholders, civic leaders and the private sector, downtowns can become even better than they were.

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Key Findings from Downtown Recovery Research

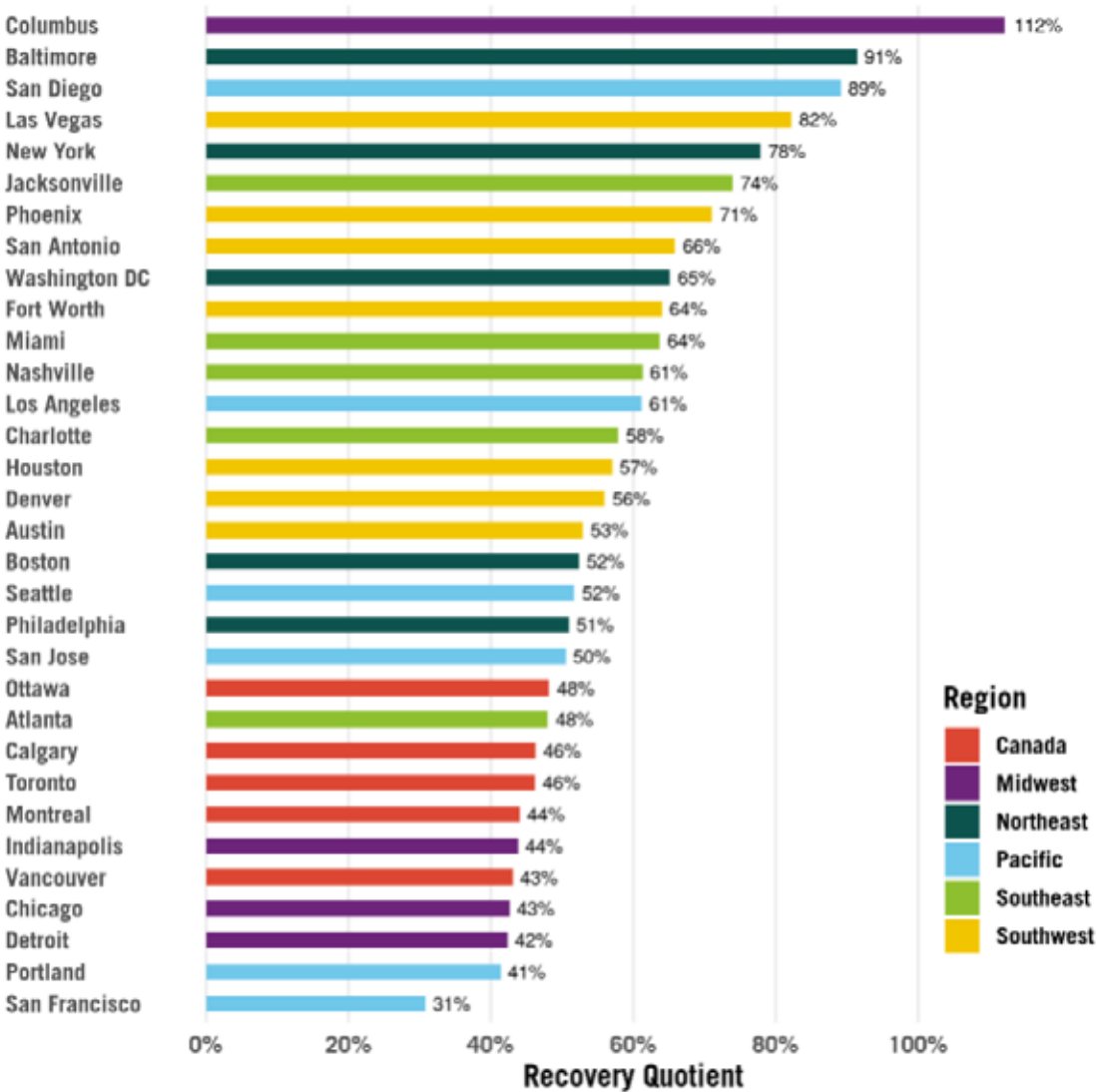These key findings emerge from across the work of Drs. Chapple, Florida and Baum-Snow, and their teams.

Some cities are doing well, while others are recovering much more slowly. As discussed earlier in this issue, there are factors related to whether a city will recover more or less quickly, and that help to explain why recovery has happened more quickly in medium-sized cities than larger ones. Some medium-sized cities have even seen activity in the downtown core at higher rates than prior to the pandemic. That some cities bounce back quickly while others continue to stagnate confirms the role of different metropolitan physical and economic structures in shaping resilience to the pandemic. See Figures 1 and 2 for the ranking of large and medium-sized downtowns from the work of Dr. Chapple and her team.

Figure 1. Ranking of Downtowns for Medium-Sized Cities

City	Recovery Quotient
Salt Lake City	155%
Bakersfield	117%
Fresno	108%
Omaha	92%
El Paso	91%
Tampa	85%
Honolulu	84%
Wichita	83%
Sacramento	80%
Tucson	77%
Milwaukee	76%
Colorado Springs	75%
Albuquerque	74%
Halifax	72%
Memphis	66%
Tulsa	59%
London	57%
Quebec	55%
Pittsburgh	54%
Cincinnati	54%
Kansas City	53%
Edmonton	51%
St Louis	50%
Winnipeg	48%
Louisville	47%
Oakland	46%
New Orleans	46%
Raleigh	45%
Minneapolis	44%
Cleveland	36%

Region
- Canada
- Midwest
- Northeast
- Pacific
- Southeast
- Southwest

While the shift to remote work during the pandemic has had large impacts on downtown districts, this transformation is less of a fundamental change and more of an extension of long-time trends. While downtowns became the central places of work during the 1950s to 70s, prior to that, downtowns were more characteristic of mixed-use communities that combined shops, merchants, artisans and even industrial uses with residences. Since the 70s, we have seen a shift again towards more mix of uses in downtown areas, and many downtowns had already begun to transition away from daytime-only centres of business and towards mixed-use spaces that support entertainment, connectivity and even house large proportions of the urban population. This has occurred concurrently with the rise of suburban shopping districts and offices, increasing emphasis placed on downtowns as hubs of entertainment, creativity and innovation, as well as new patterns of remote work that started far before the pandemic.

Figure 2. Ranking of Downtowns for Large Cities

City	Recovery Quotient
Columbus	112%
Baltimore	91%
San Diego	89%
Las Vegas	82%
New York	78%
Jacksonville	74%
Phoenix	71%
San Antonio	66%
Washington DC	65%
Fort Worth	64%
Miami	64%
Nashville	61%
Los Angeles	61%
Charlotte	58%
Houston	57%
Denver	56%
Austin	53%
Boston	52%
Seattle	52%
Philadelphia	51%
San Jose	50%
Ottawa	48%
Atlanta	48%
Calgary	46%
Toronto	46%
Montreal	44%
Indianapolis	44%
Vancouver	43%
Chicago	43%
Detroit	42%
Portland	41%
San Francisco	31%

Region

- Canada
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Recovery Quotient

Within urban centres, the effects of the COVID-19 pandemic on the central business district hits low-wage service workers hardest. Service jobs including those within office buildings (e.g., cleaning personnel, security staff and building engineers) as well as those with jobs in the broader downtown ecosystem in cafes, restaurants, retail shops and bars require the physical presence of office workers for healthy operation. While workers in the knowledge and professional sectors were able to shift to remote work, service workers – many of whom are BIPOC and immigrant workers – have borne the brunt of these shifts in the form of increased health risks and greater chances of losing their jobs as the recovery of the service sector stagnates.

Even as some companies pull workers back to the office, the office of the future will likely be less of a single building and more of a network of locations are part of the fabric of the city. This kind of interconnected ecosystem of work locations will likely include the central office location in addition to the home office and other third spaces like coworking spaces and cafes. This network will need to include amenities to draw people into the central office location like onsite education and training, and wellness and fitness offerings for employees, with more focus on social interaction as a key feature of the office. It will also mean that the Central Business District will likely "evolve into a hub in a system of more centralized neighbourhood Business Districts that span from the city centre out to the suburbs and rural areas" (Florida, 2021).

In larger, more densely populated cities, the future will mean reinventing downtown. Evidence is now showing that remote work will likely be a feature of core employment patterns into the future, and this will likely be particularly true in larger cities that have a higher presence of tech and knowledge sector workers. In these cities in particular, the attributes of downtowns – their density, connectivity with transit systems and location – will enable them to adapt to a new future reality. Indeed, as Dr. Florida suggests, "Central Business Districts are perfectly positioned to be remade as more vibrant neighbourhoods where people can live and play as well as work." With government assistance, it's possible that the future of downtowns could also be increasingly affordable and inclusive, able to house the service workers who will continue to work in downtown areas even as tech and knowledge sectors move away from the CBD.

What's Next for Downtown Recovery Research?

- Karen Chapple and her team plan to continue exploring their findings by investigating recovery at the scale of individual city blocks. They also plan to explore the ways in which the movement away from downtown has boosted local neighbourhood revitalization across cities.

- Richard Florida plans to continue to write about the post-pandemic city and its downtown, and to strategize with stakeholders and city leaders on pandemic recovery. Dr. Florida has also been working to develop a television show focused on why cities are important.

- Nathaniel Baum-Snow is planning a follow-up to his productivity spillovers research to estimate knowledge transfer between workers both within and across firms, as well as the relationship of their residential location to processes of knowledge transfer. This work will enable Dr. Baum-Snow and his team to compare the relative magnitude of firm, worker and residential spillovers.

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City Research Insights: Post-pandemic Downtown Recovery: Downtown is for people

Interview with Karen Chapple, Richard Florida and Nathaniel Baum-Snow

Read the full interview here.

Let's talk a little bit about policy. What are one or two policy changes that you think should be made to support downtown recovery?

Richard Florida: The first thing is that you have to accept that downtown is not coming back the way it was. That's a hard pill for people to swallow. Downtowns are potentially going to suffer a little bit…We need to rethink what downtown can become, to make it a place where people can live, work, play and connect. This isn't a new idea – Jane Jacobs published an essay in 1957 called Downtown is for People – and we have to get that into our minds, that downtown is for people, not for companies and office jobs.

Karen Chapple: Our research suggests that policymakers need to focus primarily on making sure their downtowns house the economic sectors that depend on face-to-face interaction for innovation and productivity. What we found in our regression models was that the most import ant factors for resilience remain the composition of your economy and specifically how specialized you are in professional services or information…Conversely, if cities specialized in education, public administration, or healthcare, though they shut down early in the pandemic they came back quickly. Where there are essential workers that have to be onsite, you have a lot of activity.

Nathaniel Baum-Snow: I think on the policy side that it's important that downtowns are given the flexibility to reinvent themselves. I think that one of the policy failures from the past has been top-down planning saying that downtowns are the district for offices only…It's important to let the market speak on what types of uses are garnering demand and letting those uses be allowed – maybe even encouraged. That will help the transition to whatever the future holds, because it will not be exactly the same as in the past. Municipal leaders need to think about how to enable that kind of flexibility.

Richard Florida is University Professor of at the Rotman School of Management and Distinguished Scholar-in-Residence at the School of Cities; and one of the world's leading urbanists. He has previously taught at Carnegie Mellon University and been a visiting professor at Harvard and MIT. Dr. Florida is also a writer and journalist, having penned several bestsellers including the award-winning The Rise of the Creative Class and The New Urban Crisis. He co-founded CityLab, one of the world's leading publications for cities and urbanism.

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Nathaniel Baum-Snow holds the Premier's Research Chair in Productivity and Competitiveness and is a Professor of Economic Analysis and Policy. He is a managing editor at the Journal of Urban Economics. He has research interests in urban and real estate economics, labor economics and economic geography. Recent research includes studies about housing supply and affordability, productivity spillovers that operate between firms and workers at hyper local spatial scales, and the causes and consequences of neighbourhood change.

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Karen Chapple is the Director of the School of Cities at the University of Toronto, where she also serves as Professor in the Department of Geography and Planning. She is Professor Emerita of City & Regional Planning at the University of California, Berkeley, where she served as department chair and held the Carmel P. Friesen Chair in Urban Studies. Chapple studies inequalities in the planning, development, and governance of regions in the Americas, with a focus on economic development and housing.

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About the School of Cities

The School of Cities is a solutions incubator for urban-focused researchers, educators, students, practitioners, and the general public to explore and address the complex global challenges facing urban centres. A living laboratory, the School leverages urban data and lived experience to improve policy and decision-making, and collaborates with communities around the world to make cities and urban regions more sustainable, prosperous, inclusive, and just.

About City Research Insights

Downtown Recovery: Downtown is for people is the third issue in the second volume of *City Research Insights* series, designed to link the urban research being conducted at the University of Toronto with the public, other institutions, and decision-makers.

With this series, the School of Cities seeks to leverage our extraordinary community of urbanists and urban-oriented researchers to create a rich, multidisciplinary community of urban faculty, researchers, and students across disciplines and perspectives. In addition to facilitating interdisciplinary research projects, partnerships and funding opportunities, we provide a hub for urban-focused interdisciplinary and collaborative learning.

City Research Insights Vol. 2, No. 3: Downtown Recovery: Downtown is for people

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Unless otherwise noted, all information is based on the work of the researchers.
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