

Benchmarking the Edmonton Metro Region:

Insights for Global Competitiveness



C C Edmonton Metropolitan C C Region Board 1

Letter from EMRB



Dear Reader,

These are exciting times for the Edmonton Metro Region. One of the youngest, fastest-growing, and dynamic regions in Canada, we're on the cusp of transformative change driven by unprecedented population growth and significant economic shifts. As a Region, we need to be planning today to determine what our tomorrow will look like. Attainable housing, good-paying jobs, and social, cultural, and natural amenities can't be left to happenstance. They require an ambitious vision supported by a comprehensive plan based on quality data. That's why the Edmonton Metropolitan Region Board (EMRB) commissioned this report.

Resonance is an internationally recognized adviser in economic development, real estate, and tourism. Its Best Cities rankings quantify the relative quality of place, reputation, and competitive identity for metropolitan areas with more than 500,000 people. The EMRB retained Resonance to benchmark the Region across a wide range of factors to determine where it stands relative to peer and/or aspirational regions across Canada, throughout North America, and around the world.

Insights from this report will help the EMRB and other regional leaders improve quality of life and enhance the Region's competitiveness. While not all factors identified in the report are the responsibility of the EMRB, we wanted to provide as complete a picture as possible because we understand the integrated nature of all our collective work with regional partners and how important it is to amplify each other's efforts and outcomes.

In our increasingly interconnected world, we can no longer afford to think and act in silos. The global economy has no time for laggards. Competition is heating up, and business as usual will no longer suffice. Jurisdictions need the right talent, smart infrastructure, forward-thinking policies, and a collaborative mindset to succeed. Faced with this ever-more competitive environment, the Edmonton Metro Region needs to be ready to compete with the best and come out on top. We can't do that, however, unless we know where we stand against our key competitors, and what it will take to meet our aspirations.

This report is the all-important first step in better understanding the Region's competitive strengths and determining where we can improve and grow. By knowing more, we can do better for the Region's residents, both present and future.

Sincerely,

Karen Wichuk

Karen Wichuk CEO, Edmonton Metropolitan Region Board



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2024

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01 Introduction

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Over the past 20 years, the Edmonton Metro Region has grown by more than 300,000 residents and created nearly that many jobs, resulting in over 30% growth in the Region's GDP.

The Edmonton Metropolitan Region Board (EMRB) recognizes that as the Edmonton Metro Region continues to grow and prepares to welcome more than a million more people, building a shared understanding of the Region's key strengths and weaknesses will be key to fostering collaboration and long-term sustainable development.

The Region is expected to grow by another one million residents over the next 20 years and create 500,000 new jobs. But this anticipated growth will not happen organically. The Edmonton Metro Region will be competing with regions across Canada and, increasingly, around the world to attract the investment and employers it needs to power its economy. As such, this is a pivotal time to evaluate the Region's key strengths and weaknesses in order to maintain or improve the quality of life for the people that call the Edmonton Metro Region home and inform the Region's 10-year growth plan update.

Selecting benchmarks is as much an art as it is a science. The following regions were selected based on quantifiable factors, such as population size, population growth, and GDP as well as more qualitative factors, such as cultural perception, types of target industries, and geography. The decision to include regions that are larger in population and GDP, or regions that have more cultural presence, was deliberate. The growth the Edmonton Metro Region is experiencing (and anticipates) necessitates a broader scope outside of traditional peers to understand where the Region is today relative to where it is going in the future. The Region needs to be ambitious and aspirational to pursue and capture the talent, residents and visitors who are currently opting for more competitively positioned regions both domestic and international.

Selected Benchmarked Regions

METRO REGIONS	POPULATION	10-YEAR GDP GROWTH	SIMILAR INDUSTRIES	COUNTRY	PROVINCE/STATE
Edmonton	1,534,000	28.1%	-	Canada	Alberta
Calgary	1,620,000	28.5%	Natural Resources/Clean Tech, Agribusiness, Technology, Life Sciences, Transportation/Logistics	Canada	Alberta
Vancouver	2,838,000	24.8%	Creative Industries, Technology, Clean Tech	Canada	British Columbia
Montreal	4,470,000	20.6%	Aerospace, Clean Tech, IT, Life Sciences, Food Business	Canada	Quebec
Austin	2,499,000	58.3%	Clean Tech, Creative & Digital Media, Life Sciences, Semiconductors	United States	Texas
Denver	3,063,000	34.5%	Aerospace, Bioscience, Energy, Technology, Health Care, Food/ Beverage	United States	Colorado
Indianapolis	2,178,000	31.8%	Hydrogen, Agriculture	United States	Indiana
Pittsburgh	2,362,000	22.9%	Climate & Tech Decarbonization, Life Sciences & Health Care, Cybersecurity, Energy	United States	Pennsylvania
Portland	2,583,000	36.8%	Bioscience, Technology, Food/ Beverage	United States	Oregon
Salt Lake City	1,308,000	37.3%	Technology, Life Science, Health Care	United States	Utah
Stockholm	1,700,000	26.8%	Cleantech, Life Sciences	Sweden	-
Helsinki	1,733,000	15.0%	AI & Technology	Finland	-
Hamburg	1,946,000	14.7%	Renewable Energy, Technology, Health Care	Germany	-
Glasgow	1,708,000	21.7%	Creative, Technology, Life Sciences	United Kingdom	-
Rotterdam	1,022,000	-	Horticulture, High Tech, Life Sciences and Health, Sustainable Energy, Maritime and Port, Aerospace	Netherlands	-
Kuala Lumpur	1,999,000	81.4%	Agriculture	Malaysia	-

About Resonance

To benchmark the competitiveness of the Edmonton Metro Region, the EMRB partnered with Vancouver-based Resonance Consultancy, a leading adviser to metropolitan regions around the world that has worked extensively with communities in Alberta.

Resonance's diverse, multidisciplinary team of analysts, futurists, urbanists, economists, and strategists has completed more than 200 research, strategy, and planning projects for destinations, cities, districts, and developments in more than 50 countries around the world. As leading advisers in sustainable urban development, economic development, and tourism development for regions and cities, Resonance has conducted extensive research on the rise of cities, the key trends propelling their growth, and the factors that shape people's perception of urban areas as desirable places to live, visit, and invest.

Resonance's proprietary approach to benchmarking places and their World's Best Cities, America's Best Cities and Europe's Best Cities reports are covered by thousands of media outlets around the world and their data and analysis is used by companies and government agencies to help design, develop, and promote the best locations around the globe.

Bloomberg calls Resonance's Best Cities reports: "The most comprehensive study of its kind; it identifies cities that are most desirable for locals, visitors and businesspeople alike, rather than simply looking at livability or tourism appeal." Thousands of global urban leaders and media outlets — from Paris Mayor Anne Hidalgo to London Mayor Sadiq Khan, to Time Out and National Geographic — trust and cite Resonance's rankings and data annually.

Some of Resonance's most notable projects include creating a tourism master plan for the City of Los Angeles in advance of the 2028 Olympic Games to help the city grow from welcoming 50 million visitors annually to more than 70 million. In Europe, Resonance has also led an unprecedented effort by Brussels' regional government to bring tourism, talent attraction, foreign direct investment and private corporations together around a unified brand and narrative.

In all of their work, Resonance's research analysts and strategists provide market analysis, consumer research, and performance benchmarking to inform economic development strategies and destination stewardship plans for countries, cities, and communities like the Edmonton Metro Region. This report for the EMBR summarizes the insights gained by the Resonance team.



02 Approach& Methodology

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Ten years ago, Resonance started an ambitious project to identify the factors most highly correlated with business formation, talent attraction, and visitor expenditure in the planet's metro regions.

To date, Resonance has analyzed more than 400 global cities and urban regions (principal centres of metropolitan areas with populations of more than 500,000).

Resonance not only benchmarks hundreds of data points from traditional performance and statistical sources such as the U.S. Bureau of Labor Statistics and Statistics Canada, but they also mine user-generated data from online sources such as Google, Tripadvisor, and Instagram to measure quality of place when it comes to experiential factors. This blend of data led to the creation of Resonance's proprietary Place Power[®] Score, which is applied in their annual Best Cities rankings, which are read and referenced by millions of people around the world.

So how does Resonance choose the metrics to effectively measure a metro region's performance relative to its competitors?

While many factors shape our perception of metro regions as desirable places to live, work, or visit, Resonance's proprietary Place Power[®] Score rankings are focused on the shared factors that demonstrate moderate to strong correlations with the performance of metro regions when it comes to attracting workers, visitors, and businesses.

Edmonton Metropolitan Region

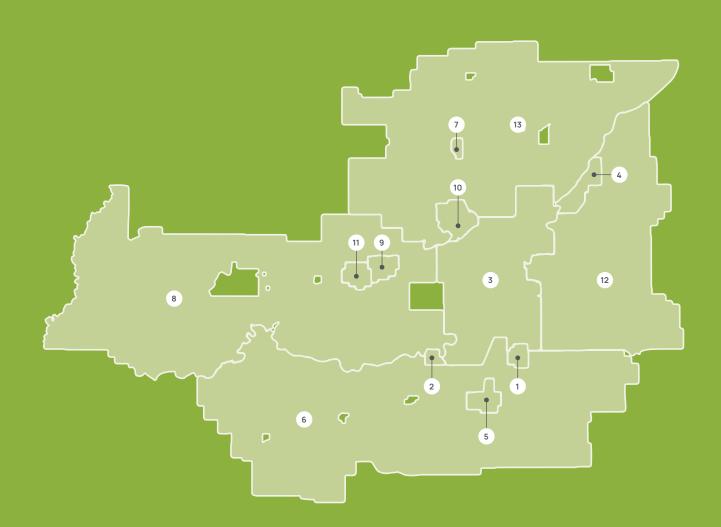
The Edmonton Metro Region, which spans 9,500 km², is made up of 13 municipalities that share a contiguous border and that range in population from 6,500 to 1 million. The Region is anchored by a thriving core that is interconnected with diverse urban and rural communities.

Benchmarking the Edmonton Metro Region involved including all 13 municipalities in our analysis. Each municipality contributes to the Region's overall identity, while also maintaining its unique strengths and characteristics. Although the purpose of this report was not to conduct an in-depth analysis of each of the 13 EMRB member municipalities, their individual data has been collected and amalgamated into the findings of this report. When possible, we utilized CMA-level data. When such data was unavailable, our team gathered information from third-party sites to build a comprehensive regional average and perspective.

This process was mirrored for all selected benchmarks so that the report tells the story of the Region's competitive advantages, as well as potential risks and threats.

1.	City of Beaumont
2.	Town of Devon
3.	City of Edmonton
4.	City of Fort Saskatchewan
5.	City of Leduc
6.	Leduc County
7.	Town of Morinville
8.	Parkland County
9.	City of Spruce Grove
10.	City of St. Albert
11.	Town of Stony Plain
12.	Strathcona County
13.	Sturgeon County

[11]



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- ← Lions Park Lois Hole Centennial Provincial Park
- ↑ Perron District (Downtown)
- → Fountain Park Recreation Centre

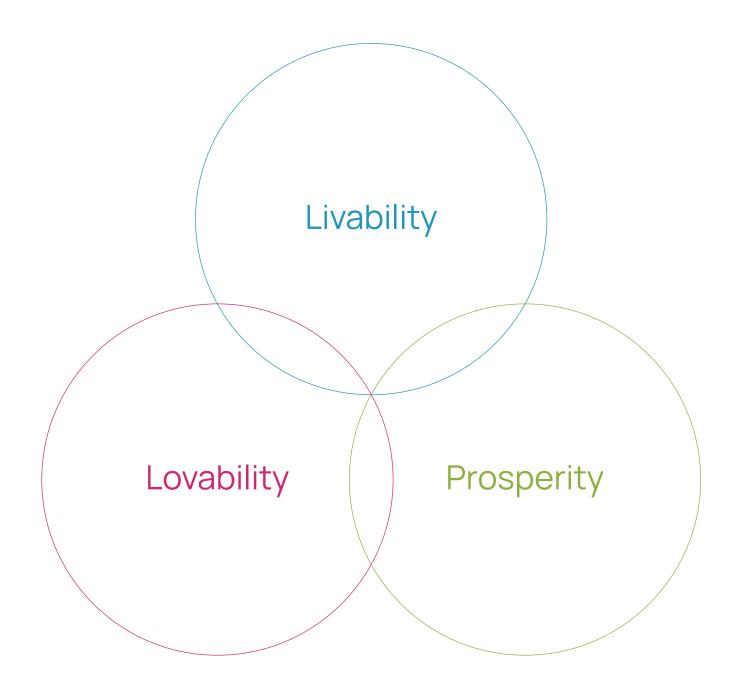


Edmonton Metro Region and Place Power[©] Score

Resonance interprets all of its regional data through the lens of three key pillars – Livability, Lovability, and Prosperity – to define each city's or region's Place Power[©] Score.

The three pillars are an accurate shorthand and clear distillation of the wide range of factors that have demonstrated moderate to strong correlations with attracting workers, investment, and/or visitors. Yes, those include Livability stalwarts like housing affordability and green spaces, but they also include increasingly coveted talent and prosperity drivers like nightlife, restaurants, and biking. These factors shape a city's or region's "lovability," and Resonance research indicates that they tend to drive investment and local prosperity more than, say, school quality or local crime rates. The recognition of these attributes by locals and visitors alike further propels a city's or region's performance in the Lovability pillar, via their resonance online and in social media, from exploratory research (captured in our Google Search subcategory) to on-the-ground usergenerated marketing (captured in our measurement of Instagram hashtags and Facebook check-ins).

The following report provides an independent background investigation on the Edmonton Metro Region's competitive strengths and weaknesses in a global context of peer and aspirational regions across Livability, Lovability, and Prosperity. In these pillars presented in the pages and tables that follow, Resonance outlines the metrics across which the Edmonton Metro Region was measured against its peer regions.



About Livability

Livability benchmarks a region's physical quality of place. This includes how many quality parks, sights, neighbourhoods, and landmarks are recommended online by locals and visitors to how walkable and bikefriendly it is for residents and tourists to navigate and explore. These are factors that not only attract talent, but companies as well. Livability also looks at natural attributes of a region such as the number of sunny days annually, and the relative quality of the air residents and visitors breathe.

Additionally, it considers the cost of living in a place– from median house price to average rent for an apartment, as well as the mortgage and rent burden on residents. As the overall cost of living climbs, the cost of living in a region increasingly matters as much as the potential of earning a living there.



Livability Indicators

Below is a high-level list of indicators included in this assessment. For the full list of indicators, please reference Appendix A at the end of this report.

SUB-CATEGORY	DESCRIPTION	SOURCE(S)
Air Quality	This sub-category includes metrics that measure the average level of exposure to pollutants and number of smoke hours impacting a region.	iQair
Weather	This sub-category has metrics that look at the average number of days that a region experiences sustained sunshine.	CurrentResults.com
Safety	This sub-category looks at the rates of violent and property crime that are reported annually in a region.	Statistics Canada / ACS / International statistical offices
Housing Affordability	This sub-category has metrics that measure the availability of rentals within a region, the share of residents in a region burdened by mortgage or rental costs, the median price of a home in a region, and the average rent a resident pays for a two- to three-bedroom apartment.	Statistics Canada / ACS 5- Year / International statistical offices
Health Care	This sub-category has a metric that calculates the number of healthcare workers per capita within a region to give context to the potential accessibility of healthcare services.	Lightcast / Esri / International statistical offices
Traffic	This sub-category has metrics that contextualize the amount of time residents spend commuting.	TomTom / Statistics Canada / ACS 5-Year
Biking Infrastructure	This sub-category has metrics that assess a region's bike infrastructure.	Bikemap / Statistics Canada / ACS 5-Year/ International statistical offices
Walkability	This sub-category assesses the walkability of a region.	WalkScore.com
Internet Infrastructure	This sub-category assesses the overall internet infrastructure of a region comparing the average upload/download speeds to the fastest available upload/download speeds.	TestMyNet.com
Recreation	This sub-category assesses the availability of recreation facilities for residents.	Yellow Pages

About Lovability

Lovability speaks to the relative vibrancy and quality of place of a region relative to its competitive set. For almost a decade, Resonance research has shown that the more vibrant a city or region is in terms of its culture, sports, dining, and nightlife, the more visitors, young professionals, and large corporations it attracts. A region's lovability also inspires residents, businesses, and visitors to promote a region to the world more effectively and cost-efficiently than its marketers can ever hope to. Resonance ranks a region's performance in each of these areas based on the number of stories, references, and recommendations shared online about that region in key user-generated digital channels like Tripadvisor, Instagram, and Facebook, and sought out on Google.



Lovability Indicators

Below is a high-level list of indicators included in this assessment. For the full list of indicators, please reference Appendix A at the end of this report.

SUB-CATEGORY	DESCRIPTION	SOURCE(S)
Sights & Landmarks, Urban Fabric	This sub-category assesses the availability and online presence of sights and landmarks, and urban fabric assets, within a region.	Tripadvisor
Outdoors	This sub-category assesses the availability and online presence of outdoor activities and experiences assets within a region.	Tripadvisor
Museums	This metric measures the total number of museums in a region as listed on Tripadvisor.	Tripadvisor
Cultural Events	This metric measures the total number of concerts and events in a region as listed on Tripadvisor.	Tripadvisor
Nightlife	This metric measures the total number of nightlife experiences in a region as listed on Tripadvisor.	Tripadvisor
Restaurants	This metric measures the total number of restaurants in a region as listed on Tripadvisor.	Tripadvisor
Shopping	This metric measures the total number of shopping centres in a region as listed on Tripadvisor.	Tripadvisor
Family-Friendly Activities	This metric measures the total number of family-friendly activities in a region as listed on Tripadvisor.	Tripadvisor
Social Media	This sub-category assesses a region's overall presence on social media sites.	Facebook/Instagram
Travel Media	This sub-category assessesa region's overall presence on travel media sites.	Tripadvisor

About Prosperity

Human capital is becoming a region's most valuable resource when it comes to generating wealth and prosperity, and, for many regions, it is increasingly in short supply.

To evaluate the relative strength of human capital from one region to the next, Resonance not only measures both the educational attainment level of the region's population and the percentage of people participating in the labour force, but also the poverty rate and Gini coefficent of income inequality to evaluate how well that wealth is distributed among a region's population. Wealth and prosperity are also evaluated by core statistics like business infrastructure, such as the region's airport's connectivity to other destinations, and the number and rank of the regional universities and technical colleges that fill the local talent pipeline.

Prosperity Indicators

Below is a high-level list of indicators included in this assessment. For the full list of indicators, please reference Appendix A at the end of this report.

SUB-CATEGORY	DESCRIPTION	SOURCE(S)
Population	This sub-category has metrics that assess a region's growth for both total population and prime age (25-44) population, both historically and projected.	Statistics Canada / ACS 5-Year / Lightcast / Esri / International statistical offices
Job Opportunities	This sub-category has metrics which assess a region's job opportunities for residents.	Statistics Canada / ACS 5-Year / Lightcast / International statistical offices
Size of Economy	This sub-category includes metrics that assess a region's overall economy size and growth through GDP, as well as tracking the growth of new companies.	Statistics Canada / ACS 5-Year / McKinsey / Crunchbase
Productivity	This sub-category looks at a region's economic productivity through GDP per capita.	Statistics Canada / ACS 5-Year / McKinsey

SUB-CATEGORY	DESCRIPTION	SOURCE(S)
Standard of Living	This sub-category includes metrics that assess the share of residents experiencing poverty in a region.	Statistics Canada / ACS 5-Year / Lightcast / Esri/ International statistical offices
Income	This sub-category includes metrics that help assess the median household income for residents within a region, as well as historical and projected growth.	Statistics Canada / ACS 5-Year / Lightcast / Esri/ International statistical offices
Equity and Equality	This sub-category includes metrics that look at the overall equity and equality of a region, including the Gini coefficient of income inequality and its historical growth, as well as its share of foreign-born residents and their median income.	Statistics Canada / ACS 5-Year / Lightcast / Esri/ International statistical offices
Innovation	This sub-category has metrics that assess a region's innovation ecosystem, such as the number of startups and accelerators in a region.	StartupBlink.com
Higher Education Opportunities	This sub-category includes metrics that assess the education opportunities for residents, including the number of universities and technical colleges, as well as the highest- rated university within a region.	QS World University Rankings
Educational Attainment	This sub-category assesses the educational attainment of a region.	Statistics Canada / ACS 5-Year / Esri / Lightcast / International statistical offices
Entrepreneurship	This sub-category includes metrics that highlight the entrepreneurial ecosystem of a region.	Statistics Canada / ACS 5-Year / Esri / International statistical offices
Economic Opportunity	This sub-category includes metrics and indicators that assess how well residents can access economic opportunities, such as labour-force participation and unemployment.	Statistics Canada / ACS 5-Year / Esri / International statistical offices
Creative Class	This sub-category has metrics that assess a region's creative class, which includes industries such as management, business and financial operations, computers and mathematics, architecture and engineering, life, physical, and social sciences, law, education, arts, design, entertainment, and health care.	Statistics Canada / ACS 5-Year / Lightcast / Esri / International statistical offices
Airport Connectivity	This sub-category assesses the connectivity of places through direct connections through the region's airport.	Flightsfrom.com

03 Insights on the Edmonton Metro Region's Global Competitiveness



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2024

Livability



#2 Sunny Days The Region has the second most number of sunny days of its benchmarks.



#2 Forecasted Population Growth

The Region's forecasted population growth is the second <u>highest</u> of its benchmarks.

How livable a region is often impacts how well that region is able to retain its residents and employers.

Overall Livability Rank: 8/16

Once people and businesses have invested in a place – whether it's buying a home or expanding their office location – livability factors such as affordability, connectivity, and physicality can either make it easy for them to stay or push them out of the region.

Compared to the entire peer set, the Edmonton Metro Region was mid-pack across the Livability index's 20 metrics and comparable to regions like Austin, Portland, and Glasgow. Its middle-of-the-pack finish was powered by its relative affordability of home ownership, home prices, and residential rental rates, as well as good air quality and access to sport complexes.

INDICATOR	RAW DATA	RANK
Share of Mortgage-Cost Burdened	16.0%	1
Annual Average Number of Sunny Days	325	2
Share of Rental-Cost Burdened	34.0%	2
Median House Price	\$268,028	3
Average Rent for a 2-3 Bedroom Apartment	\$965	3
Commute Times	23.9	3
Annual Average PM2.5 Concentration (µg/m³)	6.3	4
Number of Sports Complexes	1,008	5
Fastest Download Speed (Mbps)	204.2	6
Rental Vacancy Rate	4.3%	9
Number of Kilometres of Cycling Paths per 1,000 Residents	241.25	9
Walk Score	40	9
Average Travel Time to Drive 10 kms	16.0	10
Fastest Upload Speed (Mbps)	41.4	10
Property Crime per 100,000 population	4,697.1	11
Share of Residents who Cycle to Work	0.7%	11
Mapped Ways (km)	98,432	12
Violent Crime per 100,000 Population	1343	14
Average Upload Speed (Mbps)	11	16
Average Download Speed (Mbps)	50	16

The Region's housing and rental markets are among the most affordable.

Importance of Housing Affordability

Since 2005, home ownership costs have increased threefold across Canada and put pressure on governments to establish <u>regulations</u>.¹ Some of these include a tax on vacant or underused housing and legislation that prohibits non-Canadian citizens or residents from buying residential property until 2027.

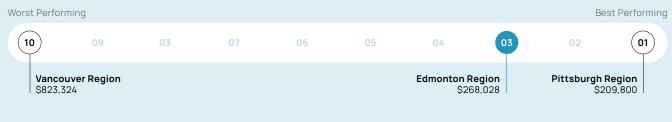
As larger markets, such as Vancouver and Toronto, continue to experience the impacts of unaffordable housing and rental costs, residents may look elsewhere to put down roots. The Edmonton Metro Region's accessible and attainable housing has shielded its residents from the housing crisis affecting many Canadian communities. The Region's relative affordability may be a key advantage in strategically increasing the speed of population growth as more Canadians look to affordable, welcoming, vibrant, and well-connected regions to settle down and call home for good.

FORWARD THINKING

Since the Region's population is expected to grow, housing and rental development should be top of mind. Across the Region, permit approval and development processes are <u>among the strongest</u> in Canada.² Maintaining the strengths of permit timelines, especially outside of the urban core, can help the Region prepare for growth. The Region should also identify corridors that could accommodate density and continue to promote quality-of-life assets (e.g., restaurants, venues, sports complexes, etc.) that may drive the Region's Livability by providing housing options, and Lovability by providing activities and events unique to the Region's identity that can then be shared online by excited attendees.

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MEDIAN HOUSE PRICE*

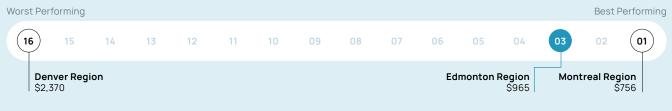


SHARE OF POPULATION THAT IS MORTGAGED BURDENED (%)*

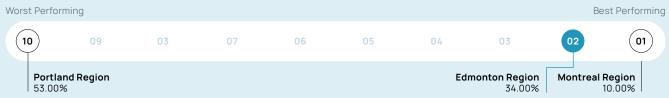
Worst Perform	ning							Be	est Performing
10	09	03	07	06	05	04	03	02	01
Portlan 30.60%	d Region					Calga 16	ary Region & 6.00%	Edmonton R	egion 6.00%

Burdened defined as: Share of residents who spend 30% or more of their income on mortgage costs

AVERAGE RENT FOR A 2-3 BEDROOM APARTMENT



SHARE OF POPULATION THAT IS RENT BURDENED (%)*



Burdened defined as: Share of residents who spend 30% or more of their income on rent costs

* Not all regions were compared as part of the data set.

Full data sets can be found in Appendix C: Data Appendix

The Region's residents enjoy clean air and sunny days.

Importance of Environmental Factors

As climate change continues to shape communities – from heat stress and water accessibility to creeping coastlines and air quality – people and businesses are becoming more cognizant of environmental factors when choosing where to (re)locate.

While the Region may be northern, residents are able to enjoy cleaner air and more sunny days than most of the residents in the 15 peer regions analyzed. The Region finished only (and just) behind Calgary for Annual Average Number of Sunny Days in 2023, while finishing middle of the pack for Number of Days of Strong Heat Stress (2022). The Edmonton Metro Region finished fourth among its peer regions for Annual Average PM2.5 Concentration (µg/ m³) in 2023, ahead of places long-touted as clean, green capitals like Vancouver and Stockholm. Of course, natural disasters, such as wildfires, can drastically impact this. EMRB's recent climate resilience initiative highlighted projected losses of \$1.745 trillion (2050s) to \$3.335 trillion (2080s) to occur annually due to public health impacts caused by higher temperatures and periods of poor air quality.3

FORWARD THINKING

Continuing to lean into the Region's agricultural and rural identity, and the benefits that come with it, may improve the Region's lack of perception currently anchoring many of the metrics in the Livability index. Having a strong identity that residents can latch onto may encourage regional pride in their place, especially if the Region continues to provide solace from climate change with fresh air, four seasons, and sunny days.

Reversing climate change and stopping future wildfires is unfortunately out of the Region's control. But identifying actions in "Canada's National Adaptation Strategy." where the Region can affect change (e.g., improving transportation efficiency, investing in walk/bike infrastructure, increasing the number of indoor activity areas/venues, etc.) is.⁴ The Board's climate resilience and vulnerability assessment provides strategic direction for climate adaptation that could, in turn, strengthen the Region's identity as a clean and environmentally safe and resilient place to live.



#4 for Clean Air

The Region has one of the lowest rates of PM2.5 pollution.

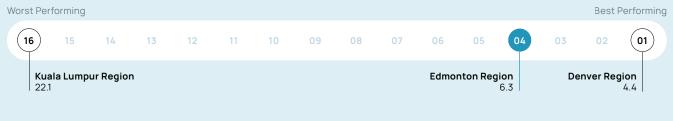


Impact of Smoke

The Region has been greatly impacted by smoke, with nearly 200 smokes hours in 2023.

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ANNUAL AVERAGE PM2.5 CONCENTRATION



ANNUAL AVERAGE NUMBER OF SUNNY DAYS*

Worst Per	forming													Best Per	forming
16	15	14	13	12	11	10	09	08	07	06	05	04	03	02	01
Gla 102	sgow Re	gion									Edmon	ton Regio	on Cal	gary Regio 33	n 3



* Not all regions were compared as part of the data set.

Full data sets can be found in Appendix C: Data Appendix

The Region's connectivity both digital and physical lags its global peers.

Importance of Internet Connectivity

The COVID-19 pandemic changed communities forever, especially regarding the importance of internet connectivity. Internet is no longer a luxury but a necessity. It empowers residents with the flexibility of where they work; it connects people to their communities, loved ones, and the world; it allows for improved access to services like telehealth appointments when healthcare access may be limited; enables access to education and learning opportunities; and it improves business functions, productivity, and connectivity.

The need for reliable, high-speed internet is not unique to any one city or region in North America. Since 2019, the Government of Canada, through its Connectivity Strategy, has attempted to increase the share of Canadians who have access to high-speed internet (50 Megabits per second (Mbps) download and 10 Mbps upload). In 2023, 80% of residents in most provinces had access to this level of high-speed internet.⁵

FORWARD THINKING

Despite the Region having an average download speed of 50 Mbps and average upload speed of 11 Mbps, which just meets the Canadian threshold for highspeed internet, municipalities in the Region like Fort Saskatchewan and Sturgeon County have internet download speeds ranging from 13–31 Mbps and upload speeds of 3–7 Mbps. Only the urban core – the City of Edmonton – has high-performing internet speeds of over 200 Mbps for download and 41 Mbps for upload speeds.

The lack of high-speed internet access across the entire Region is cause for concern. While the urban core enjoys easy access, those in the outer parts of the Region do not. This poses not only a livability issue for existing and future residents, but a potential prosperity one as well. As noted in the Edmonton Metropolitan Region Board: Broadband Situation Analysis conducted in August 2020, "the future of agriculture will be shaped by connected and precision farming." Additionally, as space in the urban core becomes limited, areas outside of the core may become prime locations for future development and site selections for other industries.

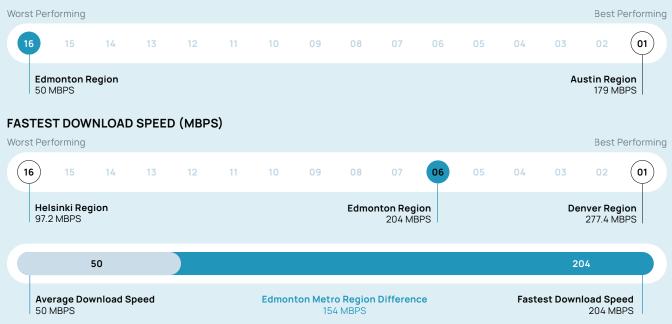
The strategies outlined in the EMRB's broadband study should continue to be prioritized and championed throughout the Region. Addressing broadband, internet connectivity, and cellular service coverage and access issues with a regional approach can help lift all boats on the same tide.

Difference in Speed

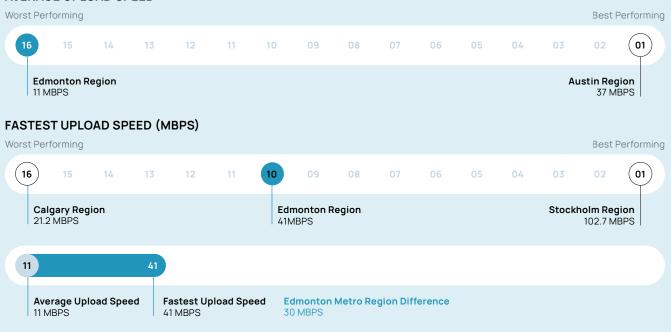
The difference between the fastest download and upload speeds and the regional average speed is the second largest among the benchmark.

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AVERAGE DOWNLOAD SPEED



AVERAGE UPLOAD SPEED



Full data sets can be found in Appendix C: Data Appendix

Importance of Physical Connectivity

The Edmonton Metro Region spans an impressive 9,500 square kilometres, connected by major transportation and logistics routes. The vast nature of the Region means that there is physical space to accommodate the anticipated population growth of nearly one million residents over the next 20 years.

At first glance, the Region's average commute times rank third-best among benchmarked regions, which is impressive - for now. While this confirms the lived experiences that it's easy to get from one side of the Region to the other, population growth needs to be considered. The Edmonton Metro Region's commute time is nearly four minutes longer than Salt Lake City's, yet the Edmonton Metro Region has only 226,000 more people and is expected to grow 6.5% more than Salt Lake over the next five years. Compare that to regions like Austin, Portland, and Indianapolis (whose populations currently exceed the Edmonton Metro Region's by 650,000 to 1,000,000), the Region's commute time is only faster by 1.5 minutes on average.

While it is unlikely that the Region will be able to reduce its current commute time, it can work to maintain its regional accessibility. This will not only improve residents' quality of life, but will also maintainthe openness of the Region for industry activity and interconnectedness. The Integrated Regional Transportation Master Plan (IRTMP), developed in 2021, provides a strategy and implementation plan to support the Region's mobility and efficiency.⁶

FORWARD THINKING

As the Region becomes more populous, it needs to prioritize investments in critical infrastructure to avoid potentially more congestion and to support the movement of goods, services, and people. There's an opportunity for the Region to identify key travel corridors related to residents, visitors, and businesses.

Mapping common routes to and from work, as well as leisure activities, could open opportunities for alternative modes of transportation. This may include public transit, dedicated bike infrastructure, or pedestrian pathways (especially along the River Valley) that connect to one another. This can increase the flexibility of travel and potentially reduce the number of cars throughout the Region, especially along major transportation and logistics routes, which will be vital for continued economic prosperity. Implementing the IRTMP to connect people and goods will also lend itself to optimizing resources and supporting a modal shift.

While the main reason for doing this is to maintain a lower commute time as the Region grows, implementing alternative modes of transportation can help improve health outcomes, reduce car-related fatalities, and contribute to the Region's overall air quality by reducing GHG emissions.



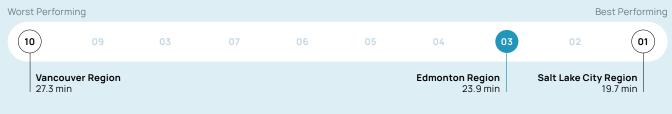
#3 in Commute Times

The Region's average commute times to work are the third lowest of the benchmark.

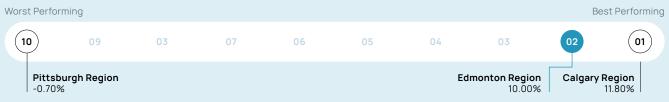


Population Growth Impacts Connectivity

As more people move to the Region, overall commute times may be heavily impacted.



FIVE-YEAR FORECASTED POPULATION GROWTH*





* Not all regions were compared as part of the data set. Prosperity indicator included to show comparison of population growth vs. commute time.

Full data sets can be found in Appendix C: Data Appendix

Lovability



Edmonton Metro Region ranks lowest in most Lovability metrics.



There is a tremendous opportunity to grow brand awareness.





Lovability is the heart and perception of a place. The factors that make up our Lovability pillar are what people think of when they're looking for recommendations for where to live or visit. While Lovability factors often are what attract people to a place, they play just as important of a role in helping them find "home." That definition can vary, depending on where someone is in life: if they have a family, are an immigrant, or a recent graduate. And because businesses are made up of people, employers care about these factors too. Having offices and headquarters in places that are enjoyable makes it easier for an employer to retain their talent (and entertain their clients).

Overall Lovability Rank: 16/16

While the Edmonton Metro Region ranks the lowest among its peers across the Lovability index's 24 metrics overall, this may have more to do with an overall weak online presence, contributing to its negative performance. Specifically, a large percentage of the 24 Lovability metrics are measured on the number of stories, references, and recommendations shared online about that Region in key user-generated digital channels. As such, the poor performance could have as much to do with the low volume of these diverse, cultural assets as with the lack of promotion of these assets online by visitors and residents.

INDICATOR	RAW DATA	RANK
Days of Strong Heat Stress	18	7
Total Google Trends Results	9	7
Green Area per Capita (square metre per capita)	175	9
Number of Total Parks and Outdoor Activities	178	10
Number of Parks and Outdoor Activities per 100,000 population	12	10
Number of Concerts and Events	27	10
Share of Green Area	40%	12
Total Facebook Check-ins	4,400,000	12
Number of Family-Friendly Activitles	140	13
Number of Family-Friendly Activitles per 100,000 population	9	13
Total Google Search Results	20,275,400	13
Number of Quality Sights and Landmarks per 100,000 population	6	14
Total Instagram Hashtags	6,063,194	14
Number of Sights and Landmarks	86	15
Number of Parks per 100,000 population	5	15
Number of Museums	52	15
Number of Museums per 100,000 population	3	15
Number of Restaurants	6,719	15
Number of Restaurants per 100,000 population	438	15
Number of Nightlife Attractions	52	16
Number of Nightlife Attractions per 100,000 population	3	16
Number of Shopping	99	16
Number of Shopping per 100,000 population	6	16
Total Tripadvisor Reviews	179,701	16

The Region's access to rural attributes and outdoor activities sets it apart.

Importance of Identity in Tourism and Talent Attraction

Few regions in North America are, in the eyes of their residents, as understated and overlooked as the Edmonton Metro Region. Yes, the local pride is rooted in a quality of life bolstered by ample salaries, relative home affordability, and plentiful green space. But there is increasingly a more existential appreciation for the temperate and safe environment that is the Edmonton Metro Region; that while other parts of the globe are experiencing climate extremes, there exists a metro region in northern Canada with four seasons, a sprawling river valley at its doorstep, and plentiful parks from which to enjoy it all. Increasingly, this local secret is getting out and people everywhere are noticing.

Last year (2023) was the hottest year ever recorded, and was likely the warmest the earth has ever been in the last 100,000 years, according to a 2024 report released by Copernicus, Europe's climate change service. Climate change not only has an immediate impact on destinations when it comes to extreme weather events but could also shift long-term patterns in the destinations consumers choose to visit as these events become more frequent.

Recent data from the European Travel Commission showed the number of people planning to travel to the Mediterranean region from June to November had already fallen 10% at the beginning of 2023 (compared to 2022) while Nordic destinations saw a noticeable uptick in bookings. The impacts of climate change will only become more frequent and acute, and a hot stifling world is the new reality for many. The Edmonton Metro Region has the opportunity to be the North American version of the suddenly coveted Scandinavian urban regions: highly functional, wealthy, cool destinations that offer respite from heat emergencies, water shortages, and erosion of ecology. Its #7 spot in the Strong Heat Stress metric among its peer regions only validates this advantage.

FORWARD THINKING

The opportunity to position itself as a new, almost contrarian tourist destination can put a spotlight on the Edmonton Metro Region as aware, resilient, and futurefocused. Doing so may break through perceptions that, despite its favourable summer climate and green space (even among its 15 peer regions), the lack of national and global awareness measured by many of the Lovability metrics ranks the Edmonton Metro Region last in this vital index. Aligning the Region's formidable visitor assets – its year-round festivals, cultural events, and art scene, accessible green space punctuated by the River Valley and its increasingly moderate, four-season climate, and clean air - will help grow the Region's reputation among visitors (and the stories they tell about the Region). And the more intrepid visitors that arrive for a northern Canadian getaway, the more likely they are to consider the Region, in a workfrom-anywhere post-pandemic reality, to maybe stay and visit for a while. Tourism, it's long been said, is the front door to talent attraction, residency, and economic development. The more visitors the Region attracts, the more talent it will win.

DAYS OF STRONG HEAT STRESS*

Worst Perf	orming												Best	Performing
15	14	13	12	11	10	09	08	07	06	05	04	03	02	01
Aus 148	tin Regio	n				Edmo	onton Re	gion 18		Glas	gow Regic	n & Stock	cholm Re	gion 1

NUMBER OF PARKS AND OUTDOOR ACTIVITIES PER 100,000 POPULATION

Worst Perfe	orming													Best	Performing
16	15	14	13	12	11	10	09	08	07	06	05	04	03	02	01
Glas 8	gow Reg	ion				Ed r 12	nonton F	Region					De	nver Reg	gion 48



* Not all regions were compared as part of the data set.

Importance of Access to Green Space

The pandemic has fast-tracked us past the stigma around the importance of mental health, enabling us to explore ways in which the natural and built urban environment influences people's well-being. According to a 2022 Resonance and Ipsos survey of young U.S. professionals, the sense of well-being in an urban environment, including shared social spaces, and increased natural light and gardens, was identified as highly correlated with their preference for a region. As such, companies have started to address well-being on a larger scale as part of their strategy to attract talent.

The same opportunity exists for municipalities, and nowhere more than in a region that boasts the North Saskatchewan River Valley's 18,000 acres that extend 88 kilometres and that are a popular destination for residents and visitors alike.

Consider the importance of urban green space in the collective future. Goal 11 of the United Nations #Envision2030 Agenda for Sustainable Development is to "Make cities and human settlements inclusive, safe, resilient and sustainable." Its targets include that by 2030, countries "reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management." Additionally, municipalities should "provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities." The Edmonton Metro Region, with its existing regional leadership, is close to this reality right now.

#10 in Number of Parks and Outdoor Activities per Capita

The Region has 12 parks and outdoor activities per 100,000 residents.

FORWARD THINKING

Despite its relatively middle-of-the-pack performance among peer regions for Number of Parks and Outdoor Activities per 100,000 Population (#10), a closer look at the Region's overall green space and parks reveals that it lags behind its peers (#15 for Number of Parks per 100,000 Population). Understanding the Region's reality of available parks and green space (and the potential to double down on what's already available) can open opportunities for growth in these areas and potentially improve other metrics, such as family-friendly activities and climate impact. If visitors and potential residents can't find these places on travel websites like Tripadvisor, their perception of the Edmonton Metro Region may be that it lacks parks when in reality, the lived experience is the Region is rich in parks and green spaces.

In the same 2022 Ipsos research mentioned above, Resonance identified the value of regions pursuing reforestation and rewilding as a way to attract visitors and talent. An increasing number of regions are acting on the evidence that, for many post-pandemic visitors and potential residents, the freedom of natural spaces has been the perfect antidote to confinement, driving visitation to parks and other accessible nature-based destinations and attractions to record levels.

Globally, outdoor recreation assets such as parks, trails, beaches, marinas, farms, and ranches, saw record visitation during and after the pandemic. This "amenitizing" of urban landscapes with natural features, waterfront boardwalks, trails, and wayfinding can bring value to residential and commercial properties. Especially if and when the River Valley receives its coveted National Urban Park status. Additionally, given the overall lack of global awareness around the Edmonton Metro Region's green bounty, there is a low-cost opportunity to improve perception via a visitor-focused map and content hub that showcases the diversity, size and accessibility of the local green spaces. The information already exists in GIS data from some municipalities across the Region. Centralizing and promoting it would educate prospective visitors and residents about one of the Region's most resonant assets.





* Not all regions were compared as part of the data set.

The reality of classifying the Edmonton Metro Region's green space globally.

While residents enjoy the lush land in the Edmonton Metro Region, their positive lived experiences are not reflected in the data generated by third-party organizations.

Many people see the Edmonton Metro Region as replete with green and open space, punctuated with the expansive River Valley and its year-round accessibility. That's why it's interesting to see the Region perform below other benchmarked places in indicators like "Share of Green Area" and "Green Area per Capita." These third-party measurements and benchmarks against other metro regions don't match the lived experiences of Edmonton Metro Region's residents.

Equally interesting is that the Pittsburgh metro region (right figure) scores among the highest of the 16 benchmarked regions in each of these indicators that focus on green space. Diving deeper into the <u>source</u> <u>data</u> from the OECD, we can see that much of the land around the Edmonton Metro Region (top right figure) is classified as "croplands" versus the land around the Pittsburgh region which is classified as "tree cover."⁷

The OECD and WorldCover classify "green area" as tree cover, shrublands, and grasslands, but not croplands. So while residents enjoy and revere the Region's agricultural and natural assets, other sources like OECD, WorldCover, and Tripadvisor do not capture and credit this due to this difference in classification.

PARK DEFINITIONS VARY THROUGHOUT THE REGION, WHICH MAY NEGATIVELY IMPACT DATA COLLECTION AND THE PERCEPTION OF PARK ACCESSIBILITY

Interestingly, the definitions of parks throughout the Region itself vary. In Fort Saskatchewan, "anything classified as Park or School in the land use zoning" is a park but Beaumont's and Leduc County's definitions are slightly broader, where "locations of outdoor recreation areas such as parks, playgrounds, nature parks, off-leash dog parks and golf courses" are parks.

Preliminary data validates what residents experience day-to-day within the Region, there are well over 1,500 parks. Alignment of definitions and further data collection by the Region will help empower municipalities to market this incredible asset to both existing and new residents, as well as visitors experiencing the Region for the first time.



1,500+ Parks

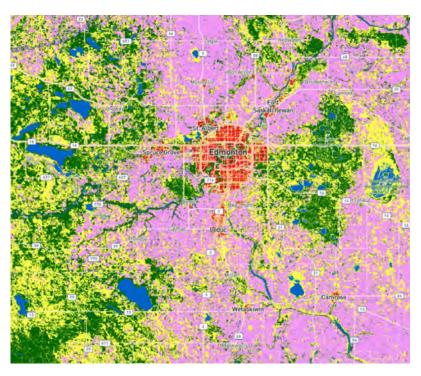
Preliminary data collected by the ERMB and municipalities.

Land Classification Map

LEGEND

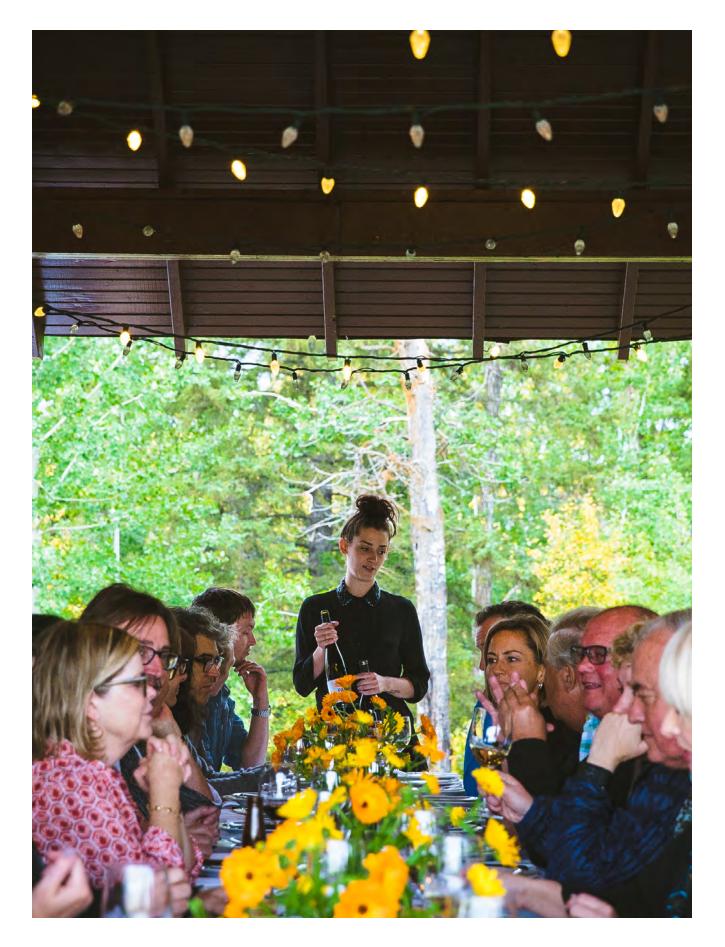


EDMONTON METRO REGION



PITTSBURGH METRO REGION





Many of the Region's tourism assets lag its peers.

The Edmonton Metro Region's low performance in the vital Lovability index (remember, this is a key relocation driver for young professionals) is clearly tied to its last-place finish among peer regions in the Shopping and Nightlife metrics.

It also ranked second-last (ahead of only the Calgary region) in the Restaurants per 100,000 Population. Where the Region performed middle-of-the-pack among peer regions was, not surprisingly, in the Number of Concerts and Events metric.

The need to develop catalysts for the visitor economy cannot be overstated and ties directly to the final observation about the Region's low Lovability performance: very little awareness of the Region as a destination online, despite the success here of smaller population centres among the Region's peers.

To better understand how tourism assets are fundamentally tied to how people perceive cities, the Institute for Urban Strategies at the Mori Memorial Foundation conducted a <u>survey and analysis</u> of the perceptions of more than 2,000 respondents in 40 global cities.⁸ One element of the study compared the perceptions of visitors and non-visitors. The example below indicates the spectrum of perceptions of the City of Tokyo, Japan, from non-visitors to regular visitors.

Those respondents who had not actually visited the city described Tokyo as a stressful and noisy city, suffering from pollution. These largely negative perceptions are associated with typical traits of any sprawling, developed city with a large population.

Those with first-hand experience in the city, however, mentioned more favourable terms such as safe, polite, and clean. These latter impressions may represent the aspects of everyday life in Tokyo that are only noticeable through lived experience.

What this demonstrates is the power of a visit to alter pre-existing perceptions of a destination. Resonance's work in developing tourism master plans for destinations has uncovered similar insights. In the development of a tourism master plan for the Richmond region in Virginia, we surveyed more than 1,000 previous visitors to the destination.

What we discovered was that around half (51%) of previous visitors had either an "excellent" or "very good" perception of the Richmond region prior to their visit. This number swelled to over 80% after the visitor spent time in the region. Nearly 20% of previous visitors had a "neutral" perception of the Richmond region prior to their visit. This number fell below 4% following their visit, replaced with more positive sentiments.

[42]

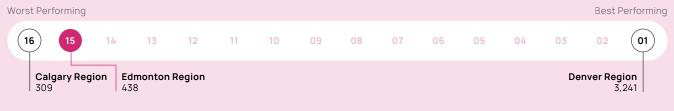
Importance of Developing Tourism Assets

Each year, Resonance works with dozens of destination marketing organizations. Some of the most memorable advice we've heard is from Maura Gast, Executive Director of the Convention and Visitors Bureau Board in Irving, Texas. "If you build a place where people want to visit, you'll build a place where people want to live," she says. "And, if you build a place where people want to live, you'll build a place where people have to work. If you build a place where people have to work. If you build a place where people want to work, you'll build a place where business wants to be. It all starts with a visit and the visit starts with us." We said it before in this report: tourism is the front door. The Edmonton Metro Region needs to open it wider.

FORWARD THINKING

With nearly half (48%) of Alberta businesses indicating that the variety of fees/taxes across the province continues to be a <u>barrier to growth</u>, hub facilities and platforms for innovation such as Leduc County's Business and Entrepreneur Centre and Edmonton Unlimited are nurturing new and diverse economic advancements, and supporting small businesses throughout the Region.⁹ <u>Spruce Grove</u>, for example, has recently developed an economic strategy that focuses on investing in the small business community and the hydrogen economy. ¹⁰ These collective efforts reflect a commitment to fostering growth in the small business ecosystem from leaders across the Edmonton Metro Region. In addition to supporting innovation and growth in small businesses in target industries, a strong and wellsupported small business ecosystem can equally develop tourism assets. In Resonance's previous work for Arlington County, Virginia, stakeholders said one of the number one assets of the community and the region was the vibrancy that small businesses brought. From a small coffee shop that had been passed down in the family for generations to the Nigerian restaurant in a strip mall that people would drive 30+ minutes to dine at, to the small venues that hosted world-renowned artists and performers, these assets were brought to life by the residents who call Arlington home.

When asked, "What do you hope Arlington looks like 20, 30, 50 years from now for your future children and their children?" stakeholders responded that they wanted the county to maintain this vibrancy. Yet stakeholders also expressed concerns that the increasing lease prices, difficult bureaucratic processes, and lack of succession planning services would impact the region negatively. They believed that while the current small business department had its strengths in helping prospective business owners launch, what established owners needed was a concierge or navigator. This role, if the county economic development organization implements it, will strengthen the small business ecosystem so that owners can continue thriving and making Arlington a vibrant place to live.



NUMBER OF NIGHTLIFE ATTRACTIONS PER 100,000 POPULATION

Worst Pe	rforming													Best F	Performing
16	15	14	13	12	11	10	09	08	07	06	05	04	03	02	01
Edi 3	monton R	legion											Ham	burg Reg	jion 22



The Region's online presence lags its peers.

The Edmonton Metro Region ranks last among its peers across the Lovability index's 24 metrics. The Region has an overall weak online presence, compounding its negative performance. While the surface takeaway may be one that the Edmonton Metro Region's metrics like Shopping, Restaurants, Nightlife and cultural bounty like Concerts and Events lag its peers significantly, the results need to be clarified. Specifically, a large percentage of the 24 Lovability metrics are measured on the number of stories, references, and recommendations shared online in key user-generated digital channels. As such, the poor performance could have as much to do with the low volume of these cultural assets compared to regional peers as much as it does with the lack of promotion of these assets online by visitors and residents. It is also important to note that the Edmonton Metro Region ranked below smaller population centres in key online perception and awareness metrics, indicating that this result is not simply due to being outranked by larger communities.

Importance of Showing Up Online

The perception of a region's lovability is as important for attracting visitors as having them in place to improve the quality of life for existing residents. As we noted multiple times in this report, perception of place is a multifaceted endeavour. It begins with getting your current residents excited about local cultural, culinary, and natural bounty, which turns into local advocacy, which manifests on social channels organically and authentically. The signal is then picked up on by oblivious visitors looking for something different in their next travel experience. When they arrive and tell their own stories, the legend of a region grows exponentially. And so does its perception.

FORWARD THINKING

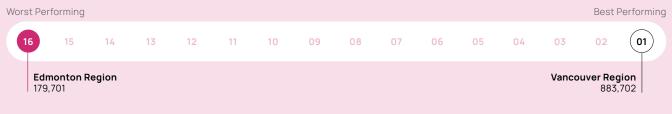
Small business owners often don't have the time or budget to explore digital training programs to elevate and promote their businesses. And in some aspects, rightfully so. Running a small business is a time-consuming endeavour with major financial risks, and yet local businesses often add to the vibrancy of a region.

This is a common issue, especially for emerging regions like the Edmonton Metro Region, where owners have long existed serving local clientele and relying on word-of-mouth to promote their businesses. Yet, newcomers and visitors may not have access to the right people at the right time to find what truly makes the Region unique. Especially if someone is trying to plan a vacation. If they are relying on digital databases like Tripadvisor, Yelp, or Google, they may pass over a region that doesn't have the same perceived assets as another.

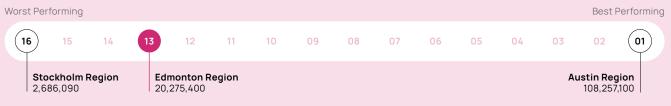
This becomes particularly important as a region grows. Often with growth comes more expenses, where local businesses have to adapt to better ensure their own resiliency. Investing and engaging in travel sites and databases is often a first step for other clients that Resonance has worked with to improve a region's lovability and bring in more revenue for these vital businesses.

It starts with local residents promoting their pride of place — the restaurant they go to for every anniversary; the parks where they host their children's birthdays; the concert venues where they see their favourite band for the first time. Visitors will read those stories and be able to picture their own future experiences, even if it's for a short trip.

TOTAL TRIPADVISOR REVIEWS



TOTAL GOOGLE SEARCH RESULTS





2024

E ANA

#4 in Poverty Rate

The Region's poverty rate is lower than a majority of the benchmarked regions.



#6 in Universities

Tertiary education providers are invaluable assets that produce top-quality talent. While Resonance uniquely looks at Livability and Lovability to create a holistic perspective, the Prosperity of a region is critically important when benchmarking against other peers.

Overall Prosperity Rank: 13/16

A growing population, rising GDP and job growth are all signs of a thriving economy and can help give perspective on where the Region is going.

Yet, prosperity also has a more human-centric aspect to it. When a region is thriving, it's likely its residents are thriving. People will have more opportunities to generate wealth, get a diverse education, and pursue careers with high wages. This all sets them (and their families) up for success. If a region is unable to provide these, retaining both residents and businesses can be difficult.

While the Edmonton Metro Region's Prosperity ranking is lower than most of its peer regions, its performance in Prosperity ranges from the second best for some indicators to the second worst for others. This "mixed bag" of sub-category results provides a lot of insights and direction for the future.

The Region's current population growth and share of prime age (25-44) residents bodes well for its labour needs. For example, access to high-performing universities and technical colleges improves not only the Region's ability to produce talent, but its attractiveness to future skilled generations as well.

INDICATOR	RAW DATA	RANK
Five-Year Forecasted Population Growth	10.0%	2
Gini Coefficient of Income Inequality	0.331	2
Five-Year Growth Rate of Foreign Born Population	2.2%	2
Five-Year Population Growth	8.6%	3
Growth Rate of Population of Prime Age Group (25-44)	8.4%	3
Percent of Population that is Foreign Born	26.0%	3
Forecasted Growth Rate of Prime Age Population (25-44)	7.7%	4
Poverty Rate	8.2%	4
Growth Rate of Gini Coefficient of Income Inequality	-14.9%	4
Share of Self-Employed	8.6%	4
Percent of Population in Prime Age Group (25-44)	32.0%	5

Prosperity Heatmap Continued

INDICATOR	RAW DATA	RANK
Five-Year Forecasted Growth of Median Household Income	15.9%	5
Score of Highest-Ranking University	58.3	5
Five-Year Growth Rate of Population with a BA or Above	2.9%	5
Median Annual Household Income	\$104,109.87	6
Number of Universities	8	6
Median Income for Foreign-Born Population	\$30,488	7
Labour Force Participation Rate	69.3%	7
Job Posting per 100,000 population	15,108	8
GDP 10-Year Growth	28.1%	8
Total GDP per Capita	\$64,550	8
Five-Year Growth of Median Household Income	13.4%	9
Percentage of Employment in Culture and Entertainment	1.8%	9
GDP Five-Year Growth per Capita	12.2%	10
Five-Year Growth of Labour Force Participation Rate	-1.5%	10
Percent of Population with a BA or Above	28.3%	10
Percentage of Employment in Knowledge-Based Occupations	39.5%	10
Unemployment Rate	6.0%	12
Company Growth Rate	6.4%	12
Number of Accelerators	3	12
Number of Companies	3,527	13
Current Population	1,534,381	14
Total GDP	\$102,881,000,000	14
Number of Direct Destinations ⁺	48	14
Number of Startups	219	15



The Region is growing (and capturing more young talent).

Importance of **Population Growth**

A growing population has many benefits – from a larger talent pool to fill talent pipelines to a larger tax base and usually indicates a thriving economy and community. Just last year, Alberta as a province saw the largest gain in interprovincial migration since the data became available in 1972.

The Edmonton Metro Region is no stranger to this, as its population has grown nearly 9% over the past five years and is expected to grow another 10% by the end of the decade.

This growth is <u>not anticipated to slow</u> either.¹¹ Over the next 20 years, the Region expects nearly one million new residents to call the Region home. This amount of growth would impact any region significantly - from housing and job availability to the cost and accessibility of utilities like transportation and internet. Planning for this growth must be a regional effort to help maintain the very high quality of living that has enticed residents previously and given the Region its reputation as a hidden gem.

#3 in Five Year **Population Growth**

The Region has been the third fastest growing region over the past five years.

FORWARD THINKING

The continued growth and expansion of the Region can be a double-edged sword. While welcoming more people can increase the overall tax base, attract new employer expansion or relocation to the Region, and increase the overall vibrancy of a place, it also comes with challenges. The Region needs to be prepared for how an additional one million people over the next 15 to 20 years will impact its community, from the increased costs of public services like utility needs, infrastructure expansion, and fire and emergency services to planning where people will live, work, and raise their families.

Austin is a prime example of this. Since 2010, the greater Austin region has grown by more than 800,000 residents,12 with one of its largest surges during the pandemic. This growth put a strain on the housing and rental markets - not just in the urban core, but outer cities like Liberty Hill, which saw their median housing prices jump from \$250,000 in 2020 to just under \$400,000 in 2023. Despite leading the nation in housing permits in 2022,¹³ the Austin market could not keep up with demand. As a result, the market has dramatically cooled and some believe that an exodus out of Austin will happen because its lack of affordability.14

Resources, like water,¹⁵ are becoming more of a concern as well. The City of Georgetown, just 20 minutes north of Austin, is on pace to run out of water by 2030 if it does not find a new source.¹⁶ Major employers in

50

https://www.emrb.ca/growth-plan

² U.S. Census Estimates ³ https://www.axios.com/local/austin/2022/06/23/austin-leads-the-nation-in-homebuilding

2024

https://www.newsweek.com/austin-housing-market-exodus-real-estate-1881538 https://www.austinmonthly.com/why-water-conservationists-are-worrying-about-austins-future/ https://www.austing/anergy-environment/2024-02-23/georgetown-texas-water-supply-williamson town-texas-water-supply-williamson-county-drought

manufacturing, <u>like Micron</u>,¹⁷ are deciding to locate in water-rich areas like Syracuse, New York, rather than water-strained regions like the Austin region.

Not to mention, Austin now ranks in the <u>top 32 cities</u> with the worst traffic because of a lack of investment in infrastructure.¹⁸

Many regions and cities across the world laud Austin as an aspirational target of growth and prosperity. The boom that region experienced may become a bust because investments were not made in anticipation of forecasted growth. The Austin region is now making strides to address these concerns, like reducing the mandatory residential lot size and investing in the I-35 corridor to connect downtown to the east side of the city – but it may be too late.

The Edmonton Metro Region is in a favourable position to learn from the mistakes of Austin and other oncesoaring, now-struggling regions: plan for the growth so that it is sustainable and residents, old and new, can continue benefiting from the assets that make the Edmonton Metro Region unique.

Importance of Attracting Young Workers

Attracting young workers is what helps fuel existing (and future) industry growth. Enterprises often look at a region's labour availability and its risk of retirement from the workforce and the subsequent dip in demand for local goods and services. Boasting a larger, younger population is an asset for a region's business attraction and retention as it helps ensure that employers will have a steady pipeline to fuel their businesses.

With the anticipated overall population growth, the Region's prime age population (residents aged 25-44) is expected to grow nearly 8%. This is important for a Region like Edmonton Metro whose target industries may be staffed by current employees nearing retirement.

FORWARD THINKING

Like with population growth in general, attracting and retaining younger residents comes with its benefits and challenges. Identifying what is attracting young people to the Region — be it the lower cost of living, job and educational opportunities, or access to natural amenities — can be key to retaining them. As a Region, organizations and decision-makers will need to coordinate not only how to continue attracting talent, but how partners are investing in infrastructure such as transportation and housing to help ensure that these new residents develop local roots and commitments.



#1 in Foreign-Born Residents

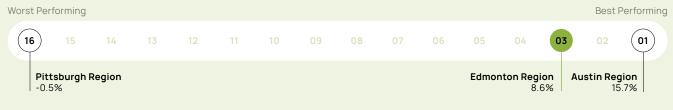
The Region's growth of foreignborn residents outperforms all benchmarked regions.



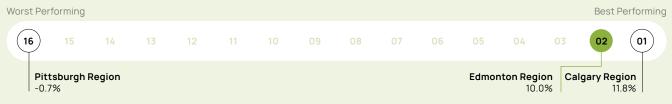
Increased Growth

Both from new Canadians and those moving from other provinces.

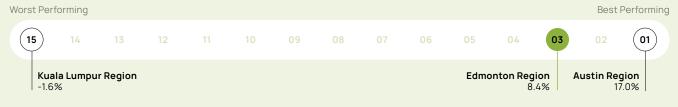
FIVE-YEAR POPULATION GROWTH



FIVE-YEAR FORECASTED POPULATION GROWTH



FIVE-YEAR PRIME AGE GROWTH (25-44 YEARS)*



FIVE-YEAR FORECASTED PRIME AGE GROWTH (25-44 YEARS)*

Wors	t Perforn	ning									Bes	t Performing
12	2	11	10	09	08	07			04	03	02	01
	Helsink -0.9%	ki Region					E	dmonton Re	e gion 7.7%		Austin R	egion 12.4%

POPULATION GROWTH, ALBERTA (MEDIUM GROWTH ASSUMED)



* Not all regions were compared as part of the data set.

The Region's economy continues to grow as a "landlocked port of entry."

Importance of an Aligned Growing Economy

The Region's foundational industries in oil and gas, manufacturing, and agriculture have created a solid base for investments in clean energy, hydrogen, health sciences, and technology. Edmonton Global, the Region's foreign direct investment and international business development agency, is building from the Region's existing strengths. These investments will help diversify the Region's economy, making it more resilient to future economic trends and potential downturns.

Over the past decade, the Region's GDP has grown by 28%. While the overall GDP of the Region lags most of its benchmarked counterparts (second-last only to Glasgow), its growth is on pace with regions like Calgary, Stockholm, and Indianapolis (ranking middle-of-the-pack among peer regions).

FORWARD THINKING

The Region's labour force participation is relatively high and its unemployment rate relatively low. This translates into a limited workforce for employers to choose from, especially if there is a high demand for skills-specific occupations. As the Region's economy continues to diversify and grow, attracting new investments in both foundational and emerging technology in target industry sectors, the Region will need to plan its workforce development to meet labour needs.

The skills and occupations for these target industries

will evolve over the next five to 15 years, necessitating an agile and equipped workforce-development ecosystem. This ecosystem will be important not only for major employers, but also for small to medium-sized enterprises (SMEs). These SMEs often benefit from training programs at technical colleges to help upskill their workforce as technology evolves, so they can remain competitive. Additionally, as larger employers move into the Region, they will often look at the existing talent pool to fill their labour needs in addition to recruiting from outside the Region. The result can be a mass exodus from SMEs as their workers pursue new opportunities at larger firms. A well-defined pipeline of talent can help alleviate the pressure and impact on SMEs.

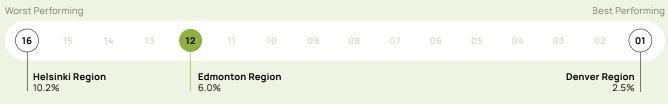
Ultimately, what an aligned economy produces is a cluster of industries that improve each other. New innovations, highly skilled and specialized talent, and a supportive ecosystem will not only be able to attract new investment, but will help sustain it in the long term.



6% Unemployment

Only just a little over the 5% that economists believe is the efficient unemployment rate.

UNEMPLOYMENT RATES



LABOUR FORCE PARTICIPATION*

 Best Performing

 12
 11
 10
 09
 08
 07
 06
 05
 04
 03
 02
 01

 Pittsburgh Region 62.5%
 Edmonton Region 69.3%
 Helsinki Region 72.9%



* Not all regions were compared as part of the data set.

Importance of Being a Port of Entry

The Edmonton Metro Region is a major transportation, logistics, and cargo hub, akin to regions like Dallas and Atlanta, and a Foreign Trade Zone (FTZ). The Region's unique convergence of intermodal transport services offers access to global markets by air, road, sea, rail, and pipeline.

At the heart of the FTZ is the Edmonton International Airport (YEG), which is the fifth-largest Canadian airport by passenger volume. The Region's northern location is a strategic advantage, making it a global gateway for cargo flights as Canada's closest major airport to Asia by circumpolar routes. YEG stands out with its dedicated air cargo apron and 24/7/365 operations, along with several industry-leading certifications such as direct airside access, temperature controls, pharmaceutical logistics, and expertise in live animal handling.

In addition to air services, when it comes to the global supply chain, the Edmonton Metro Region also provides uncongested rail and roadway access to all points in Canada and the U.S. This includes major east/ west routes through the Yellowhead Highway and the northernmost connection for the CANAMEX Corridor, connecting Alberta through the U.S. to Mexico.

Within the Greater Edmonton area, two Class I railways (CN and CPK Rail) have existing routes through the Region. These railways offer 16 rail intermodal and storage facilities and connect the Region even further to all parts of Canada and into the U.S. These massive assets are a moat from competing regions and help support imports and exports through air logistics, as well as moving various goods such as grains, heavy equipment, machinery, and oil both domestically and internationally.

This accessibility is an advantage for the Region's economy and supports manufacturing and other industries, such as technology, agriculture, and hydrogen production. Logistics and other trade-related occupations heavily support the Edmonton Metro Region's economy, supplying thousands of jobs annually.

FORWARD THINKING

Ports of entry are traditionally major cities with access to ocean or sea ports — like Chicago, Illinois, Houston, Texas, and Saint John, New Brunswick. That's partly because transporting materials and goods was historically easiest via water.

Regions like the Edmonton Metro Region have been able to thrive as connection points as technology has improved and expanded transportation, logistics and cargo options. As the Edmonton Metro Region continues to become a major global player, especially with international trade relations, maintenance and expansion of these assets will be imperative. This includes not only supporting the infrastructure, but also marketing these assets to grow the Region's global profile.



Global air access to the Region is limited.

Importance of Air Accessibility

Direct flights not only help power the visitor economy, but they have an even stronger relationship with attracting talent. It's common knowledge that young people and young families seek out urban regions that are well connected to other metro destinations. This is even more acute in geographically isolated areas like the Edmonton Metro Region, compounded by the lack of passenger rail or water link.

The Region's number of direct destinations is lower than most other peer regions. It's tied for last with Indianapolis, with 20% of the direct flights of frontrunner Denver. The importance of a region's airport connectivity translates to both the traditional and the visitor economies. Remember the earlier insight that tourism is the front door to economic development. Fewer tourists mean fewer opportunities to sell the Region as a truly appealing home base. The knock-on effect of being difficult to get to impacts the Region's overall attractiveness for business expansion and relocation. As such, the flow of travel for residents, visitors, and businesses into the Edmonton Metro Region via direct connections offered relative to competitor regions is the through-line that intersects all other initiatives.

FORWARD THINKING

Part of the Region's value proposition is its connectivity, domestically and internationally. Yet the current number of direct flights lags its benchmarked counterparts. If the Region wants to remain competitive globally, expanding the number of direct connections can not only improve the talent attracted to the Region, but also the employers and investment to the Region. As such, all efforts must be made to identify the airline partners willing to invest in this endeavour and support them to trial routes that can be made seasonal and eventually year-round.

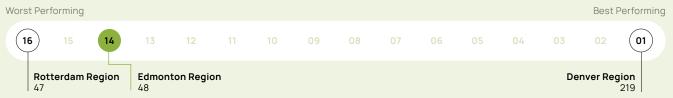
Additionally, a high-speed rail connection to Calgary is also promising to this end. The recent announcement by Toronto-based startup TransPod for an ultra-highspeed train between the Edmonton Metro Region and Calgary (called FluxJet) would be a boon to the Region's appeal. Especially if its accelerated buildout and fully electric promise to make the trip in under an hour is even remotely accurate.

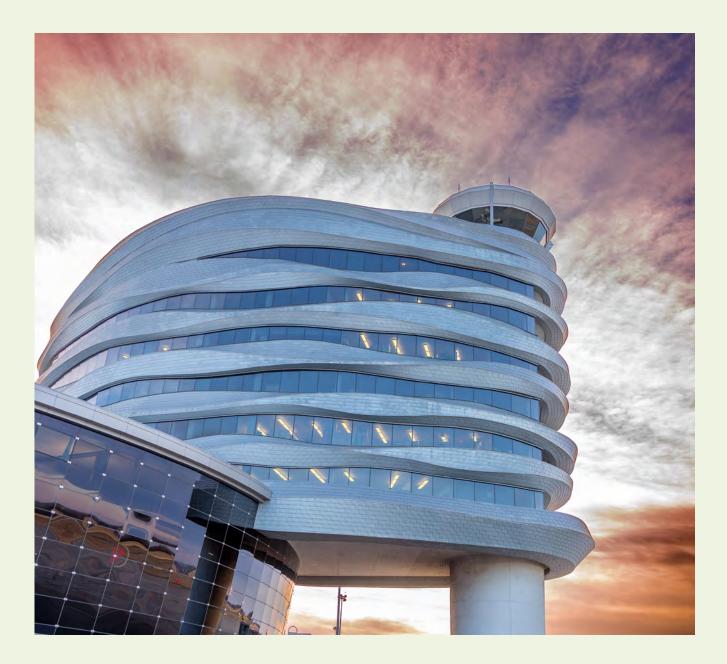


Low Direct Flights

YEG's low number of direct flight destinations creates a barrier for visitors and residents.

NUMBER OF DIRECT DESTINATIONS⁺





[†] Data collected January 2024

Full data sets can be found in Appendix C: Data Appendix

(58)

The accessibility of the Region's economy.

Importance of Economic Accessibility

The health of an economy looks not only at how much the economy has grown in terms of unemployment, GDP, and exports but also at who is able to access economic opportunities. That's why indicators such as the Gini coefficient of income inequality, poverty rate, and median household income can help shine a light on how accessible economic opportunities are for all residents.

Comparatively, the Region's overall poverty rate and income inequality are lower than its peers. With a high median household income of \$104,000 annually, the data suggests that economic opportunities are accessible within the Region.

FORWARD THINKING

The Region's economic accessibility is an asset that must be maintained. Yet, it is a nuanced and complex system where not one organization will be able to bear all of the responsibility to provide access to such things as educational opportunities in primary school through to college or technical education; high-paying career opportunities that provide professional advancements; and home ownership opportunities.

Those who may be underserved must be included in strategic planning. This is not just for the benefit of the individual, but rather for the Region as a whole.

This may include focused investment in underdeveloped communities, making them more vibrant and safe for existing and new residents. It may include workforce development programming specifically for new Canadian immigrants to help them navigate both federal and provincial processes and provide access to employment opportunities. It could also be demystifying advanced manufacturing, especially for young girls, by showing them the broad range of opportunities the industry offers.

A region that has done this well is western New York (specifically, the city of Buffalo). Buffalo is a rust belt city with a long history of decline, yet has made strides in attracting talent and investments to the broader region. Part of its strategy includes the Northland Workforce Training Center (NWTC),¹⁹ an innovative approach to reskilling and upskilling underserved residents and refugees in the community. The NWTC is intentionally located in a minority-majority neighbourhood that had been disinvested yet lies along a major transportation route - not only connected to the city, but to the broader region. The training program is designed in a way that students not only learn advanced manufacturing skills, but also have access to career coaches, financial empowerment courses, English-as-a-second-language training, housing and medical assistance, and job readiness training - among many other services.²² Centralizing each of these resources reduces the barriers for residents all around the Buffalo metro region to participate in a growing industry.

Reducing barriers where possible is how regional governments can help maintain economic accessibility for the next wave of skilled labour.

[59]

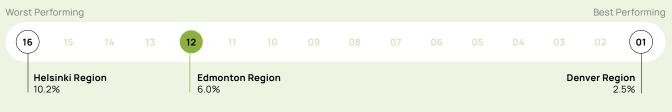
MEDIAN ANNUAL HOUSEHOLD INCOME*



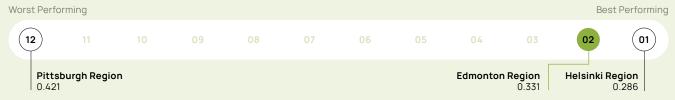
FIVE-YEAR GROWTH OF MEDIAN ANNUAL HOUSEHOLD INCOME*

Worst Perf	orming								Bes	t Performing
12	11	10	09	08	07		04	03	02	01
Hels 5.69	sinki Region 6		Edmo 13.4%	nton Region				v	ancouver R	egion 25.2%

UNEMPLOYMENT RATE



GINI COEFFICIENT OF INCOME INEQUALITY*



Importance of Immigrants in the Economy

Currently, more than 25% of the Edmonton Metro Region's population is foreign-born, growing by 2.2% over the past five years. Like many communities across North America, immigrants are filling labour needs, as many are highly educated and actively looking for economic opportunities in their new home.

While there are real concerns in Canada about immigration impacting the price and availability of housing, these new Canadians are often looking to base themselves in a community and expand their family by committing to one central location for good.

The Edmonton Metro Region is an attractive place for immigrants, from a provincial policy point of view as well as economic opportunity. Compared to its Canadian counterparts, the Region boasts the highest median household income for immigrants and the highest growth rate of foreign-born residents.

FORWARD THINKING

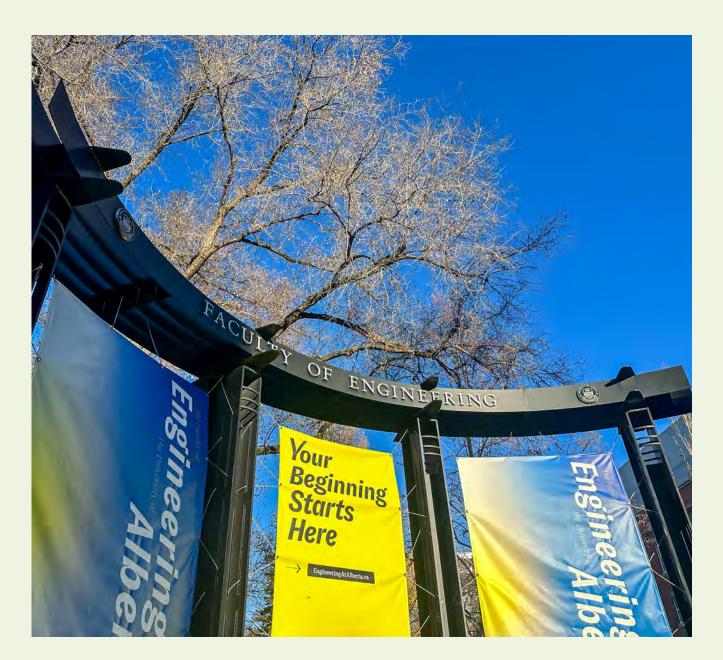
Both of these indicators are key attributes to highlight and promote to strategically attract even more new Canadians to the Region, specifically trained in the jobs and professions that are threatened by retirement and labour shortages. While maintaining these strengths requires a multi-faceted approach across organizations within the Region and the province, marketing the economic opportunities and accessibility of the Region can help attract new residents. As for retaining these residents, all members of the Region will need to work together to ensure that job opportunities, housing, education, and wraparound services (like child care and transportation) are available, especially for the new Canadian population without the extended family networks that long-time local residents take for granted.



Immigrant Income Lag

The Region lags behind on median household income for immigrants and foreign-born residents.





* Not all regions were compared as part of the data set.

Whether it is a traditional, fouryear degree or a trades-focused certification, the Region has ample educational opportunities.

Importance of Educational Institutions

Educational institutions often act as anchor institutions within communities. Anchor institutions are often non-profit organizations that are place-based and have significant economic and social impact on their communities. This impact can range from attracting new talent, to employing a large share of the labour force, to workforce and training development, to small business procurement agreements.

The Edmonton Metro Region is well equipped in this regard, with eight institutions ranging from polytechnics like the Northern Alberta Institute of Technology (NAIT), to colleges and undergraduate universities to the University of Alberta, a major research-intensive university. Having this diversity of institutions within the Region empowers both talent and employers. Both traditional and non-traditional students have access to a globally lauded and coveted university, as well as technical colleges, expanding their education choices depending on their career trajectory. Employers have multiple talent pools to pull from, depending on their labour needs.

Educational institutions can also help fuel innovation and entrepreneurial ecosystems. As it stands, the Region lags in its number of startups and number of accelerator programs. With such a rich educational landscape, the Region is primed for a more robust innovation ecosystem.

FORWARD THINKING

The Region excels in educational opportunities because of the investments made in its institutions. Continuing to support expansions of these institutions, especially in trades-based sectors, sets the Region up for success in terms of filling existing talent pipelines for target sectors. It can also attract future employers looking for well-supplied talent pools; support the small business ecosystem of the Region if institutions leverage local businesses for events and programming; support entrepreneurs and innovators with accelerator programs; and continue to employ a large share of residents who work at these institutions. While employment and affordability are fundamental to keeping these new graduates in the early stages of their careers, Livability and Lovability is what will make them want to stay and build their lives and community.



#5 for Highest-Ranked Universities

The Region's residents have access to a large number of educational institutions.

2024

NUMBER OF UNIVERSITIES

Worst Performing													Best	Performing
16 & 15	14	13	12	11	10	09	08	07	06		04	03	02	01
Rotterda 4	am Regio	on & Salt 4	Lake City	y Region					Edr 8	nonton F	Region	Ham	burg Re	gion 18

SCORE OF HIGHEST RANKED UNIVERSITIES*

Worst Perfo	orming						Be	st Performing
11	10	09	07	05	04	03	02	01
Pitts 42.5	burgh Region			Edmo 58.3	onton Region		Montreal I	Region 83.7



* Not all regions were compared as part of the data set.

Conclusion/Final Insights

The Edmonton Metro Region has enjoyed significant growth over the past 20 years, welcoming more than 300,000 additional residents. But with the Region's population forecast to add as many as one million more people in the next 20 years, the pace of change in the Region is about to accelerate significantly. Growth of this nature presents both incredible opportunities and significant challenges that will require working together as a Region to realize both economic possibilities and potential, while also improving quality of life for the people who call the Edmonton Metro Region home.

As this report notes, the Region has some key competitive advantages when it comes to its housing affordability, quality of its natural environment and commute times — all of which make it a desirable place to live today. But maintaining those advantages will require new approaches to urban and regional planning, housing development and transportation — the Region will not be able to meet future demand by just maintaining its current infrastructure, and building and developing as it has in the past. Nor will it be able to maintain the favourable commute times it currently enjoys if more housing is not developed in closer proximity to expanded public transit and places of employment.

And while appropriate planning, policy and investments in housing, transportation, and broadband access need to be key priorities moving forward, these investments must go beyond the infrastructure and "hardware" required to accommodate this growth and invest in its "software" as well. As this report highlights, the Region is not currently competitive with its global peers when it comes to experiential offerings such as culture, restaurants, recreation, and nightlife. Of course many of the regions analyzed in this report are much larger than the Edmonton Metro Region is today, but they are a benchmark for what a region of two to three million people looks and feels like from a qualityof-place perspective. Enhancing and investing in the lovability of the Region as it grows in order to "level up" to the offerings found in these comparable peers will not only be important to retaining the workforce currently living here today, but competing with these peer regions and many others around the world to attract the skilled workforce and labour that the Edmonton Metro Region's future economy will require.

As this growth occurs, it will also be important to ensure that the benefits of this future growth and the economic opportunity that comes with it be as widely shared by residents — both foreign and domestic — as possible. Income inequality in the Region today is much lower than in most of the comparable peers evaluated and that is a key strength relative to other global metropolitan regions. Building strong communities isn't just about economic growth and development in absolute terms, but ensuring that growth is a tide that lifts as many boats as possible. Maintaining the exceptional quality and accessibility of educational institutions will be key to making this happen.

None of this will be easy. But the Region's history of collaboration and the institutions and organizations that enable it is also a key competitive advantage that goes beyond the benchmarking in this report. Continuing to foster and develop that collaboration will be key to fully realizing the potential and possibilities in the decades ahead. And that may, in fact, be the Edmonton Metro Region's greatest competitive advantage.



2024

B

ILE

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04 Appendices

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Appendix A: Metrics and Indicators

Below is the complete list of metrics and indicators collected for this project. When possible, one source was used for all benchmarked regions. In the case when multiple sources were necessary, those sources have been listed for Canada and the U.S. Specific international government sources have not been listed. Due to the inconsistent nature of data publication across different countries, data was collected from the most recent publication (e.g., US American Community Survey 5-Year 2022) but are not listed here.

PILLAR	SUB-CATEGORY	METRICS AND INDICATORS	DESCRIPTION	SOURCES
Livability	Air Quality	Annual Average PM2.5 Concentration	This measures the average level of exposure of a region's population to concentrations of suspended particles measuring less than 2.5 microns in aerodynamic diameter, which are capable of penetrating deep into the respiratory tract and causing severe health damage. Such pollutants include organic chemicals, soot, metals, soil or dust particles, biological materials as well as inorganic chemicals. The current guidelines set by the World Health Organization state that annual average concentrations of PM2.5 should not exceed 5 µg/m ³ . Therefore, cities and regions with higher PM 2.5 concentrations are considered to be polluted.	iQair
	Weather	Annual Average Number of Sunny Days	The metric measures the total number of days in a year when the sky is mostly clear. This includes the days when cloud covers up to 30% to 70% of the sky during daylight hours i.e., days that are not overcase.	CurrentResults. com
	Safety	Violent Crime per 100,000 Residents	This metric measures the rate of crimes that involve the use of a weapon, to assault and/or physically harm the victim. It is expressed as a ratio of the number of reported crimes to the total population.	Statistics Canada / ACS 5-Year / International statistical offices
		Property Crime per 100,000 Residents	This metric measures the rate of crimes committed that involve private property including burglary, larceny, theft, motor vehicle theft, arson, shoplifting, and vandalism. It is expressed as a ratio of the number of reported crimes to the total population.	Statistics Canada / ACS / International statistical offices

PILLAR	SUB-CATEGORY	METRICS AND INDICATORS	DESCRIPTION	SOURCES
Livability continued	Housing Affordability	Rental Vacancy Rate	This metric measures the percentage of all available units in a rental property that are vacant or unoccupied at a particular time.	Canadian Mortgage Housing Corporation / ACS 5-Year / International statistical offices
		Share of Mortgage-Cost Burdened	This metric measures the ratio of households that spend more than 30% of their income on mortgage costs in a region.	Statistics Canada / ACS 5-Year
		Share of Rental- Cost Burdened	This metric measures the ratio of households that spend more than 30% of their income on rental costs in a region.	Statistics Canada / ACS 5-Year
		Median House Price	This metric measures the median cost of buying a home in a region, measured in USD.	Canadian Real Estate Association / ACS 5-Year
		Average Rent for a 2-3 Bedroom Apartment	This metric measures the average rent of a 2-3 bedroom apartment in a region, measured in USD.	Canadian Real Estate Association / Zumper / Numbeo
	Health Care	Number of Healthcare Workers per 100,000 Residents	This metric measures the share of a region's labour force that is working in all health care.	Lightcast / International statistical offices
	Traffic	Average Travel Time to Drive 10 kms	This metric measures the average time it takes to travel 10 kilometres in a city's center.	TomTom
		Average Commute Time	This metric measures the average commute time it takes for residents to travel to work.	Statistics Canada / ACS 5-Year
	Biking Infrastructure	Number of Kilometres of Cycling Paths per 1,000 Residents	This metric measures average km of cycling paths available per 1,000 residents in a region.	Bikemap
		Share of Residents who Cycle to Work	This metric measures the share of residents that commute to work with a bicycle.	Statistics Canada / ACS 5-Year / International statistical offices
		Mapped Ways	The metric measures the total length of biking infrastructure available to residents in a region.	Bikemap
	Walkability	Walk Score	This metric measures on a scale of 1-100, the average walkability within a region.	WalkScore.com

PILLAR	SUB-CATEGORY	METRICS AND INDICATORS	DESCRIPTION	SOURCES
Livability continued	Internet Infrastructure	Average Upload Speed	This metric measures the average speed at which residents send information over the internet in a region in Mbps.	TestMyNet.com
		Fastest Upload Speed	This metric measures the fastest speed within the region at which residents send information over the internet in a region in Mbps.	TestMyNet.com
		Average Download Speed	This metric measures the average speed at which residents receive information over the internet in a region in Mbps.	TestMyNet.com
		Fastest Download Speed	This metric measures the fastest speed within the region at which residents receive information over the internet in a region in Mbps.	TestMyNet.com
	Recreation	Number of Sports Complexes	This metric measures the total number of sports venues/stadiums, arenas, etc. in a region.	Yellow Pages
Lovability	Urban Fabric	Number of Sights and Landmarks	This metric measures the total number of sights and landmarks in a region as listed on Tripadvisor.	Tripadvisor
		Number of Sights and Landmarks per 100,000 Residents	This metric measures the number of sights and landmarks available per 100,000 people in a region.	Tripadvisor
	Outdoors	Number of Parks	This metric measures the number of parks available in a region.	Tripadvisor
		Number of Parks per 100,000 Residents	This metric measures the number of parks available per 100,000 people in a region.	Tripadvisor
		Share of Green Area	This metric measures the share of land in metropolitan areas covered by trees, shrublands, and grasslands.	OECD
		Green Area per Capita (square metre per capita)	This metric measures the square metres of land in metropolitan areas covered by trees, shrublands, and grasslands divided by the population.	OECD
		Days of Strong Heat Stress	This metric measures the number of days with Universal Thermal Comfort Index (UTCI) above 32°C. The UTCI considers air temperature, wind, radiation, and humidity to assess the impact of atmospheric conditions on the human body.	OECD
		Number of Parks and Outdoor Activities	This metric measures the total number of parks and outdoor experiences in a region as listed on Tripadvisor.	Tripadvisor
	Cultural Wealth	Number of Museums	This metric measures the total number of museums in a region as listed on Tripadvisor.	Tripadvisor

PILLAR	SUB-CATEGORY	METRICS AND INDICATORS	DESCRIPTION	SOURCES
Lovability continued	Cultural Wealth	Number of Museums per 100,000 Residents	This metric measures the number of museums available per 100,000 people in a region.	Tripadvisor
	Cultural Events	Number of Concerts and Events	This metric measures the total number of concerts and events in a region as listed on Tripadvisor.	Tripadvisor
		Number of Concerts and Events per 100,000 Residents	This metric measures the number of concerts and events available per 100,000 people in a region.	Tripadvisor
	Nightlife	Number of Nightlife Attractions	This metric measures the total number of nightlife experiences in a region as listed on Tripadvisor.	Tripadvisor
		Number of Nightlife Attractions per 100,000 Residents	This metric measures the number of nightlife experiences available per 100,000 people in a region.	Tripadvisor
	Restaurants	Number of Restaurants	This metric measures the total number of restaurants in a region as listed on Tripadvisor.	Tripadvisor
		Number of Restaurants per 100,000 Residents	This metric measures the number of restaurants available per 100,000 people in a region.	Tripadvisor
	Shopping	Number of Shopping Centres	This metric measures the total number of shopping centres in a region as listed on Tripadvisor.	Tripadvisor
		Number of Shopping Centres per 100,000 Residents	This metric measures the number of shopping centres available per 100,000 people in a region.	Tripadvisor
	Family-Friendly Activities	Number of Family-Friendly Activities	This metric measures the total number of family-friendly activities in a region as listed on Tripadvisor.	Tripadvisor
		Number of Family-Friendly Activities per 100,000 Residents	This metric measures the number of family- friendly activities available per 100,000 people in a region.	Tripadvisor
	Social Media	Total Facebook Check-ins	This metric measures the total number of check-ins posted by tourists in a region.	Facebook
		Total Instagram Hashtags	This metric measures the total number of posts with hashtags that include the name of a region.	Instagram
	Travel Media	Total Tripadvisor Reviews	This metric measures the total number of reviews a destination has on Tripadvisor.	Tripadvisor

PILLAR	SUB-CATEGORY	METRICS AND INDICATORS	DESCRIPTION	SOURCES
Lovability continued	Online Presence	Total Google Search Results	This metric measures the total number of unique search results a destination has on Google.	Google
	Online Reputation	Total Google Trends Results	This metric measures the how popular a region is on Google, relative to another region.	Google Trends
Prosperity	Population	Current Population	This metric measures the total number of people living in a region at a specific time.	Statistics Canada / ACS 5-Year / Esri / International statistical offices
		Five-Year Population Growth	This metric measures the growth in a region's population size over a five-year period.	Statistics Canada / ACS 5-Year / Esri / International statistical offices
		Five-Year Forecasted Population Growth	This metric measures the forecasted growth in a region's population size within the next five years.	Statistics Canada / ACS 5-Year / Esri / International statistical offices
		Percent of Population in Prime Age Group (25-44)	This metric measures the share of individuals aged 25-44 years, living in a region at specific time.	Statistics Canada / ACS 5-Year / Esri / International statistical offices
		Five-Year Projected Growth Rate of Prime Age Population (25-44)	This metric measures the increase in the share of individuals aged 25-44 years, living in a region, within a five-year period.	Statistics Canada / ACS 5-Year / Esri / International statistical offices
	Size of Economy	Total GDP	This metric measures the gross domestic product generated in a region, including all earnings, government taxes, imports, and profits and excluding subsidies.	McKinsey
		GDP 10-Year Growth Rate	This metric measures the change in gross domestic product in a region over a ten-year period.	McKinsey
		Number of Companies	This metric measures the total number of businesses in a specific region, as listed on Crunchbase. Crunchbase is a company that provides reliable business information about private and public companies.	Crunchbase
		Five-Year Growth Rate of Number of Companies	This metric measures the growth rate of new businesses in a specific region, as listed on Crunchbase in the last five years.	Crunchbase
	Productivity	Total GDP per Capita	This metric measures the total output per worker generated in a region.	McKinsey

PILLAR	SUB-CATEGORY	METRICS AND INDICATORS	DESCRIPTION	SOURCES
Prosperity continued	Productivity	GDP per Capita Five-Year Growth	This metric measures the change in total output per worker generated in a region over a 10-year period.	McKinsey
	Standard of Living	Poverty Rate	This metric measures the ratio of the number of people in a region whose income falls below the set poverty threshold.	Statistics Canada / ACS 5-Year / Esri / International statistical offices
	Income	Median Annual Household Income	This metric measures the median annual income for all households in a region.	Statistics Canada / ACS 5-Year / Esri / International statistical offices
	Income	Five-Year Growth of Median Household Income	This metric measures the change in the median household income in a region over a five-year period.	Statistics Canada / ACS 5-Year / Esri / International statistical offices
			This metric measures the forecasted change in the median household income in a region over a five-year period.	Statistics Canada / ACS 5-Year / Esri / International statistical offices
	Equity and Equality	Gini Coefficient of Income Inequality	The Gini index measures the extent to which the distribution of income in an economy deviates from a perfectly equal distribution.	Statistics Canada / ACS 5-Year / Esri / International statistical offices
		Five-Year Growth Rate of Gini Coefficient of Income Inequality	This metric measures the change in income inequality in a region over a five-year period.	Statistics Canada / ACS 5-Year / Esri / International statistical offices
		Share of Population that is Foreign Born	This metric measures the share of people in a region who migrated from their country of birth to their current place of residence.	Statistics Canada / ACS 5-Year / Esri / International statistical offices
		Five-Year Growth Rate of Foreign- Born Population	This metric measures the growth in the share of people in a region who migrated from their country of birth to their current place of residence.	Statistics Canada / ACS 5-Year / Esri International statistical offices
		Median Income for Foreign-Born Population	This metric measures the median annual income for foreign-born residents in a region.	Statistics Canada / ACS 5-Year / Esri / International statistical offices

PILLAR	SUB-CATEGORY	METRICS AND INDICATORS	DESCRIPTION	SOURCES
Prosperity continued	Equity and Equality	Growth Rate of Median Income of Foreign-Born Population	This metric measures the change in the median annual income for foreign-born residents in a region over a five-year period.	Statistics Canada / ACS 5-Year / / Esri / International statistical offices
	Innovation	Number of Startups	This metric measures the ratio of the number of startups in a specific region. StartupBlink is the world's most comprehensive startup ecosystem map and research centre, working to uncover the momentum of startup ecosystems globally.	StartupBlink.com
		Number of Accelerators	This metric measures the ratio of the number of accelerators in a specific region. StartupBlink is the world's most comprehensive startup ecosystem map and research centre, working to uncover the momentum of startup ecosystems globally.	StartupBlink.com
	Higher Education	Number of Universities	This metric measures the total number of universities in a region.	University Guru
	Opportunities	Score of Highest-Ranking University	This metric measures the score of the highest- ranking university in a city.	QS World University Rankings 2024
	Educational Attainment	Percent of Population with a BA Degree or Higher	This metric measures the share of a region's population who have attained at least a bachelor's degree.	Esri / International statistical offices
		Five-Year Growth Rate of Population with a BA Degree or Higher	This metric measures the change in the share of the well-educated population that have obtained at least a bachelor's degree over a five-year period.	Esri / International statistical offices
	Entrepren- eurship	Share of Self- Employed	This metric measures the share of people that are self-employed in a region.	Statistics Canada / ACS 5-Year / International statistical offices
	Economic Opportunity	Labour Force Participation	This metric measures a region's active workforce by calculating the percentage of all people of working age who are employed or are actively seeking work.	Esri / International statistical offices
		5-Year Growth of Labour Force Participation	This metric measures the change in a region's active workforce.	Esri / International statistical offices
	Creative Class	Percentage of Employment in Knowledge- Based Occupations	This metric measures the share of the labour force that works in knowledge-based occupations such as management, business and financial operations, computers and mathematics, architecture and engineering, life, physical, and social sciences, law, education, arts, design, entertainment, and health care.	Lightcast / Esri / International statistical offices

PILLAR	SUB-CATEGORY	METRICS AND INDICATORS	DESCRIPTION	SOURCES
Prosperity continued	Creative Class	Percentage of Employment in Culture and Entertainment	This metric measures the share of the labour force that works in the arts, culture and entertainment industries.	Lightcast / Esri / International statistical offices
	Airport Connectivity	Number of Direct Destinations	This metric measures the number of direct airport destinations from all commercial airports in a region.	Flightsfrom.com

Appendix B: References & Endnotes

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Appendix C: Data Appendix

Below is the complete data appendix of collected data for the project. Data was collected for metro regions and the principal city was used as the label (e.g., Austin, TX is the label for the Austin-Round Rock-Georgetown MSA). When possible, one source was used for all benchmarked regions. In the case multiple sources were necessary, those sources have been listed for Canada and the U.S. Specific international government sources have not been listed. There are several metrics that do not include

international benchmarks as reliable data was not available. Those have been marked with a "-" in the data set. Due to the inconsistent nature of data publication across different countries, data was collected from the most recent publication (e.g., US ACS 5-Year 2022) but are not listed here. As indicated throughout the report, not all regions were compared as part of specific data sets due to inconsistent data constraints.

Livability Raw Data-Selected Metropolitan Regions

Annual Average PM2.5 Concentration (µg/m³)					
	RANK	RAW DATA			
Denver, CO	1	4.4			
Helsinki	2	5.2			
Glasgow	3	5.6			
Edmonton, AB	4	6.3			
Vancouver, BC	5	6.6			
Salt Lake City, UT	6	7.1			
Stockholm	7	7.4			
Calgary, AB	8	7.9			
Montreal, QC	8	7.9			
Pittsburgh, PA	10	8.1			
Portland, OR	11	9.1			
Austin, TX	12	9.2			
Indianapolis, IN	13	9.4			
Hamburg	14	9.7			
Rotterdam	15	11.1			
Kuala Lumpur	16	22.1			

Annual Average Number of Sunny Days					
	RANK	RAW DATA			
Calgary, AB	1	333			
Edmonton, AB	2	325			
Montreal, QC	3	305			
Vancouver, BC	4	289			
Salt Lake City, UT	5	274			
Denver, CO	6	245			
Hamburg	7	234			
Austin, TX	8	229			
Indianapolis, IN	9	187			
Helsinki	10	182			
Pittsburgh, PA	11	162			
Kuala Lumpur	12	150			
Portland, OR	13	142			
Rotterdam	14	124			
Stockholm	15	117			
Glasgow	16	102			

	RANK	RAW DATA
Hamburg	1	61
Rotterdam	2	116
Glasgow	3	217
Helsinki	4	329
Austin, TX	5	538
Pittsburgh, PA	6	567
Portland, OR	7	749
Salt Lake City, UT	8	979
Calgary, AB	9	980
Indianapolis, IN	10	1,001
Denver, CO	11	1,058
Vancouver, BC	12	1,123
Montreal, QC	13	1,152
Edmonton, AB	14	1,343
Stockholm	-	-
Kuala Lumpur	-	-

Property Crime per 100,000 population				
	RANK	RAW DATA		
Glasgow	1	97		
Helsinki	2	581		
Hamburg	3	729		
Montreal, QC	4	2,099		
Rotterdam	5	2,374		
Pittsburgh, PA	6	3,036		
Indianapolis, IN	7	3,381		
Vancouver, BC	8	3,519		
Austin, TX	9	3,624		
Calgary, AB	10	3,674		
Edmonton, AB	11	4,697		
Denver, CO	12	6,356		
Portland, OR	13	6,456		
Salt Lake City, UT	14	6,632		
Stockholm	-	-		
Kuala Lumpur	-	-		

Source: iQai

Rental Vacancy Rate RANK RAW DATA Stockholm 1 11.5% Helsinki 2 9.2% Austin, TX 3 7.6% 7.4% Rotterdam 4 Indianapolis, IN 5 72% Pittsburgh, PA 6.6% 6 Denver, CO 5.2% 7 Salt Lake City, UT 8 5.0% Edmonton, AB 9 4.3% Hamburg 10 3.9% Portland OR 11 3.3% Calgary, AB 12 2.7% Montreal, QC 13 2.0% Vancouver, BC 14 0.9% Glasgow --Kuala Lumpur

Source: Canadian Mortgage Housing Corporation; ACS 5-Year International Statistical Offices

Source: CurrentResults.com

Share of Mortage-Cost Burden	ea
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	RANK	RAW DATA
Edmonton, AB	1	16.0%
Calgary, AB	2	16.0%
Montreal, QC	3	16.0%
Vancouver, BC	4	19.0%
Indianapolis, IN	5	20.7%
Pittsburgh, PA	6	21.0%
Salt Lake City, UT	7	22.9%
Austin, TX	8	25.5%
Denver, CO	9	28.2%
Portland, OR	10	30.6%
Stockholm	-	-
Helsinki	-	-
Hamburg	-	-
Glasgow	-	-
Rotterdam	-	-
Kuala Lumpur	-	-

Source: Canadian Mortgage Housing Corporation; ACS 5-Year, International Statistical Offices

Offices			

Share of Rental-Cost Burden

	RANK	RAW DATA
Montreal, QC	1	10.0%
Edmonton, AB	2	34.0%
Calgary, AB	3	34.0%
Vancouver, BC	4	38.0%
Pittsburgh, PA	5	43.2%
Austin, TX	6	48.5%
Salt Lake City, UT	7	49.2%
Indianapolis, IN	8	50.5%
Denver, CO	9	52.0%
Portland, OR	10	52.6%
Stockholm	-	-
Helsinki	-	-
Hamburg	-	-
Glasgow	-	-
Rotterdam	-	-
Kuala Lumpur	-	-

Source: Canadian Mortgage Housing Corporation; ACS 5-Year; International Statistical Offices

Source: Statistics Ca Offices

Median House Price

	RANK	RAW DATA
Pittsburgh, PA	1	\$209,800
Indianapolis, IN	2	\$255,900
Edmonton, AB	3	\$268,028
Calgary, AB	4	\$371,332
Montreal, QC	5	\$376,142
Austin, TX	6	\$490,000
Salt Lake City, UT	7	\$528,100
Portland, OR	8	\$556,700
Denver, CO	9	\$596,800
Vancouver, BC	10	\$823,324
Stockholm	-	-
Helsinki	-	-
Hamburg	-	-
Glasgow	-	-
Rotterdam	-	-
Kuala Lumpur	-	-
		-
		0.5.1/

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Source: Canadian Real Estate Association; ACS 5-Year

Livability Raw Data-Selected Metropolitan Regions

continued

Average Rent for a 2-3 Bedroom Apartment		
	RANK	RAW DATA
Montreal, QC	1	\$756
Kuala Lumpur	2	\$948
Edmonton, AB	3	\$965
Stockholm	4	\$1,066
Calgary, AB	5	\$1,085
Indianapolis, IN	6	\$1,250
Vancouver, BC	7	\$1,481
Pittsburgh, PA	8	\$1,550
Salt Lake City, UT	9	\$1,730
Portland, OR	10	\$1,810
Helsinki	11	\$1,892
Austin, TX	12	\$1,950
Rotterdam	13	\$2,007
Hamburg	14	\$2,032
Glasgow	15	\$2,190
Denver, CO	16	\$2,370

Average Travel Time	RANK	RAW DATA
Salt Lake City, UT	1	10.0
Indianapolis, IN	2	11.7
Calgary, AB	3	13.0
Austin, TX	4	13.7
Portland, OR	5	14.2
Denver, CO	6	14.5
Pittsburgh, PA	7	14.7
Rotterdam	8	15.2
Stockholm	9	15.5
Edmonton, AB	10	16.0
Glasgow	11	16.3
Kuala Lumpur	12	16.8
Montreal, QC	13	19.0
Helsinki	14	21.5
Vancouver, BC	15	23.2
Hamburg	16	23.8

Kuala Lumpur	12	1
Montreal, QC	13	1
Helsinki	14	2
Vancouver, BC	15	2
Hamburg	16	2
Source: TomTom		

Mapped Ways

Source: Canadian Real Estate Association; Zillow; Zumper; Numbeo

Share of Residents who Cycle to Work

	RANK	RAW DATA
Helsinki	1	19.0%
Rotterdam	1	19.0%
Stockholm	3	15.0%
Hamburg	4	11.0%
Glasgow	5	6.0%
Salt Lake City, UT	6	1.7%
Vancouver, BC	7	1.4%
Montreal, QC	8	1.2%
Calgary, AB	9	0.9%
Indianapolis, IN	10	0.8%
Edmonton, AB	11	0.7%
Austin, TX	12	0.6%
Denver, CO	13	0.6%
Pittsburgh, PA	14	0.2%
Portland, OR	15	0.2%
Kuala Lumpur	-	-

	RANK	RAW DATA
Hamburg	1	1,278,678
Rotterdam	2	698,131
Vancouver, BC	3	612,914
Stockholm	4	530,056
Helsinki	5	439,712
Montreal, QC	6	416,323
Denver, CO	7	222,375
Calgary, AB	8	215,351
Portland, OR	9	212,625
Glasgow	10	192,119
Kuala Lumpur	11	126,424
Edmonton, AB	12	98,432
Austin, TX	13	53,199
Indianapolis, IN	14	50,654
Salt Lake City, UT	15	43,096
Pittsburgh, PA	16	27,179

Fastest Download Speed

RANK RAW DATA

277.4 244.1

226.3

222.6

209.3

195.1

186.5

181.4 173.8

147.6

139.2

127.7

97.9

97.2

204 203.3

1

2

3

4

5

7

8

9

10

11

12

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14

15

16

Salt Lake City, UT	1	19.7
Pittsburgh, PA	2	23.4
Edmonton, AB	3	23.9
Indianapolis, IN	4	24.0
Austin, TX	5	24.1
Calgary, AB	6	24.2
Portland, OR	7	24.8
Denver, CO	8	25.3
Montreal, QC	9	27.0
Vancouver, BC	10	27.3
Stockholm	-	-
Helsinki	-	-
Hamburg	-	-
Glasgow	-	-
Rotterdam	-	-
Kuala Lumpur	-	-
Source: Statistics Canada: ACS	5-Year	

Commute Times

RANK RAW DATA

	RANK	RAW DATA
Calgary, AB	1	1,173.17
Hamburg	2	1,026.67
Rotterdam	3	617.01
Vancouver, BC	4	438.50
Stockholm	5	410.36
Montreal, QC	6	265.29
Helsinki	7	263.42
Portland, OR	8	243.65
Edmonton, AB	9	241.25
Glasgow	10	204.06
Denver, CO	11	137.09
Indianapolis, IN	12	85.31
Kuala Lumpur	13	84.28
Salt Lake City, UT	14	55.20
Austin, TX	15	54.89
Pittsburgh, PA	16	23.03

Walk Score		
	RANK	RAW DATA
Vancouver, BC	1	80
Portland, OR	2	67
Montreal, QC	3	65
Pittsburgh, PA	4	62
Denver, CO	5	61
Kuala Lumpur	6	60
Salt Lake City, UT	7	59
Austin, TX	8	42
Edmonton, AB	9	40
Calgary, AB	10	39
Indianapolis, IN	11	31
Stockholm	-	-
Helsinki	-	-
Hamburg	-	-
Glasgow	-	-
Rotterdam	-	-

	RANK	RAW DATA
Stockholm	1	102.7
Salt Lake City, UT	2	72.3
Portland, OR	3	63.9
Denver, CO	4	59.5
Rotterdam	5	56.3
Indianapolis, IN	6	51.2
Pittsburgh, PA	7	50.2
Austin, TX	8	44.3
Glasgow	8	44.3
Edmonton, AB	10	41.4
Hamburg	11	40.5
Vancouver, BC	12	39.5
Kuala Lumpur	13	30.5
Montreal, QC	14	28.7
Helsinki	15	22.8

16

21.2

Footoot | Ipload Spood

Source: Statistics Canada; ACS 5-Year; International Statisti-cal Offices

Average Upload Speed

	RANK	RAW DATA
Austin, TX	1	37
Stockholm	2	32
Rotterdam	3	32
Denver, CO	4	30
Vancouver, BC	5	26
Montreal, QC	6	23
Indianapolis, IN	7	22
Salt Lake City, UT	8	22
Portland, OR	9	22
Calgary, AB	10	22
Hamburg	11	21
Pittsburgh, PA	12	20
Kuala Lumpur	13	17
Helsinki	14	14
Glasgow	15	13
Edmonton, AB	16	11

Source: TestMyNet.com

Source: TestMyNet.com

Source: Bikemap

Denver, CO

Austin, TX

Stockholm

Rotterdam

Edmonton,

Vancouver, BC

Portland, OR

Montreal, QC

Indianapolis, IN

Kuala Lumpur

Pittsburgh, PA

Helsinki

Calgary, AB

Hamburg

Glasgow

Salt Lake City, UT



Average Download Speed		
	RANK	RAW DATA
Austin, TX	1	179
Denver, CO	2	149
Rotterdam	3	117
Hamburg	4	102
Salt Lake City, UT	5	99
Vancouver, BC	6	95
Portland, OR	7	87
Montreal, QC	8	80
Indianapolis, IN	9	76
Calgary, AB	10	74
Glasgow	11	70
Stockholm	12	65
Pittsburgh, PA	13	60
Kuala Lumpur	14	59
Helsinki	15	53
Edmonton, AB	16	50

Source: TestMyNet.com

Source: TestMvNet.com

Calgary, AB

Source: Bikemap

	RANK	RAW DATA
Pittsburgh, PA	1	2,420
Denver, CO	2	2,045
Portland, OR	3	1,352
Indianapolis, IN	4	1,208
Edmonton, AB	5	1,008
Salt Lake City, UT	6	865
Montreal, QC	7	739
Vancouver, BC	8	676
Calgary, AB	9	415
Austin, TX	10	398
Stockholm	-	-
Helsinki	-	-
Hamburg	-	-
Glasgow	-	-
Rotterdam	-	-
Kuala Lumpur	-	-

Source: Yellow Pages

Lovability Raw Data-Selected Metropolitan Regions

Source: TripAdvisor

Stockholm

Rotterdam

Hamburg

Calgary, AB

Montreal, QC

Portland, OR

Denver, CO

Kuala Lumpur

Austin, TX

Source: OECD

Denver, CO

Portland, OR

Montreal, QC

Vancouver, BC

Hamburg

Rotterdam

Austin, TX

Stockholm

Indianapolis, IN

Salt Lake City, UT

Pittsburgh, PA

Kuala Lumpur

Edmonton, AE

Helsinki

Glasgow

Pittsburgh, PA

Indianapolis, IN

Salt Lake City, UT

Helsinki Vancouver, BC

Glasgow

Number of Sights and Landmarks		
	RANK	RAW DATA
Hamburg	1	392
Rotterdam	2	378
Glasgow	3	348
Helsinki	4	316
Vancouver, BC	5	297
Montreal, QC	6	264
Stockholm	7	255
Portland, OR	8	210
Austin, TX	9	157
Kuala Lumpur	10	153
Denver, CO	11	140
Pittsburgh, PA	12	129
Calgary, AB	13	128
Indianapolis, IN	14	97
Edmonton, AB	15	86
Salt Lake City, UT	16	70

per 100,000 population			
	RANK	RAW DATA	
Hamburg	1	26	
Rotterdam	2	25	
Glasgow	3	23	
Helsinki	4	21	
Vancouver, BC	5	19	
Montreal, QC	6	17	
Stockholm	6	17	
Portland, OR	8	14	
Austin, TX	9	10	
Kuala Lumpur	9	10	
Denver, CO	11	9	
Calgary, AB	12	8	
Pittsburgh, PA	12	8	
Edmonton, AB	14	6	
Indianapolis, IN	14	6	
Salt Lake City, UT	16	5	

Days of Strong Heat Stress

RANK RAW DATA

1

1

2 5

6

14

22

24

48

59

65

65

78

148

RAW DATA

12

11

10

10

9

9

8

8

7

7

3

1

1

3

4 5

6

8

9

10

11

12

12

14

15

RANK

1

2

3

4

5

6

7

7

9

10

Number of Museums per 100,000

population

Number of Quality Sights and Landmarks

Source: TripAdvisor

Green Area per Capita (m³ per capita)

	RANK	RAW DATA
Indianapolis, IN	1	578
Pittsburgh, PA	2	435
Portland, OR	3	309
Denver, CO	4	242
Austin, TX	5	229
Salt Lake City, UT	6	202
Hamburg	7	199
Helsinki	8	186
Edmonton, AB	9	175
Glasgow	10	168
Vancouver, BC	11	165
Stockholm	12	157
Calgary, AB	13	147
Rotterdam	14	137
Montreal, QC	15	133
Kuala Lumpur	-	-

Source: OECD

Number of Museums		
	RANK	RAW DATA
Denver, CO	1	182
Portland, OR	2	173
Montreal, QC	3	151
Vancouver, BC	4	149
Hamburg	5	145
Rotterdam	6	135
Austin, TX	7	120
Stockholm	7	120
Helsinki	9	114
Indianapolis, IN	10	108
Pittsburgh, PA	11	94
Glasgow	12	84
Salt Lake City, UT	13	70
Kuala Lumpur	14	69
Edmonton, AB	15	52
Calgary, AB	16	50

Calgary, AB Source: TripAdvisor

11	6
12	5
13	5
14	4

16	

Glasgow	1
Source: TripAdvisor	
Number of Con	icerts a
	RA
Montreal, QC	
Austin, TX	2
Denver, CO	ŝ
Rotterdam	3
Vancouver, BC	Ę

Source: TripAdvisor		
Number of Co	ncerts and E	vents
	RANK	RAW DATA
Montreal, QC	RANK 1	P2
Montreal, QC Austin, TX	RANK 1 2	

Austin, TX	2	60
Denver, CO	3	52
Rotterdam	3	52
Vancouver, BC	5	49
Indianapolis, IN	6	45
Salt Lake City, UT	7	41
Stockholm	8	40
Pittsburgh, PA	9	32
Edmonton, AB	10	27
Portland, OR	10	27
Kuala Lumpur	12	26
Calgary, AB	13	25
Hamburg	14	24
Glasgow	15	14

16

8

Helsinki Source: TripAdvisor

	RANK	RAW DATA
Denver, CO	1	31
Portland, OR	2	25
Austin, TX	3	19
Vancouver, BC	4	17
Indianapolis, IN	5	14
Salt Lake City, UT	6	12
Stockholm	7	8
Helsinki	8	8
Pittsburgh, PA	9	8
Vontreal, QC	10	7
Rotterdam	11	7
Calgary, AB	12	6
Hamburg	12	6
Glasgow	14	5
Edmonton, AB	15	5
Kuala Lumpur	16	4

	RANK	RAW DATA
Indianapolis, IN	1	62.6%
Pittsburgh, PA	1	62.6%
Stockholm	3	60.5%
Hamburg	4	59.1%
Portland, OR	5	58.5%
Helsinki	6	54.9%
Glasgow	7	53.0%
Austin, TX	8	52.0%
Vancouver, BC	9	51.8%
Montreal, QC	10	42.3%
Denver, CO	11	42.1%
Edmonton, AB	12	40.4%
Calgary, AB	13	39.8%
Salt Lake City, UT	14	38.6%
Rotterdam	15	35.4%
Kuala Lumpur	-	-

Source: TripAdvisor

	RANK	RAW DATA
Denver, CO	1	730
Kuala Lumpur	2	591
Vancouver, BC	3	525
Portland, OR	4	506
Austin, TX	5	338
Indianapolis, IN	6	328
Salt Lake City, UT	7	272
Stockholm	8	235
Helsinki	9	189
Edmonton, AB	10	178
Pittsburgh, PA	11	176
Montreal, QC	12	175
Hamburg	13	172
Calgary, AB	14	167
Rotterdam	15	158
Glasgow	16	126

Number of Parks and per 100,000		
	RANK	RAW DATA
Denver, CO	1	48
Kuala Lumpur	2	39
Vancouver, BC	3	34
Portland, OR	4	33
Austin, TX	5	22
Indianapolis, IN	6	21
Salt Lake City, UT	7	18
Stockholm	8	15
Helsinki	9	12
Edmonton, AB	10	12
Pittsburgh, PA	11	11
Montreal, QC	12	11
Hamburg	13	11
Calgary, AB	14	11
Rotterdam	15	10
Glasgow	16	8

Number of Nightlife Attractions

RANK

1

2

3

4

5

6

7

RAW DATA

333

307

264

244

242

211

151

143

125

114

104

92

73

66

55

52

Source: Canadian Mortgage Housing Corporation; ACS 5-Year; International Statistical Offices

Vancouver, BC	8
Pittsburgh, PA	9
Indianapolis, IN	10
Rotterdam	11
Helsinki	12
Calgary, AB	13
Salt Lake City, UT	14
Stockholm	15

Source: TripAdvisor

Hamburg

Austin, TX

Glasgow

Denver, CO

Portland, OR

Montreal, QC

Kuala Lumpur

Edmonton, AB Source: TripAdvisor

Lovability Raw Data-Selected Metropolitan Regions

continued

Number of Nightlife Attractions per 100,000 population		
	RANK	RAW DATA
Hamburg	1	22
Austin, TX	2	20
Denver, CO	3	17
Glasgow	4	16
Portland, OR	5	16
Montreal, QC	6	14
Kuala Lumpur	7	10
Vancouver, BC	8	9
Pittsburgh, PA	9	8
Indianapolis, IN	10	7
Rotterdam	11	7
Helsinki	12	6
Calgary, AB	13	5
Salt Lake City, UT	14	4
Stockholm	15	4
Edmonton, AB	16	3

Source: TripAdvisor

Number of Shopping per 100,000 population		
	RANK	RAW DATA
Denver, CO	1	27
Vancouver, BC	2	27
Portland, OR	3	26
Montreal, QC	4	22
Austin, TX	5	20
Kuala Lumpur	6	18
Indianapolis, IN	7	16
Rotterdam	8	14
Hamburg	9	13
Helsinki	10	13
Stockholm	11	11
Glasgow	12	11
Pittsburgh, PA	13	10
Calgary, AB	14	10
Salt Lake City, UT	15	9

	RANK	RAW DATA
Denver, CO	1	49,723
Portland, OR	2	45,747
Stockholm	3	42,835
Glasgow	4	40,106
Kuala Lumpur	5	38,939
Vancouver, BC	6	38,823
Rotterdam	7	34,956
Salt Lake City, UT	8	28,544
Montreal, QC	9	26,835
Pittsburgh, PA	10	26,208
Indianapolis, IN	11	16,194
Hamburg	12	10,707
Austin, TX	13	9,552
Helsinki	14	7,349
Edmonton, AB	15	6,719
Calgary, AB	16	4,744

Number of Restaurants

Source: TripAdvisor

Number of Family-Friendly Activites

	RANK	RAW DATA
Denver, CO	1	293
Rotterdam	2	256
Montreal, QC	3	242
Vancouver, BC	4	231
Austin, TX	5	226
Hamburg	6	200
Indianapolis, IN	7	184
Portland, OR	8	171
Glasgow	9	170
Calgary, AB	10	162
Kuala Lumpur	11	155
Helsinki	12	154
Edmonton, AB	13	140
Stockholm	14	136
Salt Lake City, UT	15	125
Pittsburgh, PA	16	99

	RANK	RAW DATA
Denver, CO	1	3,241
	-	
Portland, OR	2	2,981
Stockholm	3	2,792
Glasgow	4	2,614
Kuala Lumpur	5	2,538
Vancouver, BC	6	2,530
Rotterdam	7	2,278
Salt Lake City, UT	8	1,860
Montreal, QC	9	1,749
Pittsburgh, PA	10	1,708
Indianapolis, IN	11	1,055
Hamburg	12	698
Austin, TX	13	623
Helsinki	14	479
Edmonton, AB	15	438
Calgary, AB	16	309

Source: TripAdvisor

Number of Shopping RANK RAW DATA Denver, CO 1 417 413 Vancouver, BC 2 Portland, OR 3 394 341 Montreal, QC 4 Austin, TX 5 304 Kuala Lumpur 6 282 Indianapolis, IN 7 238 Rotterdam 8 208 Hamburg 9 204 Helsinki 10 192 Stockholm 11 172 Glasgow 12 171 13 160 Pittsburgh, PA Calgary, AB 14 151 Salt Lake City, UT 15 134 Edmonton, AB 16 99

Source: TripAdvisor

Source: Facebook

	RANK	RAW DATA
Denver, CO	1	19
Rotterdam	2	17
Montreal, QC	3	16
Vancouver, BC	4	15
Austin, TX	5	15
Hamburg	6	13
Indianapolis, IN	7	12
Portland, OR	8	11
Glasgow	9	11
Calgary, AB	10	11
Kuala Lumpur	11	10
Helsinki	12	10
Edmonton, AB	13	9
Stockholm	14	9
Salt Lake City, UT	15	8
Pittsburgh, PA	16	6

RAW DATA

108,257,100

67,748,000

65,407,300

62,586,990

47,227,000

41,706,765

37,571,660

35,993,650

33,642,600

27,295,800

23,743,000

22,356,490

20,275,400

15,369,800

13,556,770

2,686,090

Total Facebook Check-ins			
	RANK	RAW DATA	
Kuala Lumpur	1	25,000,000	
Austin, TX	2	13,700,000	
Montreal, QC	3	10,200,000	
Denver, CO	4	10,000,000	
Vancouver, BC	5	8,300,000	
Portland, OR	6	7,600,000	
Stockholm	7	7,500,000	
Hamburg	8	7,100,000	
Calgary, AB	9	6,200,000	
Indianapolis, IN	10	5,800,000	
Pittsburgh, PA	11	4,700,000	
Edmonton, AB	12	4,400,000	
Salt Lake City, UT	13	3,900,000	
Rotterdam	14	3,600,000	
Glasgow	15	3,400,000	
Helsinki	16	2,500,000	

Edmonton, AB Source: TripAdvisor

Total Instagram Hashtags

	RANK	RAW DATA
Vancouver, BC	1	27,849,547
Hamburg	2	23,321,249
Montreal, QC	3	21,342,109
Kuala Lumpur	4	15,973,332
Denver, CO	5	15,016,449
Stockholm	6	14,820,157
Austin, TX	7	14,420,062
Portland, OR	8	13,338,518
Calgary, AB	9	9,232,882
Glasgow	10	8,623,196
Pittsburgh, PA	11	8,453,071
Helsinki	12	8,053,837
Rotterdam	13	7,991,018
Edmonton, AB	14	6,063,194
Indianapolis, IN	15	3,892,666
Salt Lake City, UT	16	3,205,779

Source: Instagram

Source: TripAdvisor

Source: TripAdvisor

Vancouver, BC

Kuala Lumpur

Montreal, QC

Stockholm

Denver, CO

Hamburg

Austin, TX

Rotterdam

Helsinki

Calgary, AB

Pittsburgh, PA

Salt Lake City, UT

Portland, OR

Indianapolis, IN

Glasgow

Total TripAdvi	sor Revie	WS	Total Google	e Search	Results
	RANK	RAW DATA		RANK	RAW DA
uver, BC	1	883,702	Austin, TX	1	108,257
w	2	860,422	Montreal, QC	2	67,748,
umpur	3	728,759	Denver, CO	3	65,407,
olm	4	684,954	Portland, OR	4	62,586,
eal, QC	5	658,577	Vancouver, BC	5	47,227,
r, CO	6	619,995	Kuala Lumpur	6	41,706,
ırg	7	618,407	Indianapolis, IN	7	37,571,6
, TX	8	467,437	Salt Lake City, UT	8	35,993,
dam	9	450,216	Hamburg	9	33,642,
nd, OR	10	437,509	Helsinki	10	27,295,
apolis, IN	11	315,075	Calgary, AB	11	23,743,
<i d<="" td=""><td>12</td><td>294,491</td><td>Pittsburgh, PA</td><td>12</td><td>22,356,</td></i>	12	294,491	Pittsburgh, PA	12	22,356,
y, AB	13	256,011	Edmonton, AB	13	20,275,
ırgh, PA	14	251,752	Glasgow	14	15,369,
ke City, UT	15	217,251	Rotterdam	15	13,556,
iton, AB	16	179,701	Stockholm	16	2,686,0

Salt Lake City, UT	8	
Hamburg	9	
Helsinki	10	
Calgary, AB	11	
Pittsburgh, PA	12	
Edmonton, AB	13	
Glasgow	14	
Rotterdam	15	
Stockholm	16	

Source: Google

Source: TripAdvisor

Total Google Trends Results RAW DATA RANK Hamburg 1 20 Montreal, QC 2 16 Vancouver, BC 3 14 Denver, CO 3 14 Calgary, AB 5 13 Austin, TX 5 13 Portland, OR 7 9 Stockholm 9 7 Glasgow 9 7 Pittsburgh, PA 11 7 Rotterdam 11 7 Kuala Lumpur 11 7 14 Indianapolis, IN 6

15

16

Salt Lake City, UT Source: Google Trends

Helsinki

5

4

Prosperity Raw Data-Selected Metropolitan Regions

Current Population RANK RAW DATA Montreal, QC 1 4,469,663 2 3,062,784 Denver, CO Vancouver, BC 3 2,837,515 2,583,167 Portland, OR 4 Austin, TX 5 2,499,236 Pittsburgh, PA 2,362,201 6 Indianapolis, IN 2,177,581 7 Kuala Lumpur 8 1,998,600 9 1,945,532 Hamburg Helsinki 10 1,733,033 Glasgow 11 1,708,000 Stockholm 12 1,700,000 Calgary, AB 13 1,620,362 Edmonton, AB 14 1,534,381

Source: Statistics Canada; ACS 5-Year; Esri; International Statistical Offices

Salt Lake City, UT

Rotterdam

1,307,983

1,022,000

15

16

Growth Rate of Population of Prime Age Group (25-44)			
	RANK	RAW DATA	
Austin, TX	1	17.0%	
Vancouver, BC	2	12.8%	
Edmonton, AB	3	8.4%	
Indianapolis, IN	4	6.9%	
Calgary, AB	5	6.7%	
Denver, CO	6	5.6%	
Pittsburgh, PA	7	5.4%	
Salt Lake City, UT	8	4.5%	
Montreal, QC	9	4.2%	
Glasgow	10	2.7%	
Portland, OR	11	2.4%	
Rotterdam	12	1.0%	
Helsinki	13	0.6%	
Hamburg	14	0.1%	
Kuala Lumpur	15	-1.6%	
Stockholm	-	-	

Source: Statistics Canada; ACS 5-Year; Esri; International Statistical Offices

	RANK	RAW DATA
Austin, TX	1	15.7%
Calgary, AB	2	9.3%
Edmonton, AB	3	8.6%
Stockholm	4	7.4%
Salt Lake City, UT	5	7.3%
Vancouver, BC	6	6.6%
Denver, CO	7	6.0%
Indianapolis, IN	8	5.3%
Portland, OR	8	5.3%
Helsinki	10	4.7%
Montreal, QC	11	4.6%
Hamburg	12	3.4%
Glasgow	13	2.5%
Rotterdam	14	1.3%
Kuala Lumpur	15	0.8%
Pittsburgh, PA	16	-0.5%

Five-Year Population Growth

Source: Statistics Canada; ACS 5-Year; Esri; International Statistical Offices

Five-Year Forecasted Growth Rate of Prime Age Popoulation (25-44)			
	RANK	RAW DATA	
Austin, TX	1	12.4%	
Vancouver, BC	2	9.7%	
Calgary, AB	3	8.6%	
Edmonton, AB	4	7.7%	
Indianapolis, IN	5	5.4%	
Pittsburgh, PA	6	4.5%	
Salt Lake City, UT	7	4.0%	
Montreal, QC	8	3.6%	
Denver, CO	9	2.4%	
Portland, OR	10	0.7%	
Glasgow	11	0.0%	
Helsinki	12	-0.9%	
Hamburg	-	-	
Stockholm	-	-	
Rotterdam	-	-	
Kuala Lumpur	-	-	

da; ACS 5-Year; Esri; International Source: Statistics Canada; A Statistical Offices; Lightcast

Total GDP				
	RANK	RAW DATA		
Kuala Lumpur	1	\$274,444,000,000		
Denver, CO	2	\$241,553,000,000		
Portland, OR	3	\$235,555,000,000		
Stockholm	4	\$211,538,000,000		
Hamburg	5	\$207,159,000,000		
Austin, TX	6	\$181,977,000,000		
Montreal, QC	7	\$177,839,000,000		
Pittsburgh, PA	8	\$175,996,000,000		
Indianapolis, IN	9	\$155,864,000,000		
Vancouver, BC	10	\$125,854,000,000		
Calgary, AB	11	\$112,929,000,000		
Salt Lake City, UT	12	\$107,049,000,000		
Helsinki	13	\$105,591,000,000		
Edmonton, AB	14	\$102,881,000,000		
Glasgow	15	\$25,263,000,000		
Rotterdam	-	-		

GDP 10-Year Growth

	RANK	RAW DATA
Kuala Lumpur	1	81.4%
Austin, TX	2	58.3%
Salt Lake City, UT	3	37.3%
Portland, OR	4	36.8%
Denver, CO	5	34.5%
Indianapolis, IN	6	31.8%
Calgary, AB	7	28.5%
Edmonton, AB	8	28.1%
Stockholm	9	26.8%
Vancouver, BC	10	24.8%
Pittsburgh, PA	11	22.9%
Glasgow	12	21.7%
Montreal, QC	13	20.6%
Helsinki	14	15.0%
Hamburg	15	14.7%
Rotterdam	-	-

Number of Companies			
	RANK	RAW DATA	
Austin, TX	1	15,155	
Denver, CO	2	9,585	
Vancouver, BC	3	9,254	
Stockholm	4	9,128	
Hamburg	5	6,967	
Portland, OR	6	6,889	
Calgary, AB	7	6,864	
Montreal, QC	8	6,032	
Indianapolis, IN	9	4,819	
Pittsburgh, PA	10	4,415	
Salt Lake City, UT	11	4,225	
Helsinki	12	3,712	
Edmonton, AB	13	3,527	

Montreal, Go	0	0,00
Indianapolis, IN	9	4,819
Pittsburgh, PA	10	4,415
Salt Lake City, UT	11	4,22
Helsinki	12	3,712
Edmonton, AB	13	3,52
Glasgow	14	3,06

Source: Crunchbase

Rotterdam

Kuala Lumpur

	RANK	RAW DA
Kuala Lumpur	1	41.1%
Glasgow	2	35.2%
Austin, TX	3	33.5%
Helsinki	4	32.7%
Edmonton, AB	5	32.0%
Denver, CO	6	32.0%
Calgary, AB	7	31.8%
Rotterdam	8	31.4%
Vancouver, BC	9	31.4%
Salt Lake City, UT	10	30.3%
Portland, OR	11	29.7%
Montreal, QC	12	28.4%
Indianapolis, IN	13	27.9%
Pittsburgh, PA	14	25.8%
Hamburg	15	8.2%
Stockholm	-	-

Job Postings per 100,000 Population RANK RAW DATA Pittsburgh, PA 1 70,110 50,037 Austin, TX 2 Portland, OR 3 45,908 38.656 Denver, CO 4 32,297 Salt Lake City, UT 5 Indianapolis, IN 6 29,632 Vancouver, BC 7 15,631 Edmonton, AB 15,108 8 12,315 Calgary, AB 9 Montreal, QC 10 6,565 Stockholm --Helsinki Hamburg -_ Glasgow _ -Rotterdam -Kuala Lumpur

Company Growth Rate

RANK RAW DATA

11.9%

11.8%

10.2%

10.2%

101%

9.1%

8.8%

8.5%

8.2%

7.9%

71%

6.4%

62%

5.5%

5.0%

4.9%

1

2

16

Source: Statistics Canada; ACS 5-Year; Esri; International Statistical Offices

Five-Year Forecasted Population Growth

Calgary, AB

Austin, TX

Edmonton, AB

Vancouver, BC

Montreal, QC

Salt Lake City, UT

Indianapolis, IN

Portland, OR

Pittsburgh, PA

Hamburg

Glasgow

Rotterdam

Denver, CO

Austin, TX

Glasgow

Hamburg

Salt Lake City, UT

Indianapolis, IN

Pittsburgh, PA

Kuala Lumpur

Portland, OR

Vancouver, BC

Montreal, QC

Edmonton, AB

Calgary, AB

Stockholm

Rotterdam

Helsinki

Kuala Lumpur

Stockholm

Denver, CO

Helsinki

RANK RAW DATA

11.8%

9.6%

8.0%

6.2%

5.1%

4.0%

3.5%

3.0%

2.4%

2.4%

-0.7%

-

RANK RAW DATA

2.5%

3.1%

3.3%

3.5%

3.7%

4.0%

4.4%

5.3%

5.5%

5.5%

5.7%

62%

6.8%

7.6%

10.2%

6.0%

1

2

3

4

5

6

7

8

9

9

11

12

13

14

15

16

10.0%

1

2

3

4

5

6

7

8

9

10

10

12

-

Source: Statistics Canada; ACS 5-Year; Esri; International Statistical Offices; Lightcast

Unemployment Rate

54	Vancouver, BC	3
8	Helsinki	4
57	Stockholm	5
9	Rotterdam	6
64	Denver, CO	7
52	Montreal, QC	8
9	Hamburg	9
5	Calgary, AB	10
25	Salt Lake City, UT	11
2	Edmonton, AB	12
27	Pittsburgh, PA	13
5	Portland, OR	14
20	Indianapolis, IN	15

Source: Lightcast

Austin, TX

Kuala Lumpur

Source: Crunchbase

Glasgow

Source: McKinsey; Conference Board of Canada

Source: McKinsey

15

16

2.82

2,625

Prosperity Raw Data-Selected Metropolitan Regions

continued

	RANK	RAW DATA
Portland, OR	1	\$87,570
Salt Lake City, UT	2	\$80,970
Denver, CO	3	\$75,200
Pittsburgh, PA	4	\$73,720
Calgary, AB	5	\$71,940
Indianapolis, IN	6	\$70,440
Austin, TX	7	\$68,140
Edmonton, AB	8	\$64,550
Kuala Lumpur	9	\$63,970
Hamburg	10	\$63,410
Stockholm	11	\$62,450
Helsinki	12	\$54,380
Glasgow	13	\$47,890
Vancouver, BC	14	\$47,260
Montreal, QC	15	\$42,730
Rotterdam	-	-

	RANK	RAW DATA
Kuala Lumpur	1	38.1%
Pittsburgh, PA	2	21.4%
Portland, OR	3	21.4%
Salt Lake City, UT	4	21.4%
Glasgow	5	19.5%
Austin, TX	6	19.0%
Indianapolis, IN	7	18.6%
Denver, CO	8	17.7%
Stockholm	9	12.7%
Edmonton, AB	10	12.2%
Calgary, AB	11	12.2%
Montreal, QC	12	12.2%
Vancouver, BC	13	12.2%
Hamburg	14	10.8%
Helsinki	15	8.9%
Rotterdam	-	-

Poverty Rate			
	RANK	RAW DATA	
Kuala Lumpur	1	1.4%	
Salt Lake City, UT	2	7.4%	
Montreal, QC	3	7.5%	
Edmonton, AB	4	8.2%	
Calgary, AB	5	8.3%	
Denver, CO	5	8.3%	
Austin, TX	7	9.4%	
Portland, OR	8	9.5%	
Indianapolis, IN	9	10.8%	
Rotterdam	10	10.9%	
Vancouver, BC	11	11.2%	
Pittsburgh, PA	11	11.2%	
Helsinki	13	16.3%	
Hamburg	14	19.3%	
Stockholm	-	-	
Glasgow	-	-	

Source: Statistics Canada; ACS 5-Year; Esri; International Statistical Offices

Gini Coefficient of Income Inequality

Helsinki

Edmonton, AB

Montreal, QC

Rotterdam

Median Annual Household Income				
	RANK	RAW DATA		
Denver, CO	1	\$128,477.59		
Austin, TX	2	\$121,432.23		
Portland, OR	3	\$119,045.42		
Salt Lake City, UT	4	\$113,310.57		
Calgary, AB	5	\$106,494.28		
Edmonton, AB	6	\$104,109.87		
Vancouver, BC	7	\$101,357.20		
Indianapolis, IN	8	\$99,135.92		
Pittsburgh, PA	9	\$95,098.79		
Montreal, QC	10	\$83,425.66		
Helsinki	11	\$53,442.16		
Kuala Lumpur	12	\$21,828.54		
Stockholm	-	-		
Hamburg	-	-		
Glasgow	-	-		
Rotterdam	-	-		

Source: McKinsey

Five-Year Growth of Median Household Income			
	RANK	RAW DATA	
Vancouver, BC	1	25.2%	
Indianapolis, IN	2	20.0%	
Montreal, QC	3	19.6%	
Denver, CO	4	19.4%	
Pittsburgh, PA	5	17.6%	
Austin, TX	6	16.6%	
Portland, OR	7	16.3%	
Salt Lake City, UT	8	13.5%	
Edmonton, AB	9	13.4%	
Calgary, AB	10	11.3%	
Helsinki	11	5.6%	
Stockholm	-	-	
Hamburg	-	-	
Glasgow	-	-	
Rotterdam	-	-	
Kuala Lumpur	-	-	

Source: McKinsey

Five-Year Forecasted Growth of Median Household Income				
	RANK	RAW DATA		
Portland, OR	1	17.1%		
Montreal, QC	2	17.1%		
Salt Lake City, UT	3	17.0%		
Pittsburgh, PA	4	16.8%		
Edmonton, AB	5	15.9%		
Calgary, AB	6	15.5%		
Denver, CO	7	15.4%		
Vancouver, BC	8	15.2%		
Indianapolis, IN	9	13.4%		
Austin, TX	10	12.4%		
Stockholm	-	-		
Helsinki	-	-		
Hamburg	-	-		
Glasgow	-	-		
Rotterdam	-	-		
Kuala Lumpur	-	-		

Source: Statistics Canada; ACS 5-Year; Esri; International Statistical Offices

Percent of Population that is Foreign Born

	RANK	RAW DATA
Vancouver, BC	1	41.8%
Calgary, AB	2	31.5%
Edmonton, AB	3	26.0%
Montreal, QC	4	24.3%
Hamburg	5	20.0%
Austin, TX	6	15.9%
Salt Lake City, UT	7	12.9%
Portland, OR	8	12.3%
Denver, CO	9	12.0%
Helsinki	10	11.0%
Kuala Lumpur	11	10.6%
Indianapolis, IN	12	8.8%
Pittsburgh, PA	13	3.9%
Stockholm	-	-
Glasgow	-	-
Rotterdam	-	-

Source: Statistics Canada; ACS 5-Year; Esri; International Statistical Offices

Source: Statistics Canada; ACS 5-Year; Esri; International Statistical Offices

Five-Year Growth Rate of Foreign-Born Population			
	RANK	RAW DATA	
Hamburg	1	3.3%	
Edmonton, AB	2	2.2%	
Calgary, AB	3	2.1%	
Indianapolis, IN	4	1.6%	
Helsinki	5	1.5%	
Vancouver, BC	6	1.0%	
Montreal, QC	6	1.0%	
Austin, TX	8	0.7%	
Salt Lake City, UT	9	0.5%	
Denver, CO	10	0.2%	
Kuala Lumpur	11	0.1%	
Pittsburgh, PA	12	0.1%	
Portland, OR	13	-0.2%	
Stockholm	-	-	
Glasgow	-	-	
Rotterdam	-	-	

Source: Statistics Canada; ACS 5-Year; Esri; International Statistical Offices

3 Vancouver, BC 0.366 4 Salt Lake City, UT 5 0.374

1

2

RANK RAW DATA

0.286 0.331

0.350

	-		
Denver, CO	6	0.375	Po
Calgary, AB	7	0.376	Sa
Kuala Lumpur	8	0.380	Pi
Austin, TX	9	0.385	Va
Portland, OR	10	0.386	M
Indianapolis, IN	11	0.398	He
Pittsburgh, PA	12	0.421	St
Stockholm	-	-	Ha
Hamburg	-	-	GI
Glasgow	-	-	Ro

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Source: Statistics Canada; ACS 5-Year; Esri; International Statistical Offices

Growth Rate of Gini Coefficient of Income Inequality			
	RANK	RAW DATA	
Denver, CO	1	-16.2%	
Austin, TX	2	-15.6%	
Calgary, AB	3	-15.3%	
Edmonton, AB	4	-14.9%	
Indianapolis, IN	5	-14.3%	
Portland, OR	6	-12.8%	
Salt Lake City, UT	7	-12.2%	
Pittsburgh, PA	8	-11.1%	
Vancouver, BC	9	-8.5%	
Montreal, QC	10	-8.4%	
Helsinki	11	3.3%	
Stockholm	-	-	
Hamburg	-	-	
Glasgow	-	-	
Rotterdam	-	-	
Kuala Lumpur	-	-	

Source: Statistics Canada; ACS 5-Year; Esri; International Statistical Offices

Number of Startups

RANK RAW DATA

1,462

1,000

857

846

613

611

568

349 337

325

321

320

311

263

219

121

1

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16

Source: Statistics Canada; ACS 5-Year; Esri; International Statistical Offices

Median Income for Foreign-Born Population				
	RANK	RAW DATA		
Austin, TX	1	\$91,053		
Pittsburgh, PA	2	\$90,864		
Denver, CO	3	\$90,474		
Portland, OR	4	\$84,953		
Salt Lake City, UT	5	\$79,259		
Indianapolis, IN	6	\$71,065		
Edmonton, AB	7	\$30,488		
Helsinki	8	\$29,954		
Calgary, AB	9	\$29,896		
Vancouver, BC	10	\$27,824		
Montreal, QC	10	\$27,824		
Stockholm	-	-		
Hamburg	-	-		
Glasgow	-	-		
Rotterdam	-	-		
Kuala Lumpur	-	-		

Source: Statistics Canada; ACS 5-Year; Esri; International Statistical Offices

Source: StartupBlink.com

Austin, TX

Stockholm

Denver, CO

Vancouver, BC

Portland, OR

Montreal, QC

Salt Lake City, UT

Rotterdam

Calgary, AB

Hamburg

Glasgow

Pittsburgh, PA

Kuala Lumpur Indianapolis, IN

Edmonton, AB

Helsinki

2024

Prosperity Raw Data-Selected Metropolitan Regions

continued

Source: StartupBlink.com

Salt Lake City, UT

Helsinki

Denver, CO

Austin, TX

Calgary, AB

Edmonton, AB

Indianapolis, IN

Portland, OR

Montreal, QC

Vancouver, BC

Pittsburgh, PA

Stockholm

Hamburg

Glasgow

Rotterdam

Kuala Lumpur

	RANK	RAW DATA
Helsinki	1	26
Denver, CO	2	21
Vancouver, BC	3	18
Austin, TX	4	14
Montreal, QC	5	11
Portland, OR	6	10
Kuala Lumpur	6	10
Rotterdam	8	8
Pittsburgh, PA	9	6
Hamburg	10	5
Stockholm	11	4
Edmonton, AB	12	3
Calgary, AB	12	3
Salt Lake City, UT	14	2
Glasgow	14	2
Indianapolis, IN	16	1

Labour Force Participation Rate

RANK RAW DATA

72.9%

72.5%

72.2%

72.1%

71.7%

70.2%

69.3%

68.0%

67.0%

66.7%

66.0%

62.5%

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Score of Highest-Ranking University			
	RANK	RAW DATA	
Montreal, QC	1	83.7	
Vancouver, BC	2	81.5	
Austin, TX	3	71.8	
Glasgow	4	65.2	
Edmonton, AB	5	58.3	
Helsinki	6	57.2	
Stockholm	7	56.8	
Rotterdam	8	48.5	
Calgary, AB	9	47.9	
Hamburg	10	45.1	
Pittsburgh, PA	11	42.5	
Kuala Lumpur	12	-	
Denver, CO	-	-	
Indianapolis, IN	-	-	
Portland, OR	-	-	
Salt Lake City, UT	-	-	

Five-Year Growth of Labour

Force Participation Rate

Source: QS World University Rankings

Helsinki

Austin, TX

Denver, CO

Indianapolis, IN

Vancouver, BC

Portland, OR

Montreal, QC

Pittsburgh, PA

Edmonton, AE

Calgary, AB

Stockholm

Hamburg

Glasgow

Rotterdam

Kuala Lumpur

Salt Lake City, UT

ATA		RANK	RAW DATA
,	Hamburg	1	18
	Portland, OR	2	14
	Stockholm	3	13
2	Kuala Lumpur	4	12
5	Helsinki	5	9
2	Edmonton, AB	6	8
3	Denver, CO	6	8
5	Pittsburgh, PA	6	8
)	Austin, TX	9	7
	Montreal, QC	10	6
5	Indianapolis, IN	10	6
	Calgary, AB	12	5
	Vancouver, BC	12	5
	Glasgow	12	5
	Salt Lake City, UT	15	4
	Rotterdam	15	4

Number of Universities

	RANK	RAW DATA
Vancouver, BC	1	11.0%
Calgary, AB	2	10.2%
Helsinki	3	8.9%
Edmonton, AB	4	8.6%
Montreal, QC	5	8.5%
Portland, OR	6	6.5%
Austin, TX	7	6.1%
Denver, CO	8	5.2%
Salt Lake City, UT	9	5.0%
Pittsburgh, PA	10	4.6%
Indianapolis, IN	11	4.2%
Stockholm	-	-
Hamburg	-	-
Glasgow	-	-
Rotterdam	-	-
Kuala Lumpur	-	-

Source: University Guru

RANK RAW DATA

3.5% 1.3%

1.0%

1.0%

0.5%

0.5%

-0.3%

-0.4%

-0.4%

-1.5%

-2.2%

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Percent of Population with a BA or Above

	RANK	RAW DATA
Helsinki	1	45.3%
Austin, TX	2	37.6%
Denver, CO	3	36.5%
Calgary, AB	4	36.0%
Hamburg	5	35.3%
Vancouver, BC	6	35.1%
Portland, OR	7	31.1%
Montreal, QC	8	29.4%
Pittsburgh, PA	9	29.2%
Edmonton, AB	10	28.3%
Indianapolis, IN	11	27.2%
Salt Lake City, UT	12	25.5%
Stockholm	-	-
Glasgow	-	-
Rotterdam	-	-
Kuala Lumpur	-	-
Kuala Lumpur	-	-

Five-Year Growth Rate of Population with a BA or Above			
	RANK	RAW DATA	
Austin, TX	1	6.5%	
Denver, CO	2	4.9%	
Vancouver, BC	3	3.5%	
Helsinki	4	3.1%	
Edmonton, AB	5	2.9%	
Calgary, AB	6	2.8%	
Montreal, QC	7	2.6%	
Indianapolis, IN	8	2.4%	
Salt Lake City, UT	9	2.4%	
Pittsburgh, PA	10	2.4%	
Portland, OR	11	2.0%	
Hamburg	12	0.5%	
Stockholm	-	-	
Glasgow	-	-	
Rotterdam	-	-	

Source: Statistics Canada; ACS 5-Year; Esri; International Statistical Offices

Percentage of Employment in Knowledge-Based Occupations				
RANK RAW DATA				
Austin, TX	1	56.3%		
Denver, CO	2	54.6%		
Pittsburgh, PA	3	53.5%		
Portland, OR	4	53.0%		
Indianapolis, IN	5	50.4%		
Salt Lake City, UT	6	48.1%		
Calgary, AB	7	42.5%		
Vancouver, BC	8	42.1%		
Montreal, QC	9	41.2%		
Edmonton, AB	10	39.5%		
Helsinki	11	38.7%		
Glasgow	-	-		
Stockholm	-	-		
Hamburg	-	-		
Rotterdam	-	-		
Kuala Lumpur	-	-		

Source: Lightcast; Esri; International Statistical Offices

Source: Statistics Canada; ACS 5-Year; Esri; International Statistical Offices

Percentage of Employment in Culture and Entertainment RANK RAW DATA Austin, TX 1 3.4% Portland, OR 2 3.2% Denver, CO 3 2.8% Vancouver, BC 4 2.5% Salt Lake City, UT 5 24% Montreal, QC 6 2.4% Helsinki 6 2.4% Pittsburgh, PA 8 1.9% Edmonton, AB 9 1.8% Indianapolis, IN 1.8% 10 Calgary, AB 11 12% Stockholm Hamburg _ Glasgow Rotterdam -Kuala Lumpur

Source: Lightcast; Esri; International Statistical Offices

Number of Direct Destinations [†]			
	RANK	RAW DATA	
Denver, CO	1	219	
Stockholm	2	158	
Montreal, QC	3	153	
Kuala Lumpur	4	124	
Hamburg	5	123	
Helsinki	6	119	
Vancouver, BC	7	114	
Salt Lake City, UT	8	100	
Austin, TX	9	97	
Calgary, AB	10	94	
Glasgow	11	86	
Portland, OR	12	78	

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60

48

48

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Source: Esri: International Statistical Offices

Source: Flightsfrom.com † Data collected January 2024

Pittsburgh, PA

Edmonton, AB

Indanapolis, IN

Rotterdam

Source: Esri; International Statistical Offices

Kuala Lumpur

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