

Evolving Workforces

# Global Tech Talent Guidebook 2024

REPORT

Worldwide Demand  
for Tech Talent  
Opens up  
New Markets

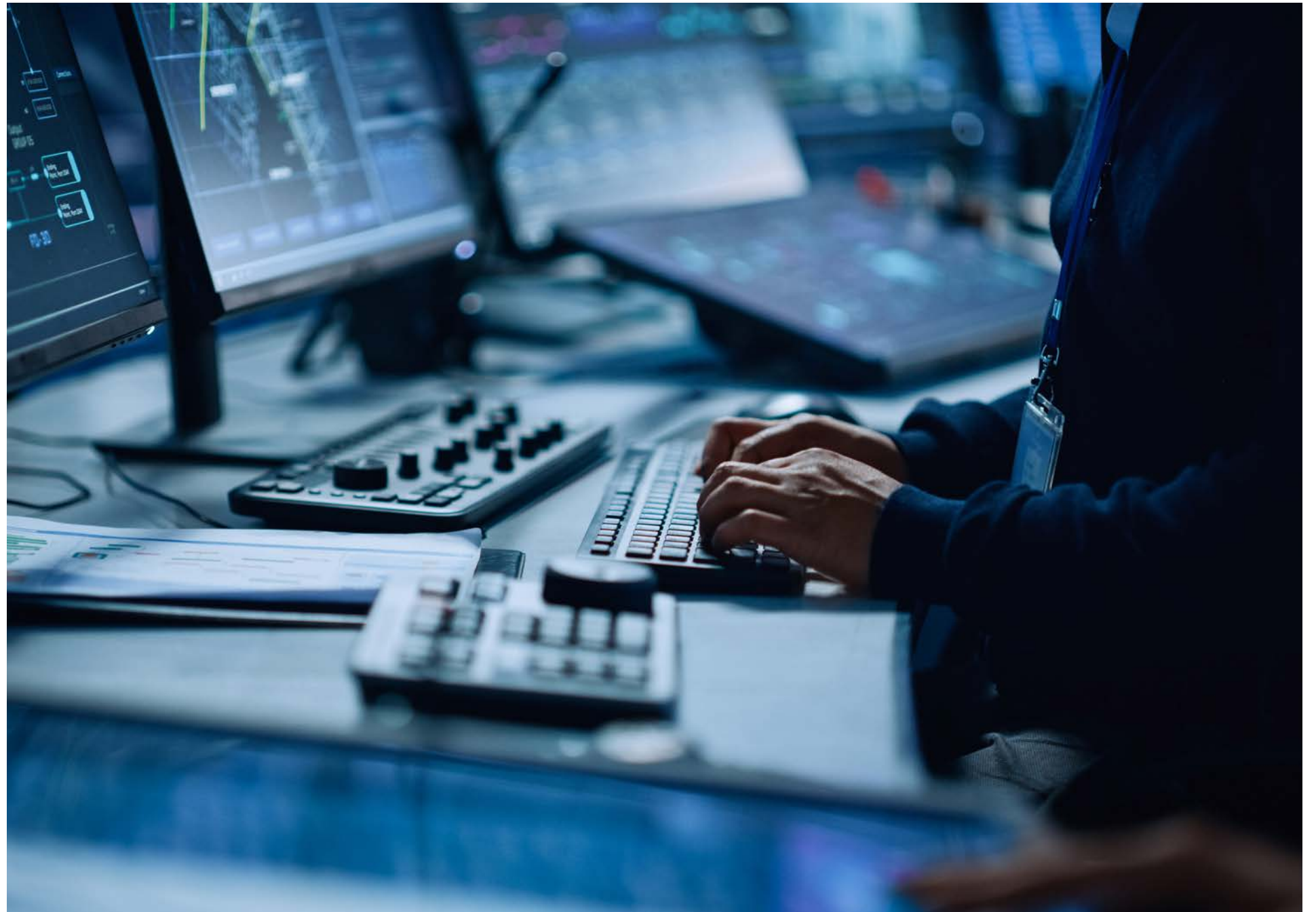
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## About This Report

The Global Tech Talent Guidebook is a comprehensive analysis of labor supply, cost and quality that will help decision-makers meet critical business and innovation objectives, including corporate location and hiring strategy. The distribution of tech talent around the world is the result of several factors that have produced large clusters of tech workers in certain markets. These factors include labor market conditions, quality of life, demographics, educational attainment, capital funding and the availability and cost of real estate.

The Guidebook identifies 75 global markets as “powerhouse,” “established” or “emerging.” Powerhouse markets are major urban centers with large tech talent pools, mature tech ecosystems, stable regulatory environments, access to capital and the ability to attract tech entrepreneurs and talent from across the world. Established markets have similar characteristics but on a smaller scale, wielding more regional than global strength. Emerging markets are rapidly developing tech ecosystems that have some but not all of the key ingredients to become more established, including workforce skills and a concentration of homegrown tech companies.

This analysis also provides insight into how the size and depth of each market’s tech talent pool contributes to real estate demand.



Companies across the world are looking farther afield for more tech talent workers to deploy new, transformative technologies like artificial intelligence for operational efficiencies.

In some markets, demand for tech talent is beginning to outstrip supply, particularly for highly skilled workers in programming, hardware engineering and data analysis and management. In North America alone, tech talent encompasses 20 different occupations that drive innovation across all industry sectors.

The tech sector has traditionally been an accelerator of economic transformation, as businesses and consumers increasingly rely on new and improved tech products and services. It has become a larger part of the global economy and has driven innovation and collaboration across geographic boundaries.

# Employment Environment

The global labor market is evolving with the predominance of remote work, changing migration patterns and increased economic development. The global unemployment rate closed 2022 at 5.8%, according to the latest data from the United Nations' International Labour Organization. The most current unemployment rates ranged from 0.7% in Warsaw to 10.8% in Bogota for the tech markets covered in this report. (Figure 1).

One reason for relatively low unemployment amid economic uncertainty is the reduced working age population, ages 15 to 64, that has trended down since 2012 (Figure 2).

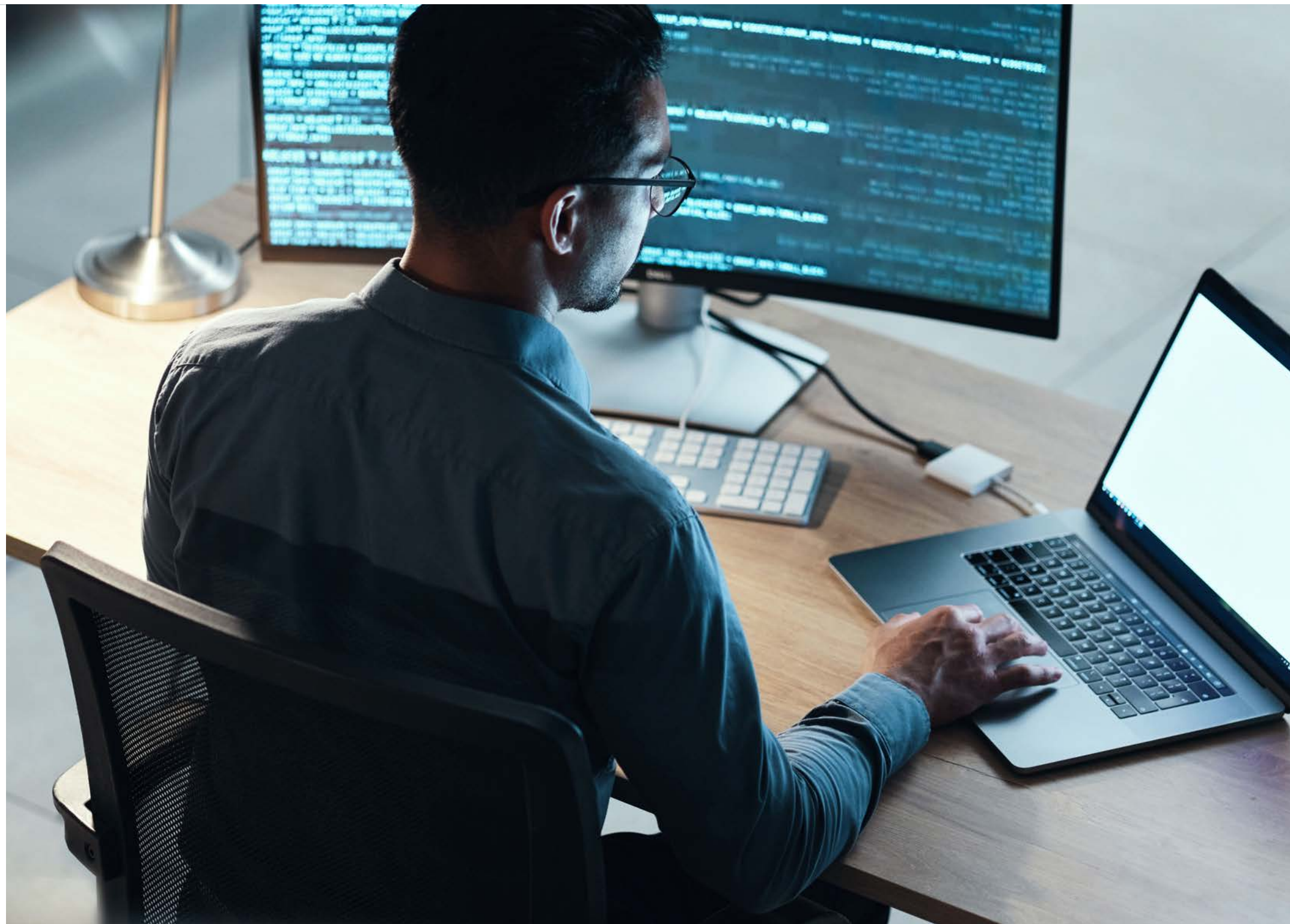
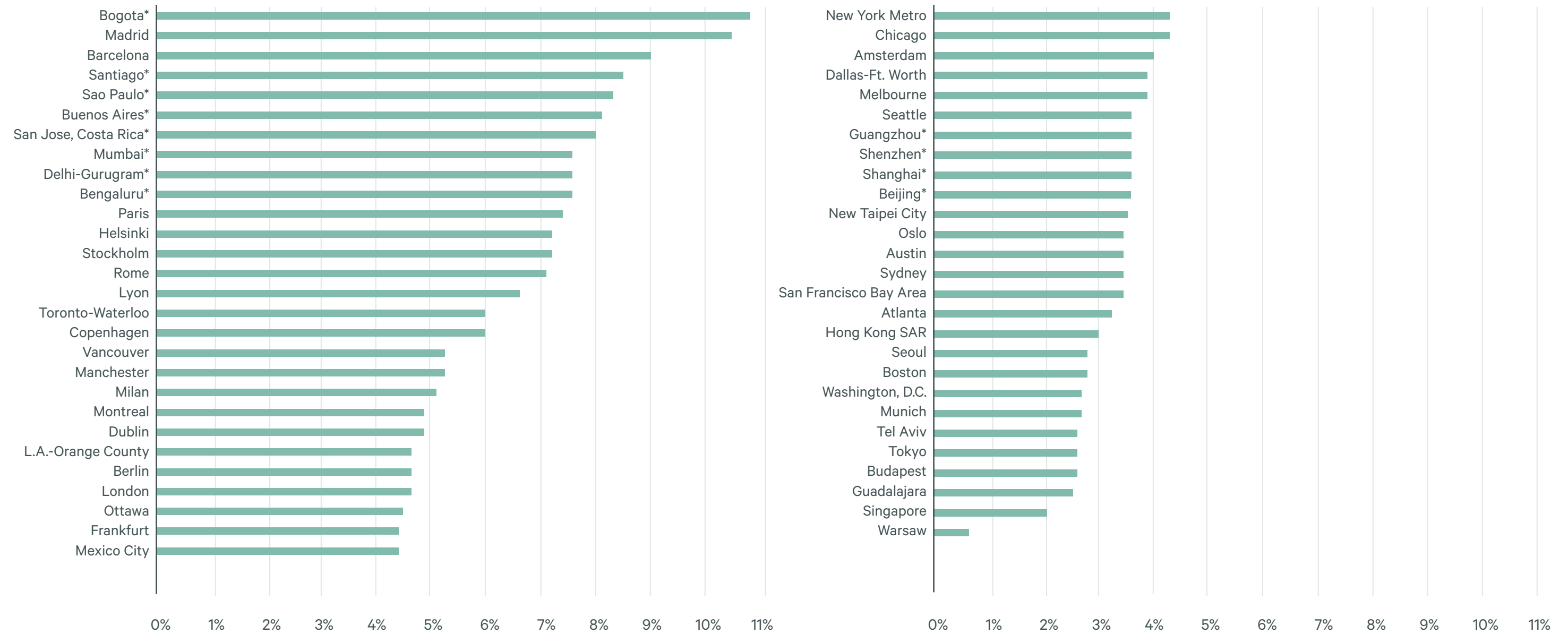


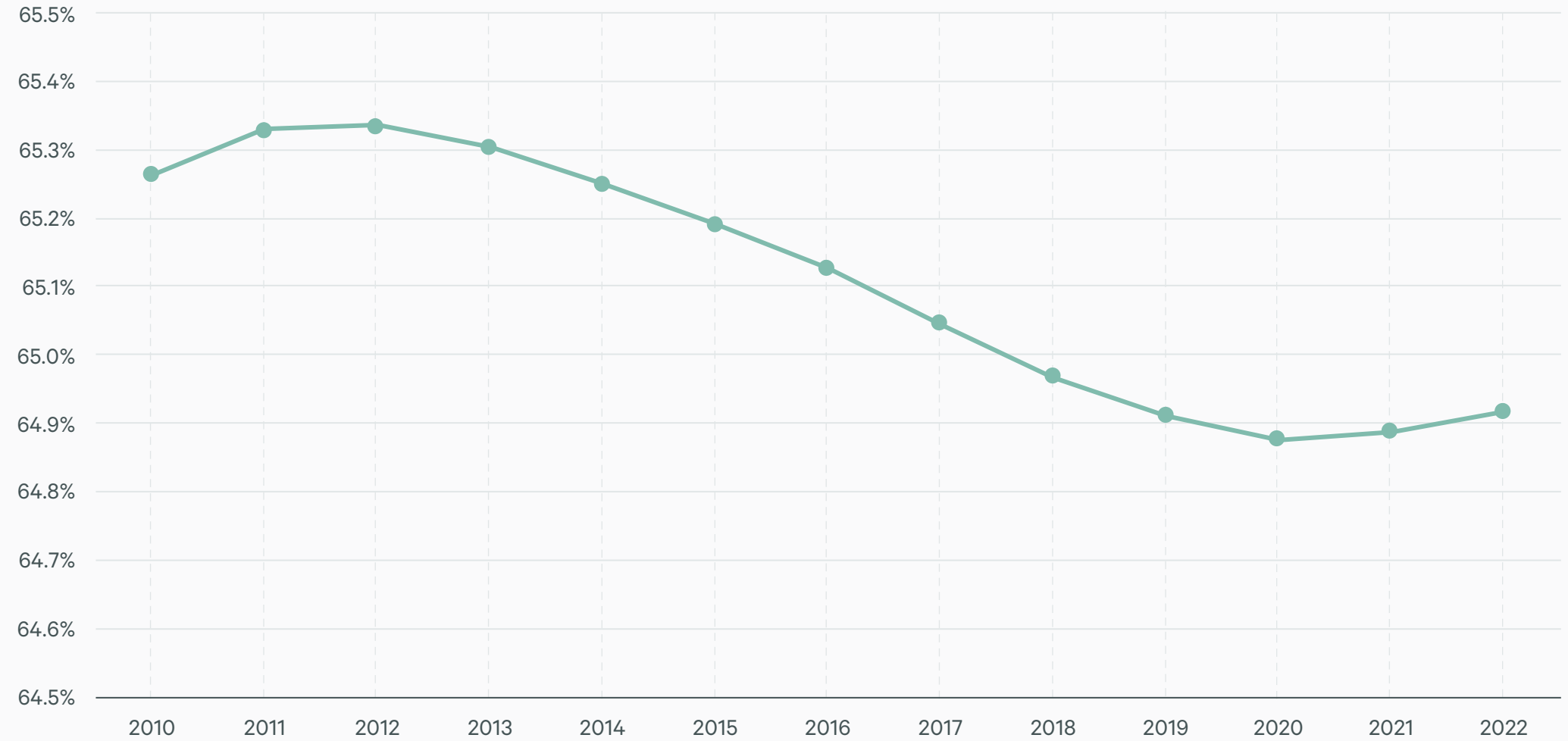
Figure 1: Unemployment Rate by Market (2023)



\*2022  
 Source: Oxford Economics, Government of Mexico & Israel Central Bureau of Statistics (CBS), Statistical Office of Warsaw and other local government agencies, January 2024.

Among the powerhouse and established tech talent markets, Shenzhen and Montreal had the fastest working-age population growth of more than 3.9% between 2017 and 2022. (Figure 3)

Figure 2: Global Working Age Population Share of Overall Population



Source: World Bank, October 2023.

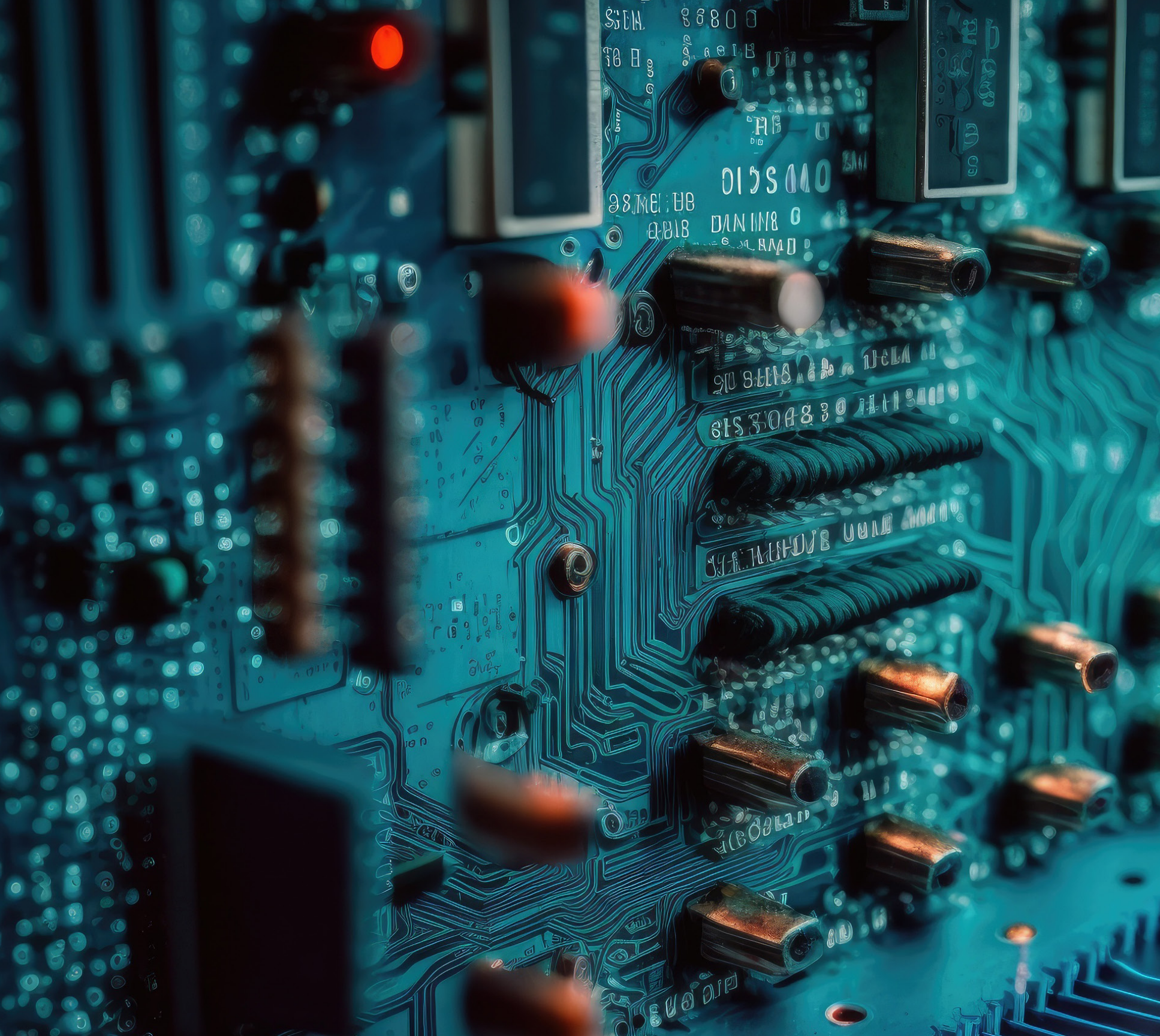
Figure 3: Working Age Population by Market

Market Category	Market	Working Age Population (2022, Thousands)	Share of Overall Population	Average Annual 5-Year Growth (2017-2022)	
<b>Powerhouse Markets</b>	Shanghai	18,460	74.6%	-0.3%	
	Beijing	16,512	75.6%	-0.2%	
	New York Metro	13,332	66.1%	-0.6%	
	Bengaluru	11,466	74.9%	2.4%	
	Tokyo	9,149	64.8%	0.2%	
	Paris	8,061	65.3%	0.1%	
	London	6,341	69.4%	0.9%	
	Toronto-Waterloo	5,062	69.3%	1.5%	
	San Francisco Bay Area	4,399	67.4%	-1.0%	
	Singapore	4,119	72.3%	-0.1%	
	Boston	3,293	67.2%	-0.1%	
	Seattle	2,756	68.3%	0.5%	
	<b>Established Markets</b>	Shenzhen	15,620	85.5%	4.3%
		Delhi-Gurugram	15,106	74.0%	2.0%
Guangzhou		15,006	77.7%	3.1%	
Sao Paulo		11,878	52.5%	2.7%	
Mexico City		11,676	52.6%	0.9%	
Buenos Aires		9,758	63.0%	0.5%	
Mumbai		9,588	75.2%	0.1%	
L.A.-Orange County		8,735	68.2%	-0.9%	
Seoul		6,911	73.1%	-0.9%	
Bogota		6,300	56.2%	1.5%	
Chicago		6,247	66.1%	0.8%	
Dallas-Ft. Worth		5,387	67.4%	1.6%	

Market Category	Market	Working Age Population (2022, Thousands)	Share of Overall Population	Average Annual 5-Year Growth (2017-2022)
<b>Established Markets</b>	Hong Kong SAR	5,060	67.4%	-0.6%
	Madrid	4,554	67.0%	1.0%
	Santiago	4,337	51.8%	0.7%
	Washington, D.C.	4,260	67.0%	0.1%
	Atlanta	4,194	67.5%	1.0%
	Barcelona	3,731	65.9%	0.8%
	Sydney	3,535	66.6%	1.0%
	Melbourne	3,382	67.1%	1.4%
	New Taipei City	2,915	71.4%	-0.7%
	Guadalajara	2,850	52.3%	1.7%
	Rome	2,724	64.5%	-0.6%
	Montreal	2,467	56.4%	3.9%
	Berlin	2,465	66.4%	0.5%
	Tel Aviv	2,087	61.2%	1.9%
	Milan	2,060	64.1%	0.0%
	Vancouver	1,979	69.6%	1.7%
	Manchester	1,882	65.6%	0.7%
	Austin	1,694	70.2%	2.7%
	Stockholm	1,594	65.6%	1.3%
	San Jose, Costa Rica	1,500	46.9%	1.5%
Lyon	1,228	64.2%	0.7%	
Helsinki	1,134	65.8%	0.8%	
Warsaw	1,129	62.2%	-0.2%	
Budapest	1,121	65.6%	-0.8%	

Source: Oxford Economics, CBRE Research, October 2023.

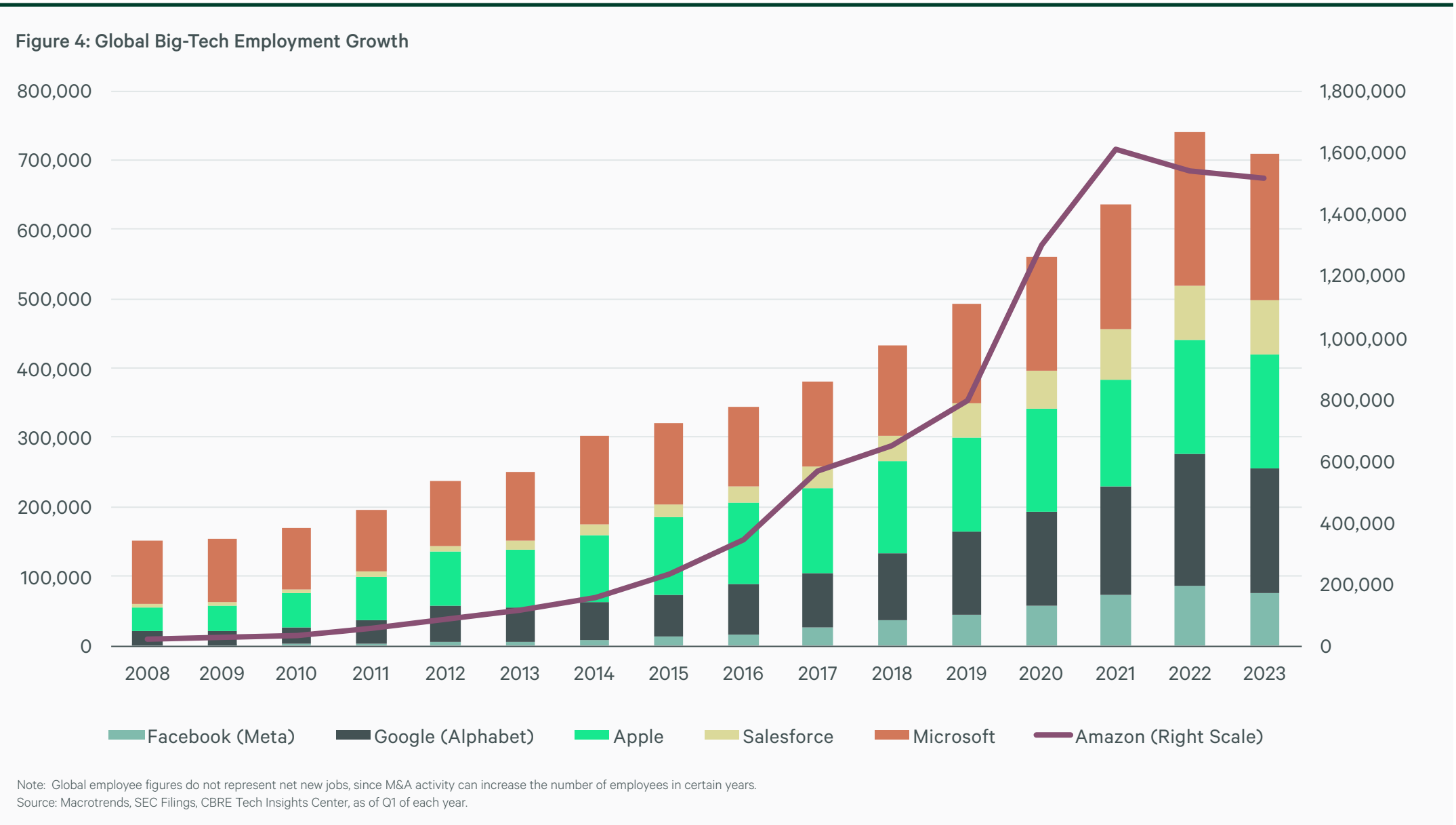




Tech talent works in all industries but is most concentrated in the high-tech services & manufacturing sector, which includes software, cloud services, social media and computer hardware.

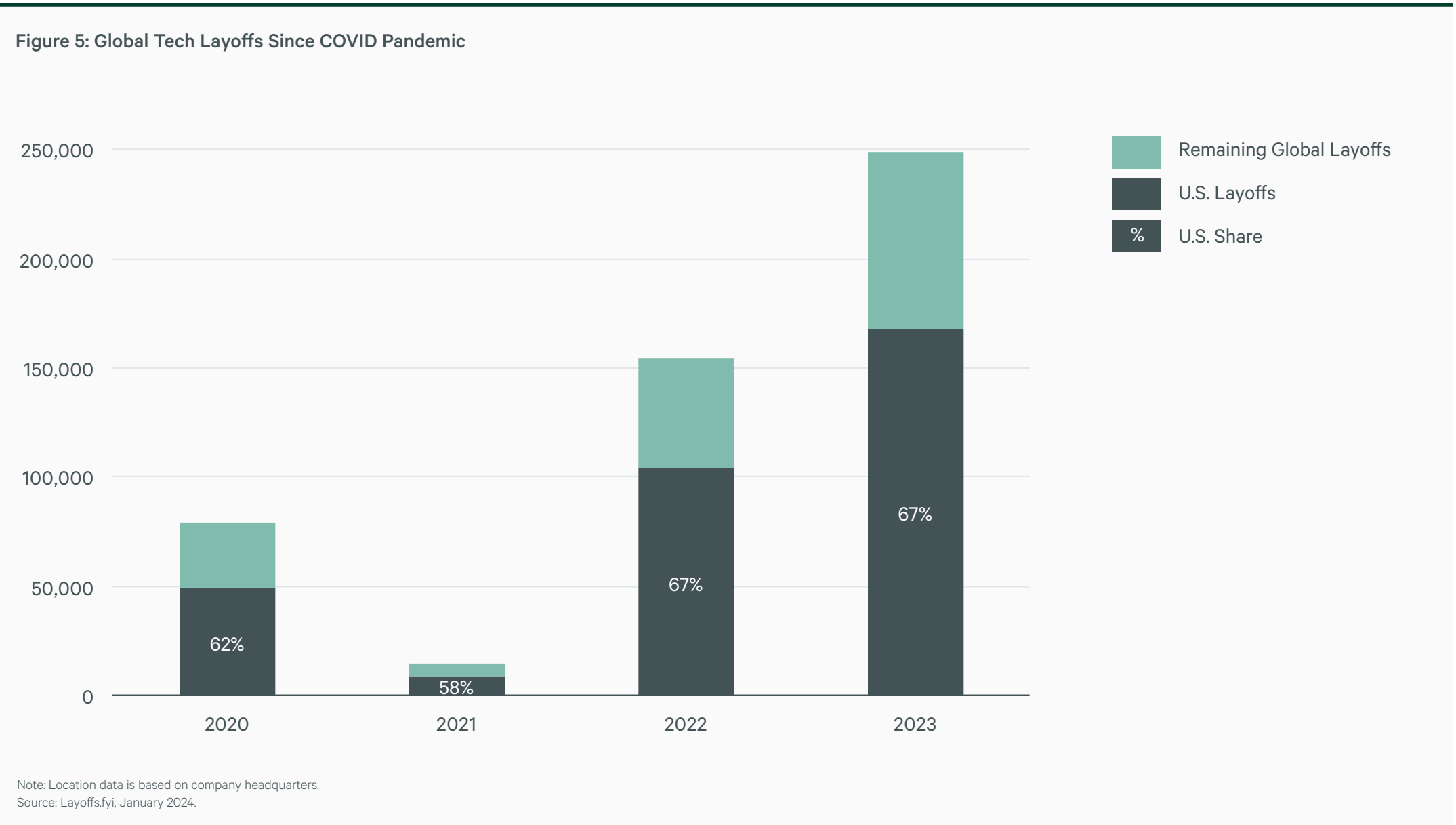
These sectors benefited from the pandemic-induced increase in online shopping and remote work. But as the pandemic eased by 2022, business conditions changed and many of the major tech companies began reducing their employee headcounts, according to publicly filed annual reports. Despite this, most of the major tech companies still have higher employee counts than pre-pandemic levels.

Global economic uncertainty since mid-2022 has led to a rise in announced layoffs by the tech industry. Many tech companies over-hired when demand spiked for their products and services during the pandemic. Now that business conditions have changed, many have been forced to reduce headcounts.



Tech talent layoffs have not been evenly distributed among global regions. Two-thirds of them announced since the pandemic have been by U.S.-based tech companies, according to data provider Layoffs.fyi, although some of these workers were employed in other regions.

For many markets, layoffs have returned the tech talent labor force to more normal pre-pandemic levels. In 2023, tech layoffs slowed considerably with the second half having 76% less than the first half of the year.



Despite these recent layoffs, tech employment growth among North American markets over the past five years has ranged from 10.7% in Austin to 1.3% in Washington, D.C.

Figure 6A: High-Tech Industry 5-Year Average Annual Growth Rate\* (2017-2022) — North American Markets

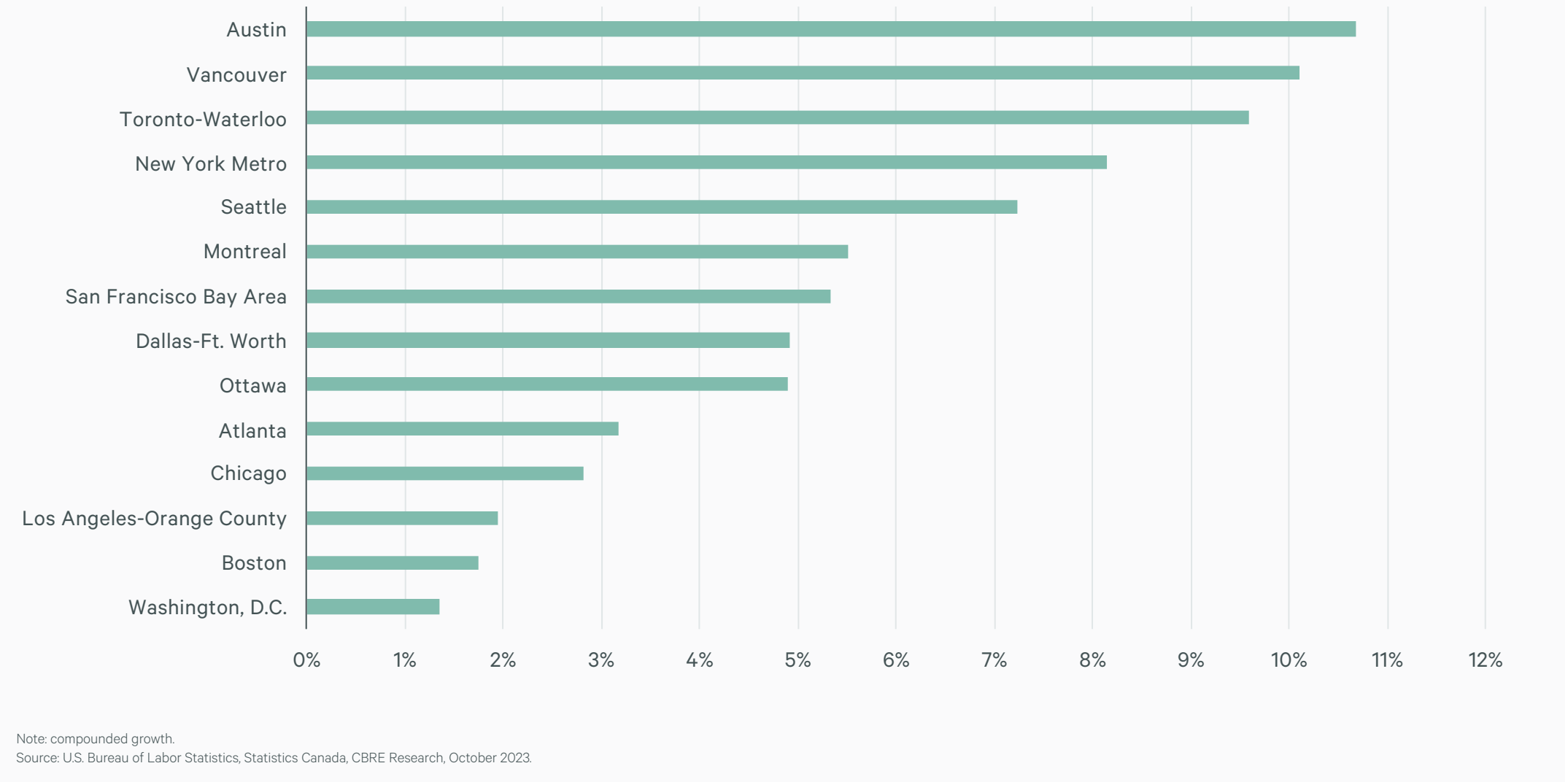
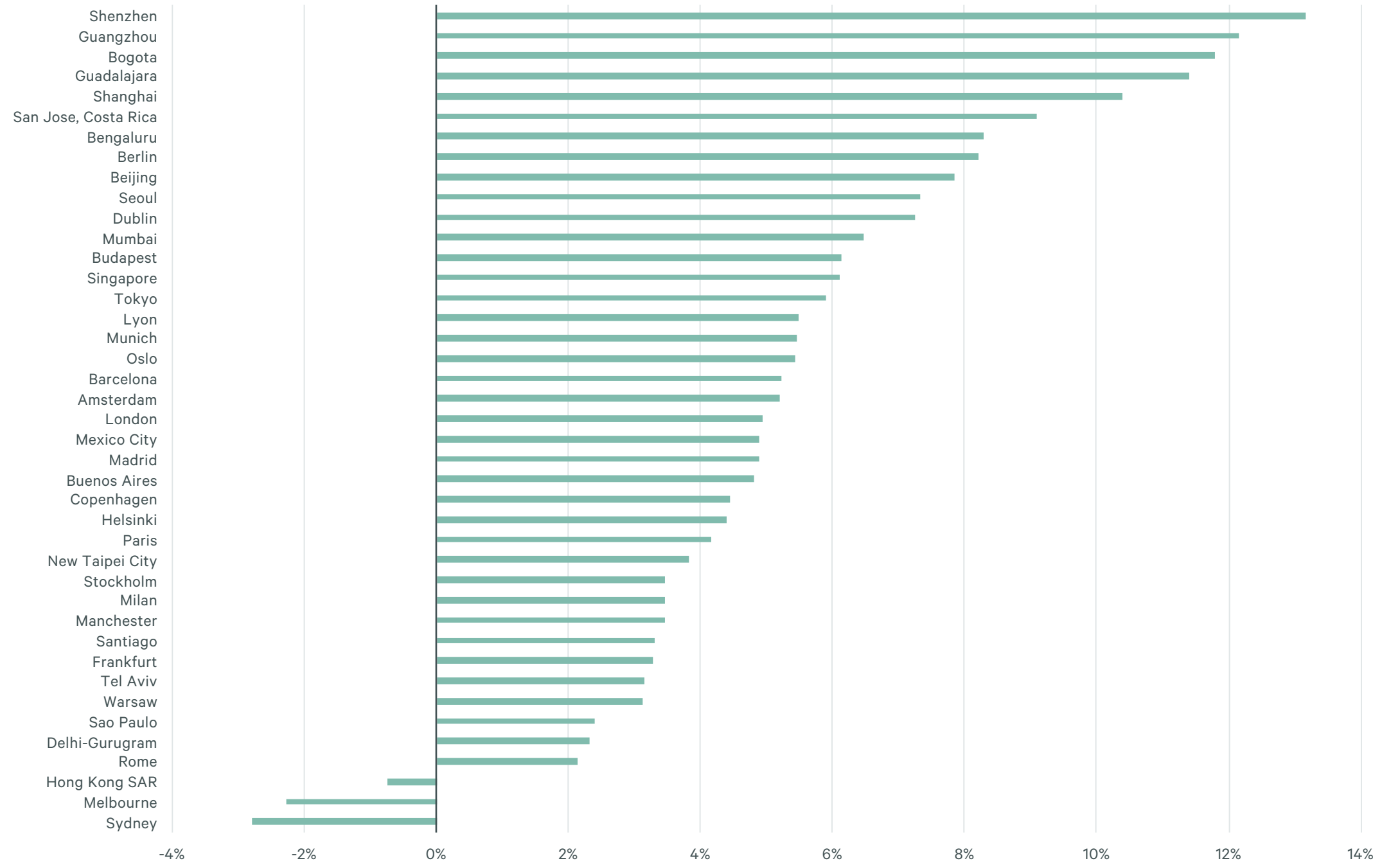


Figure 6B: Info & Communications Industry 5-Year Average Annual Growth Rate\* (2017-2022) — EMEA, LatAm & APAC Markets

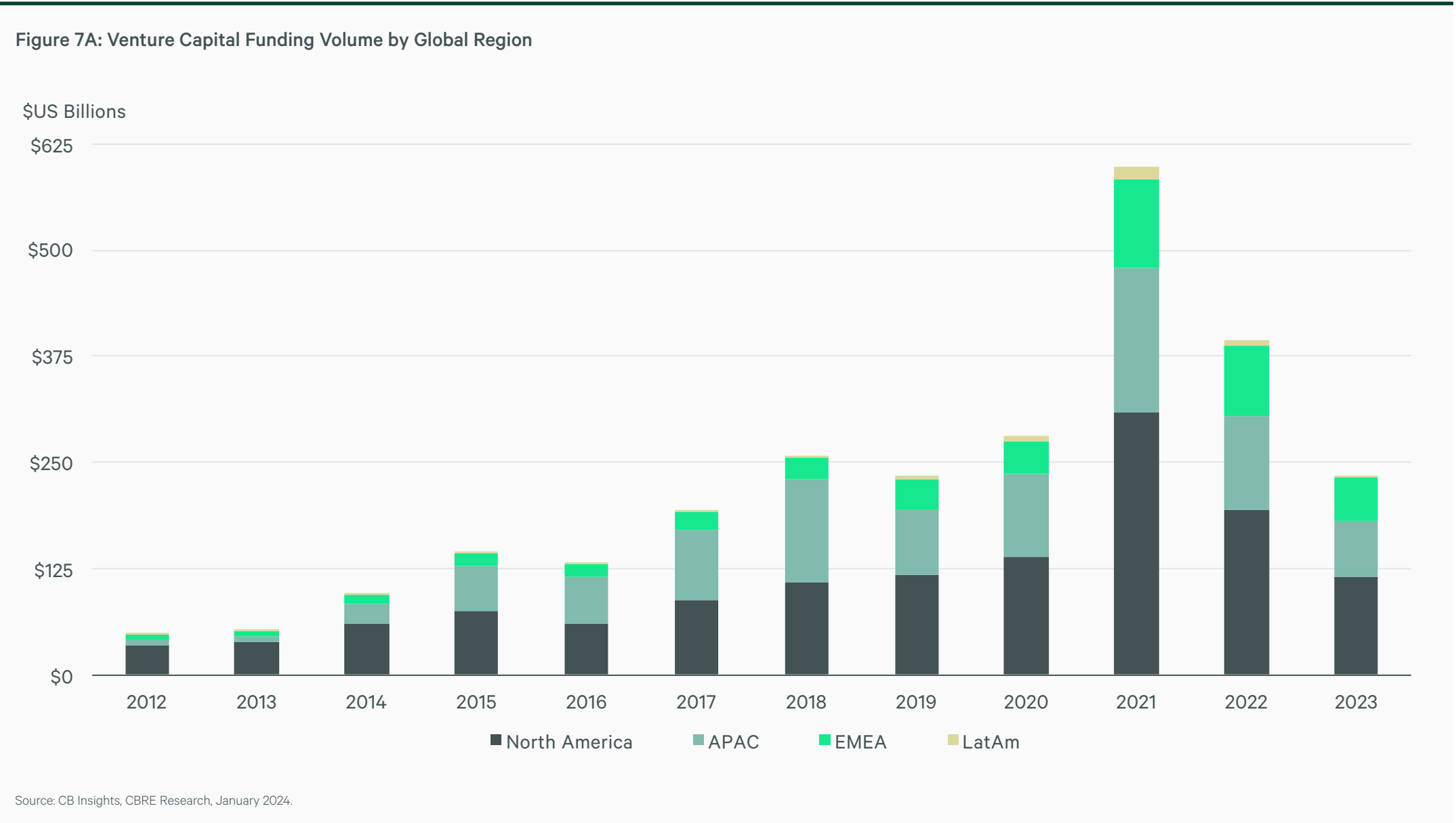
All but three global markets (Sydney, Melbourne and Hong Kong SAR) have recorded tech employment growth over the past five years, primarily due to employment losses during the pandemic.



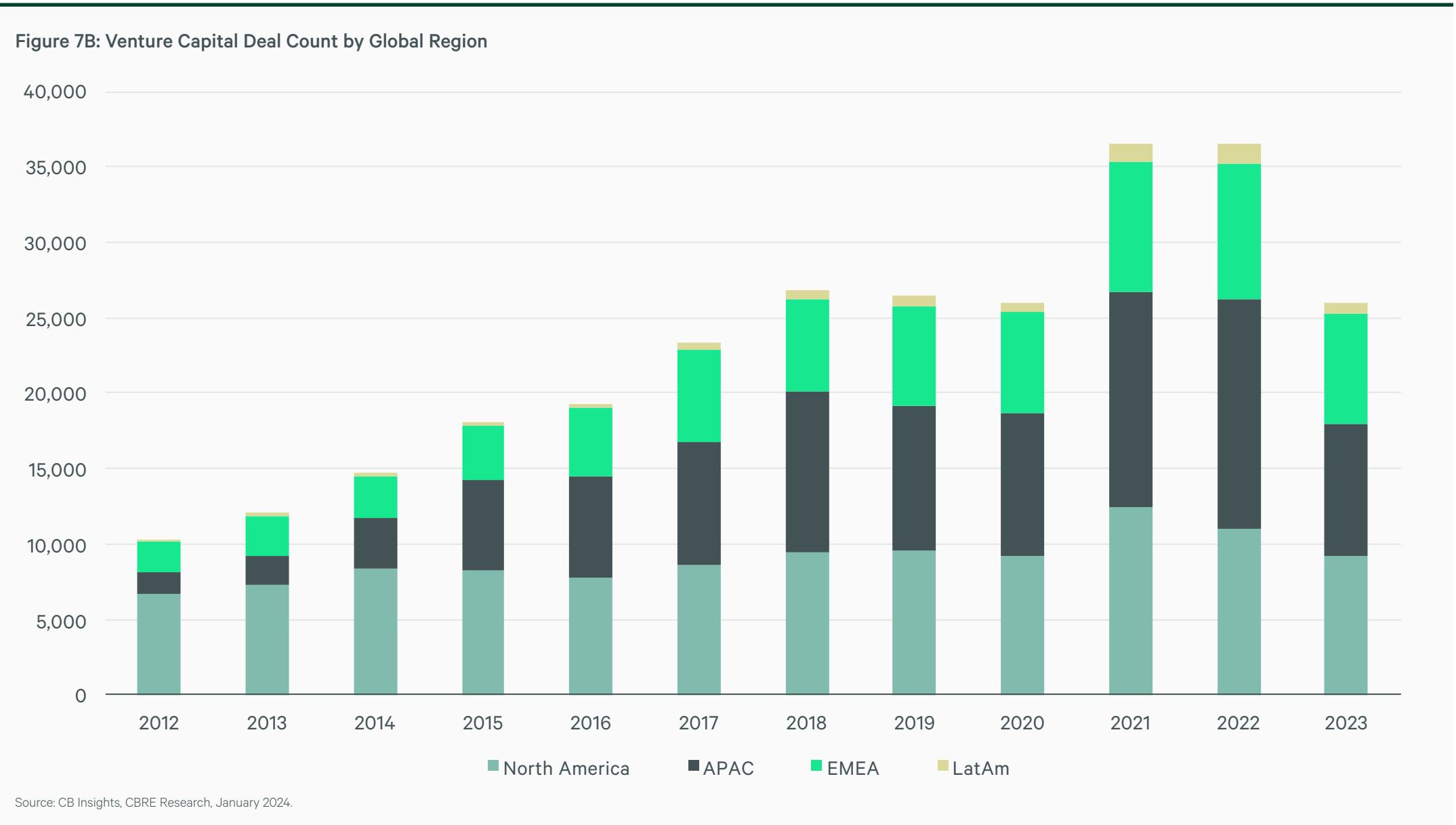
\*Compounded growth.  
Source: Oxford Economics, CBRE Research, October 2023.

Venture capital (VC) funding for up-and-coming companies is a barometer for the tech industry’s outlook. The tech industry traditionally attracts the most VC funding, accounting for more than half the global total since 2012.

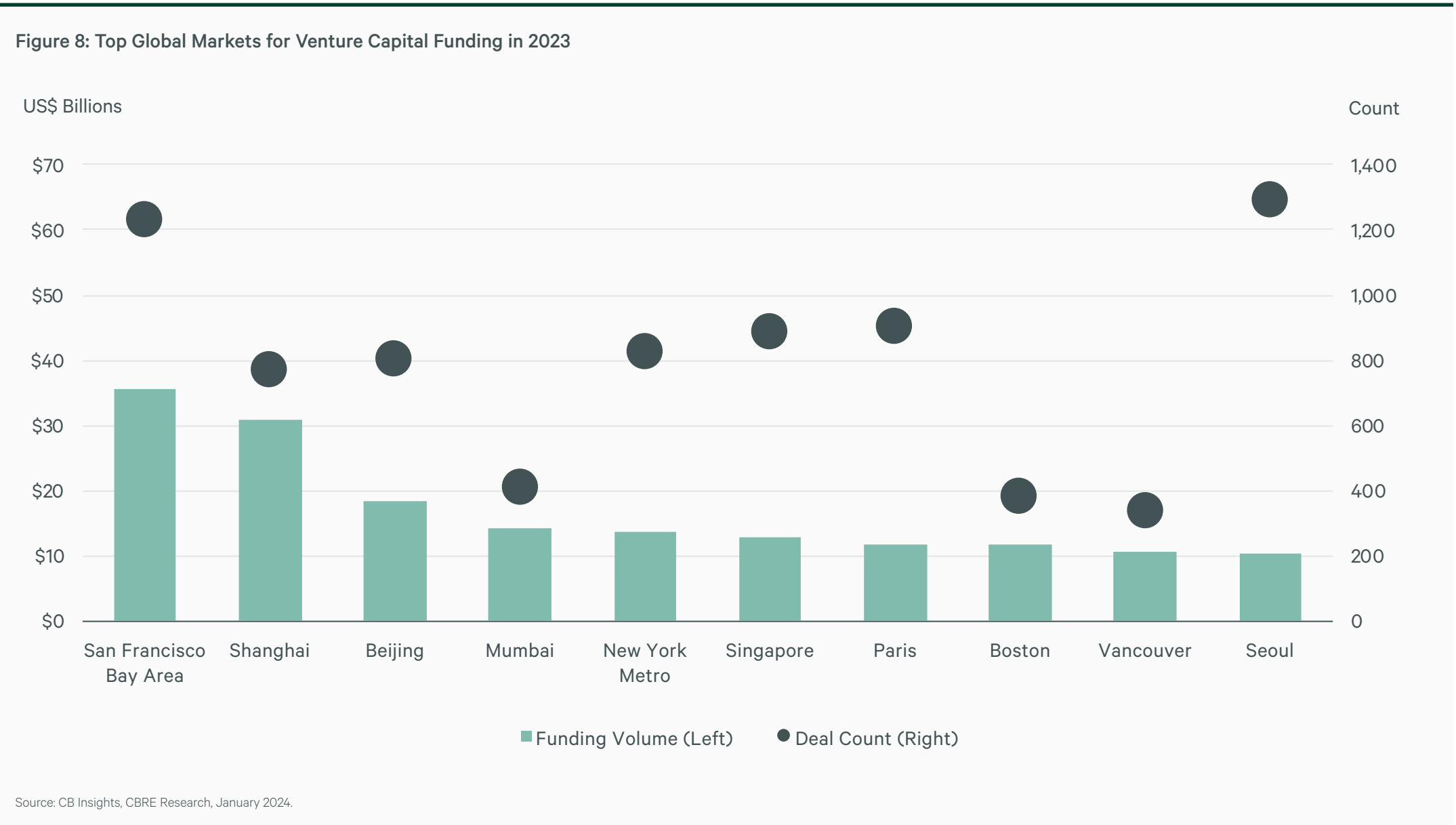
CB Insights data indicates that global venture capital funding totaled \$234 billion in 2023. Almost half of it was placed in North America, followed by 29% in Asia-Pacific and 21% in Europe, the Middle East and Africa (EMEA).



By deal count, Asia-Pacific and EMEA had much higher shares of total VC activity since they have fewer large companies.



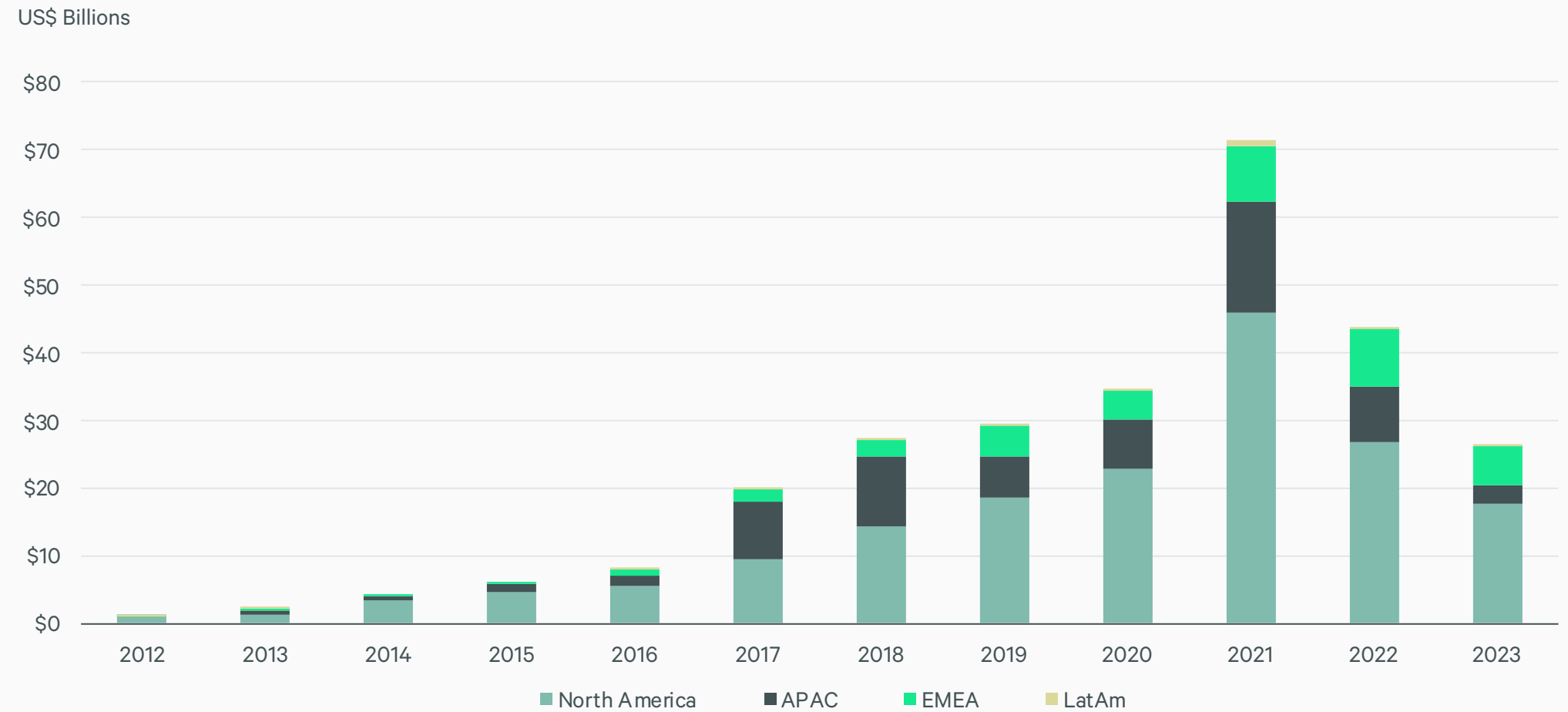
The top global markets for VC funding in 2023 were the San Francisco Bay Area, Shanghai, Beijing, Mumbai and New York, which combined accounted for \$113 billion or approximately 48% of the global total.





Artificial intelligence (AI), the simulation of human intelligence in computer systems, is the latest advancement attracting VC investment. AI technology funding peaked in 2021 at \$71.4 billion across more than 3,000 deals. While AI funding fell to less than a third of that amount in 2023, it increased its share of overall VC funding to 12%. About two-thirds of AI funding over the past five years was in North America, mostly in the U.S.

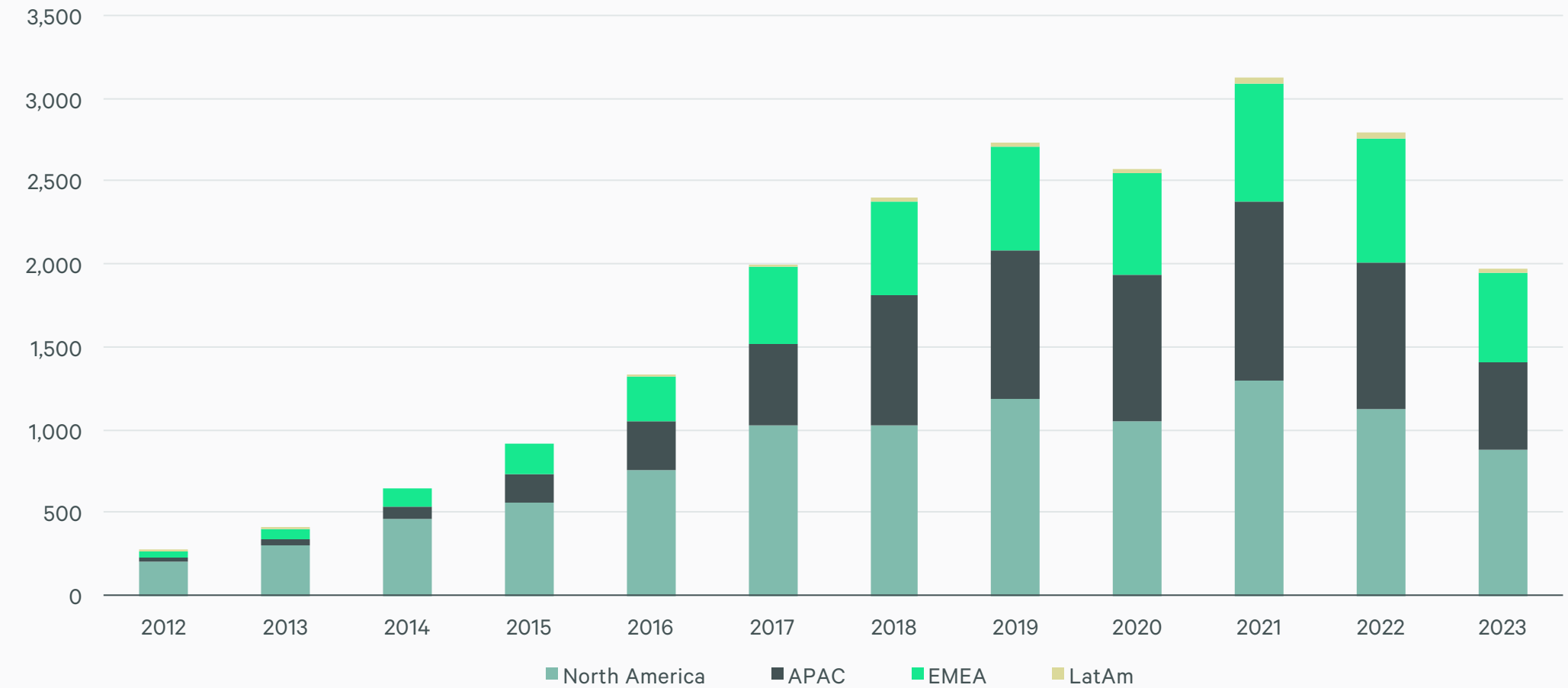
Figure 9A: Artificial Intelligence Venture Capital Funding Volume by Global Region



Source: CB Insights, CBRE Research, January 2024.

The long-term growth prospects of the tech industry and tech talent demand remain strong, as global economies digitally transform. Innovations like AI will catalyze the next economic growth cycle, producing significant monetary value, tech talent employment and real estate demand.

Figure 9B: Artificial Intelligence Venture Capital Deal Count by Global Region



Source: CB Insights, CBRE Research, January 2024.

# Labor Supply



Powerhouse and established markets have many similar characteristics and often compete with one another for tech talent and investment. The top tech markets have large and often diverse tech company clusters, along with higher concentrations of tech talent.

These clusters typically form around preeminent universities that invest in technology innovation programs, provide a regular flow of new talent and often have formal linkages between academic discovery and commercial product development. These clusters accelerate the innovation process among tech companies.

Education is a forward-looking metric and a key component of a market's tech talent outlook. It is best analyzed through the number of degrees issued by higher educational institutions and the caliber of those institutions. Countries with the highest educational attainment rates, defined as residents aged 25+ with a bachelor's degree or higher, were Ireland, Singapore, the Netherlands and the U.K., each with a rate of more than 40%.

Figure 10: Educational Attainment by Country

Country	Year	Educational Attainment* Rate
Ireland	2022	44.3%
Singapore	2022	43.8%
Netherlands	2022	42.4%
U.K.	2022	42.3%
Israel	2022	39.6%
Australia	2022	39.4%
U.S.	2022	39.4%
Sweden	2022	38.7%
Korea	2022	38.0%
Denmark	2022	37.0%
Republic of China	2021	37.0%
Canada	2022	36.3%
Finland	2022	35.1%

Country	Year	Educational Attainment* Rate
Japan	2022	34.9%
Germany	2022	31.9%
Chile	2022	31.0%
Spain	2022	28.5%
France	2022	27.2%
Costa Rica	2022	25.0%
Argentina	2021	24.0%
Colombia	2021	22.0%
Brazil	2021	21.0%
Mexico	2022	21.0%
India	2022	12.9%
China	2020	8.9%

Note: population age 25-64 with a Bachelor's degree or higher.  
Source: OECD, Statistics Canada, U.S. Census Bureau, Sitewise, CBRE Research, October 2023.

The U.S. and China are leaders in university quality by country, with 199 and 106 universities ranked among the top 1,000 globally, respectively, according to U.S. News & World Report.

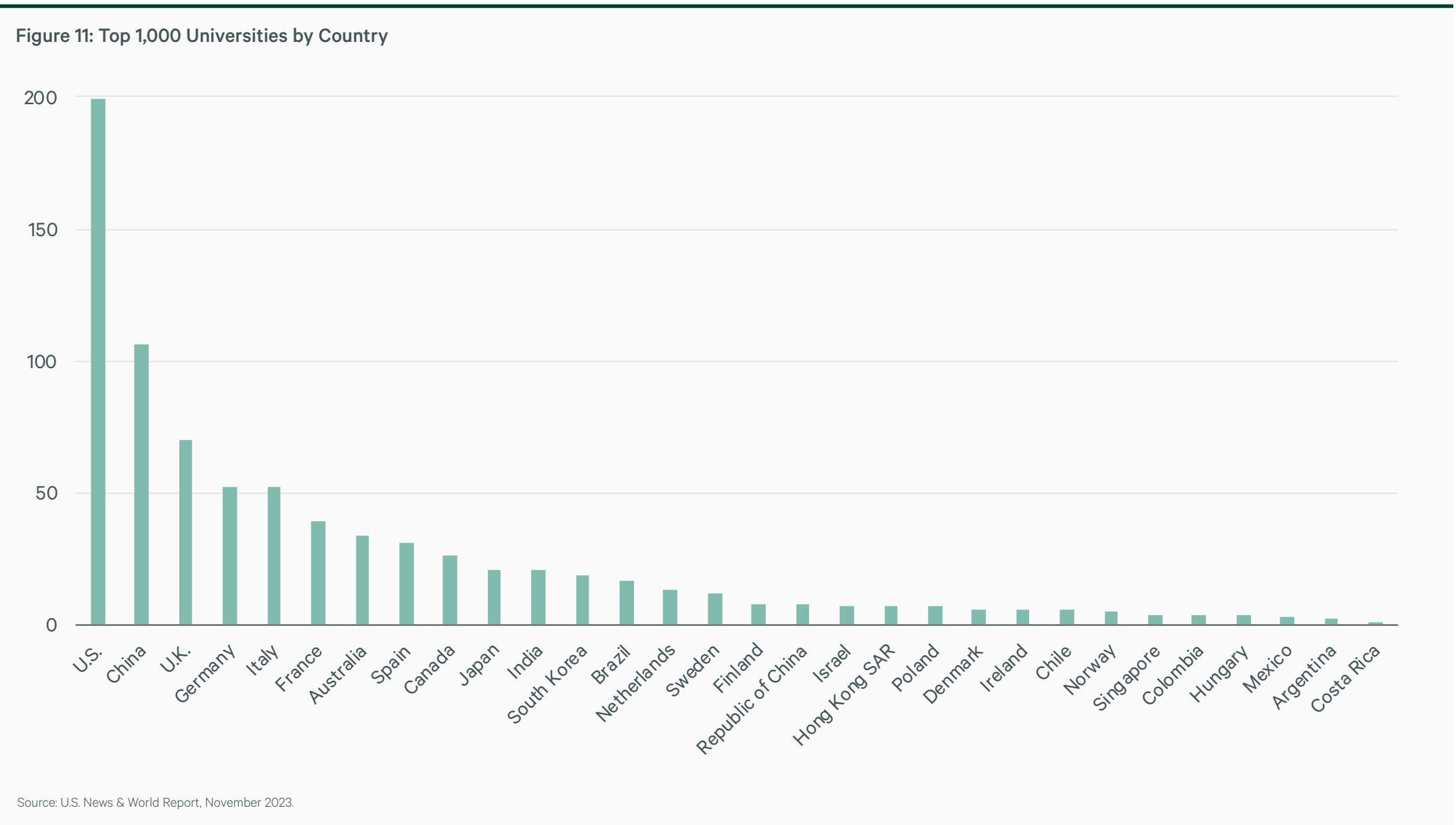


Figure 12: Tech Talent Workforce by Market (2022)

Six markets had more than 500,000 tech talent workers in 2022, all of which were in the Asia-Pacific region. Three markets had more than 1 million tech talent workers: Beijing, Bengaluru and Shanghai. The largest markets outside of India and China all had between 300,000 and 500,000 tech talent workers and included London, New York, Paris, the San Francisco Bay Area and Tokyo. Mexico City and Sao Paulo were the only Latin American market with more than 200,000 tech talent workers.

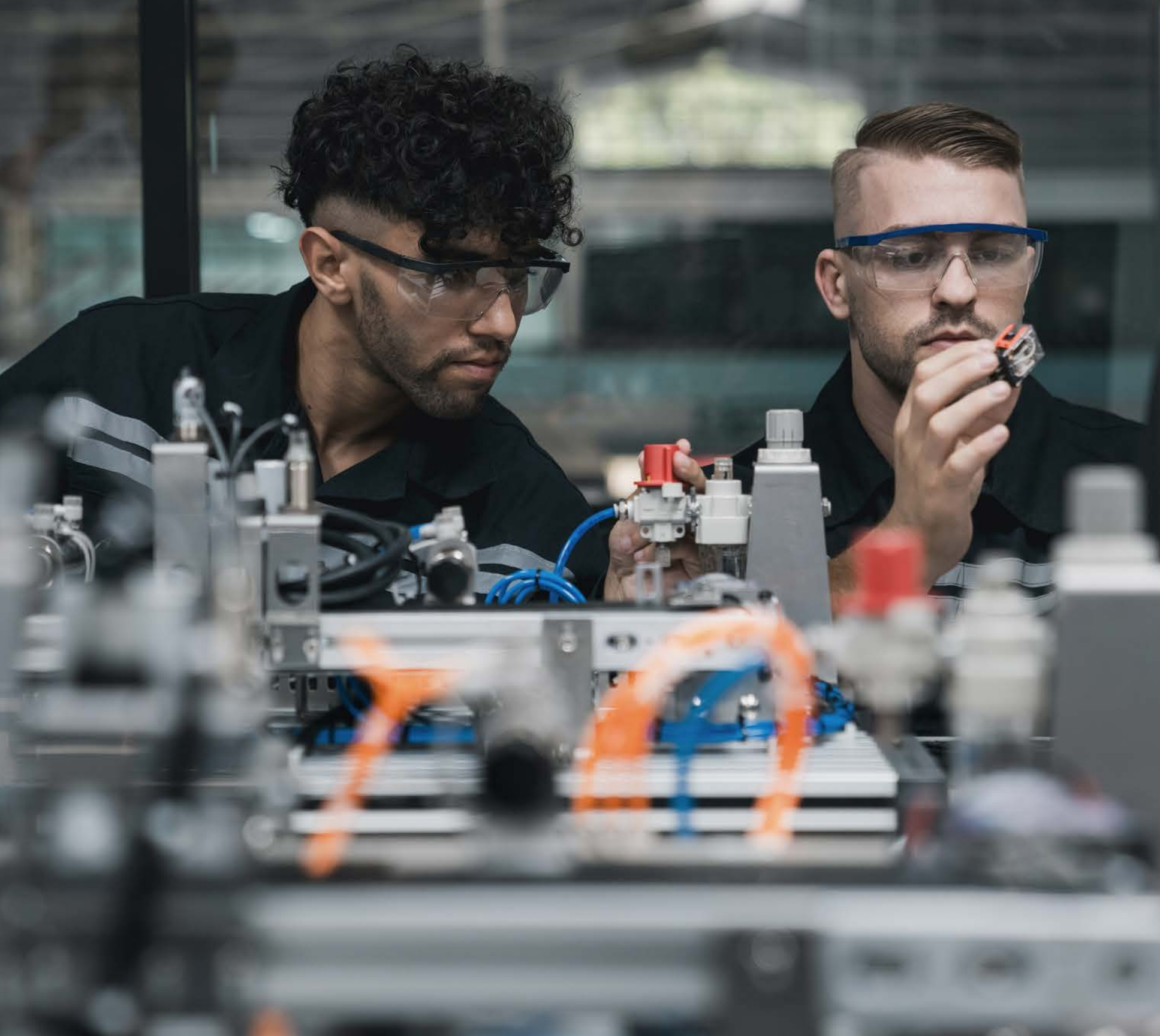
Market	Geography	Region	Market	Geography	Region	Market	Geography	Region
<b>Over 500,000</b>			<b>150,000-200,000</b>			<b>Under 100,000</b>		
Beijing	Mainland China	APAC	Boston	U.S.	N. America	Austin	U.S.	N. America
Bengaluru	India	APAC	Seattle	U.S.	N. America	Budapest	Hungary	Europe
Shanghai	Mainland China	APAC	Chicago	U.S.	N. America	Copenhagen	Denmark	Europe
Delhi-Gurugram	India	APAC	Melbourne	Australia	APAC	Frankfurt	Germany	Europe
Mumbai	India	APAC	Montreal	Canada	N. America	Guadalajara	Mexico	LatAm
Shenzhen	Mainland China	APAC	Santiago	Chile	LatAm	Helsinki	Finland	Europe
			Seoul	South Korea	APAC	Lyon	France	Europe
			New Taipei City	Republic of China	APAC	Manchester	U.K.	Europe
						Oslo	Norway	Europe
						Ottawa	Canada	N. America
Market	Geography	Region	Market	Geography	Region	Rome	Italy	Europe
<b>300,000-500,000</b>			<b>100,000-150,000</b>			San Jose, Costa Rica	Costa Rica	LatAm
London	U.K.	Europe	Amsterdam	Netherlands	Europe	Tel Aviv	Israel	Middle East
New York Metro	U.S.	N. America	Atlanta	U.S.	N. America			
Paris	France	Europe	Barcelona	Spain	Europe			
S. F. Bay Area	U.S.	N. America	Berlin	Germany	Europe			
Tokyo	Japan	APAC	Bogota	Colombia	LatAm			
Toronto-Waterloo	Canada	N. America	Buenos Aires	Argentina	LatAm			
Guangzhou	Mainland China	APAC	Dublin	Ireland	Europe			
			Hong Kong SAR	Hong Kong SAR	APAC			
Market	Geography	Region	Milan	Italy	Europe			
<b>200,000-300,000</b>			Munich	Germany	Europe			
Singapore	Singapore	APAC	Stockholm	Sweden	Europe			
Dallas-Ft. Worth	U.S.	N. America	Vancouver	Canada	N. America			
L.A.-Orange County	U.S.	N. America	Warsaw	Poland	Europe			
Madrid	Spain	Europe						
Mexico City	Mexico	LatAm						
Sao Paulo	Brazil	LatAm						
Sydney	Australia	APAC						
Washington, D.C.	U.S.	N. America						

■ Powerhouse Market ■ Established Market

Source: CBRE Consulting, September 2023.

Costs

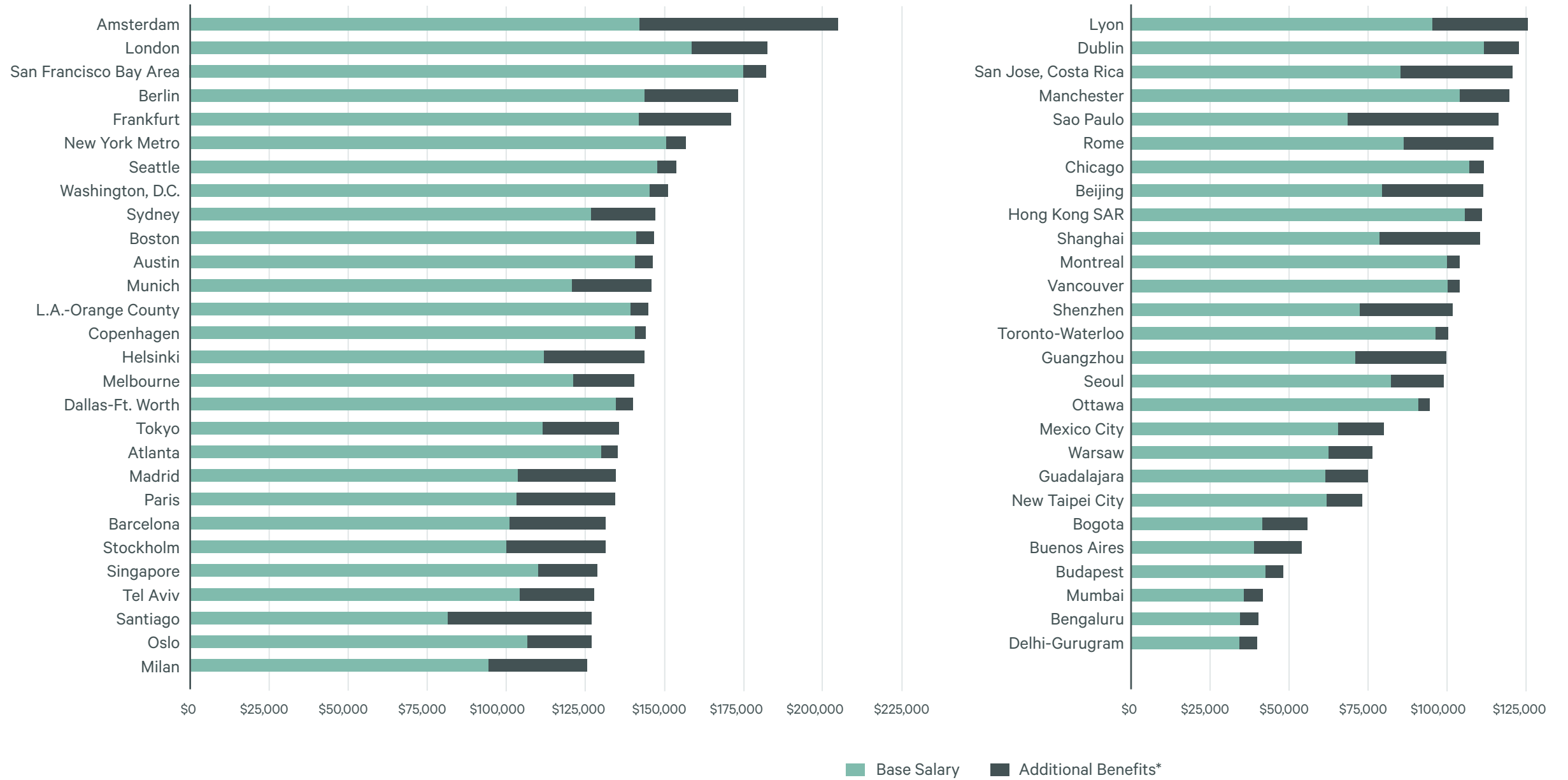




For most companies, labor is their largest expense, followed distantly by real estate. Highly skilled and educated tech talent workers often command much higher salaries than the average non-tech office worker. Average software engineer salaries were used to determine the cost of tech talent globally.

Figure 13: Average Software Engineer Compensation by Market in US\$ (2023)

Global software engineer salaries have two components: base or take-home pay and additional benefits, which are mandated by law. U.S.-dollar base salaries for software engineers are highest in the San Francisco Bay Area and London at \$175,213 and \$158,659, respectively. Amsterdam’s high additional benefits, equivalent to 31% of base salary, makes it the most highly compensated market for software engineers overall.



\*Additional benefits vary by market and may include mandatory employer costs like disability insurance, social security and health care.  
Source: CBRE Labor & Location Analytics, local government agencies, October 2023.

Figure 14: Office Market Fundamentals (Q3 2023)

Market	Office inventory (millions of sq. ft.)	Average annual asking rent* (US\$ per sq. ft.)	Vacancy Rate
Singapore	63	\$104.00	3.2%
Paris	650	\$98.35	7.7%
Beijing	113	\$94.00	22.7%
London	235	\$90.25	8.8%
Tokyo	274	\$78.00	6.6%
New York Metro	426	\$76.38	15.4%
Hong Kong SAR	N/A	\$76.00	15.8%
Stockholm	123	\$72.32	6.1%
Milan	135	\$70.95	9.5%
Dublin	52	\$68.85	14.7%
San Francisco Bay Area	255	\$64.14	24.1%
Shanghai	129	\$64.00	19.9%
Mumbai	N/A	\$57.00	17.3%
Helsinki	99	\$56.65	14.3%
Oslo	110	\$56.55	6.4%
Seoul	N/A	\$56.00	1.4%
Frankfurt	125	\$54.88	9.5%
Munich	244	\$54.88	6.1%
Manchester	23	\$53.06	16.9%
Rome	121	\$52.13	7.3%
Berlin	224	\$51.93	5.1%
Sydney	224	\$51.00	11.5%
Amsterdam	74	\$49.18	7.5%
New Taipei City	N/A	\$49.00	7.8%
Austin	65	\$48.27	21.7%
Seattle	120	\$46.48	21.7%
Madrid	138	\$45.44	11.7%
L.A.-Orange County	327	\$45.44	19.3%

\*Full service gross (FSG)

\*\*Tel Aviv's office data represents the average of the market's five major office submarkets in H1 2023

Market	Office inventory (millions of sq. ft.)	Average annual asking rent* (US\$ per sq. ft.)	Vacancy Rate
Boston	200	\$43.77	16.4%
Shenzhen	122	\$43.00	25.9%
Washington, D.C.	364	\$42.67	21.5%
Vancouver	52	\$41.24	9.6%
Guangzhou	71	\$37.00	20.9%
Tel Aviv*	N/A	\$36.12	2.8%
Chicago	249	\$36.04	25.2%
Sao Paulo	474	\$35.67	21.7%
Toronto-Waterloo	188	\$35.41	17.6%
Barcelona	70	\$33.64	13.4%
Lyon	74	\$33.44	5.8%
Dallas-Ft. Worth	232	\$31.77	25.1%
Warsaw	67	\$31.57	10.6%
Atlanta	151	\$30.53	23.6%
Copenhagen	71	\$30.30	6.1%
Budapest	47	\$28.92	13.2%
Montreal	78	\$28.29	17.8%
Mexico City	78	\$27.02	23.7%
Buenos Aires	27	\$26.16	18.3%
Bengaluru	N/A	\$26.00	13.6%
Delhi-Gurugram	N/A	\$26.00	31.6%
Ottawa	41	\$25.72	13.7%
Guadalajara	9	\$24.88	14.8%
Melbourne	55	\$23.00	15.0%
Santiago	29	\$21.30	12.4%
Bogota	33	\$20.74	10.9%
San Jose, Costa Rica	17	\$20.23	17.3%

Note: Measurement standards vary globally impacting inventory and rent per square foot. Office inventory is not available for all markets and is as of Q4 2022 for Latin American markets. Source: CBRE Research, Q3 2023.

Singapore had the highest rent, with an annual average gross direct asking rent of US\$104 per sq. ft. Hybrid work policies continue to impact office markets globally, with office vacancy rates not yet stabilized in many markets. The established markets of Delhi-Gurugram and Shenzhen had the highest office vacancy rates at more than 25%, while the San Francisco Bay Area and Beijing had the highest vacancy rates among powerhouse markets at more than 22%.

Even as remote and hybrid work arrangements become more common, office rent is the second-highest cost for most companies.

For tech talent workers, affordability of an apartment relative to their salary is a key consideration. Comparing the annual average apartment rent with the annual average software engineer salary shows that tech talent salaries can cover the cost of living in most global markets, based on the affordability standard of 30% or less of income for housing.

Figure 15: Apartment Rent & Wage Ratio by Market (US\$)

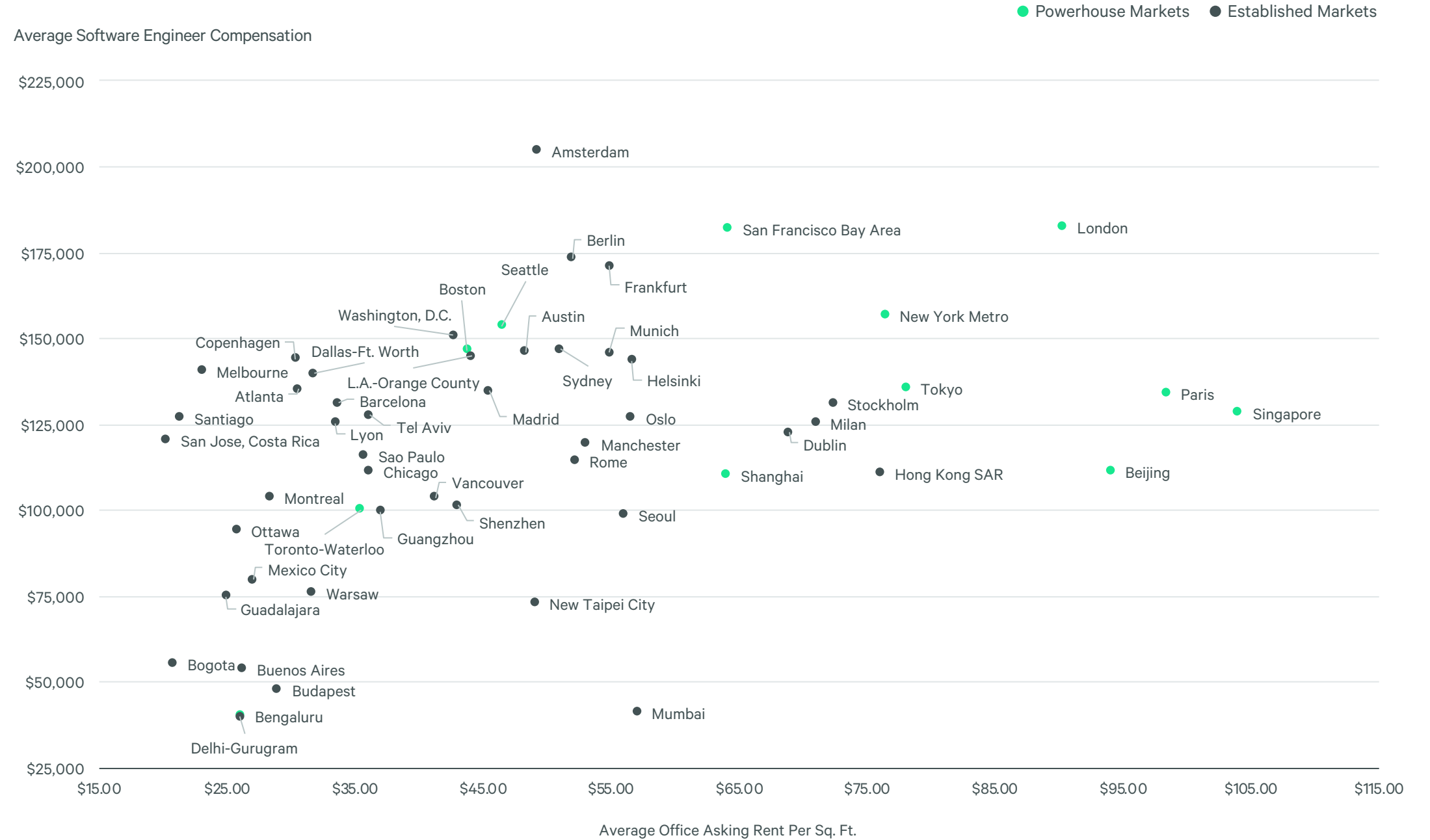
Market	Average Monthly Apartment Rent (Q4 2022)	Apartment Rent to Base SWE Salary Ratio*	Apartment Rent to Total SWE Salary Ratio*
Montreal	\$736	9%	9%
Berlin	\$811	7%	6%
Sao Paulo	\$824	14%	9%
Lyon	\$922	12%	9%
Budapest	\$1,025	29%	26%
Frankfurt	\$1,040	9%	7%
Ottawa	\$1,077	14%	14%
Madrid	\$1,116	13%	10%
Toronto-Waterloo	\$1,127	14%	13%
Stockholm	\$1,133	14%	10%
Guadalajara	\$1,135	22%	18%
Vancouver	\$1,228	15%	14%
Bogota	\$1,249	36%	27%
Barcelona	\$1,292	15%	12%
Milan	\$1,292	16%	12%
Munich	\$1,375	14%	11%
Buenos Aires	\$1,400	43%	31%
Manchester	\$1,422	16%	14%
Mexico City	\$1,459	27%	22%
Santiago	\$1,479	22%	14%

Market	Average Monthly Apartment Rent (Q4 2022)	Apartment Rent to Base SWE Salary Ratio*	Apartment Rent to Total SWE Salary Ratio*
San Jose, Costa Rica	\$1,484	21%	15%
Warsaw	\$1,492	29%	24%
Dallas-Ft. Worth	\$1,534	14%	13%
Helsinki	\$1,545	17%	13%
Copenhagen	\$1,598	14%	13%
Austin	\$1,669	14%	14%
Oslo	\$1,698	19%	16%
Atlanta	\$1,699	16%	15%
Chicago	\$1,787	20%	19%
Paris	\$1,891	22%	17%
Amsterdam	\$1,933	16%	11%
London	\$1,968	15%	13%
Washington, D.C.	\$2,040	17%	16%
Dublin	\$2,044	22%	20%
Seattle	\$2,112	17%	16%
Boston	\$2,698	23%	22%
L.A.-Orange County	\$2,776	24%	23%
San Francisco Bay Area	\$2,973	20%	20%
New York Metro	\$3,508	28%	27%

\*Annualized Q4 2022 apartment rent compared to median software engineer compensation by market in 2023.  
 Note: Markets excluded above do not have apartment rents tracked by CBRE. Apartment data for European markets is as of Q3 2023 and data for Toronto-Waterloo is represents a straight average.  
 Source: Economic Research Institute, CBRE Research, October 2023.

The relationship between software engineering wage and office space costs shows which markets are the most and least expensive to operate in. Budget-conscious companies that require tech talent may choose to locate in markets like Bogota and Delhi-Gurugram, while companies with more financial wherewithal may consider larger more expensive markets like the San Francisco Bay Area and London.

Figure 16: Average Office Asking Rent vs. Software Engineer Total Compensation by Market in US\$



Source: Economic Research Institute, CBRE Research, October 2023

# Emerging Markets



The COVID pandemic has fundamentally shifted real estate market dynamics. While this has created new challenges, it has also opened new opportunities, as remote work has allowed companies to employ tech talent in distant markets. The importance of technology in business has caused a global expansion of tech talent labor pools and the implementation of more distributed labor strategies by tech talent employers seeking innovation and efficiency.

Twenty out of many potential emerging markets were selected based on factors including tech talent growth, educational attainment, governance and existing tech ecosystems. These markets all hold strong growth potential and may offer cost benefits for companies.

Figure 17: Emerging Tech Talent Markets



Source: CBRE Research, December 2023.



**Bucharest, Romania**

Bucharest is the main technology, media and telecom hub of the country, with many major multinationals focusing on software, hardware, AI, gaming and e-commerce development. Tech companies are attracted to the market's top universities, highly skilled graduate population, zero percent income tax for IT employees and high internet speed.

**Cape Town, South Africa**

Cape Town has the country's highest proportion of households with internet access, about 90%. The city also has a growing number of tech savvy individuals and institutions offering training and development, with some of its universities focusing on courses in coding and data sciences.

**Cebu City, Philippines**

Cebu is an upcoming tech market in the Philippines with a good university ecosystem, increasing tech industry presence and geographic connectivity within the Asia Pacific region. The city is home to several global multi-national corporations that have established digital tech outsourcing centers. Favorable labor costs and scalability are key drivers for companies looking to establish/expand their presence here.

**Hanoi, Vietnam**

The Vietnamese government plans to expand the digital economy to 30% of national GDP by 2030. The country has become an important global manufacturing base for high-tech companies. It is seeing an increasing number of AI, blockchain and logistics company startups. Hanoi specifically is poised for tech talent growth with a large Korean employers new R&D center opening in 2024.

**Huntsville, United States**

The birthplace of rocket propulsion technology that took people to the moon, Huntsville is America's "Rocket City." Most of the market's tech ecosystem remains focused on aerospace and defense. Huntsville appeals to tech talent looking for a more affordable cost of living.

**Lagos, Nigeria**

Lagos is home to several universities and educational institutions that produce tech graduates in computer sciences, computer engineering, data sciences and related fields, as well as an existing pool of skilled tech talent. This has attracted many global tech companies that primarily have located in Ikoyi and Victoria Islands. Other key drivers for tech companies are the high spending power in Lagos compared with the rest of Nigeria, the high population level, access to economic opportunities and smartphone adoption.

**Medellin, Colombia**

Medellin is establishing itself as Latin America's Silicon Valley. It appeals due to its beautiful landscape, temperate climate, affordable lifestyle and tech-friendly economy. The city's

primary focus has been on attracting foreign companies and supporting talent with government-financed incubators and technical education programs.

**Merida, Mexico**

Merida was designated as a "smart city" in 2019 by the Mexican government due to the city's use of technology to improve quality of life. The creation of the Innovation Hub, a space for startups and to provide resources and mentorship to entrepreneurs, has also helped establish the market as a hub for tech talent.

**Montevideo, Uruguay**

The country's education system places an emphasis on STEM and computer science and is highly supportive of tech talent growth. The country is known in South America for its economic stability, reliable institutions, sustainability initiatives, existing tech infrastructure and cybersecurity. Most of the country's tech talent lives in the capital city of Montevideo.

**Nagoya, Japan**

Nagoya is repositioning itself from an auto manufacturing hub to an innovation center. Higher education initiatives have been at the center of the local government's plan to foster a culture of innovation and the city is attracting young tech companies, capital and international talent. In 2024, the city is opening Station AI, Japan's largest startup facility.

**Nairobi, Kenya**

Nairobi is the key Eastern African regional hub, leading with strong investment in the technology sector. It is widely referred to as the "Silicon Savannah" due to its vibrant tech ecosystem. The main factors in Nairobi's appeal to tech occupiers are business-friendly policies to attract international tech companies, a number of specialized universities and a highly skilled tech labor force. Since 2010, the country has invested in fiber optic cables to support the digital economy. Most tech companies are located in the Westlands commercial district.

**Porto, Portugal**

Porto has increasingly attracted expats, especially from Brazil, Italy and China, and now has more than 55,000 foreign-born inhabitants. Some are students in the city's top public and private educational institutions. The education system and foreign in-migration has created a healthy startup ecosystem and has led a number of IT companies to open offices in Porto.

**Queretaro, Mexico**

Queretaro has invested heavily in the tech industry and was ranked as Mexico's top state for foreign investment. Just a few hours from Mexico City by car, the market is considered an aerospace hub. It has also gained prominence as a location for data center development.

**Riyadh, Saudi Arabia**

Increased adoption of information technology and digitalization are key elements of the

country's Vision 2030 National Transformation Program. Riyadh is developing the Cloud Computing Special Economic Zone in King Abdulaziz City for Science and Technology. This initiative has already attracted a number of global tech companies.

**Seville, Spain**

The city has become a major center for cybersecurity and video gaming technology. The preferred area for tech companies in Seville is La Cartuja Tech and Scientific Park, offering close proximity to the city center and a substantial inventory of prime buildings at competitive rents.

**Tallinn, Estonia**

Tallinn accounts more than 50% of Estonia's GDP and supports a successful startup ecosystem and has good access to funding, mentorship and co-working space. The driving factors are a skilled workforce and higher education system, including Tallinn University and Tallinn University of Technology that emphasizes technology and digital skills. The city boasts a talent pool that is well-suited for tech-related roles.

**Valencia, Spain**

Valencia is attracting more attention from tech companies because of its high quality of life and supply of skilled talent from local universities. Most of the demand is from international companies opening their first Spanish headquarters. It is a small market with low office vacancy, which is why tech companies focus more on high quality buildings rather than on a specific area.

**Wellington, New Zealand**

Wellington has seen demand for tech talent grow across both public and private sectors. New Zealand's capital is known as "Silicon Welly" and has invested heavily in attracting foreign tech talent. Very good connectivity, a highly ranked university, business friendliness and high quality of life are the main drivers of growth.

**Wroclaw, Poland**

Wroclaw hosts over 110,000 students in engineering, IT, linguistics and other majors, with over 25,000 graduates entering the local labor market every year. The key tech subsectors are IT consulting, software, hardware, AI, gaming and e-commerce development. The city's main tech districts are the Center, Southern Axis and Western Business District submarkets.

**Yerevan, Armenia**

The country's tech sector has received considerable support since the early 2000s from the Armenian government, World Bank and European Union. Much of Armenia's tech industry remains small-scale and largely specializes in blockchain, no-code platforms, embedded software, EDA and custom software. Several local universities offer dedicated high-tech industry and data science programs and to foster partnerships with international tech companies.

## Africa: Growing Tech Talent Pools Make Continent Increasingly Attractive

Tech companies have become increasingly attracted to African markets over the past decade. Africa's strengthening economic and demographic fundamentals, combined with rising entrepreneurship, funding networks and supportive government policy, has expanded the scale and quality of its tech talent pool.

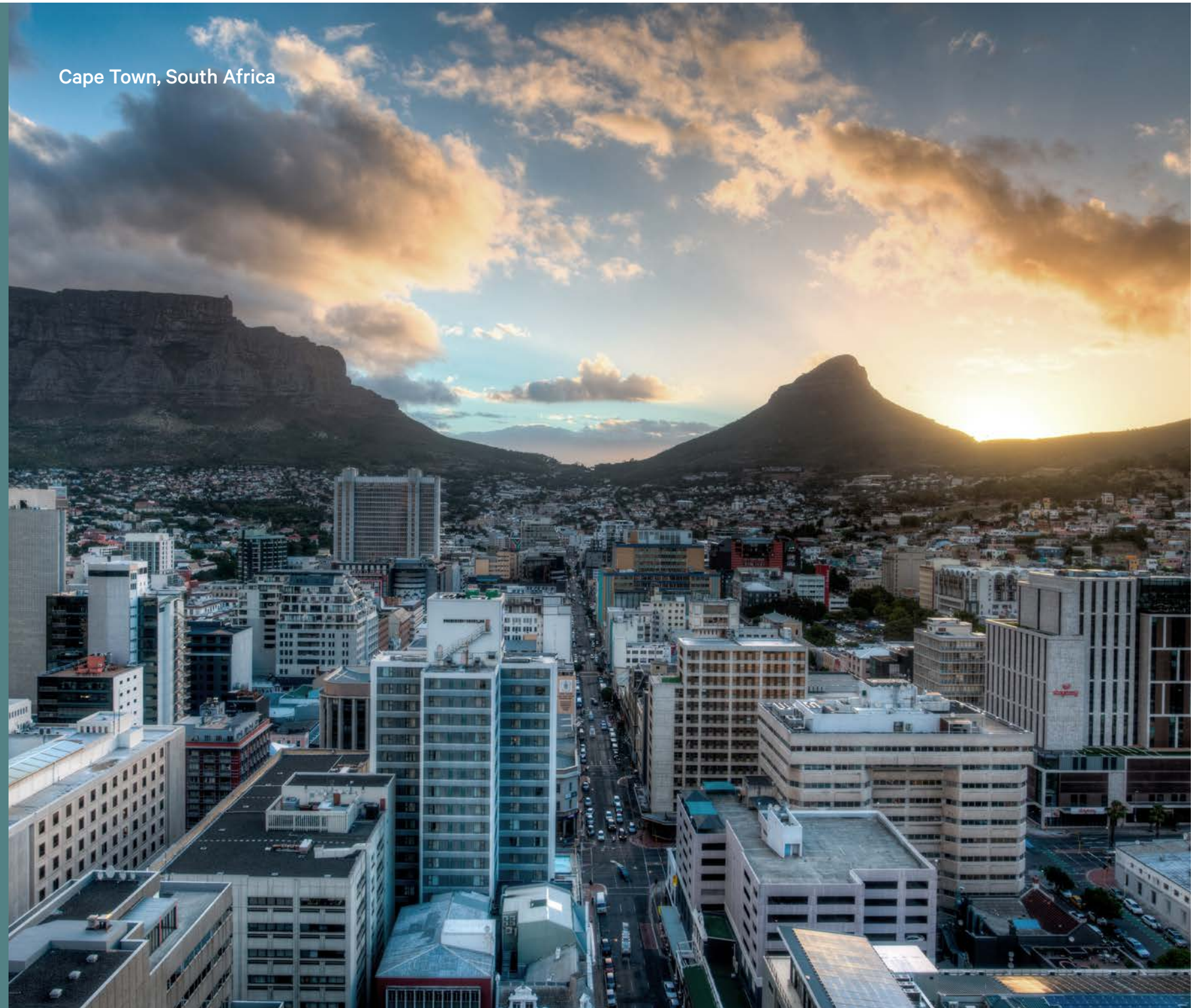
Economic and demographic trends underline the appeal. Africa's population is expected to increase by nearly 2.3% per year over the next decade, compared with 0.7% for the Americas and 0.1% for Europe. Annual GDP growth of more than 3% is expected for Africa over this period, compared with around 1.5% for more developed regions. There are many large and fast-growing metros on the continent with deepening tech talent pools, including Lagos (Nigeria), Nairobi (Kenya), Kampala (Uganda), Addis Ababa (Ethiopia) and Cape Town (South Africa).

Rising levels of private and venture capital funding and startup activity have boosted tech ecosystem growth. Private capital fundraising has grown significantly since 2020, with concentrations in financial services and tech. There has been a focus on west Africa, with Nigeria in particular attracting growing interest. There has also been growth in startup activity, with seven companies across the continent attaining unicorn status.

Development of tech talent pools to attract foreign investment is also a major focus of public policy in several African countries looking to bolster economic development. A direct by-product of rapid growth is increased data center demand. Expansion of fiber optic networks, internet penetration, the development of e-banking, smartphone adoption and the tech skills pool are all focus areas to accelerate and strengthen growth of Africa's tech ecosystem.

While Africa holds real promise as an emerging region for tech talent, there are also challenges and trade-offs, particularly in the areas of business operations and geopolitical risk.

Cape Town, South Africa



## The Lure of Smaller Markets: Skilled Labor Attracts Outside Investment

Tech companies are well-known for their tendency to cluster, which creates tech talent and tech industry ecosystems. They are drawn to large talent pools, premier educational and research institutions, established capital funding networks and amenity-rich cities like London, San Francisco and Singapore.

At the same time, companies in established hubs have relatively high labor and property costs, along with greater competition for tech talent. As a result, smaller markets have seen increased tech industry activity and investment. One measure of this is the number of tech companies establishing offices in new locations. In Europe and Asia-Pacific, the smaller markets of Malaga (Spain), Porto (Portugal), Riga (Latvia), Coimbatore (India), Jakarta (Indonesia) and Kuala Lumpur (Malaysia) have seen the highest proportion of tech company investment since 2003. This mimics the U.S. trend of channeling certain employee populations and growth from costly major metros like San Francisco and New York to the less costly Sun Belt markets where comparable talent is available.

For many companies, the primary consideration for location decisions is availability of skilled labor. This bodes well for certain smaller markets where tech talent pools are growing faster than in many major markets. Malaga's working age population, for example, has grown by nearly 6% over the past 10 years versus just over 3% for Madrid.

In addition to identifying markets with a quality supply of skilled talent, numerous other factors are critical to the success of a global talent location strategy. These include labor market regulations, competitive hiring environment, adoption of remote work, geopolitical risk, financial system risk, wage inflation and language skills.



## Hottest Tech Talent Skills in 2024

Attracting and retaining highly skilled tech talent has become increasingly critical for a wide range of sectors as technology's reach further expands. Tech talent will remain the key asset for innovation and company competitiveness across industries. As traditional industries adapt to new demand patterns and technology transforms their business models and workforces, the need to win and retain skilled personnel has increased.

Rising demand for tech skills in various industries has created a significant shortage of skilled professionals. According to the Korn Ferry Institute, there will be a shortage of 4.3 million tech talent workers with an unrealized output potential of \$450 billion globally by 2030.

The ongoing talent shortage requires companies to offer a compelling value proposition to attract and retain tech talent. Many companies are offering attractive compensation packages and training initiatives for their workers, as well as sourcing new talent globally via remote work arrangements.

Employers face difficulty finding qualified candidates with the right skill sets due to an ongoing shortage of tech talent in the fastest-growing fields. These include applied and generative AI, software development, machine learning, cloud and edge computing, UI/UX design, web3 (blockchain), full stack development, quantum computing, cyber security and resilience, future mobility and connectivity, and renewables and climate tech.

There is growing demand for qualified candidates with programming skills (e.g., C++, Java, Python, SQL, R language), data science skills (e.g., data processing, extraction, analysis and visualization) and cloud computing skills (e.g., SaaS, AWS, Microsoft Azure, machine learning). Skills in development, operations, administration and project management dealing with regulation, compliance, risk management and the integration of technology into companies are also in high demand.

Markets and regions with tech talent pools that offer much-needed skills are primed for renewed growth in coming years.



## Global Race for AI Talent

Artificial intelligence, the simulation of human intelligence in computer systems, is being utilized globally by a growing number of industries. In 2023, adoption of AI and utilization of tools like Chat-GPT became more mainstream. This caused a surge in demand for tech talent with specialized skills related to the creation and implementation of AI.

Like the tech industry overall, many AI companies have clustered in established urban markets, such as the San Francisco Bay Area and Beijing. These markets provide AI companies with easy access to funding networks and large tech talent pools. On the other hand, AI's rapid expansion has driven talent demand and led other companies to prioritize their access to talent pipelines, either by locating close to universities or in markets with a high number of migrating graduates. This has led to AI clusters in atypical locations like Oxford, Cambridge and Bologna.

The presence of an established AI-specific educational program is also a strong indicator of an emerging AI talent hub. This is evidenced by companies actively hiring AI talent in secondary U.S. markets like Albany (University of Albany), Buffalo (University at Buffalo) and Madison (University of Wisconsin) and in Asia-Pacific markets like Singapore (Nanyang Technological University) and Australia (University of Technology Sydney). Two CBRE reports have further details: [Artificial Intelligence: U.S. Talent Spotlight](#) and [Artificial Intelligence Tech Hubs: Asia-Pacific Talent Spotlight](#).

In a highly competitive industry like AI, companies must work hard to retain talent. According to data from LinkedIn surveys, AI talent is primarily driven by career growth, compensation levels and a desire to work on challenging and innovative projects. They are less concerned with managerial support, job security and work-life balance.

Global demand for AI talent continues to grow due to new company formations and expansions of existing companies, as well as the need to develop and use new technologies to improve business operations.



# Market Profiles

## Powerhouse Markets

[Beijing](#)  
[Bengaluru](#)  
[Boston](#)  
[London](#)  
[New York Metro](#)  
[Paris](#)

[San Francisco Bay Area](#)  
[Seattle](#)  
[Shanghai](#)  
[Singapore](#)  
[Tokyo](#)  
[Toronto-Waterloo](#)

## Established Markets

[Amsterdam](#)  
[Atlanta](#)  
[Austin](#)  
[Barcelona](#)  
[Berlin](#)  
[Bogota](#)  
[Budapest](#)  
[Buenos Aires](#)  
[Chicago](#)  
[Copenhagen](#)  
[Dallas-Ft. Worth](#)  
[Delhi-Gurugram](#)  
[Dublin](#)  
[Frankfurt](#)  
[Guadalajara](#)

[Guangzhou](#)  
[Helsinki](#)  
[Hong Kong SAR](#)  
[Los Angeles-Orange County](#)  
[Lyon](#)  
[Madrid](#)  
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[Melbourne](#)  
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[Stockholm](#)  
[Sydney](#)  
[Tel Aviv](#)  
[Vancouver](#)  
[Warsaw](#)  
[Washington, D.C.](#)

# Beijing Powerhouse Market

## TECH TALENT SUMMARY

**Over 500,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS

**113.5MM**  
Sq. ft. of office inventory

**\$94.00**  
Average asking rent per sq. ft.\*

**22.7%**  
Vacancy rate

Source: CBRE Research, Q3 2023

\* Prime open market rent

## WORKFORCE SUMMARY

### Working Age Population (2022)

**16,512**  
Working age population (Thousands)

**75.6%**  
Working age population share of overall population

**-0.2%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.

**\$79,251** + **\$31,978** = **\$111,229**  
Software engineer average base salary + Additional benefits = Total compensation

Source: ERI & CBRE Consulting, September 2023.

**N/A**  
Average apartment rent per unit per month

**N/A**  
Average rent to software engineer base wage ratio\*

Note: Apartment rents are not tracked.

\*Ratio of annualized apartment rent to average annual SWE base salary (2022).

**8.9%**  
of the country's working age population holds a bachelor's degree or higher

**106**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW

**3.6%**  
Unemployment rate in 2022

**57.67**  
Labor regulations and ease of doing business score

**55.9**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score. Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE

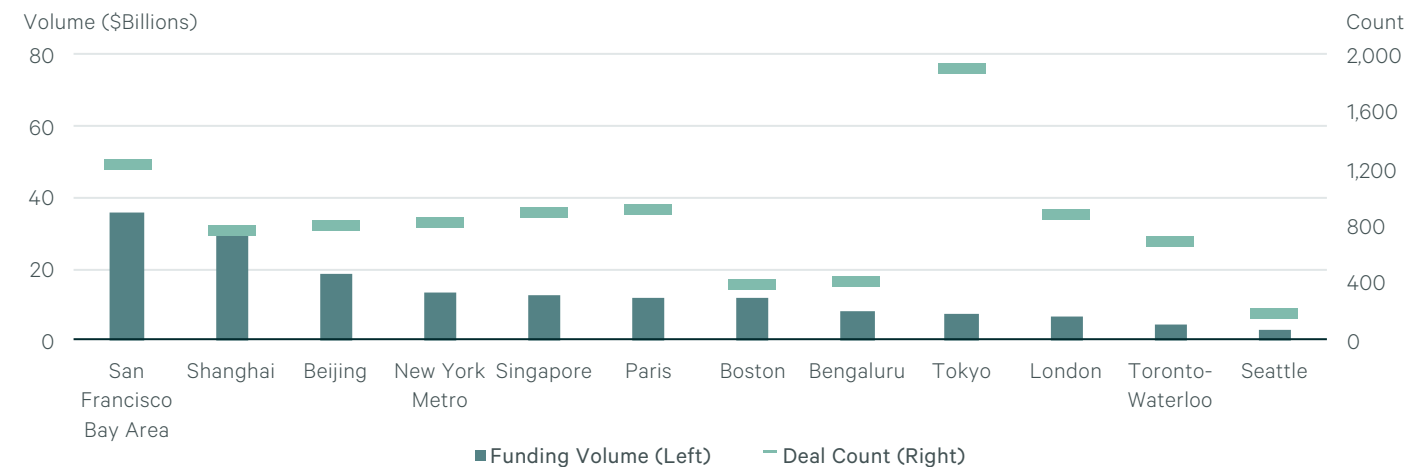
**77.4**  
Average Life Expectancy in 2019

**160**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country. Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

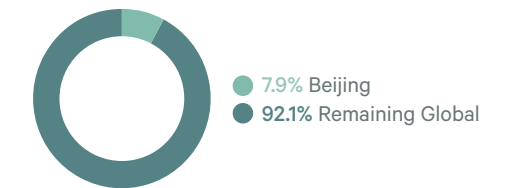
## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Powerhouse Markets



Note: Values shown in USD\$. Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



**61** unicorns  
**31** IPOs  
**\$1.1** Billion of AI VC funding  
**98** AI VC deals

Source: CB Insights & CBRE Research, January 2024.

# Bengaluru Powerhouse Market

## TECH TALENT SUMMARY

**Over 500,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS

**N/A**  
Sq. ft. of office inventory

**\$26.00**  
Average asking rent per sq. ft.\*

**13.6%**  
Vacancy rate

Note: Office inventory is not tracked.  
Source: CBRE Research, Q3 2023

\* Prime open market rent

## WORKFORCE SUMMARY

### Working Age Population (2022)

**11,466**  
Working age population (Thousands)

**74.9%**  
Working age population share of overall population

**2.4%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.

**\$34,526** + **\$5,783** = **\$40,309**  
Software engineer average base salary + Additional benefits = Total compensation

Source: ERI & CBRE Consulting, September 2023.

**N/A**  
Average apartment rent per unit per month

**N/A**  
Average rent to software engineer base wage ratio\*

Note: Apartment rents are not tracked.

\*Ratio of annualized apartment rent to average annual SWE base salary (2022).

**12.9%**  
of the country's working age population holds a bachelor's degree or higher

**21**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW

**7.6%**  
Unemployment rate in 2022

**35.65**  
Labor regulations and ease of doing business score

**38.6**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score.  
Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE

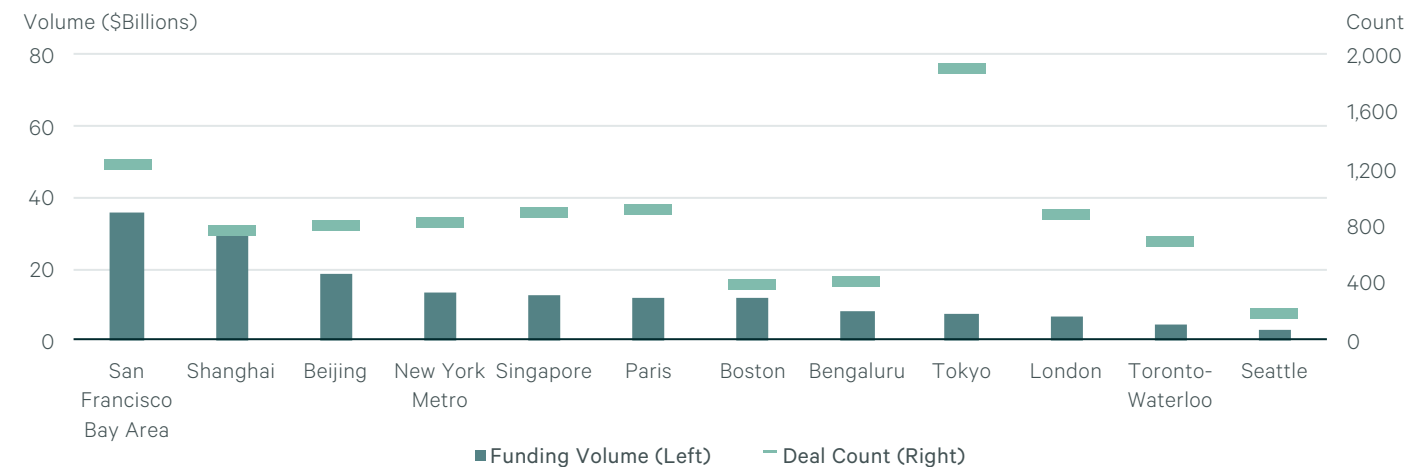
**70.8**  
Average Life Expectancy in 2019

**180**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country.  
Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

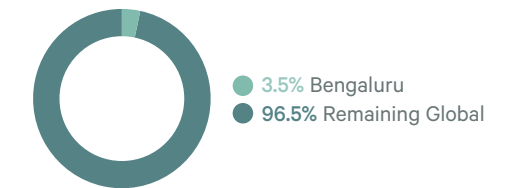
## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Powerhouse Markets



Note: Values shown in USD\$.  
Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



**27**  
unicorns

**7**  
IPOs

**\$0.2**  
Billion of AI VC funding

**29**  
AI VC deals

Source: CB Insights & CBRE Research, January 2024.



# Boston Powerhouse Market

## TECH TALENT SUMMARY

**150,000-200,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS



**200.5MM**  
Sq. ft. of office inventory

**\$43.77**  
Average asking rent per sq. ft.

**16.4%**  
Vacancy rate

Source: CBRE Research, Q3 2023

## WORKFORCE SUMMARY

### Working Age Population (2022)



**3,293**  
Working age population (Thousands)



**67.2%**  
Working age population share of overall population



**-0.1%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.

**\$140,964** + **\$5,636** = **\$146,600**  
Software engineer average base salary + Additional benefits = Total compensation

Source: ERI & CBRE Consulting, September 2023.



**\$2,698**  
Average apartment rent per unit per month

**23.0%**  
Average rent to software engineer base wage ratio\*

Source: CBRE Research, CBRE Consulting & ERI, September 2023

\*Ratio of annualized apartment rent to average annual SWE base salary (2022).



**39.4%**  
of the country's working age population holds a bachelor's degree or higher



**199**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW



**2.8%**  
Unemployment rate in 2023



**83.61**  
Labor regulations and ease of doing business score



**95.5**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score. Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE



**78.5**  
Average Life Expectancy in 2019



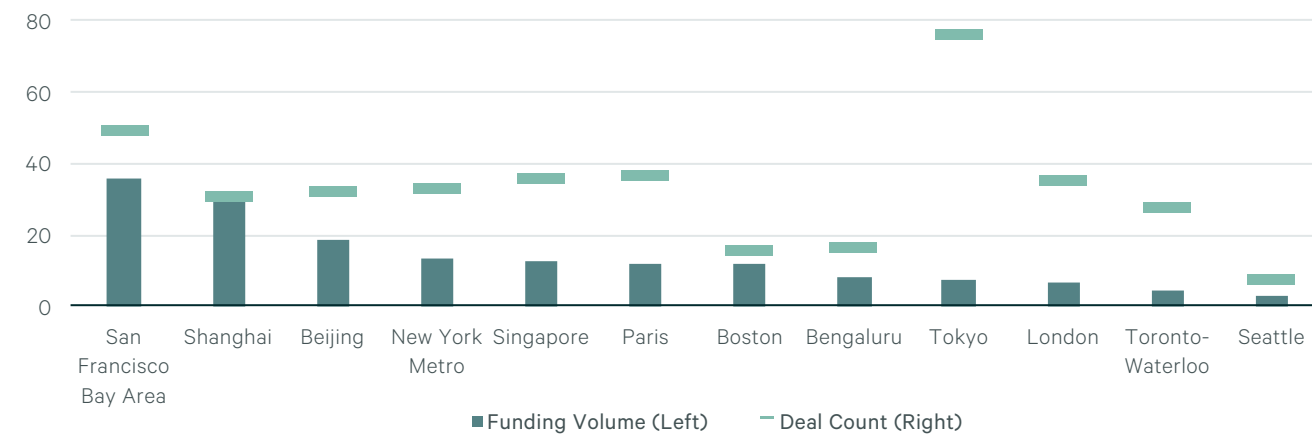
**43**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country. Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

## VENTURE CAPITAL SUMMARY (2023)

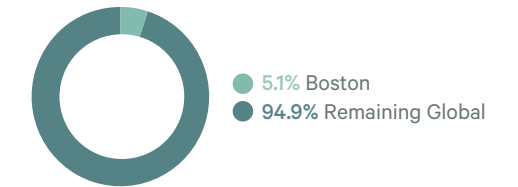
### VC Funding Volume (\$ Billions) & Deal Count | Powerhouse Markets

Volume (\$Billions)



Note: Values shown in USD\$. Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



**20**  
unicorns

**3**  
IPOs



**\$1.5**  
Billion of AI VC funding

**54**  
AI VC deals

Source: CB Insights & CBRE Research, January 2024.

# London Powerhouse Market


## TECH TALENT SUMMARY

 **300,000-500,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS

 **234.6MM**  
Sq. ft. of office inventory

**\$90.25**  
Average asking rent per sq. ft.\*


**8.8%**  
Vacancy rate

Source: CBRE Research, Q3 2023

\* Prime open market rent

## WORKFORCE SUMMARY


### Working Age Population (2022)

 **6,341**  
Working age population (Thousands)


 **69.4%**  
Working age population share of overall population

 **0.9%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.

 **\$158,659** +  **\$23,879** =  **\$182,537**  
Software engineer average base salary + Additional benefits = Total compensation


Source: ERI & CBRE Consulting, September 2023.


 **\$1,968**  
Average apartment rent per unit per month

**14.9%**  
Average rent to software engineer base wage ratio\*

Source: CBRE Research, CBRE Consulting & ERI, September 2023

\*Ratio of annualized apartment rent to average annual SWE base salary (2022).

 **42.3%**  
of the country's working age population holds a bachelor's degree or higher

 **70**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW


 **4.7%**  
Unemployment rate in 2023

 **74.38**  
Labor regulations and ease of doing business score

 **94.1**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score.  
Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE

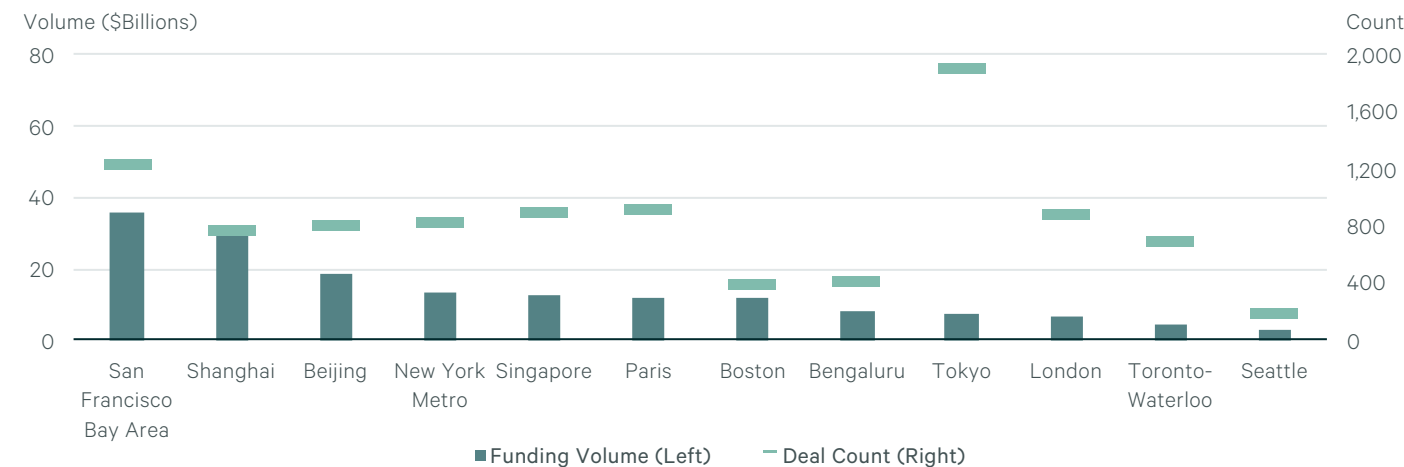
 **81.4**  
Average Life Expectancy in 2019

 **2**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country.  
Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

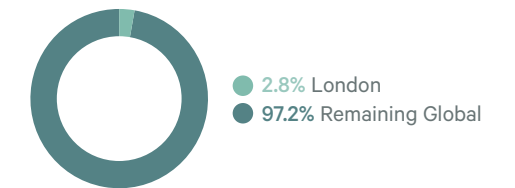
## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Powerhouse Markets



Note: Values shown in USD\$.  
Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



 **44**  
unicorns

**15**  
IPOs

 **\$1.2**  
Billion of AI VC funding

**183**  
AI VC deals

Source: CB Insights & CBRE Research, January 2024.

# New York Metro Powerhouse Market


## TECH TALENT SUMMARY

 **300,000-500,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS

 **425.6MM**  
Sq. ft. of office inventory

**\$76.38**  
Average asking rent per sq. ft.

**15.4%**  
Vacancy rate

Source: CBRE Research, Q3 2023

## WORKFORCE SUMMARY




### Working Age Population (2022)

 **13,332**  
Working age population (Thousands)


 **66.1%**  
Working age population share of overall population

 **-0.6%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.

 **\$150,699** +  **\$6,032** =  **\$156,731**  
Software engineer average base salary + Additional benefits = Total compensation


Source: ERI & CBRE Consulting, September 2023.


 **\$3,508**  
Average apartment rent per unit per month

**27.9%**  
Average rent to software engineer base wage ratio\*

Source: CBRE Research, CBRE Consulting & ERI, September 2023

\*Ratio of annualized apartment rent to average annual SWE base salary (2022).

 **39.4%**  
of the country's working age population holds a bachelor's degree or higher

 **199**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW


 **4.3%**  
Unemployment rate in 2023


 **83.61**  
Labor regulations and ease of doing business score

 **95.5**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score.  
Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE

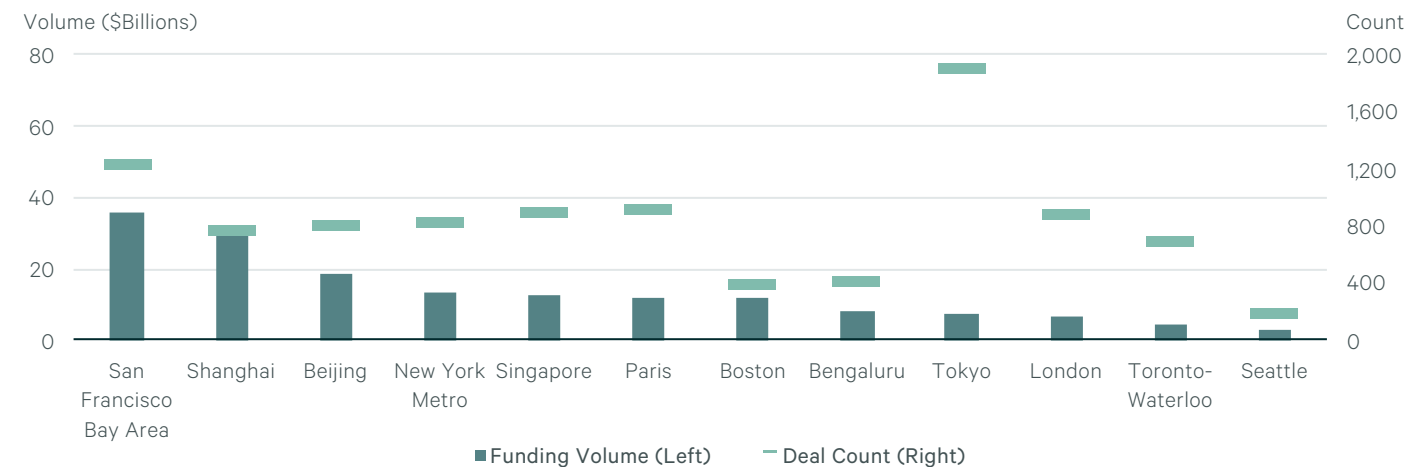
 **78.5**  
Average Life Expectancy in 2019

 **43**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country.  
Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

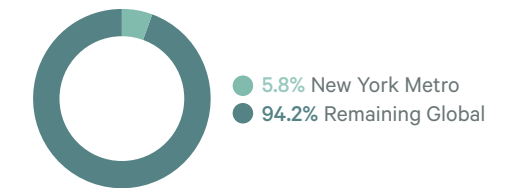
## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Powerhouse Markets




Note: Values shown in USD\$.  
Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



 **130**  
unicorns

**27**  
IPOs

 **\$3.7**  
Billion of AI VC funding

**113**  
AI VC deals

Source: CB Insights & CBRE Research, January 2024.

# Paris Powerhouse Market

## TECH TALENT SUMMARY

**300,000-500,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS



**649.8MM**  
Sq. ft. of office inventory

**\$98.35**  
Average asking rent per sq. ft.\*

**7.7%**  
Vacancy rate

Source: CBRE Research, Q3 2023

\* Prime open market rent

## WORKFORCE SUMMARY

### Working Age Population (2022)



**8,061**  
Working age population (Thousands)



**65.3%**  
Working age population share of overall population



**0.1%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.

**\$103,038** + **\$31,324** = **\$134,362**  
Software engineer average base salary + Additional benefits = Total compensation

Source: ERI & CBRE Consulting, September 2023.



**\$1,891**  
Average apartment rent per unit per month

**22.0%**  
Average rent to software engineer base wage ratio\*

Source: CBRE Research, CBRE Consulting & ERI, September 2023

\*Ratio of annualized apartment rent to average annual SWE base salary (2022).



**27.2%**  
of the country's working age population holds a bachelor's degree or higher



**39**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW



**7.4%**  
Unemployment rate in 2023



**66.90**  
Labor regulations and ease of doing business score



**92.1**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score. Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE



**82.5**  
Average Life Expectancy in 2019

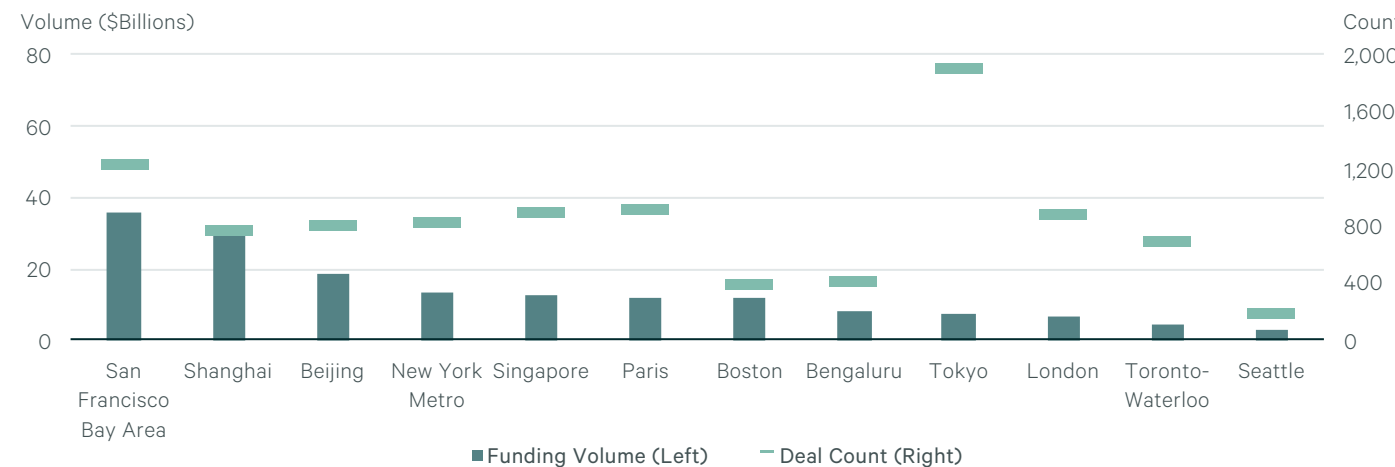


**12**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country. Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

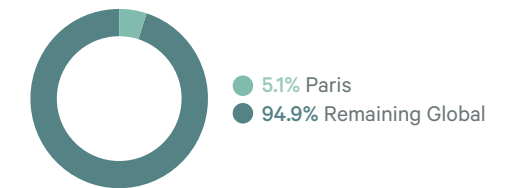
## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Powerhouse Markets



Note: Values shown in USD\$. Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



**19**  
unicorns

**1**  
IPO



**\$1.2**  
Billion of AI VC funding

**64**  
AI VC deals

Source: CB Insights & CBRE Research, January 2024.

# San Francisco Bay Area Powerhouse Market

## TECH TALENT SUMMARY

 **300,000-500,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS



**255.4MM**  
Sq. ft. of office inventory

**\$64.14**  
Average asking rent per sq. ft.

**24.1%**  
Vacancy rate

Source: CBRE Research, Q3 2023

## WORKFORCE SUMMARY

### Working Age Population (2022)



**4,399**  
Working age population (Thousands)






**67.4%**  
Working age population share of overall population



**-1.0%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.

 **\$175,213** +  **\$7,004** =  **\$182,217**  
Software engineer average base salary + Additional benefits = Total compensation

Source: ERI & CBRE Consulting, September 2023.



**\$2,973**  
Average apartment rent per unit per month

**20.4%**  
Average rent to software engineer base wage ratio\*

Source: CBRE Research, CBRE Consulting & ERI, September 2023

\*Ratio of annualized apartment rent to average annual SWE base salary (2022).



**39.4%**  
of the country's working age population holds a bachelor's degree or higher



**199**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW



**3.5%**  
Unemployment rate in 2023



**83.61**  
Labor regulations and ease of doing business score



**95.5**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score. Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE



**78.5**  
Average Life Expectancy in 2019



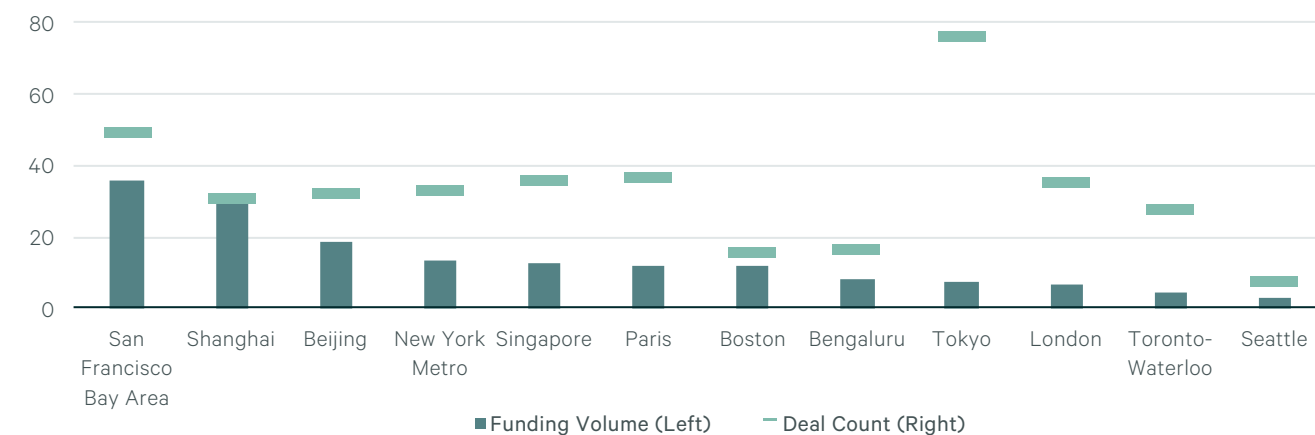
**43**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country. Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Powerhouse Markets

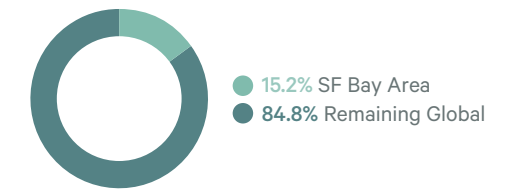
Volume (\$Billions)



■ Funding Volume (Left) ■ Deal Count (Right)

Note: Values shown in USD\$. Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



**291**  
unicorns

**14**  
IPOs



**\$9.2**  
Billion of AI VC funding

**291**  
AI VC deals

Source: CB Insights & CBRE Research, January 2024.

# Seattle Powerhouse Market

## TECH TALENT SUMMARY

 **150,000-200,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS

 **119.9MM**  
Sq. ft. of office inventory

**\$46.48**  
Average asking rent per sq. ft.


**21.7%**  
Vacancy rate


Source: CBRE Research, Q3 2023

## WORKFORCE SUMMARY




### Working Age Population (2022)

 **2,756**  
Working age population (Thousands)


 **68.3%**  
Working age population share of overall population

 **0.5%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.

 **\$147,762** +  **\$5,909** =  **\$153,671**  
Software engineer average base salary + Additional benefits = Total compensation


Source: ERI & CBRE Consulting, September 2023.


 **\$2,112**  
Average apartment rent per unit per month

**17.2%**  
Average rent to software engineer base wage ratio\*

Source: CBRE Research, CBRE Consulting & ERI, September 2023

\*Ratio of annualized apartment rent to average annual SWE base salary (2022).

 **39.4%**  
of the country's working age population holds a bachelor's degree or higher


 **199**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW


 **3.6%**  
Unemployment rate in 2023


 **83.61**  
Labor regulations and ease of doing business score

 **95.5**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score.  
Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE

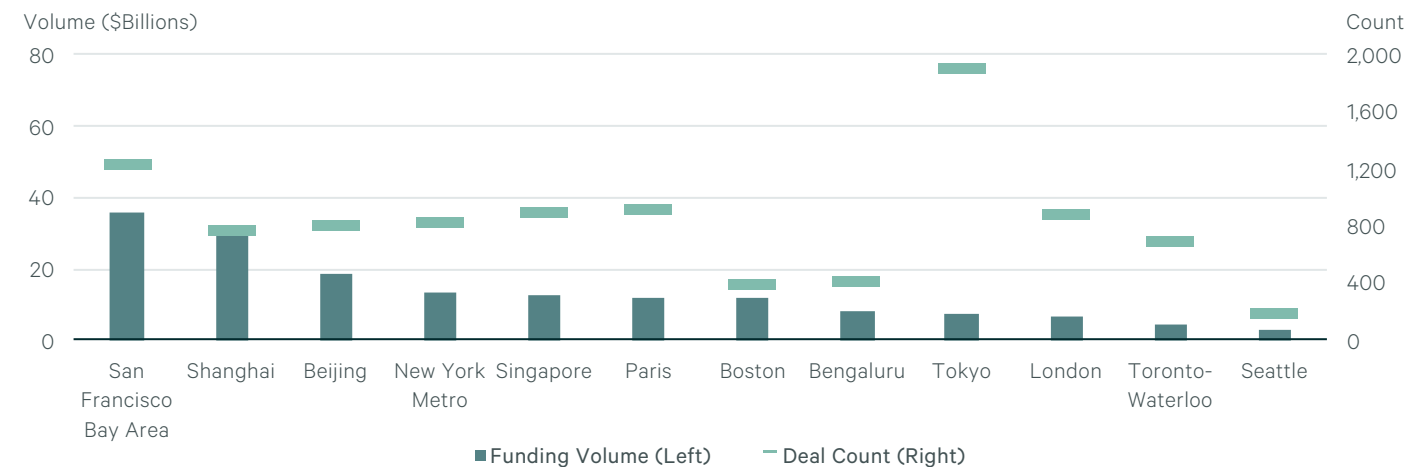
 **78.5**  
Average Life Expectancy in 2019

 **43**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country.  
Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

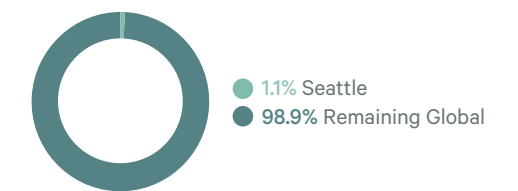
## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Powerhouse Markets




Note: Values shown in USD\$.  
Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



 **12**  
unicorns

**1**  
IPO

 **\$0.4**  
Billion of AI VC funding

**39**  
AI VC deals

Source: CB Insights & CBRE Research, January 2024.

# Shanghai Powerhouse Market

## TECH TALENT SUMMARY

**Over 500,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS

**128.6MM**  
Sq. ft. of office inventory

**\$64.00**  
Average asking rent per sq. ft.\*

**19.9%**  
Vacancy rate

Source: CBRE Research, Q3 2023

\* Prime open market rent

## WORKFORCE SUMMARY

### Working Age Population (2022)

**18,460**  
Working age population (Thousands)

**74.6%**  
Working age population share of overall population

**-0.3%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.

**\$78,535** + **\$31,689** = **\$110,224**  
Software engineer average base salary + Additional benefits = Total compensation

Source: ERI & CBRE Consulting, September 2023.

**N/A**  
Average apartment rent per unit per month

**N/A**  
Average rent to software engineer base wage ratio\*

Note: Apartment rents are not tracked.

\*Ratio of annualized apartment rent to average annual SWE base salary (2022).

**8.9%**  
of the country's working age population holds a bachelor's degree or higher

**106**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW

**3.6%**  
Unemployment rate in 2022

**57.67**  
Labor regulations and ease of doing business score

**55.9**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score. Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE

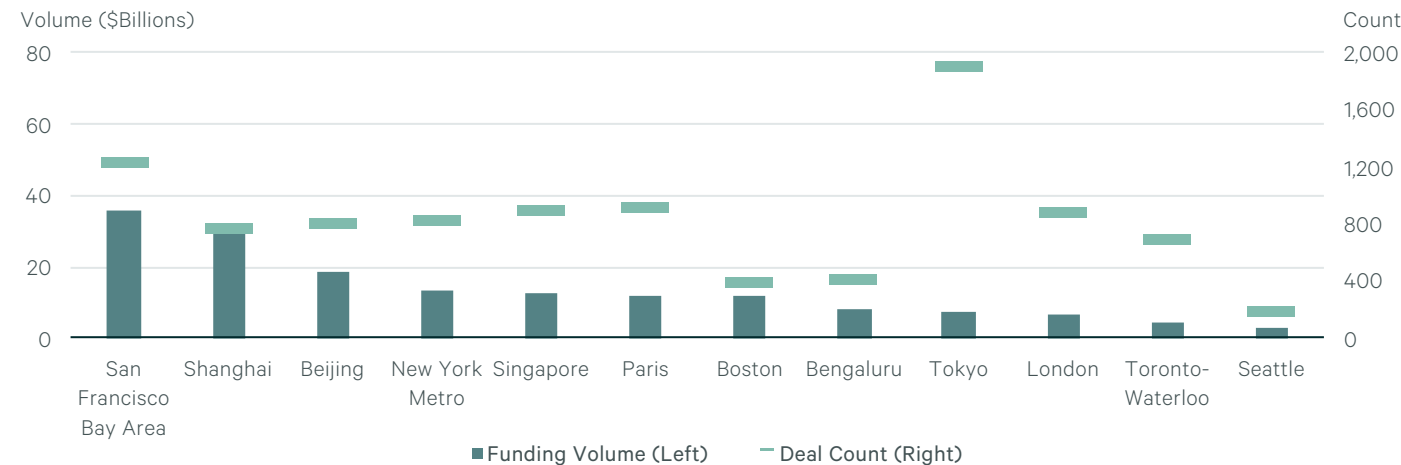
**77.4**  
Average Life Expectancy in 2019

**160**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country. Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

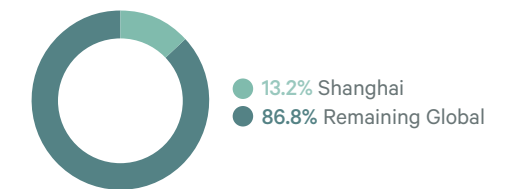
## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Powerhouse Markets



Note: Values shown in USD\$. Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



**37**  
unicorns

**38**  
IPOs

**\$0.6**  
Billion of AI VC funding

**45**  
AI VC deals

Source: CB Insights & CBRE Research, January 2024.

# Singapore Powerhouse Market


## TECH TALENT SUMMARY

 **200,000-300,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS

 **62.5MM**  
Sq. ft. of office inventory

**\$104.00**  
Average asking rent per sq. ft.\*

**3.2%**  
Vacancy rate

Source: CBRE Research, Q3 2023

\* Prime open market rent

## WORKFORCE SUMMARY




### Working Age Population (2022)

 **4,119**  
Working age population (Thousands)


 **72.3%**  
Working age population share of overall population

 **-0.1%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.

 **\$109,975** +  **\$18,696** =  **\$128,671**  
Software engineer average base salary + Additional benefits = Total compensation


Source: ERI & CBRE Consulting, September 2023.


 **N/A**  
Average apartment rent per unit per month

**N/A**  
Average rent to software engineer base wage ratio\*

Note: Apartment rents are not tracked.

\*Ratio of annualized apartment rent to average annual SWE base salary (2022).

 **43.8%**  
of the country's working age population holds a bachelor's degree or higher

 **4**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW

 **2.0%**  
Unemployment rate in 2023


 **81.95**  
Labor regulations and ease of doing business score

 **84.4**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score. Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE

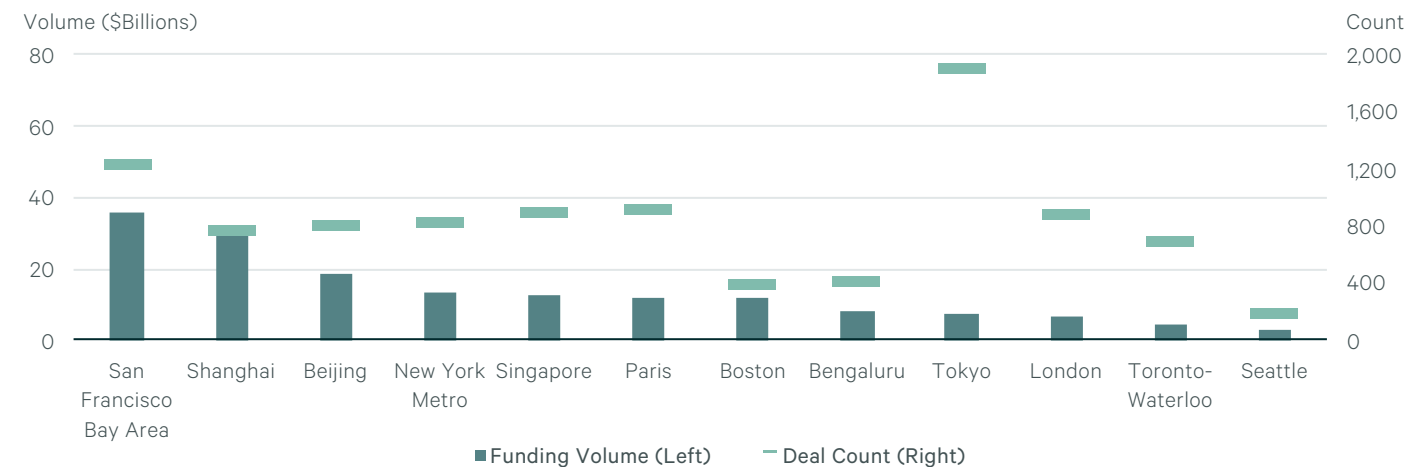
 **83.2**  
Average Life Expectancy in 2019

 **44**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country. Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

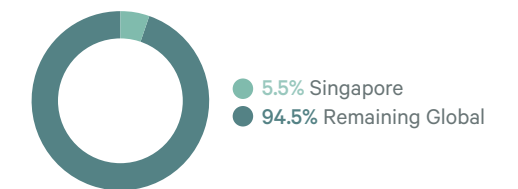
## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Powerhouse Markets



Note: Values shown in USD\$. Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



 **16**  
unicorns

**15**  
IPOs

 **\$0.3**  
Billion of AI VC funding

**81**  
AI VC deals

Source: CB Insights & CBRE Research, January 2024.



# Tokyo Powerhouse Market

## TECH TALENT SUMMARY

**300,000-500,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS

**273.7MM**  
Sq. ft. of office inventory

**\$78.00**  
Average asking rent per sq. ft.\*

**6.6%**  
Vacancy rate

Source: CBRE Research, Q3 2023

\* Prime open market rent

## WORKFORCE SUMMARY

### Working Age Population (2022)

**9,149**  
Working age population (Thousands)

**64.8%**  
Working age population share of overall population

**0.2%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.

**\$111,350** + **\$24,141** = **\$135,491**  
Software engineer average base salary + Additional benefits = Total compensation

Source: ERI & CBRE Consulting, September 2023.

**N/A**  
Average apartment rent per unit per month

**N/A**  
Average rent to software engineer base wage ratio\*

Note: Apartment rents are not tracked.

\*Ratio of annualized apartment rent to average annual SWE base salary (2022).

**34.9%**  
of the country's working age population holds a bachelor's degree or higher

**21**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW

**2.6%**  
Unemployment rate in 2023

**78.19**  
Labor regulations and ease of doing business score

**91.3**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score. Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE

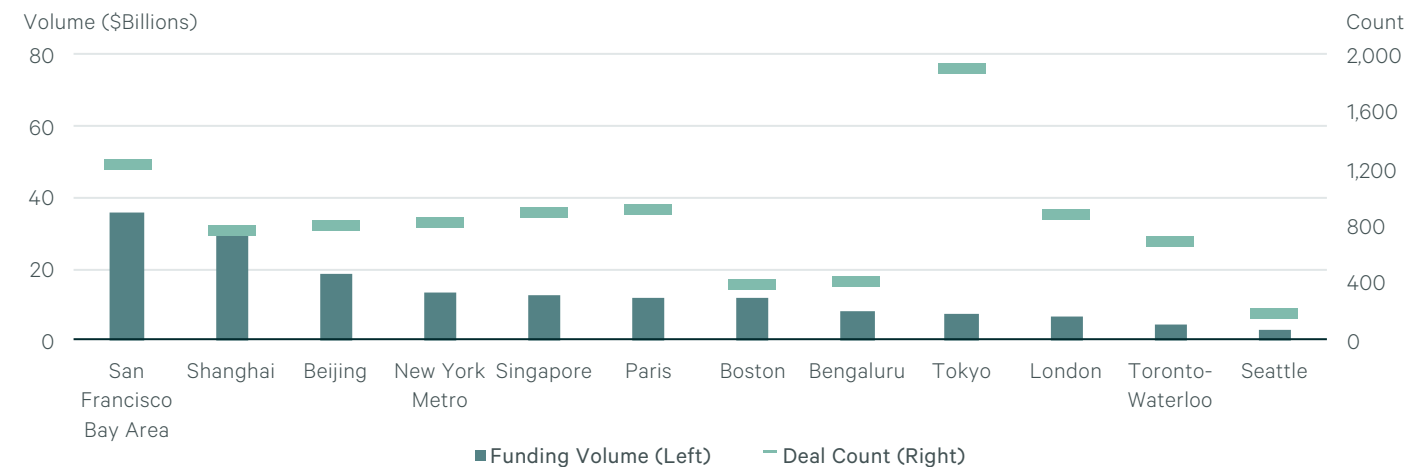
**84.3**  
Average Life Expectancy in 2019

**25**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country. Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

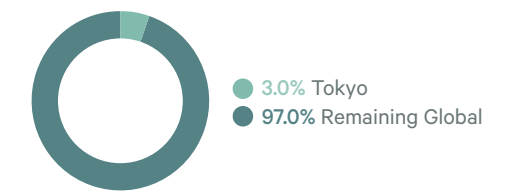
## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Powerhouse Markets



Note: Values shown in USD\$. Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



**4** unicorns  
**36** IPOs  
**\$0.2** Billion of AI VC funding  
**94** AI VC deals

Source: CB Insights & CBRE Research, January 2024.

# Toronto-Waterloo Powerhouse Market

## TECH TALENT SUMMARY

 **300,000-500,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS

 **187.8MM**  
Sq. ft. of office inventory

**\$35.41**  
Average asking rent per sq. ft.


**17.6%**  
Vacancy rate

Source: CBRE Research, Q3 2023

## WORKFORCE SUMMARY




### Working Age Population (2022)

 **5,062**  
Working age population (Thousands)

 **69.3%**  
Working age population share of overall population

 **1.5%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.

 **\$96,414** +  **\$3,858** =  **\$100,272**  
Software engineer average base salary + Additional benefits = Total compensation


Source: ERI & CBRE Consulting, September 2023.

 **\$1,127**  
Average apartment rent per unit per month

**14.0%**  
Average rent to software engineer base wage ratio\*

Source: CBRE Research, CBRE Consulting & ERI, September 2023

\*Ratio of annualized apartment rent to average annual SWE base salary (2022).

 **36.3%**  
of the country's working age population holds a bachelor's degree or higher

 **26**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW

 **6.0%**  
Unemployment rate in 2023


 **74.33**  
Labor regulations and ease of doing business score

 **75.2**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score.  
Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE

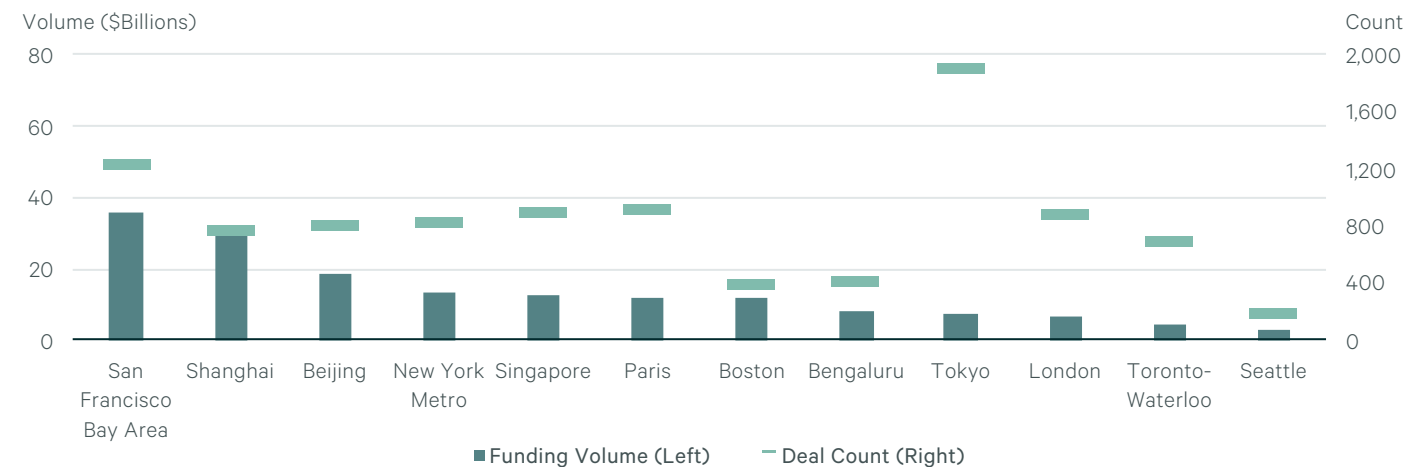
 **82.2**  
Average Life Expectancy in 2019

 **49**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country.  
Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

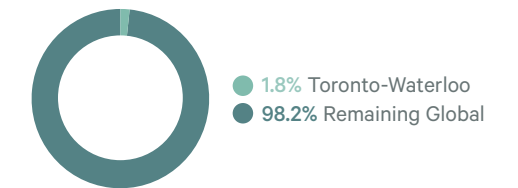
## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Powerhouse Markets



Note: Values shown in USD\$.  
Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



 **11**  
unicorns

**11**  
IPOs

 **\$0.9**  
Billion of AI VC funding

**63**  
AI VC deals

Source: CB Insights & CBRE Research, January 2024.

# Amsterdam Established Market

## TECH TALENT SUMMARY

**100,000-150,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS

**73.9MM**  
Sq. ft. of office inventory

**\$49.18**  
Average asking rent per sq. ft.\*

**7.5%**  
Vacancy rate

Source: CBRE Research, Q3 2023

\* Prime open market rent

## WORKFORCE SUMMARY

### Working Age Population (2022)

**993**  
Working age population (Thousands)

**69.7%**  
Working age population share of overall population

**1.0%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.

**\$142,183** + **\$62,490** = **\$204,673**  
Software engineer average base salary + Additional benefits = Total compensation

Source: ERI & CBRE Consulting, September 2023.

**\$1,933**  
Average apartment rent per unit per month

**16.3%**  
Average rent to software engineer base wage ratio\*

Source: CBRE Research, CBRE Consulting & ERI, September 2023

\*Ratio of annualized apartment rent to average annual SWE base salary (2022).

**42.4%**  
of the country's working age population holds a bachelor's degree or higher

**13**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW

**4.0%**  
Unemployment rate in 2023

**81.18**  
Labor regulations and ease of doing business score

**90.7**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score. Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE

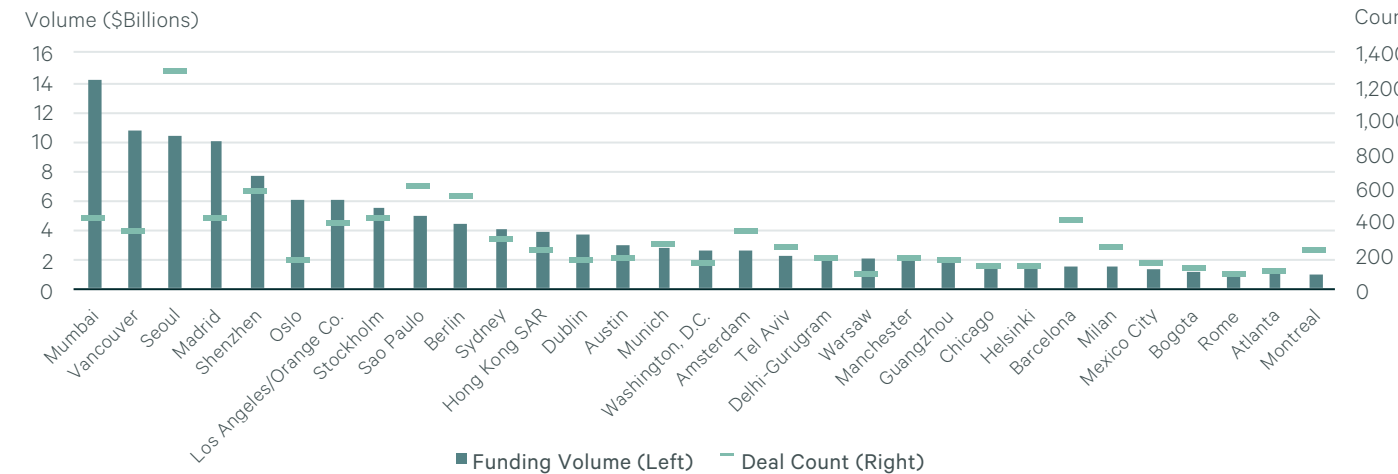
**81.8**  
Average Life Expectancy in 2019

**11**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country. Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

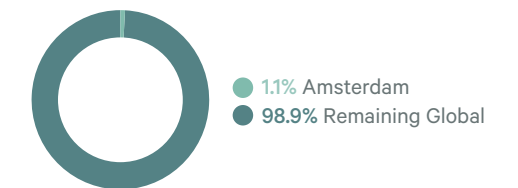
## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Established Markets



Note: Values shown in USD\$. Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



**9**  
unicorns

**1**  
IPO

**\$0.0**  
Billion of AI VC funding

**22**  
AI VC deals

Source: CB Insights & CBRE Research, January 2024.

# Atlanta Established Market

## TECH TALENT SUMMARY

**100,000-150,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS



**151.3MM**  
Sq. ft. of office inventory

**\$30.53**  
Average asking rent per sq. ft.

**23.6%**  
Vacancy rate

Source: CBRE Research, Q3 2023

## WORKFORCE SUMMARY

### Working Age Population (2022)



**4,194**  
Working age population (Thousands)



**67.5%**  
Working age population share of overall population



**1.0%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.



**\$130,026**  
Software engineer average base salary



**\$5,205**  
Additional benefits



**\$135,232**  
Total compensation

Source: ERI & CBRE Consulting, September 2023.



**\$1,699**  
Average apartment rent per unit per month

**15.7%**  
Average rent to software engineer base wage ratio\*

Source: CBRE Research, CBRE Consulting & ERI, September 2023

\*Ratio of annualized apartment rent to average annual SWE base salary (2022).



**39.4%**  
of the country's working age population holds a bachelor's degree or higher



**199**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW



**3.3%**  
Unemployment rate in 2023



**83.61**  
Labor regulations and ease of doing business score



**95.5**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score. Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE



**78.5**  
Average Life Expectancy in 2019

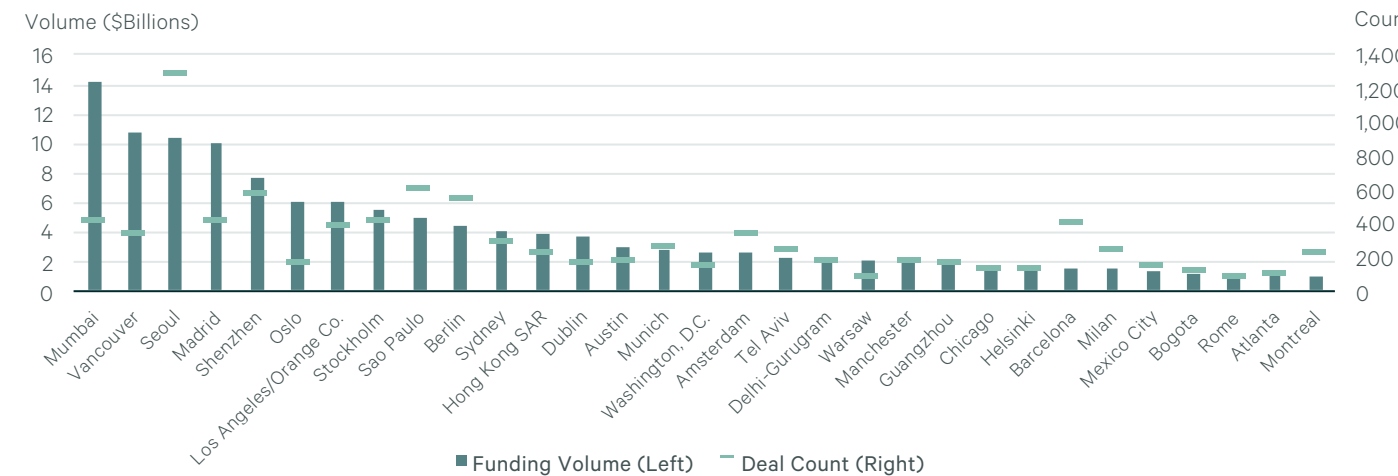


**43**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country. Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Established Markets



Note: Values shown in USD\$. Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



Source: CB Insights & CBRE Research, January 2024.

# Austin Established Market

## TECH TALENT SUMMARY

**Under 100,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS



**64.8MM**  
Sq. ft. of office inventory

**\$48.27**  
Average asking rent per sq. ft.

**21.7%**  
Vacancy rate

Source: CBRE Research, Q3 2023

## WORKFORCE SUMMARY

### Working Age Population (2022)



**1,694**  
Working age population (Thousands)



**70.2%**  
Working age population share of overall population



**2.7%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.



**\$140,567**  
Software engineer average base salary



**\$5,626**  
Additional benefits



**\$146,193**  
Total compensation

Source: ERI & CBRE Consulting, September 2023.



**\$1,699**  
Average apartment rent per unit per month

**14.3%**  
Average rent to software engineer base wage ratio\*

Source: CBRE Research, CBRE Consulting & ERI, September 2023



**39.4%**  
of the country's working age population holds a bachelor's degree or higher



**199**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW



**3.5%**  
Unemployment rate in 2023



**83.61**  
Labor regulations and ease of doing business score



**95.5**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score. Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE



**78.5**  
Average Life Expectancy in 2019

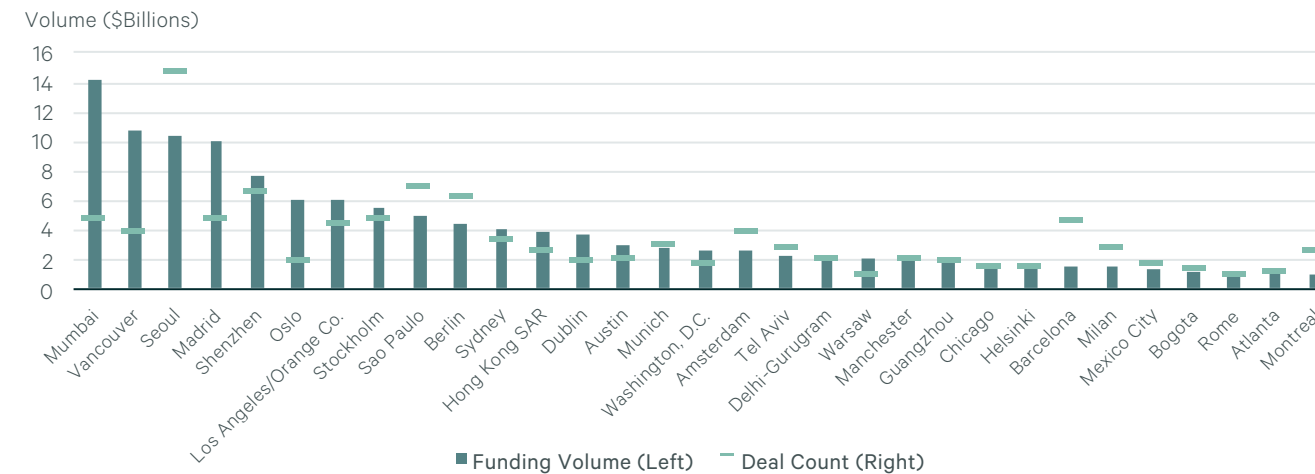


**43**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country. Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

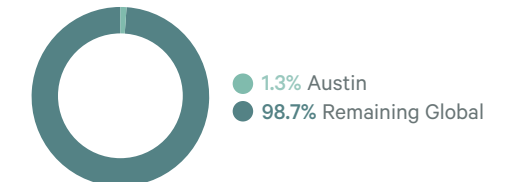
## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Established Markets



Note: Values shown in USD\$. Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



**17**  
unicorns

**4**  
IPOs



**\$0.4**  
Billion of AI VC funding

**25**  
AI VC deals

Source: CB Insights & CBRE Research, January 2024.

# Barcelona Established Market

## TECH TALENT SUMMARY

**100,000-150,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS

**70.0MM**  
Sq. ft. of office inventory

**\$33.64**  
Average asking rent per sq. ft.\*

**13.4%**  
Vacancy rate

Source: CBRE Research, Q3 2023

\* Prime open market rent

## WORKFORCE SUMMARY

### Working Age Population (2022)

**3,731**  
Working age population (Thousands)

**65.9%**  
Working age population share of overall population

**0.8%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.

**\$101,101** + **\$30,229** = **\$131,330**  
Software engineer average base salary + Additional benefits = Total compensation

Source: ERI & CBRE Consulting, September 2023.

**\$1,292**  
Average apartment rent per unit per month

**15.3%**  
Average rent to software engineer base wage ratio\*

Source: CBRE Research, CBRE Consulting & ERI, September 2023

\*Ratio of annualized apartment rent to average annual SWE base salary (2022).

**28.5%**  
of the country's working age population holds a bachelor's degree or higher

**31**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW

**9.0%**  
Unemployment rate in 2023

**61.22**  
Labor regulations and ease of doing business score

**85.9**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score. Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE

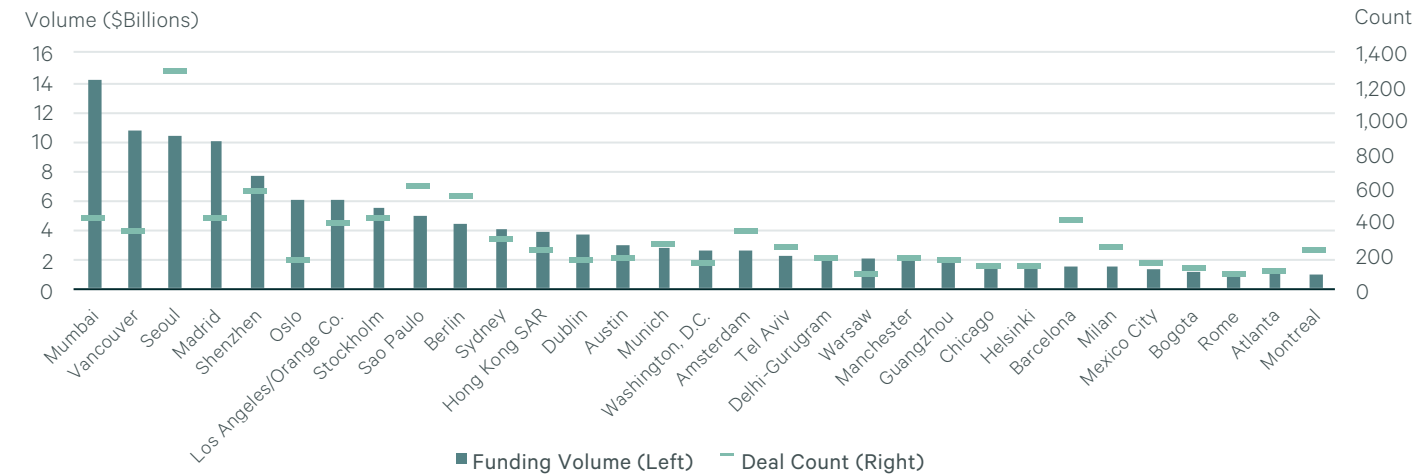
**83.2**  
Average Life Expectancy in 2019

**27**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country. Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

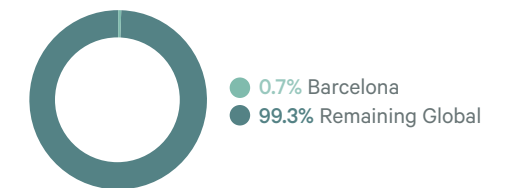
## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Established Markets



Note: Values shown in USD\$. Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



**1** unicorn

**2** IPOs

**\$0.0**  
Billion of AI VC funding

**23**  
AI VC deals

Source: CB Insights & CBRE Research, January 2024.

# Berlin Established Market

## TECH TALENT SUMMARY

**100,000-150,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS



**224.5MM**  
Sq. ft. of office inventory

**\$51.93**  
Average asking rent per sq. ft.\*

**5.1%**  
Vacancy rate

Source: CBRE Research, Q3 2023

\* Prime open market rent

## WORKFORCE SUMMARY

### Working Age Population (2022)



**2,465**  
Working age population (Thousands)



**66.4%**  
Working age population share of overall population



**0.5%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.

**\$143,729** + **\$29,673** = **\$173,402**  
Software engineer average base salary + Additional benefits = Total compensation

Source: ERI & CBRE Consulting, September 2023.



**\$811**  
Average apartment rent per unit per month

**6.8%**  
Average rent to software engineer base wage ratio\*

Source: CBRE Research, CBRE Consulting & ERI, September 2023

\*Ratio of annualized apartment rent to average annual SWE base salary (2022).



**31.9%**  
of the country's working age population holds a bachelor's degree or higher



**52**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW



**4.7%**  
Unemployment rate in 2023



**73.93**  
Labor regulations and ease of doing business score



**92.5**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score. Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE



**81.7**  
Average Life Expectancy in 2019

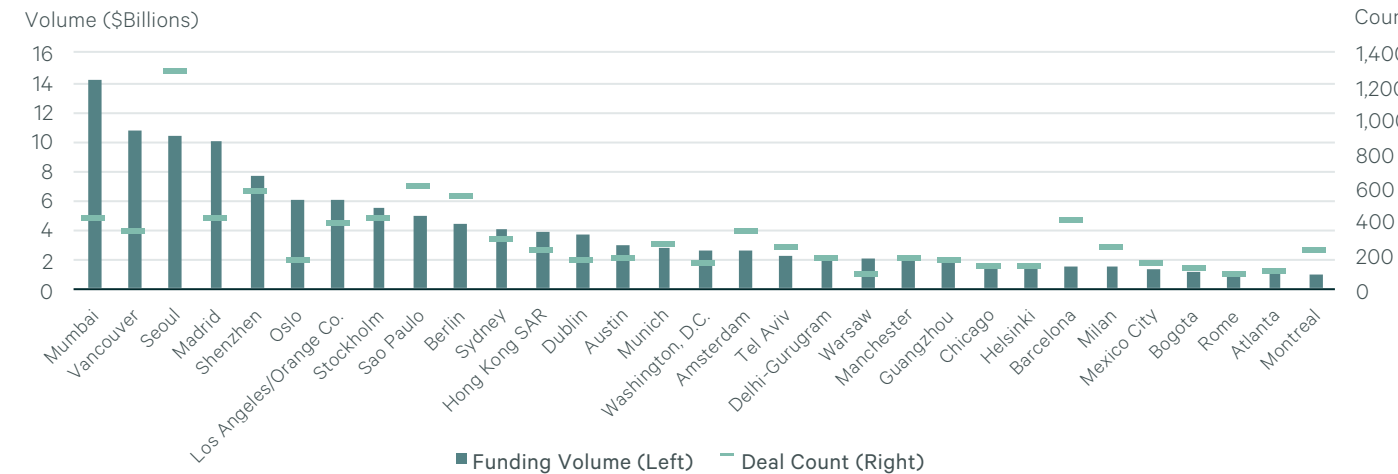


**13**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country. Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

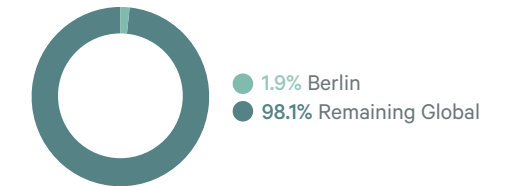
## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Established Markets



Note: Values shown in USD\$. Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



**18**  
unicorns

**0**  
IPOs



**\$0.1**  
Billion of AI VC funding

**34**  
AI VC deals

Source: CB Insights & CBRE Research, January 2024.

# Bogota Established Market

## TECH TALENT SUMMARY

**100,000-150,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS

**33.2MM**  
Sq. ft. of office inventory

**\$20.74**  
Average asking rent per sq. ft.

**10.9%**  
Vacancy rate

Source: CBRE Research, Q3 2023

## WORKFORCE SUMMARY

### Working Age Population (2022)

**6,300**  
Working age population (Thousands)

**56.2%**  
Working age population share of overall population

**1.5%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.

**\$41,383** + **\$14,203** = **\$55,585**  
Software engineer average base salary + Additional benefits = Total compensation

Source: ERI & CBRE Consulting, September 2023.

**\$1,249** Average apartment rent per unit per month  
**36.2%** Average rent to software engineer base wage ratio\*

Source: CBRE Research, CBRE Consulting & ERI, September 2023  
\*Ratio of annualized apartment rent to average annual SWE base salary (2022).

**22.0%** of the country's working age population holds a bachelor's degree or higher  
**4** of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW

**10.8%**  
Unemployment rate in 2023

**41.65**  
Labor regulations and ease of doing business score

**48.8**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score.  
Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE

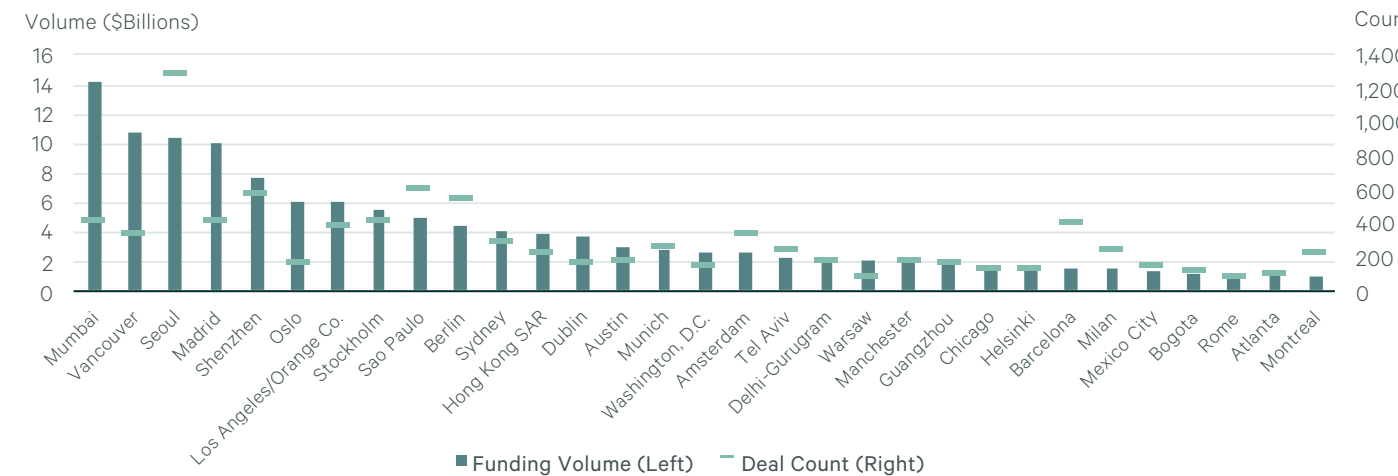
**79.3**  
Average Life Expectancy in 2019

**87**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country.  
Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

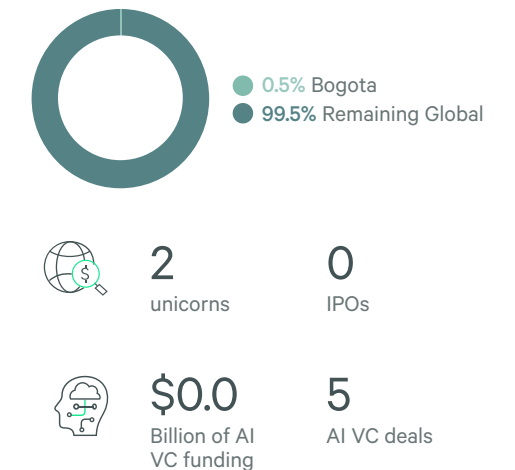
## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Established Markets



Note: Values shown in USD\$.  
Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



Source: CB Insights & CBRE Research, January 2024.



# Budapest Established Market

## TECH TALENT SUMMARY

**Under 100,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS

**46.8MM**  
Sq. ft. of office inventory

**\$28.92**  
Average asking rent per sq. ft.\*

**13.2%**  
Vacancy rate

Source: CBRE Research, Q3 2023

\* Prime open market rent

## WORKFORCE SUMMARY

### Working Age Population (2022)

**1,121**  
Working age population (Thousands)

**65.6%**  
Working age population share of overall population

**-0.8%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.

**\$42,333** + **\$5,503** = **\$47,836**  
Software engineer average base salary + Additional benefits = Total compensation

Source: ERI & CBRE Consulting, September 2023.

**\$1,025** Average apartment rent per unit per month  
**29.0%** Average rent to software engineer base wage ratio\*

Source: CBRE Research, CBRE Consulting & ERI, September 2023

\*Ratio of annualized apartment rent to average annual SWE base salary (2022).

**28.5%** of the country's working age population holds a bachelor's degree or higher  
**4** of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW

**2.6%**  
Unemployment rate in 2023

**48.76**  
Labor regulations and ease of doing business score

**76.9**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score. Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE

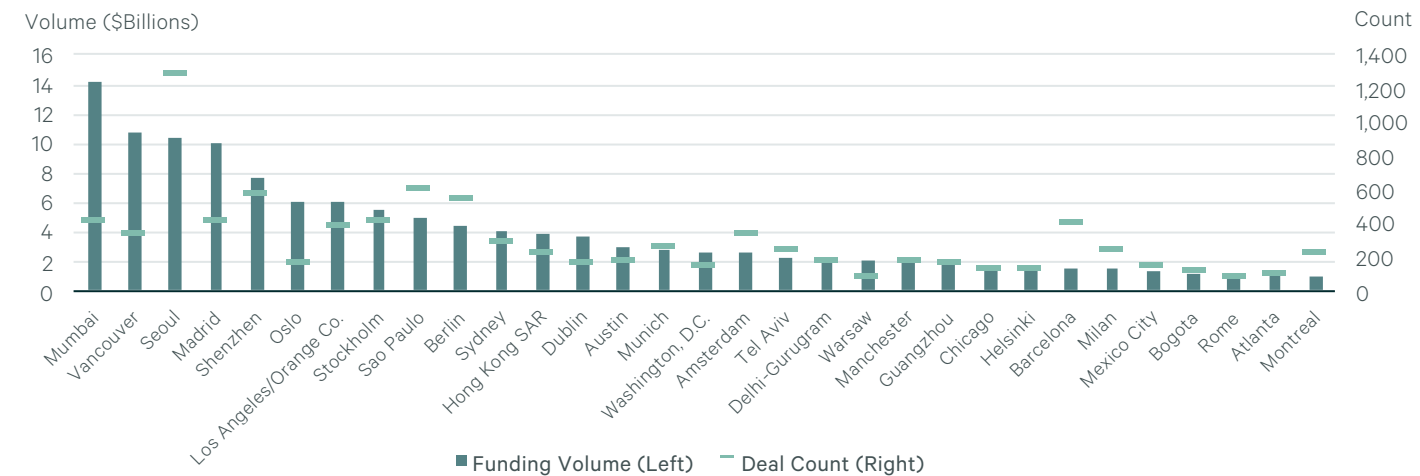
**76.4**  
Average Life Expectancy in 2019

**33**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country. Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

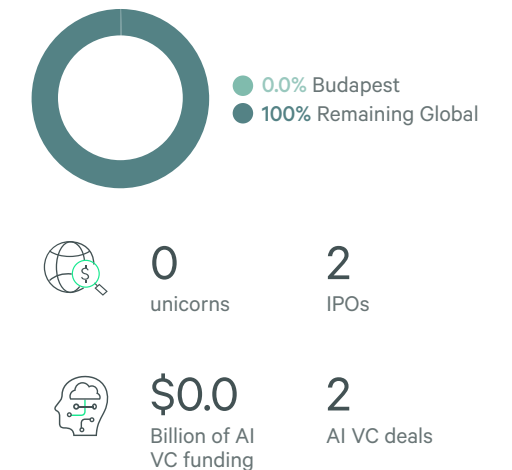
## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Established Markets



Note: Values shown in USD\$. Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



Source: CB Insights & CBRE Research, January 2024.

# Buenos Aires Established Market

## TECH TALENT SUMMARY

**100,000-150,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS



**27.4MM**  
Sq. ft. of office inventory

**\$26.16**  
Average asking rent per sq. ft.

**18.3%**  
Vacancy rate

Source: CBRE Research, Q3 2023

## WORKFORCE SUMMARY

### Working Age Population (2022)



**9,758**  
Working age population (Thousands)



**63.0%**  
Working age population share of overall population



**0.5%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.



**\$38,955**  
Software engineer average base salary



**\$14,893**  
Additional benefits



**\$53,848**  
Total compensation

Source: ERI & CBRE Consulting, September 2023.



**\$1,400**  
Average apartment rent per unit per month

**43.1%**  
Average rent to software engineer base wage ratio\*

Source: CBRE Research, CBRE Consulting & ERI, September 2023

\*Ratio of annualized apartment rent to average annual SWE base salary (2022).



**24.0%**  
of the country's working age population holds a bachelor's degree or higher



**2**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW



**8.1%**  
Unemployment rate in 2023



**37.19**  
Labor regulations and ease of doing business score



**37.0**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score. Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE



**76.6**  
Average Life Expectancy in 2019

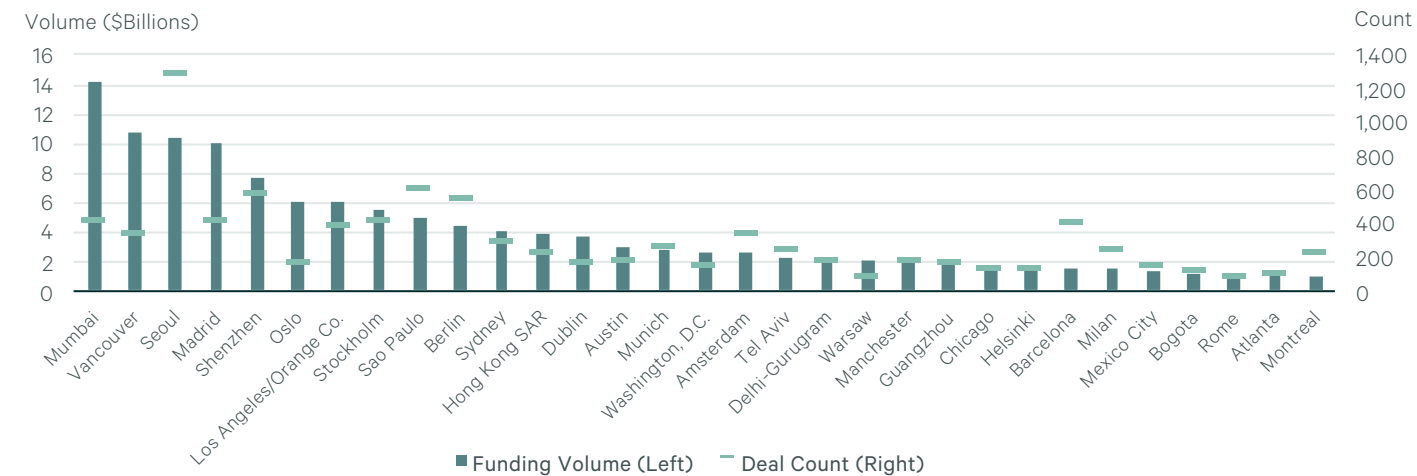


**92**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country. Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Established Markets



Note: Values shown in USD\$. Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



Source: CB Insights & CBRE Research, January 2024.

# Chicago Established Market


## TECH TALENT SUMMARY

 **150,000-200,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS

 **249.1MM**  
Sq. ft. of office inventory

**\$36.04**  
Average asking rent per sq. ft.

**25.2%**  
Vacancy rate


Source: CBRE Research, Q3 2023

## WORKFORCE SUMMARY




### Working Age Population (2022)

 **6,247**  
Working age population (Thousands)


 **66.1%**  
Working age population share of overall population

 **0.8%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.


 **\$107,067** +  **\$4,280** =  **\$111,347**  
Software engineer average base salary + Additional benefits = Total compensation


Source: ERI & CBRE Consulting, September 2023.

 **\$1,787**  
Average apartment rent per unit per month

**20.0%**  
Average rent to software engineer base wage ratio\*

Source: CBRE Research, CBRE Consulting & ERI, September 2023

 **39.4%**  
of the country's working age population holds a bachelor's degree or higher

 **199**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW


 **4.3%**  
Unemployment rate in 2023


 **83.61**  
Labor regulations and ease of doing business score

 **95.5**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score.  
Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE

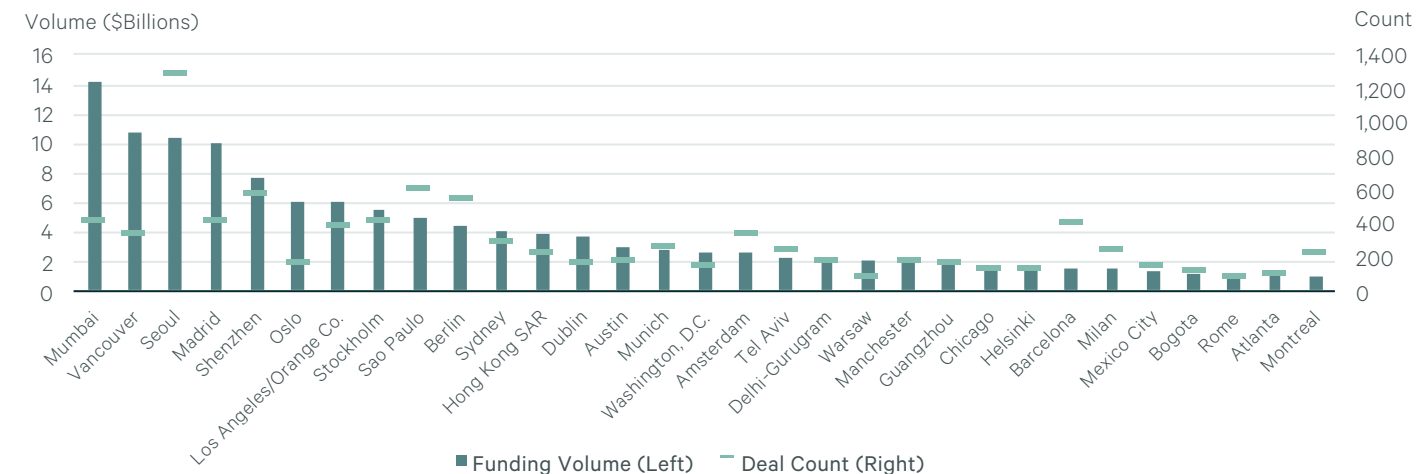
 + **78.5**  
Average Life Expectancy in 2019

 **43**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country.  
Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Established Markets



Note: Values shown in USD\$.  
Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



Source: CB Insights & CBRE Research, January 2024.

# Copenhagen Established Market


## TECH TALENT SUMMARY

 **Under 100,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS

 **71.2MM**  
Sq. ft. of office inventory

**\$30.30**  
Average asking rent per sq. ft.\*


**6.1%**  
Vacancy rate

Source: CBRE Research, Q3 2023

\* Prime open market rent

## WORKFORCE SUMMARY



### Working Age Population (2022)

 **590**  
Working age population (Thousands)

 **72.6%**  
Working age population share of overall population

 **1.1%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.

 **\$140,608** +  **\$3,406** =  **\$144,014**  
Software engineer average base salary + Additional benefits = Total compensation


Source: ERI & CBRE Consulting, September 2023.


 **\$1,598**  
Average apartment rent per unit per month

**13.6%**  
Average rent to software engineer base wage ratio\*

Source: CBRE Research, CBRE Consulting & ERI, September 2023

\*Ratio of annualized apartment rent to average annual SWE base salary (2022).

 **37.0%**  
of the country's working age population holds a bachelor's degree or higher

 **6**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW


 **6.0%**  
Unemployment rate in 2023

 **84.60**  
Labor regulations and ease of doing business score

 **N/A**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score. Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE

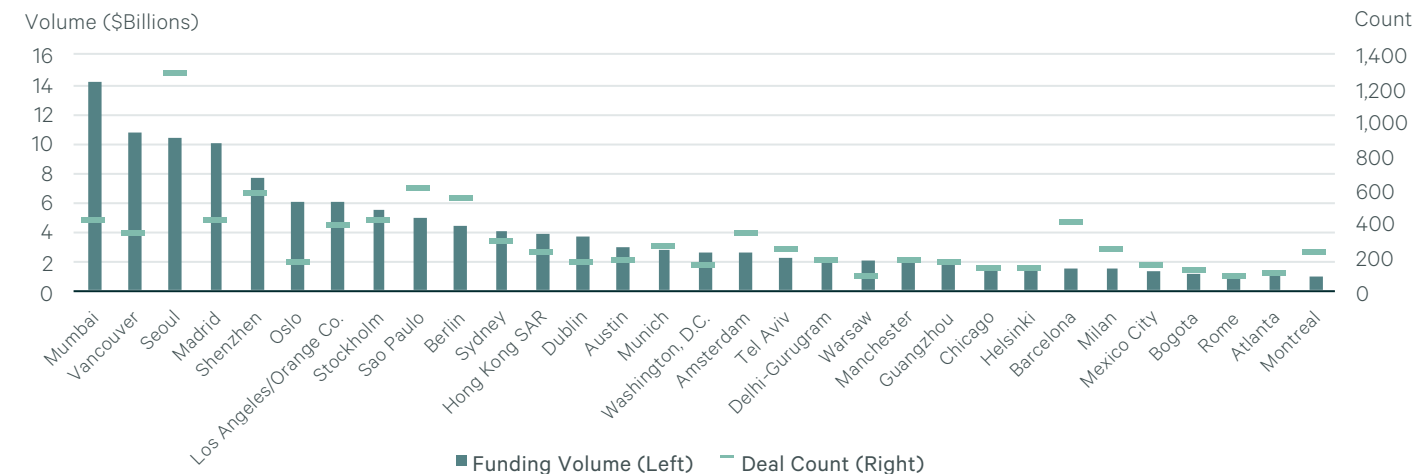
 **81.3**  
Average Life Expectancy in 2019

 **1**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country. Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

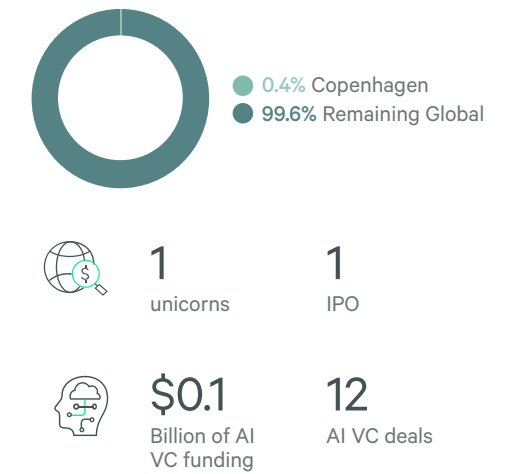
## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Established Markets



Note: Values shown in USD\$. Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



Source: CB Insights & CBRE Research, January 2024.

# Dallas-Ft. Worth Established Market


## TECH TALENT SUMMARY

 **200,000-300,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS

 **231.8MM**  
Sq. ft. of office inventory

**\$31.77**  
Average asking rent per sq. ft.

**25.1%**  
Vacancy rate


Source: CBRE Research, Q3 2023

## WORKFORCE SUMMARY



### Working Age Population (2022)

 **5,387**  
Working age population (Thousands)

 **67.4%**  
Working age population share of overall population

 **1.6%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.


 **\$134,527** +  **\$5,385** =  **\$139,912**  
Software engineer average base salary + Additional benefits = Total compensation


Source: ERI & CBRE Consulting, September 2023.

 **\$1,534**  
Average apartment rent per unit per month

**13.7%**  
Average rent to software engineer base wage ratio\*

Source: CBRE Research, CBRE Consulting & ERI, September 2023

 **39.4%**  
of the country's working age population holds a bachelor's degree or higher


 **199**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW


 **3.9%**  
Unemployment rate in 2023


 **83.61**  
Labor regulations and ease of doing business score

 **95.5**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score. Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE

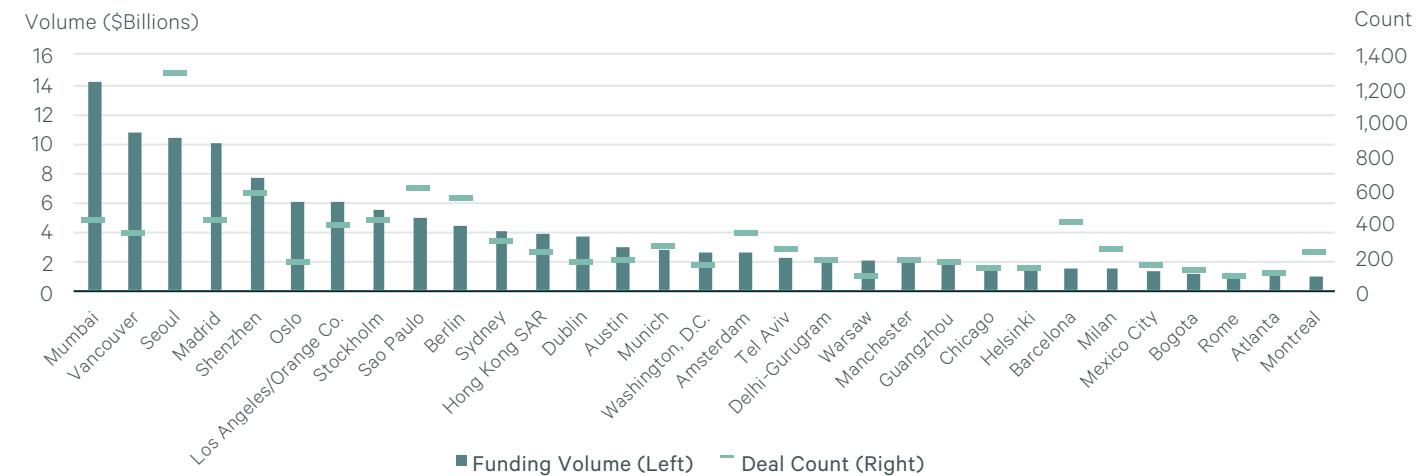
 **78.5**  
Average Life Expectancy in 2019

 **43**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country. Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

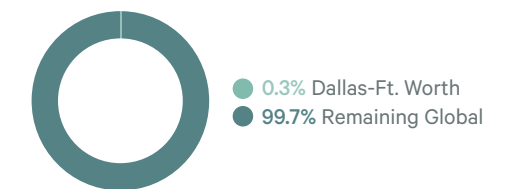
## VENTURE CAPITAL SUMMARY (2023)


### VC Funding Volume (\$ Billions) & Deal Count | Established Markets





Note: Values shown in USD\$. Source: CB Insights & CBRE Research, January 2024.


### Share of 2023 Global VC Funding Volume



 **5** unicorns

 **5** IPOs

 **\$0.1** Billion of AI VC funding

 **7** AI VC deals

Source: CB Insights & CBRE Research, January 2024.

# Delhi-Gurugram Established Market

## TECH TALENT SUMMARY

**Over 500,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS

**N/A**  
Sq. ft. of office inventory

**\$26.00**  
Average asking rent per sq. ft.\*

**31.6%**  
Vacancy rate

Note: Office inventory is not tracked.  
Source: CBRE Research, Q3 2023

\* Prime open market rent

## WORKFORCE SUMMARY

### Working Age Population (2022)

**15,106**  
Working age population (Thousands)

**74.0%**  
Working age population share of overall population

**2.0%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.

**\$34,197** + **\$5,728** = **\$39,925**  
Software engineer average base salary + Additional benefits = Total compensation

Source: ERI & CBRE Consulting, September 2023.

**N/A**  
Average apartment rent per unit per month

**N/A**  
Average rent to software engineer base wage ratio\*

Note: Apartment rents are not tracked.

\*Ratio of annualized apartment rent to average annual SWE base salary (2022).

**12.9%**  
of the country's working age population holds a bachelor's degree or higher

**21**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW

**7.6%**  
Unemployment rate in 2022

**35.65**  
Labor regulations and ease of doing business score

**38.6**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score.  
Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE

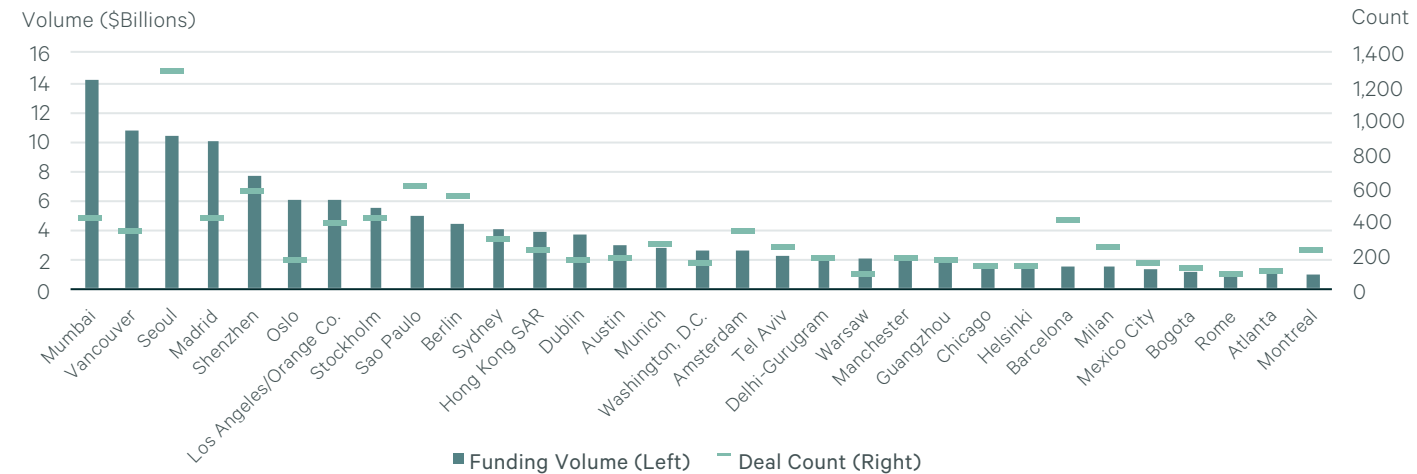
**70.8**  
Average Life Expectancy in 2019

**180**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country.  
Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

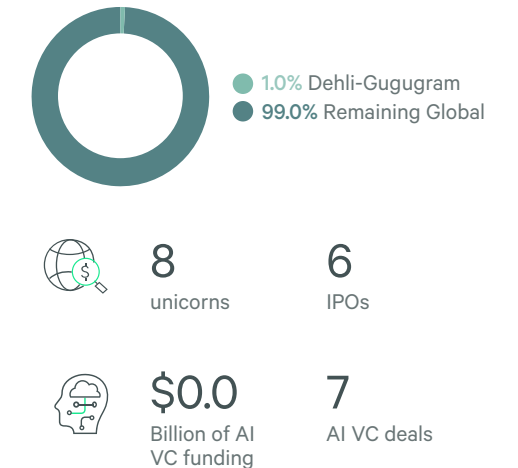
## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Established Markets



Note: Values shown in USD\$.  
Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



Source: CB Insights & CBRE Research, January 2024.

# Dublin Established Market

## TECH TALENT SUMMARY

**100,000-150,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS

**51.7MM**  
Sq. ft. of office inventory

**\$68.85**  
Average asking rent per sq. ft.\*

**14.7%**  
Vacancy rate

Source: CBRE Research, Q3 2023

\* Prime open market rent

## WORKFORCE SUMMARY

### Working Age Population (2022)

**991**  
Working age population (Thousands)

**68.4%**  
Working age population share of overall population

**1.4%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.

**\$111,507** + **\$11,067** = **\$122,574**  
Software engineer average base salary + Additional benefits = Total compensation

Source: ERI & CBRE Consulting, September 2023.

**\$2,044**  
Average apartment rent per unit per month

**22.0%**  
Average rent to software engineer base wage ratio\*

Source: CBRE Research, CBRE Consulting & ERI, September 2023

\*Ratio of annualized apartment rent to average annual SWE base salary (2022).

**44.3%**  
of the country's working age population holds a bachelor's degree or higher

**6**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW

**4.9%**  
Unemployment rate in 2023

**67.70**  
Labor regulations and ease of doing business score

**88.8**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score. Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE

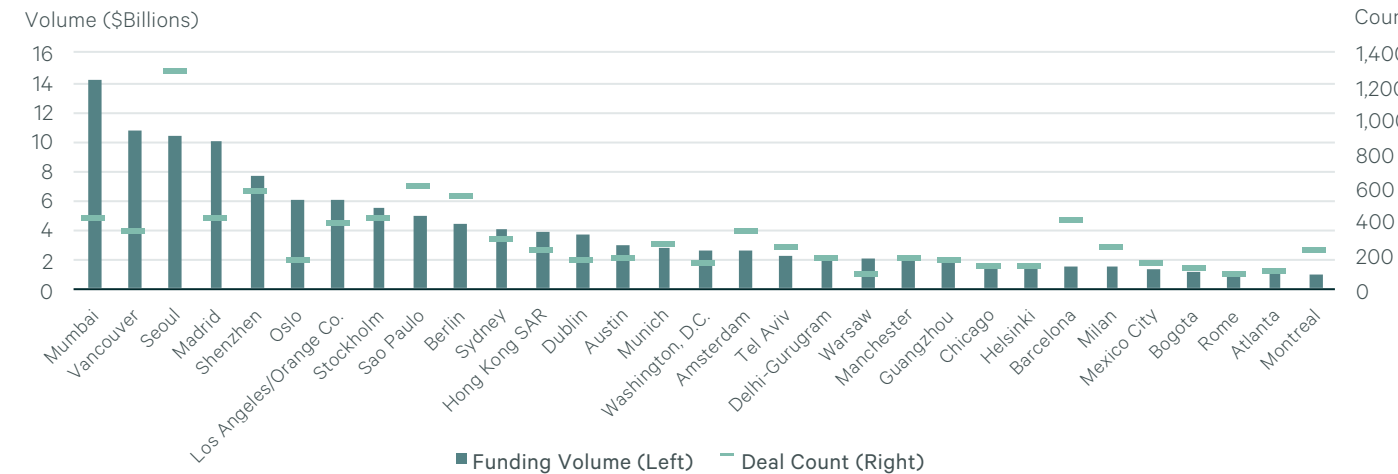
**81.8**  
Average Life Expectancy in 2019

**24**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country. Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

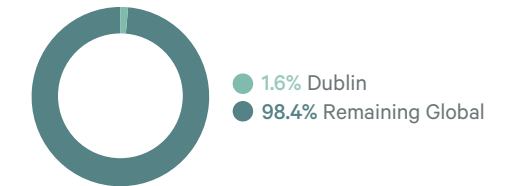
## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Established Markets



Note: Values shown in USD\$. Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



**5**  
unicorns

**0**  
IPOs

**\$0.0**  
Billion of AI VC funding

**12**  
AI VC deals

Source: CB Insights & CBRE Research, January 2024.

# Frankfurt Established Market

## TECH TALENT SUMMARY

**Under 100,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS

**125.2MM**  
Sq. ft. of office inventory

**\$54.88**  
Average asking rent per sq. ft.\*

**9.5%**  
Vacancy rate

Source: CBRE Research, Q3 2023

\* Prime open market rent

## WORKFORCE SUMMARY

### Working Age Population (2022)

**532**  
Working age population (Thousands)

**69.3%**  
Working age population share of overall population

**0.5%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.

**\$141,723** + **\$29,259** = **\$170,981**  
Software engineer average base salary + Additional benefits = Total compensation

Source: ERI & CBRE Consulting, September 2023.

**\$1,039**  
Average apartment rent per unit per month

**8.8%**  
Average rent to software engineer base wage ratio\*

Source: CBRE Research, CBRE Consulting & ERI, September 2023

\*Ratio of annualized apartment rent to average annual SWE base salary (2022).

**31.9%**  
of the country's working age population holds a bachelor's degree or higher

**52**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW

**4.4%**  
Unemployment rate in 2023

**73.93**  
Labor regulations and ease of doing business score

**92.5**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score. Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE

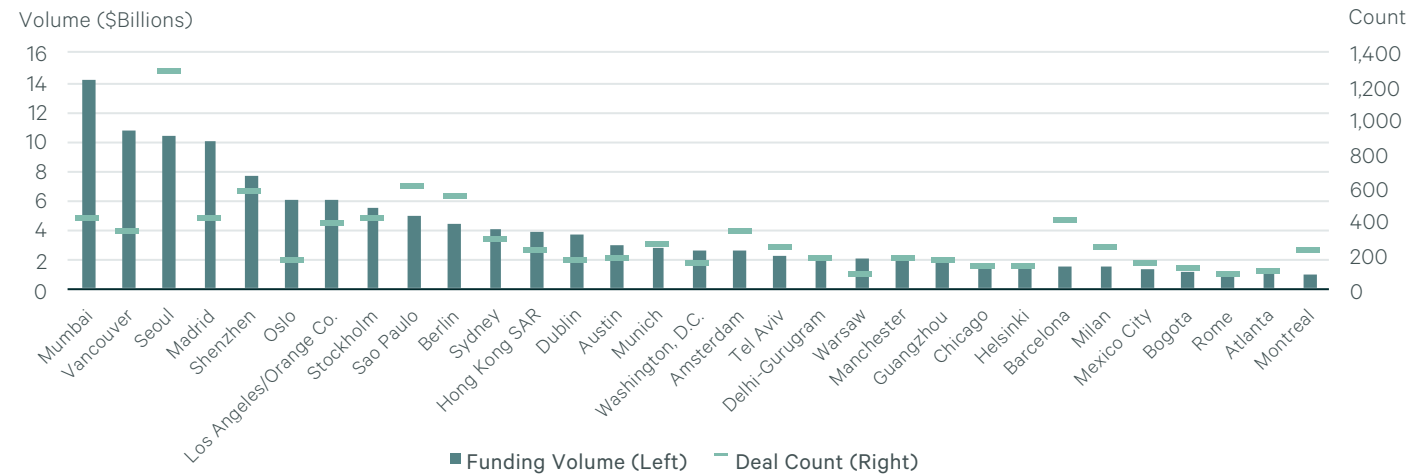
**81.7**  
Average Life Expectancy in 2019

**13**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country. Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

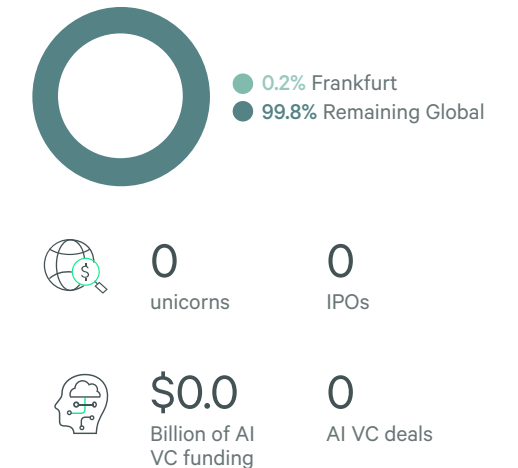
## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Established Markets



Note: Values shown in USD\$. Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



Source: CB Insights & CBRE Research, January 2024.



# Guadalajara Established Market

## TECH TALENT SUMMARY

**Under 100,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS

**8.5MM**  
Sq. ft. of office inventory

**\$24.88**  
Average asking rent per sq. ft.

**14.8%**  
Vacancy rate

Source: CBRE Research, Q3 2023

## WORKFORCE SUMMARY

### Working Age Population (2022)

**2,850**  
Working age population (Thousands)

**52.3%**  
Working age population share of overall population

**1.7%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.

**\$61,348** + **\$13,497** = **\$74,845**  
Software engineer average base salary + Additional benefits = Total compensation

Source: ERI & CBRE Consulting, September 2023.

**\$1,135**  
Average apartment rent per unit per month

**22.2%**  
Average rent to software engineer base wage ratio\*

Source: CBRE Research, CBRE Consulting & ERI, September 2023

**21.0%**  
of the country's working age population holds a bachelor's degree or higher

**3**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW

**2.5%**  
Unemployment rate in 2023

**38.82**  
Labor regulations and ease of doing business score

**60.0**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score. Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE

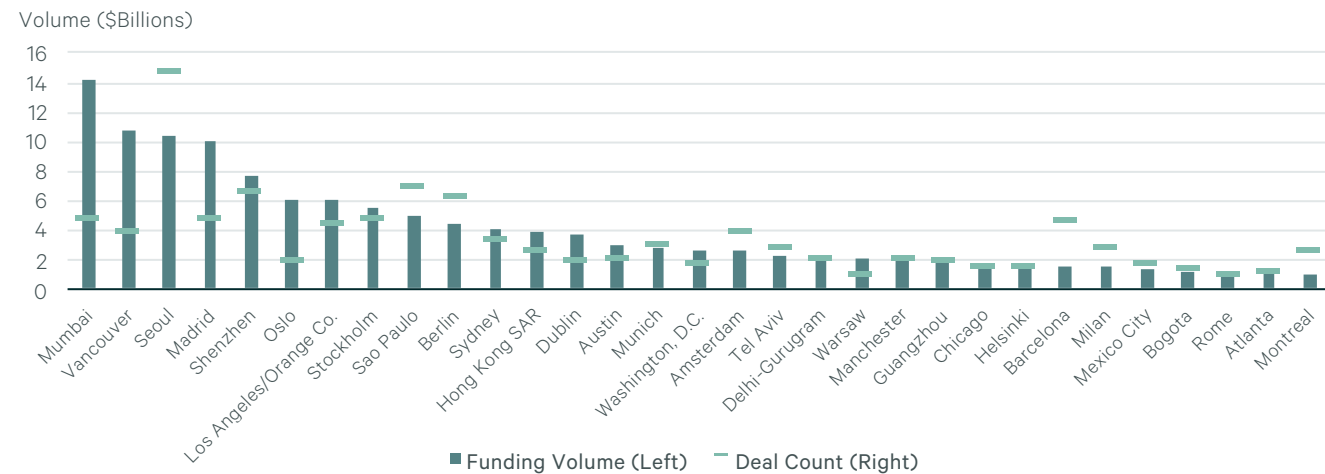
**76.0**  
Average Life Expectancy in 2019

**73**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country. Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

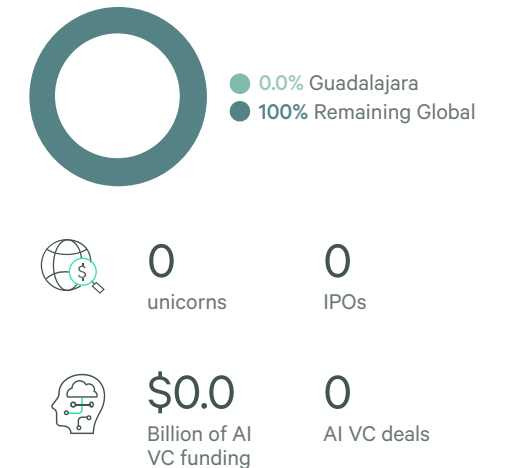
## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Established Markets



Note: Values shown in USD\$. Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



Source: CB Insights & CBRE Research, January 2024.

# Guangzhou Established Market


## TECH TALENT SUMMARY

 **300,000-500,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS

 **71.1MM**  
Sq. ft. of office inventory

**\$37.00**  
Average asking rent per sq. ft.\*

**20.9%**  
Vacancy rate

Source: CBRE Research, Q3 2023


\* Prime open market rent

## WORKFORCE SUMMARY




### Working Age Population (2022)

 **15,006**  
Working age population (Thousands)

 **77.7%**  
Working age population share of overall population

 **3.1%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.

 **\$70,961** +  **\$28,633** =  **\$99,594**  
Software engineer average base salary + Additional benefits = Total compensation


Source: ERI & CBRE Consulting, September 2023.


 **N/A**  
Average apartment rent per unit per month

**N/A**  
Average rent to software engineer base wage ratio\*

Note: Apartment rents are not tracked.

\*Ratio of annualized apartment rent to average annual SWE base salary (2022).

 **8.9%**  
of the country's working age population holds a bachelor's degree or higher

 **106**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW


 **3.6%**  
Unemployment rate in 2022


 **57.67**  
Labor regulations and ease of doing business score

 **55.9**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score. Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE

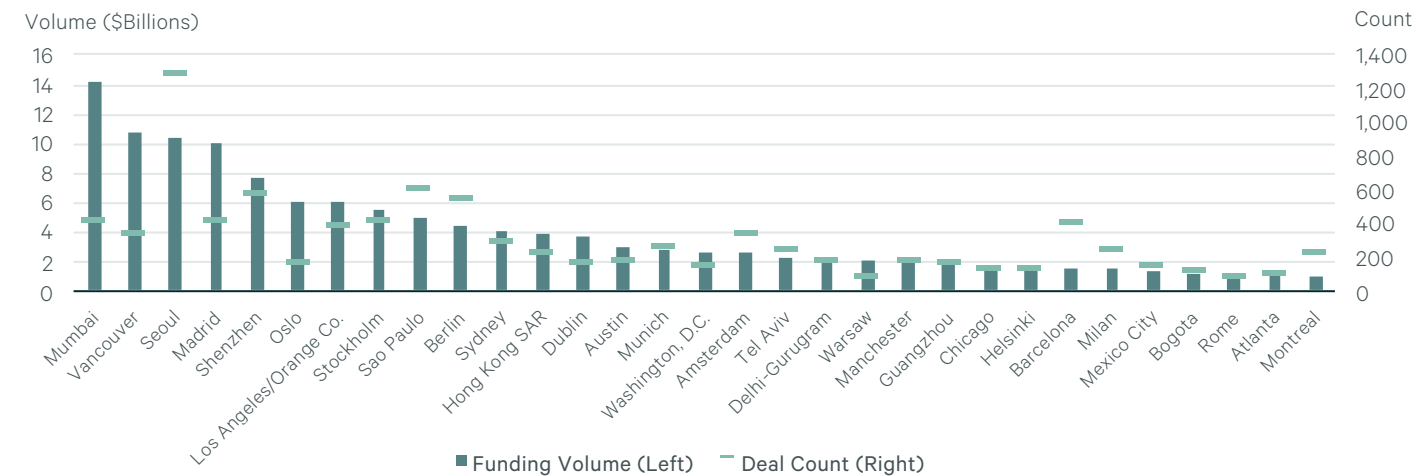
 **77.4**  
Average Life Expectancy in 2019

 **160**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country. Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

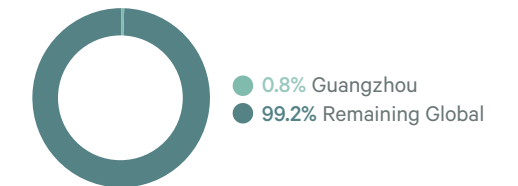
## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Established Markets




Note: Values shown in USD\$. Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



 **6** unicorns

**7** IPOs

 **\$0.1**  
Billion of AI VC funding

**13**  
AI VC deals

Source: CB Insights & CBRE Research, January 2024.

# Helsinki Established Market


## TECH TALENT SUMMARY

 **Under 100,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS

 **98.9MM**  
Sq. ft. of office inventory

Source: CBRE Research, Q3 2023

**\$56.65**  
Average asking rent per sq. ft.\*

**14.3%**  
Vacancy rate

\* Prime open market rent

## WORKFORCE SUMMARY


### Working Age Population (2022)

 **1,134**  
Working age population (Thousands)


Source: Oxford Economics & CBRE Research, September 2023.

 **65.8%**  
Working age population share of overall population

 **0.8%**  
Working age population growth (2017-2022)

 **\$111,946** +  **\$31,759** =  **\$143,705**  
Software engineer average base salary + Additional benefits = Total compensation


Source: ERI & CBRE Consulting, September 2023.

 **\$1,545**  
Average apartment rent per unit per month


**16.6%**  
Average rent to software engineer base wage ratio\*

Source: CBRE Research, CBRE Consulting & ERI, September 2023

\*Ratio of annualized apartment rent to average annual SWE base salary (2022).

 **35.1%**  
of the country's working age population holds a bachelor's degree or higher

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

 **8**  
of the country's universities are ranked in the top 1,000 globally

## LABOR MARKET OVERVIEW

 **7.2%**  
Unemployment rate in 2023


 **82.62**  
Labor regulations and ease of doing business score

 **N/A**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score.  
Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE

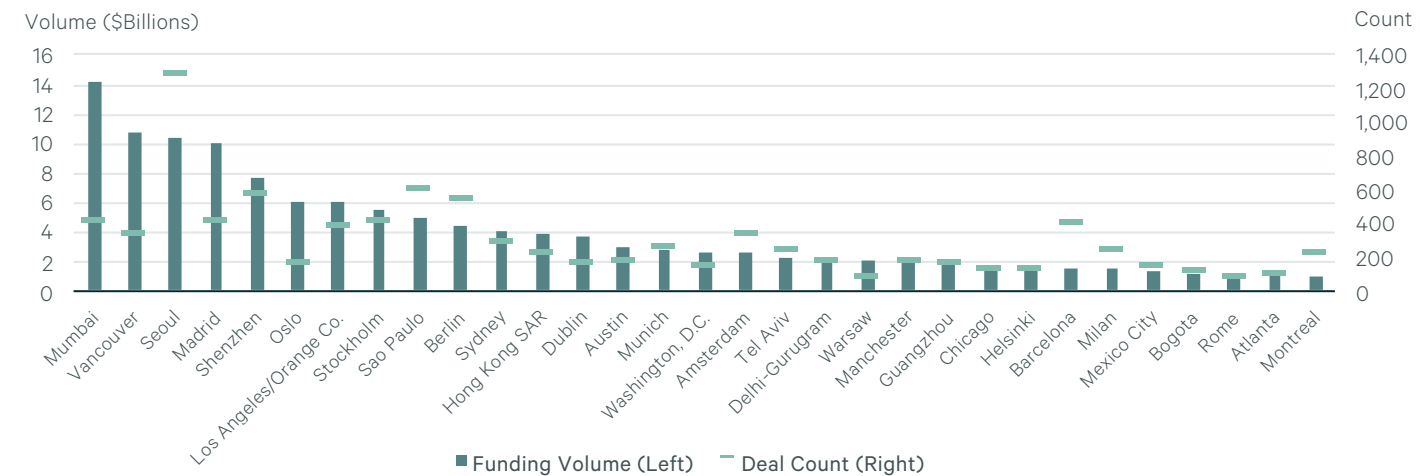
 **81.6**  
Average Life Expectancy in 2019

 **3**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country.  
Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

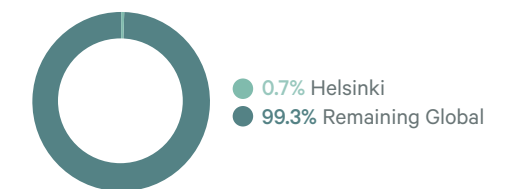
## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Established Markets




Note: Values shown in USD\$.  
Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



 **2**  
unicorns

**1**  
IPO

 **\$0.0**  
Billion of AI VC funding

**9**  
AI VC deals

Source: CB Insights & CBRE Research, January 2024.

# Hong Kong SAR Established Market

## TECH TALENT SUMMARY

**100,000-150,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS

**N/A**  
Sq. ft. of office inventory

**\$76.00**  
Average asking rent per sq. ft.\*

**15.8%**  
Vacancy rate

Note: Office inventory is not tracked.  
Source: CBRE Research, Q3 2023

\* Prime open market rent

## WORKFORCE SUMMARY

### Working Age Population (2022)

**5,060**  
Working age population (Thousands)

**67.4%**  
Working age population share of overall population

**-0.6%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.

**\$105,645** + **\$5,282** = **\$110,927**  
Software engineer average base salary + Additional benefits = Total compensation

Source: ERI & CBRE Consulting, September 2023.

**N/A**  
Average apartment rent per unit per month

**N/A**  
Average rent to software engineer base wage ratio\*

Note: Apartment rents are not tracked.

\*Ratio of annualized apartment rent to average annual SWE base salary (2022).

**8.9%**  
of the country's working age population holds a bachelor's degree or higher

**106**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW

**3.0%**  
Unemployment rate in 2023

**57.67**  
Labor regulations and ease of doing business score

**55.9**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score.  
Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE

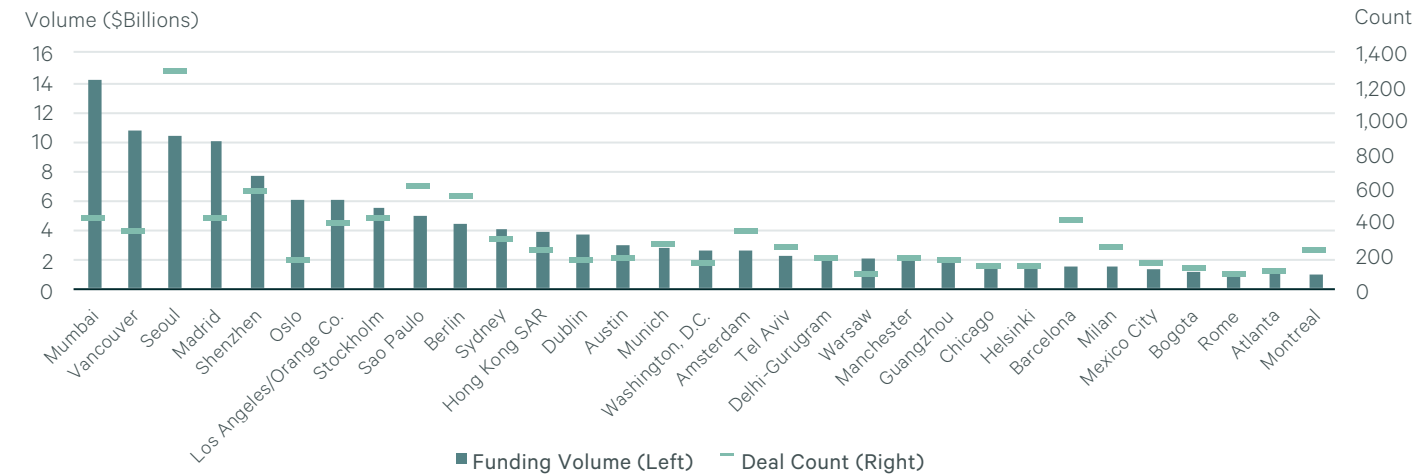
**85.1**  
Average Life Expectancy in 2019

**N/A**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country.  
Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

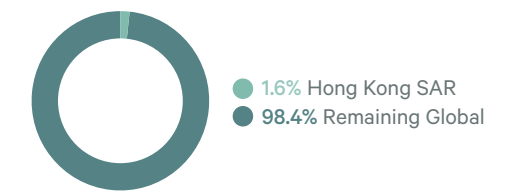
## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Established Markets



Note: Values shown in USD\$.  
Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



**6** unicorns

**18** IPOs

**\$0.0**  
Billion of AI VC funding

**10**  
AI VC deals

Source: CB Insights & CBRE Research, January 2024.

# Los Angeles-Orange County Established Market

## TECH TALENT SUMMARY

**200,000-300,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS



**327.2MM**  
Sq. ft. of office inventory

**\$44.05**  
Average asking rent per sq. ft.

**19.3%**  
Vacancy rate

Source: CBRE Research, Q3 2023

## WORKFORCE SUMMARY

### Working Age Population (2022)



**8,735**  
Working age population (Thousands)



**68.2%**  
Working age population share of overall population



**-0.9%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.



**\$139,251**  
Software engineer average base salary



**\$5,576**  
Additional benefits



**\$144,827**  
Total compensation

Source: ERI & CBRE Consulting, September 2023.



**\$2,776**  
Average apartment rent per unit per month

**23.9%**  
Average rent to software engineer base wage ratio\*

Source: CBRE Research, CBRE Consulting & ERI, September 2023

\*Ratio of annualized apartment rent to average annual SWE base salary (2022).



**39.4%**  
of the country's working age population holds a bachelor's degree or higher



**199**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW



**4.7%**  
Unemployment rate in 2023



**83.61**  
Labor regulations and ease of doing business score



**95.5**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score. Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE



**78.5**  
Average Life Expectancy in 2019



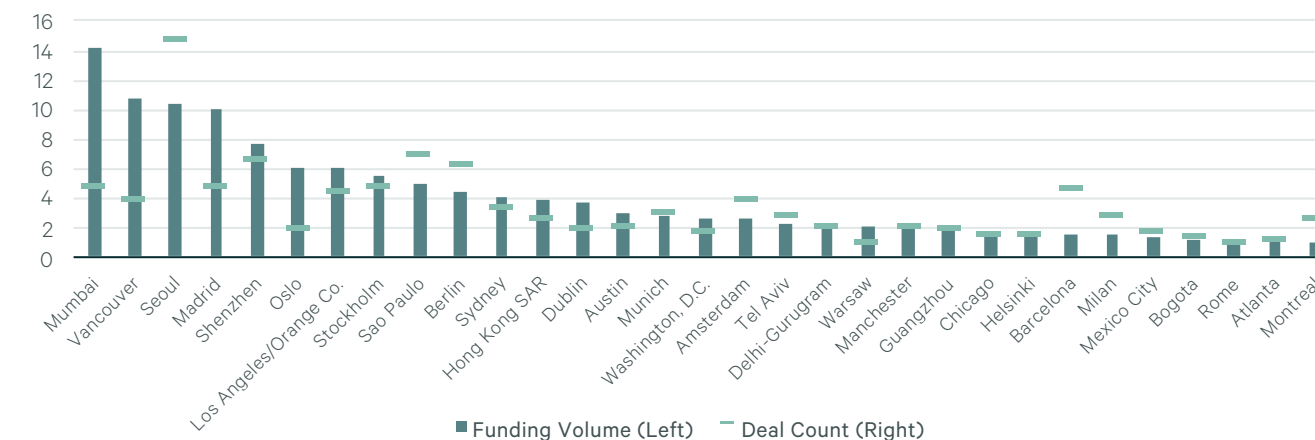
**43**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country. Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Established Markets

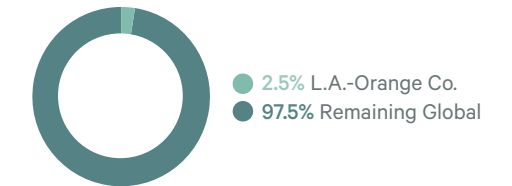
Volume (\$Billions)



■ Funding Volume (Left) ■ Deal Count (Right)

Note: Values shown in USD\$. Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



**10**  
unicorns

**1**  
IPO



**\$1.1**  
Billion of AI VC funding

**48**  
AI VC deals

Source: CB Insights & CBRE Research, January 2024.

# Lyon Established Market

## TECH TALENT SUMMARY

**Under 100,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS

**73.7MM**  
Sq. ft. of office inventory

**\$33.44**  
Average asking rent per sq. ft.\*

**5.8%**  
Vacancy rate

Source: CBRE Research, Q3 2023

\* Prime open market rent

## WORKFORCE SUMMARY

### Working Age Population (2022)

**1,228**  
Working age population (Thousands)

**64.2%**  
Working age population share of overall population

**0.7%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.

**\$95,493** + **\$29,889** = **\$125,382**  
Software engineer average base salary + Additional benefits = Total compensation

Source: ERI & CBRE Consulting, September 2023.

**\$922**  
Average apartment rent per unit per month

**11.6%**  
Average rent to software engineer base wage ratio\*

Source: CBRE Research, CBRE Consulting & ERI, September 2023

\*Ratio of annualized apartment rent to average annual SWE base salary (2022).

**27.2%**  
of the country's working age population holds a bachelor's degree or higher

**39**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW

**6.6%**  
Unemployment rate in 2023

**66.90**  
Labor regulations and ease of doing business score

**93.1**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score. Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE

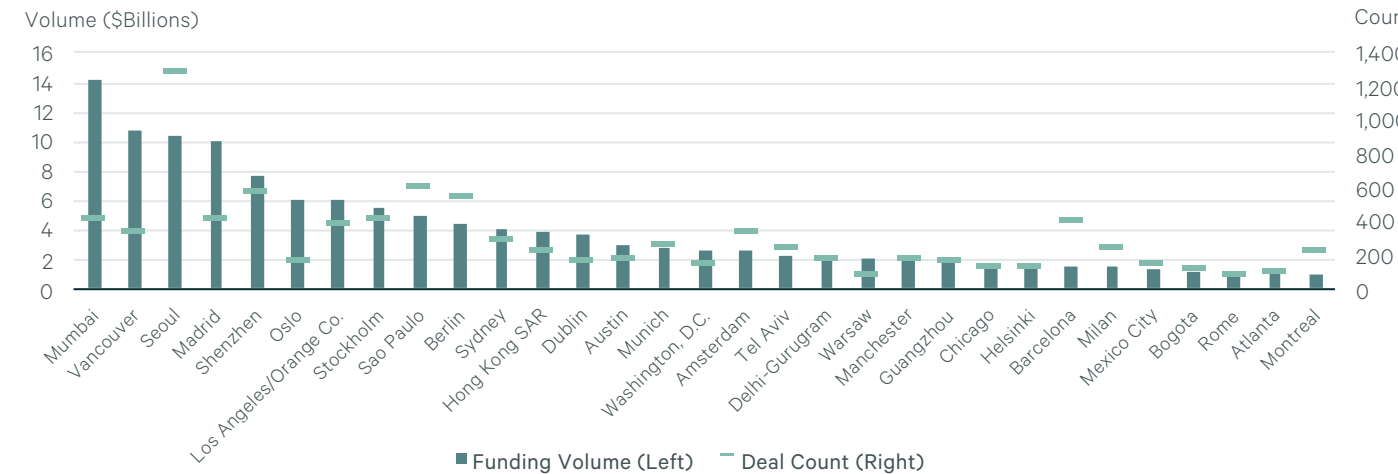
**82.5**  
Average Life Expectancy in 2019

**12**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country. Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

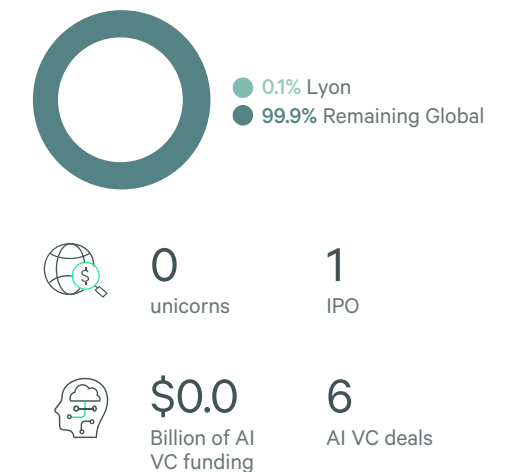
## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Established Markets



Note: Values shown in USD\$. Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



Source: CB Insights & CBRE Research, January 2024.

# Madrid Established Market


## TECH TALENT SUMMARY

 **200,000-300,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS

 **138.0MM**  
Sq. ft. of office inventory

**\$45.44**  
Average asking rent per sq. ft.\*

**11.7%**  
Vacancy rate

Source: CBRE Research, Q3 2023

\* Prime open market rent

## WORKFORCE SUMMARY




### Working Age Population (2022)

 **4,554**  
Working age population (Thousands)


 **67.0%**  
Working age population share of overall population

 **1.0%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.

 **\$103,655** +  **\$30,993** =  **\$134,648**  
Software engineer average base salary + Additional benefits = Total compensation

Source: ERI & CBRE Consulting, September 2023.

 **\$1,116**  
Average apartment rent per unit per month

**12.9%**  
Average rent to software engineer base wage ratio\*

Source: CBRE Research, CBRE Consulting & ERI, September 2023

\*Ratio of annualized apartment rent to average annual SWE base salary (2022).

 **28.5%**  
of the country's working age population holds a bachelor's degree or higher


 **31**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW


 **10.5%**  
Unemployment rate in 2023


 **61.22**  
Labor regulations and ease of doing business score

 **85.9**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score.  
Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE

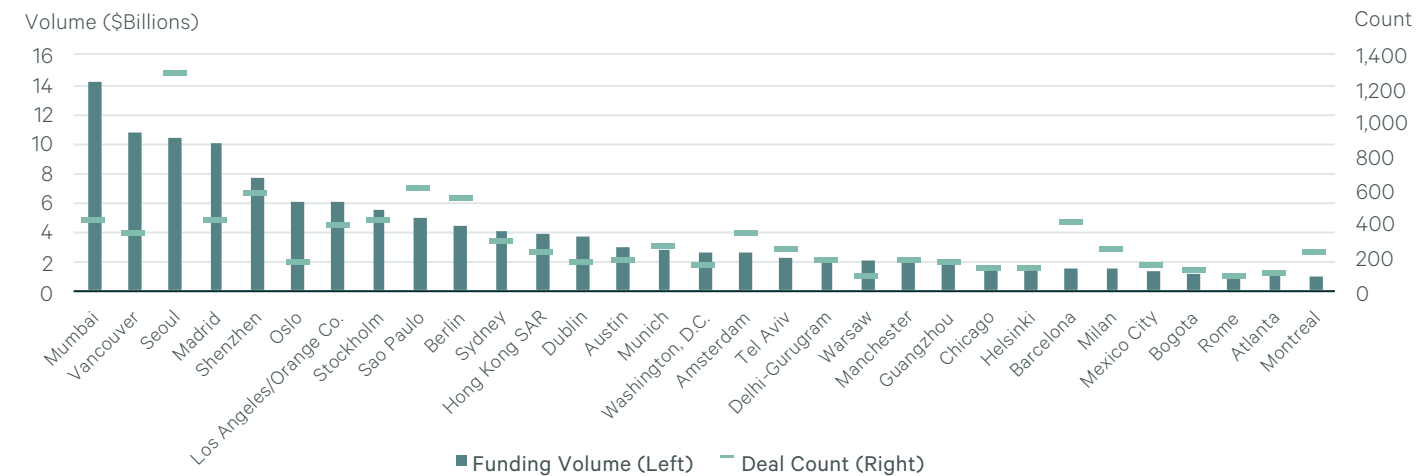
 **83.2**  
Average Life Expectancy in 2019

 **27**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country.  
Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

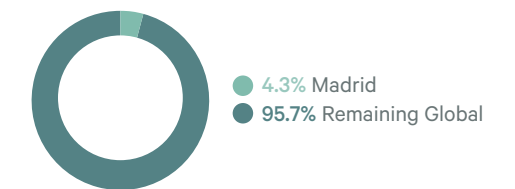
## VENTURE CAPITAL SUMMARY (2023)


### VC Funding Volume (\$ Billions) & Deal Count | Established Markets





Note: Values shown in USD\$.  
Source: CB Insights & CBRE Research, January 2024.


### Share of 2023 Global VC Funding Volume



 **2** unicorns

 **3** IPOs

 **\$0.1** Billion of AI VC funding

 **29** AI VC deals

Source: CB Insights & CBRE Research, January 2024.

# Manchester Established Market

## TECH TALENT SUMMARY

**Under 100,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS

**22.5MM**  
Sq. ft. of office inventory

**\$53.06**  
Average asking rent per sq. ft.\*

**16.9%**  
Vacancy rate

Source: CBRE Research, Q3 2023

\* Prime open market rent

## WORKFORCE SUMMARY

### Working Age Population (2022)

**1,882**  
Working age population (Thousands)

**65.6%**  
Working age population share of overall population

**0.7%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.

**\$104,012** + **\$15,654** = **\$119,665**  
Software engineer average base salary + Additional benefits = Total compensation

Source: ERI & CBRE Consulting, September 2023.

**\$1,422**  
Average apartment rent per unit per month

**16.4%**  
Average rent to software engineer base wage ratio\*

Source: CBRE Research, CBRE Consulting & ERI, September 2023

\*Ratio of annualized apartment rent to average annual SWE base salary (2022).

**42.3%**  
of the country's working age population holds a bachelor's degree or higher

**70**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW

**5.3%**  
Unemployment rate in 2023

**74.38**  
Labor regulations and ease of doing business score

**94.1**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score. Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE

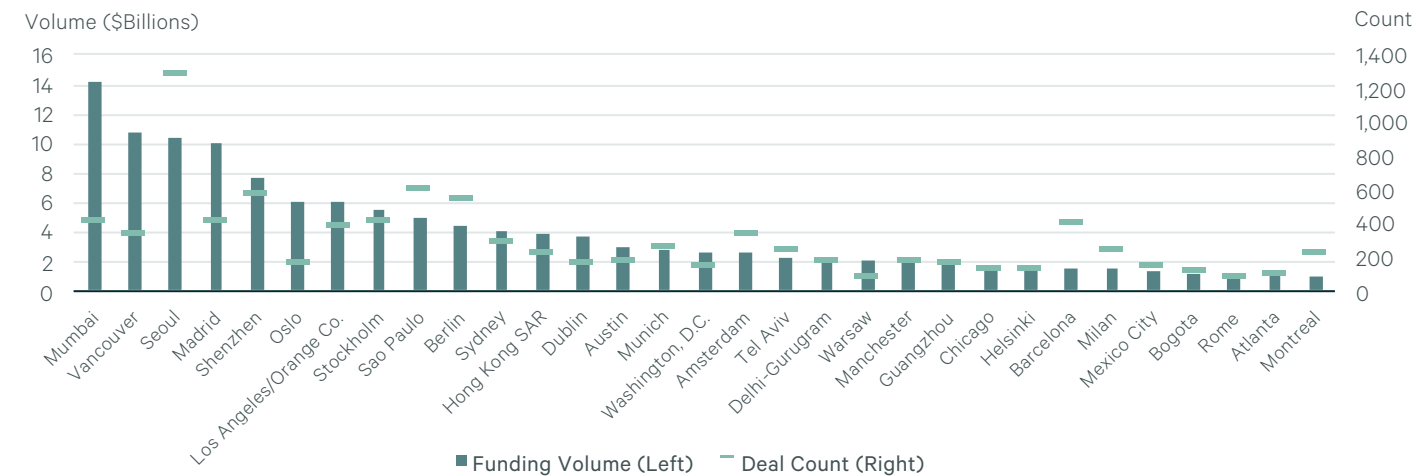
**81.4**  
Average Life Expectancy in 2019

**2**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country. Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

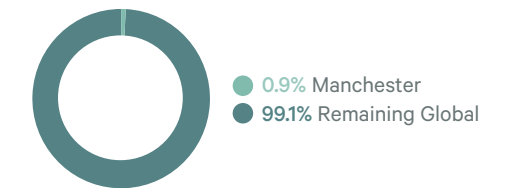
## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Established Markets



Note: Values shown in USD\$. Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



**2** unicorns

**0** IPOs

**\$0.0**  
Billion of AI VC funding

**5**  
AI VC deals

Source: CB Insights & CBRE Research, January 2024.



# Melbourne Established Market


## TECH TALENT SUMMARY

 **150,000-200,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS

 **55.2MM**  
Sq. ft. of office inventory

**\$23.00**  
Average asking rent per sq. ft.\*

**15.0%**  
Vacancy rate

Source: CBRE Research, Q3 2023

\* Prime open market rent

## WORKFORCE SUMMARY




### Working Age Population (2022)

 **3,382**  
Working age population (Thousands)

 **67.1%**  
Working age population share of overall population

 **1.4%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.

 **\$121,255** +  **\$19,219** =  **\$140,474**  
Software engineer average base salary + Additional benefits = Total compensation


Source: ERI & CBRE Consulting, September 2023.


 **N/A**  
Average apartment rent per unit per month

**N/A**  
Average rent to software engineer base wage ratio\*

Note: Apartment rents are not tracked.

\*Ratio of annualized apartment rent to average annual SWE base salary (2022).

 **39.4%**  
of the country's working age population holds a bachelor's degree or higher

 **34**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW


 **3.9%**  
Unemployment rate in 2023


 **73.37**  
Labor regulations and ease of doing business score

 **80.7**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score. Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE

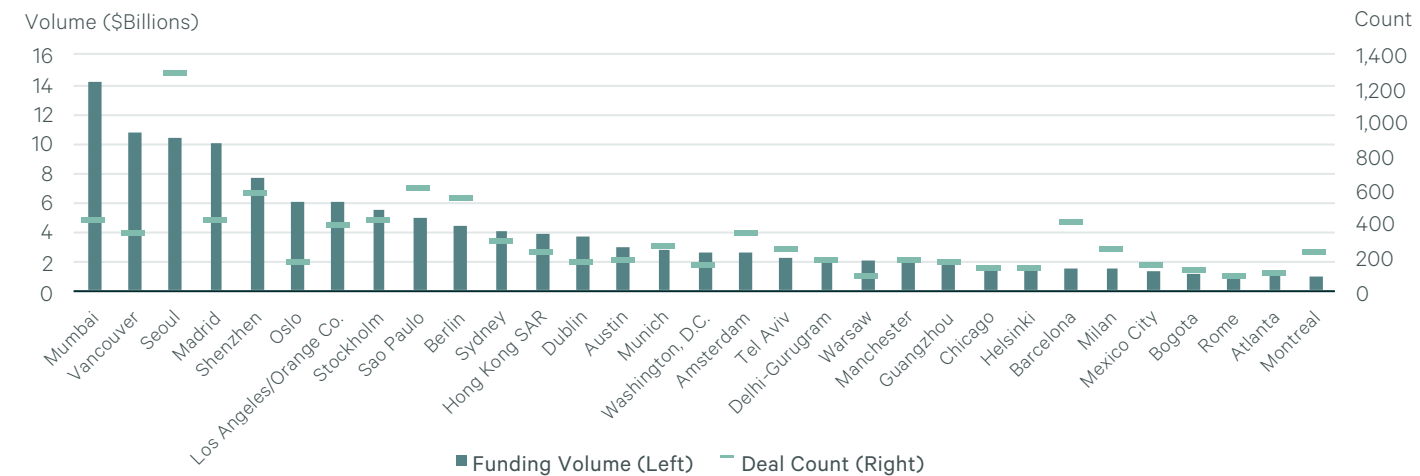
 **83.0**  
Average Life Expectancy in 2019

 **17**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country. Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

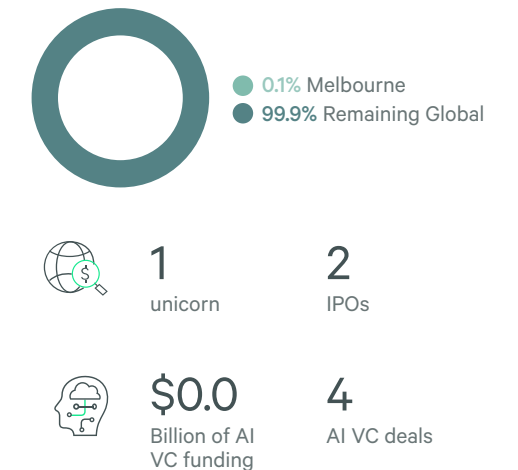
## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Established Markets



Note: Values shown in USD\$. Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



Source: CB Insights & CBRE Research, January 2024.

# Mexico City Established Market

## TECH TALENT SUMMARY

**200,000-300,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS

**77.9MM**  
Sq. ft. of office inventory

**\$27.02**  
Average asking rent per sq. ft.

**23.7%**  
Vacancy rate

Source: CBRE Research, Q3 2023

## WORKFORCE SUMMARY

### Working Age Population (2022)

**11,676**  
Working age population (Thousands)

**52.6%**  
Working age population share of overall population

**0.9%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.

**\$65,387** + **\$14,385** = **\$79,772**  
Software engineer average base salary + Additional benefits = Total compensation

Source: ERI & CBRE Consulting, September 2023.

**\$1,459**  
Average apartment rent per unit per month

**26.8%**  
Average rent to software engineer base wage ratio\*

Source: CBRE Research, CBRE Consulting & ERI, September 2023

**21.0%**  
of the country's working age population holds a bachelor's degree or higher

**3**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW

**4.4%**  
Unemployment rate in 2023

**38.82**  
Labor regulations and ease of doing business score

**60.0**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score. Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE

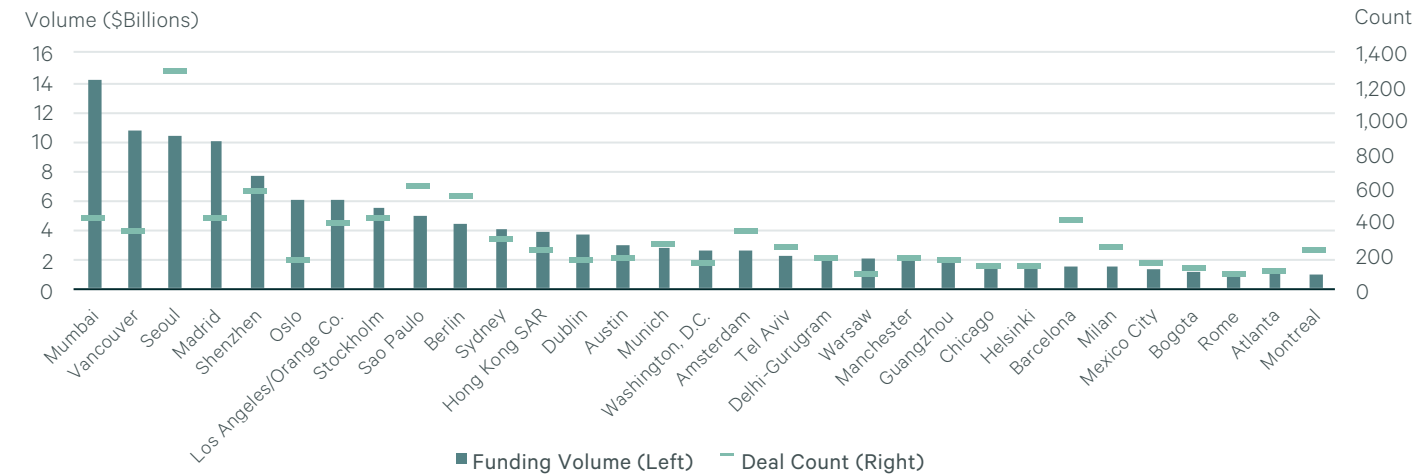
**76.0**  
Average Life Expectancy in 2019

**73**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country. Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

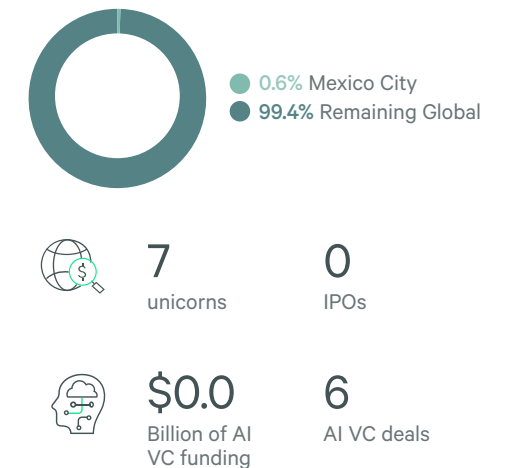
## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Established Markets



Note: Values shown in USD\$. Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



Source: CB Insights & CBRE Research, January 2024.

# Milan Established Market

## TECH TALENT SUMMARY

**100,000-150,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS



**135.4MM**  
Sq. ft. of office inventory

**\$70.95**  
Average asking rent per sq. ft.\*

**9.5%**  
Vacancy rate

Source: CBRE Research, Q3 2023

\* Prime open market rent

## WORKFORCE SUMMARY

### Working Age Population (2022)



**2,060**  
Working age population (Thousands)



**64.1%**  
Working age population share of overall population



**0.0%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.

**\$94,302** + **\$31,120** = **\$125,422**  
Software engineer average base salary + Additional benefits = Total compensation

Source: ERI & CBRE Consulting, September 2023.



**\$1,292**  
Average apartment rent per unit per month

**16.4%**  
Average rent to software engineer base wage ratio\*

Source: CBRE Research, CBRE Consulting & ERI, September 2023

\*Ratio of annualized apartment rent to average annual SWE base salary (2022).



**20.2%**  
of the country's working age population holds a bachelor's degree or higher



**52**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW



**5.1%**  
Unemployment rate in 2023



**53.85**  
Labor regulations and ease of doing business score



**83.9**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score. Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE



**83.0**  
Average Life Expectancy in 2019

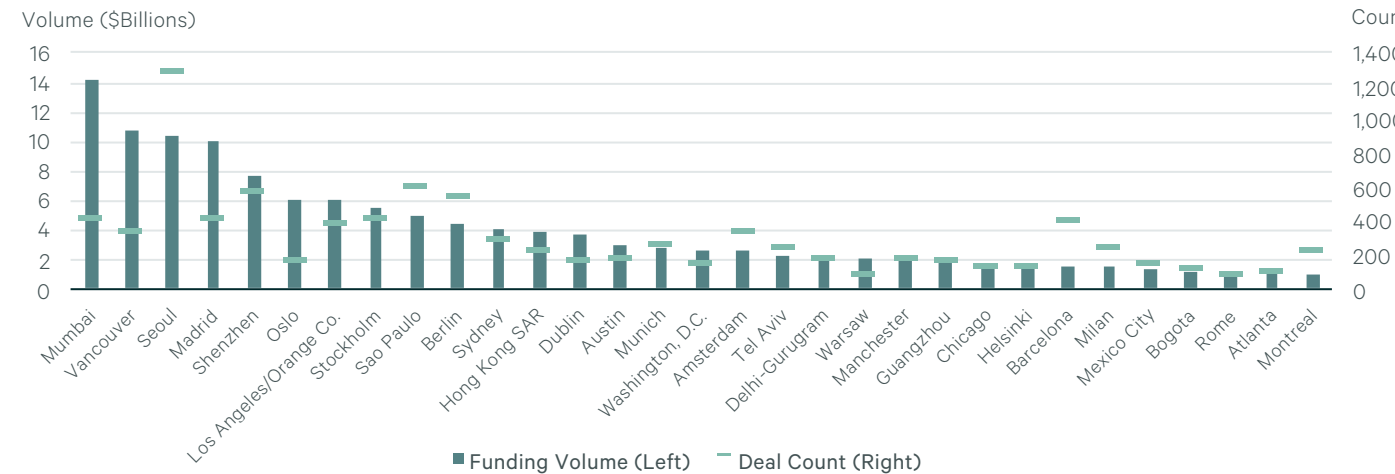


**23**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country. Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

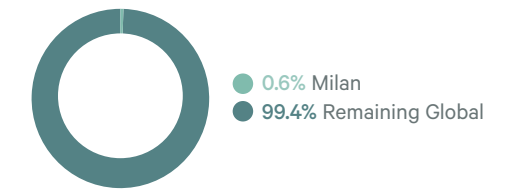
## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Established Markets



Note: Values shown in USD\$. Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



**1**  
unicorn

**8**  
IPOs



**\$0.1**  
Billion of AI VC funding

**12**  
AI VC deals

Source: CB Insights & CBRE Research, January 2024.

# Montreal Established Market


## TECH TALENT SUMMARY

 **150,000-200,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS

 **78.1MM**  
Sq. ft. of office inventory

**\$28.29**  
Average asking rent per sq. ft.

**17.8%**  
Vacancy rate

Source: CBRE Research, Q3 2023

## WORKFORCE SUMMARY




### Working Age Population (2022)

 **2,887**  
Working age population (Thousands)


 **65.9%**  
Working age population share of overall population

 **0.9%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.


 **\$99,870** +  **\$3,996** =  **\$103,866**  
Software engineer average base salary + Additional benefits = Total compensation


Source: ERI & CBRE Consulting, September 2023.

 **\$736**  
Average apartment rent per unit per month

**8.8%**  
Average rent to software engineer base wage ratio\*

Source: CBRE Research, CBRE Consulting & ERI, September 2023

 **36.3%**  
of the country's working age population holds a bachelor's degree or higher


 **26**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW

 **4.9%**  
Unemployment rate in 2023


 **74.33**  
Labor regulations and ease of doing business score

 **75.2**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score. Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE

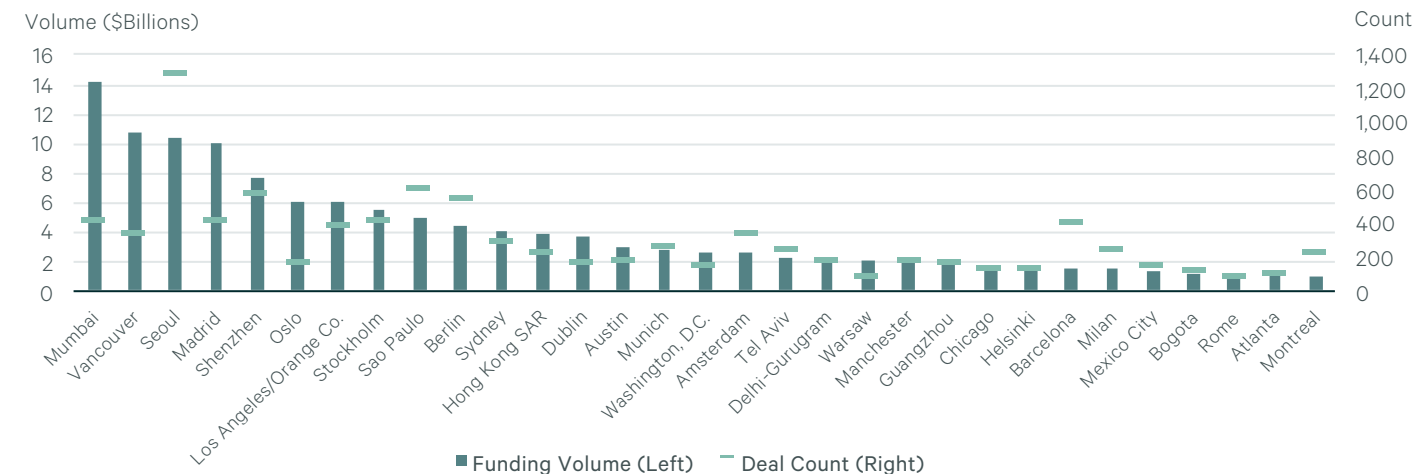
 **82.2**  
Average Life Expectancy in 2019

 **49**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country. Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

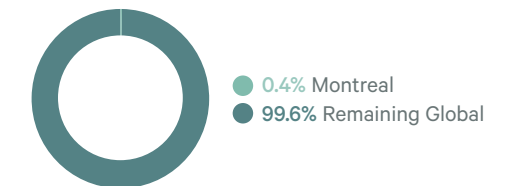
## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Established Markets




Note: Values shown in USD\$. Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



 **2**  
unicorns

**2**  
IPOs

 **\$0.1**  
Billion of AI VC funding

**26**  
AI VC deals

Source: CB Insights & CBRE Research, January 2024.

# Mumbai Established Market

## TECH TALENT SUMMARY

**300,000-500,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS

**N/A**  
Sq. ft. of office inventory

**\$57.00**  
Average asking rent per sq. ft.\*

**17.3%**  
Vacancy rate

Note: Office inventory is not tracked.  
Source: CBRE Research, Q3 2023

\* Prime open market rent

## WORKFORCE SUMMARY

### Working Age Population (2022)

**9,588**  
Working age population (Thousands)

**75.2%**  
Working age population share of overall population

**0.1%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.

**\$35,536** + **\$5,952** = **\$41,488**  
Software engineer average base salary + Additional benefits = Total compensation

Source: ERI & CBRE Consulting, September 2023.

**N/A**  
Average apartment rent per unit per month

**N/A**  
Average rent to software engineer base wage ratio\*

Note: Apartment rents are not tracked.

\*Ratio of annualized apartment rent to average annual SWE base salary (2022).

**12.9%**  
of the country's working age population holds a bachelor's degree or higher

**21**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW

**7.6%**  
Unemployment rate in 2022

**35.65**  
Labor regulations and ease of doing business score

**38.6**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score.  
Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE

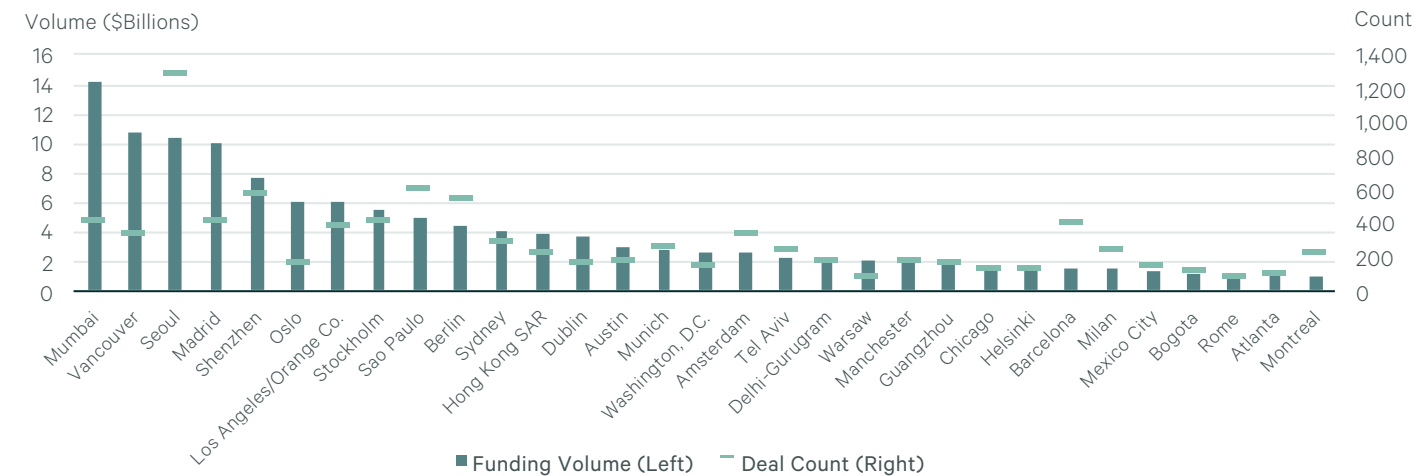
**70.8**  
Average Life Expectancy in 2019

**180**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country.  
Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

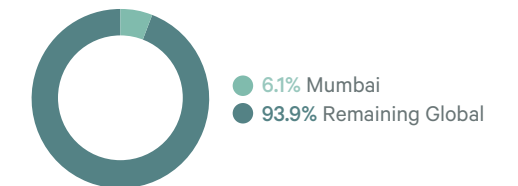
## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Established Markets



Note: Values shown in USD\$.  
Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



**15** unicorns  
**50** IPOs  
**\$0.0** Billion of AI VC funding  
**17** AI VC deals

Source: CB Insights & CBRE Research, January 2024.

# Munich Established Market

## TECH TALENT SUMMARY

**100,000-150,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS



**244.2MM**  
Sq. ft. of office inventory

**\$54.88**  
Average asking rent per sq. ft.\*

**6.1%**  
Vacancy rate

Source: CBRE Research, Q3 2023

\* Prime open market rent

## WORKFORCE SUMMARY

### Working Age Population (2022)



**1,032**  
Working age population (Thousands)



**68.8%**  
Working age population share of overall population



**0.5%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.

**\$120,807** + **\$24,941** = **\$145,747**  
Software engineer average base salary + Additional benefits = Total compensation

Source: ERI & CBRE Consulting, September 2023.



**\$1,375**  
Average apartment rent per unit per month

**13.7%**  
Average rent to software engineer base wage ratio\*

Source: CBRE Research, CBRE Consulting & ERI, September 2023

\*Ratio of annualized apartment rent to average annual SWE base salary (2022).



**31.9%**  
of the country's working age population holds a bachelor's degree or higher



**52**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW



**2.7%**  
Unemployment rate in 2023



**73.93**  
Labor regulations and ease of doing business score



**92.5**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score. Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE



**81.7**  
Average Life Expectancy in 2019

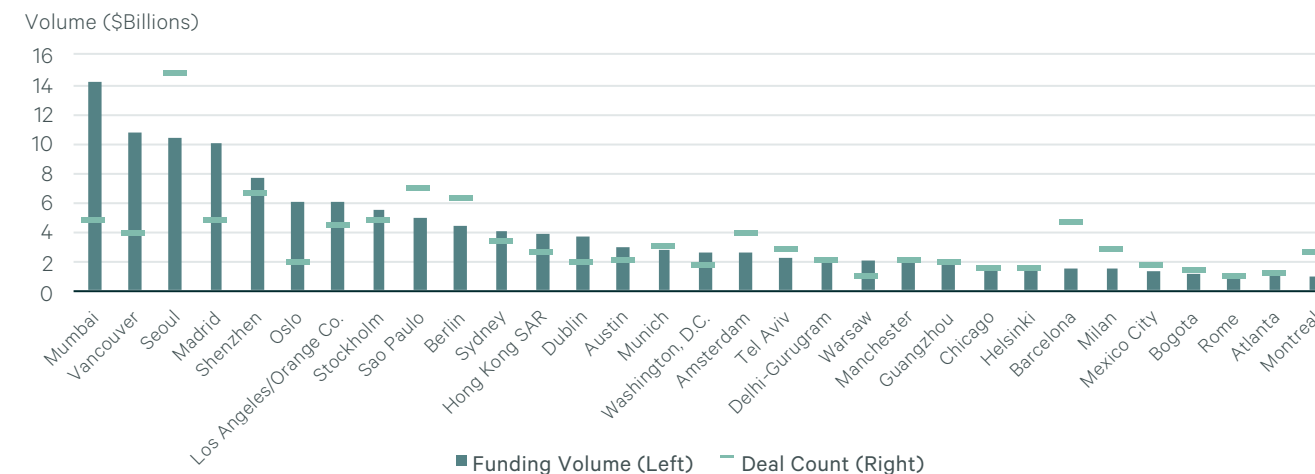


**13**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country. Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

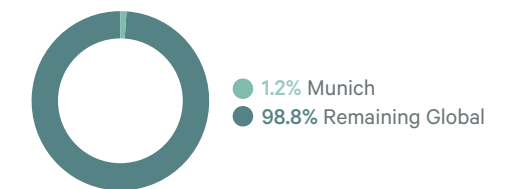
## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Established Markets



Note: Values shown in USD\$. Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



**4**  
unicorns

**1**  
IPO



**\$0.1**  
Billion of AI VC funding

**18**  
AI VC deals

Source: CB Insights & CBRE Research, January 2024.

# New Taipei City Established Market

## TECH TALENT SUMMARY

 **150,000-200,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS

 **N/A**  
Sq. ft. of office inventory




Note: Office inventory is not tracked.  
Source: CBRE Research, Q3 2023

**\$49.00** **7.8%**  
Average asking rent per sq. ft.\*  
Vacancy rate




\* Prime open market rent

## WORKFORCE SUMMARY


### Working Age Population (2022)

 **2,915**  **71.4%**  **-0.7%**  
Working age population (Thousands)  
Working age population share of overall population  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.

 **\$61,747** +  **\$11,239** =  **\$72,986**  
Software engineer average base salary  
Additional benefits  
Total compensation

Source: ERI & CBRE Consulting, September 2023.

 **N/A**  
Average apartment rent per unit per month

Note: Apartment rents are not tracked.

**N/A**  
Average rent to software engineer base wage ratio\*

\*Ratio of annualized apartment rent to average annual SWE base salary (2022).

 **37.0%**  **8**  
of the country's working age population holds a bachelor's degree or higher  
of the country's universities are ranked in the top 1,000 globally



Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW

 **3.6%**  **57.67**  **66.3**  
Unemployment rate in 2023  
Labor regulations and ease of doing business score  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score.  
Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

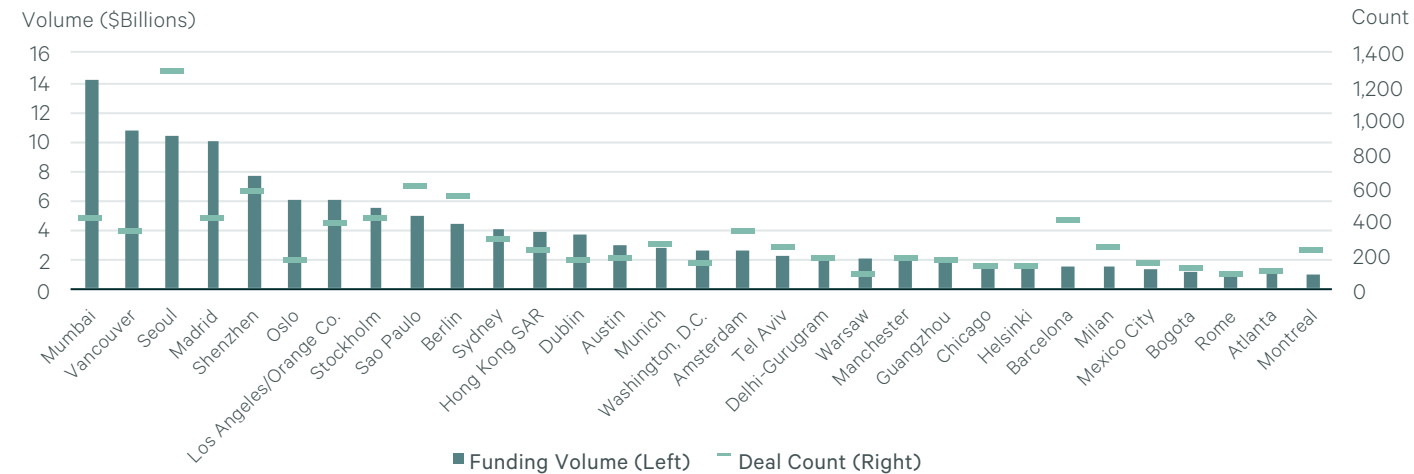
## QUALITY OF LIFE

 **80.4**  **45**  
Average Life Expectancy in 2019  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country.  
Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

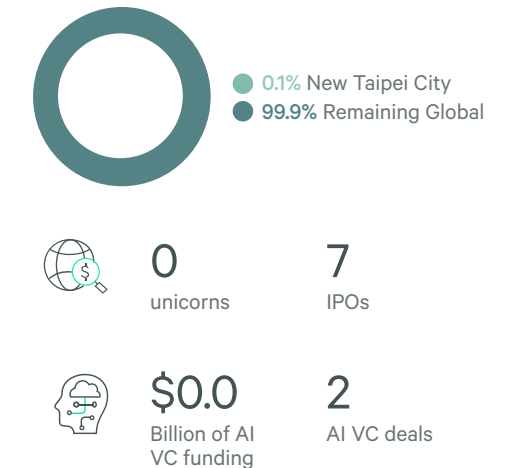
## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Established Markets



Note: Values shown in USD\$.  
Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



Source: CB Insights & CBRE Research, January 2024.

# Oslo Established Market

## TECH TALENT SUMMARY

**Under 100,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS

**109.8MM**  
Sq. ft. of office inventory

**\$56.55**  
Average asking rent per sq. ft.\*

**6.4%**  
Vacancy rate

Source: CBRE Research, Q3 2023

\* Prime open market rent

## WORKFORCE SUMMARY

### Working Age Population (2022)

**503**  
Working age population (Thousands)

**70.9%**  
Working age population share of overall population

**1.6%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.

**\$106,626** + **\$20,366** = **\$126,992**  
Software engineer average base salary + Additional benefits = Total compensation

Source: ERI & CBRE Consulting, September 2023.

**\$1,698**  
Average apartment rent per unit per month

**19.1%**  
Average rent to software engineer base wage ratio\*

Source: CBRE Research, CBRE Consulting & ERI, September 2023

\*Ratio of annualized apartment rent to average annual SWE base salary (2022).

**36.5%**  
of the country's working age population holds a bachelor's degree or higher

**5**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW

**3.5%**  
Unemployment rate in 2023

**73.16**  
Labor regulations and ease of doing business score

**N/A**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score. Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE

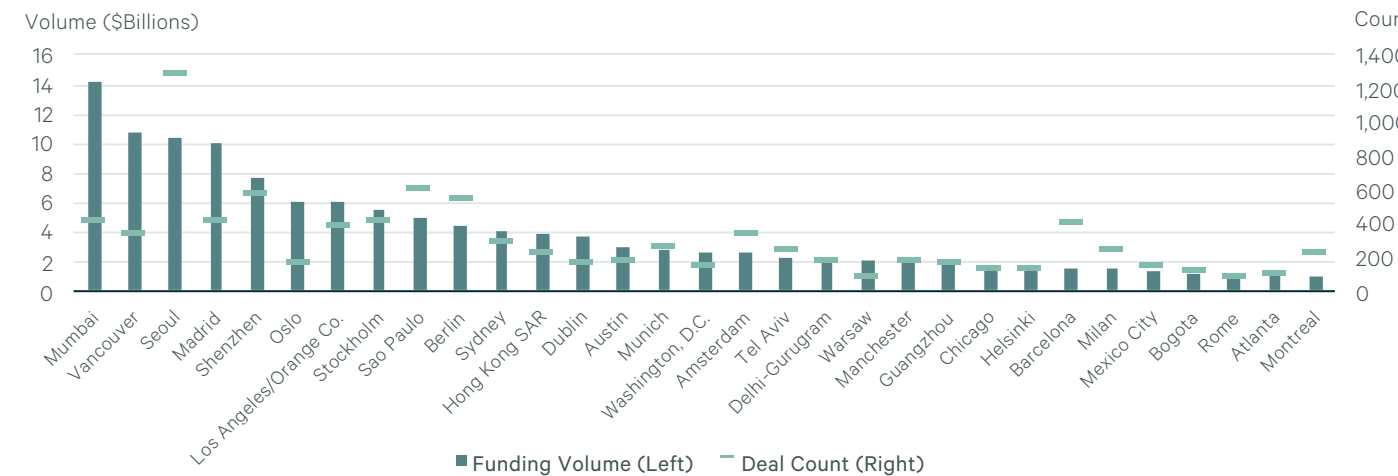
**82.6**  
Average Life Expectancy in 2019

**20**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country. Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

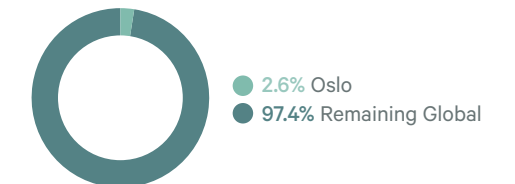
## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Established Markets



Note: Values shown in USD\$. Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



**3** unicorns

**1** IPO

**\$0.0** Billion of AI VC funding

**8** AI VC deals

Source: CB Insights & CBRE Research, January 2024.



# Ottawa Established Market

## TECH TALENT SUMMARY

**Under 100,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS

**41.2MM**  
Sq. ft. of office inventory

**\$25.72**  
Average asking rent per sq. ft.

**13.7%**  
Vacancy rate

Source: CBRE Research, Q3 2023

## WORKFORCE SUMMARY

### Working Age Population (2022)

**1,008**  
Working age population (Thousands)

**67.3%**  
Working age population share of overall population

**1.6%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.

**\$90,729** + **\$3,631** = **\$94,360**  
Software engineer average base salary + Additional benefits = Total compensation

Source: ERI & CBRE Consulting, September 2023.

**\$1,077** Average apartment rent per unit per month  
**14.2%** Average rent to software engineer base wage ratio\*

Source: CBRE Research, CBRE Consulting & ERI, September 2023  
\*Ratio of annualized apartment rent to average annual SWE base salary (2022).

**36.3%** of the country's working age population holds a bachelor's degree or higher  
**26** of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW

**4.5%**  
Unemployment rate in 2023

**74.33**  
Labor regulations and ease of doing business score

**75.2**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score.  
Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE

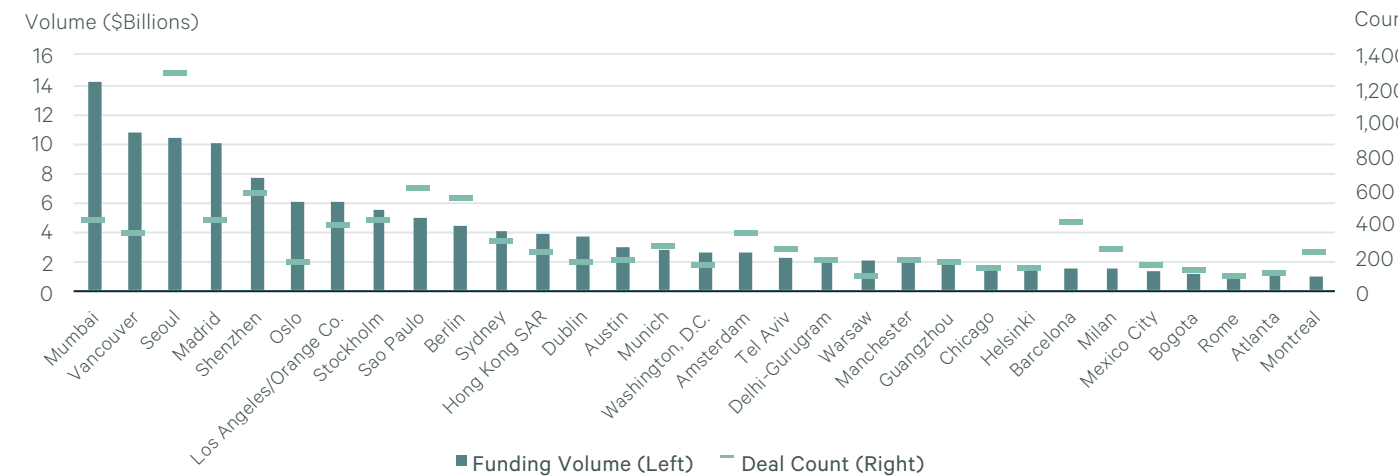
**82.2**  
Average Life Expectancy in 2019

**49**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country.  
Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Established Markets



Note: Values shown in USD\$.  
Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



Source: CB Insights & CBRE Research, January 2024.

# Rome Established Market

## TECH TALENT SUMMARY

**Under 100,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS



**120.6MM**  
Sq. ft. of office inventory

**\$52.13**  
Average asking rent per sq. ft.\*

**7.3%**  
Vacancy rate

Source: CBRE Research, Q3 2023

\* Prime open market rent

## WORKFORCE SUMMARY

### Working Age Population (2022)



**2,724**  
Working age population (Thousands)



**64.5%**  
Working age population share of overall population



**-0.6%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.

**\$86,240** + **\$28,459** = **\$114,699**  
Software engineer average base salary + Additional benefits = Total compensation

Source: ERI & CBRE Consulting, September 2023.



**N/A**  
Average apartment rent per unit per month

**N/A**  
Average rent to software engineer base wage ratio\*

Note: Apartment rents are not tracked.

\*Ratio of annualized apartment rent to average annual SWE base salary (2022).



**20.2%**  
of the country's working age population holds a bachelor's degree or higher



**52**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW



**7.1%**  
Unemployment rate in 2023



**53.85**  
Labor regulations and ease of doing business score



**83.9**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score. Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE



**82.9**  
Average Life Expectancy in 2019



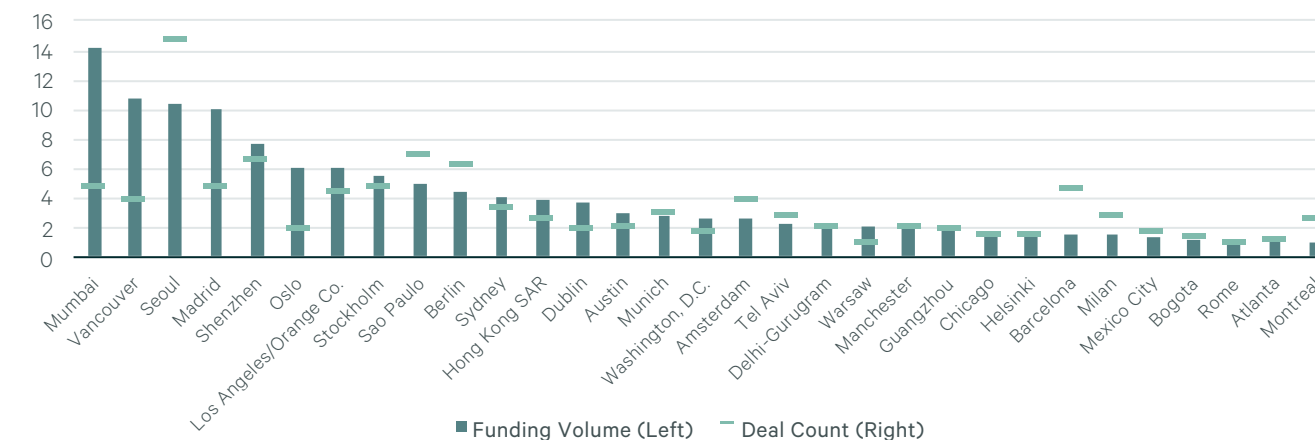
**23**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country. Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

## VENTURE CAPITAL SUMMARY (2023)

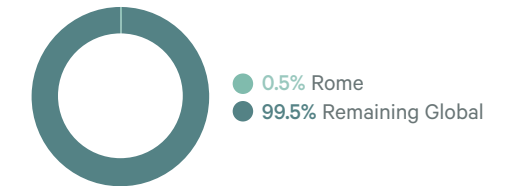
### VC Funding Volume (\$ Billions) & Deal Count | Established Markets

Volume (\$Billions)



Note: Values shown in USD\$. Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



**0**  
unicorns

**4**  
IPOs



**\$0.0**  
Billion of AI VC funding

**5**  
AI VC deals

Source: CB Insights & CBRE Research, January 2024.

# San Jose, Costa Rica Established Market

## TECH TALENT SUMMARY

**Under 100,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS



**17.0MM**  
Sq. ft. of office inventory

**\$20.23**  
Average asking rent per sq. ft.

**17.3%**  
Vacancy rate

Source: CBRE Research, Q3 2023

## WORKFORCE SUMMARY

### Working Age Population (2022)



**1,500**  
Working age population (Thousands)



**46.9%**  
Working age population share of overall population



**1.5%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.

**\$85,329** + **\$35,369** = **\$120,697**  
Software engineer average base salary + Additional benefits = Total compensation

Source: ERI & CBRE Consulting, September 2023.



**\$1,484**  
Average apartment rent per unit per month

**20.9%**  
Average rent to software engineer base wage ratio\*

Source: CBRE Research, CBRE Consulting & ERI, September 2023



**25.0%**  
of the country's working age population holds a bachelor's degree or higher



**1**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW



**8.0%**  
Unemployment rate in 2022



**53.60**  
Labor regulations and ease of doing business score



**54.6**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score. Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE



**80.9**  
Average Life Expectancy in 2019

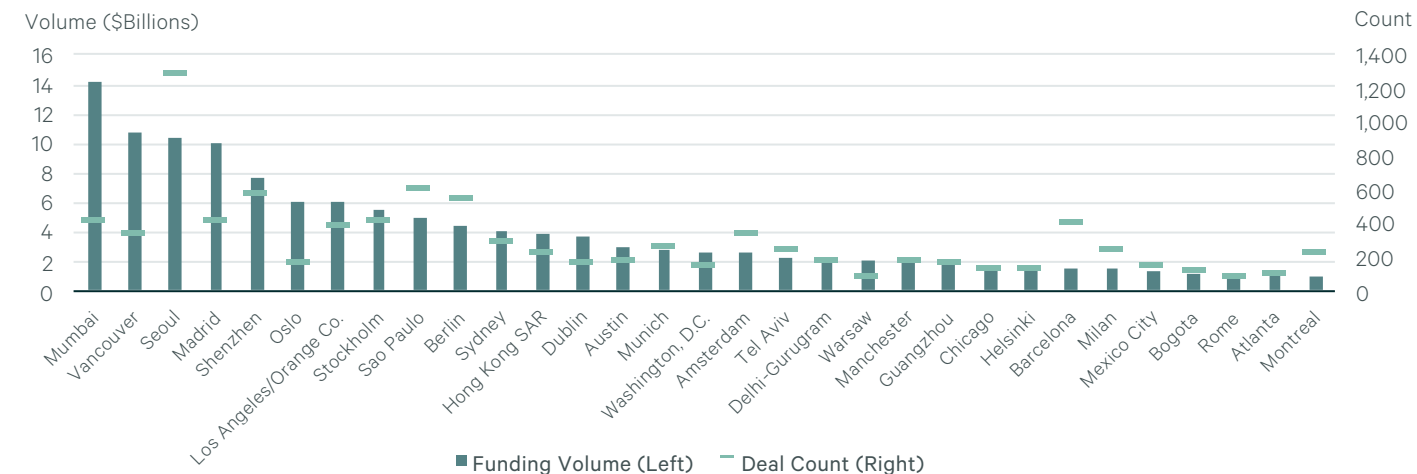


**68**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country. Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

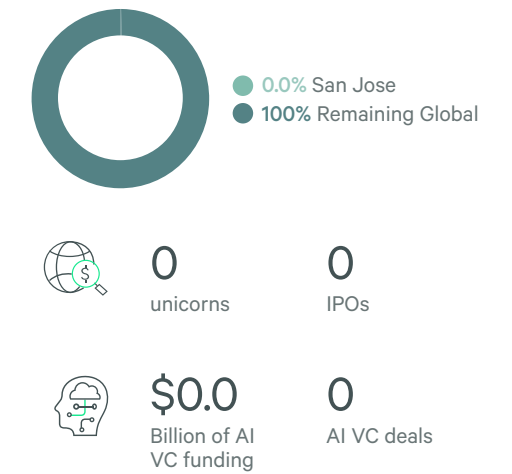
## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Established Markets



Note: Values shown in USD\$. Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



Source: CB Insights & CBRE Research, January 2024.

# Santiago Established Market


## TECH TALENT SUMMARY

 **150,000-200,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS

 **29.5MM**  
Sq. ft. of office inventory

**\$21.30**  
Average asking rent per sq. ft.

**12.4%**  
Vacancy rate

Note: Office inventory as of Q4 2022.  
Source: CBRE Research, Q3 2023

## WORKFORCE SUMMARY




### Working Age Population (2022)

 **4,337**  
Working age population (Thousands)

 **51.8%**  
Working age population share of overall population

 **0.7%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.

 **\$81,573** +  **\$45,485** =  **\$127,059**  
Software engineer average base salary + Additional benefits = Total compensation


Source: ERI & CBRE Consulting, September 2023.

 **\$1,479**  
Average apartment rent per unit per month

**21.8%**  
Average rent to software engineer base wage ratio\*

Source: CBRE Research, CBRE Consulting & ERI, September 2023  
\*Ratio of annualized apartment rent to average annual SWE base salary (2022).

 **31.0%**  
of the country's working age population holds a bachelor's degree or higher

 **6**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW

 **8.5%**  
Unemployment rate in 2022


 **53.95**  
Labor regulations and ease of doing business score

 **48.7**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score.  
Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE

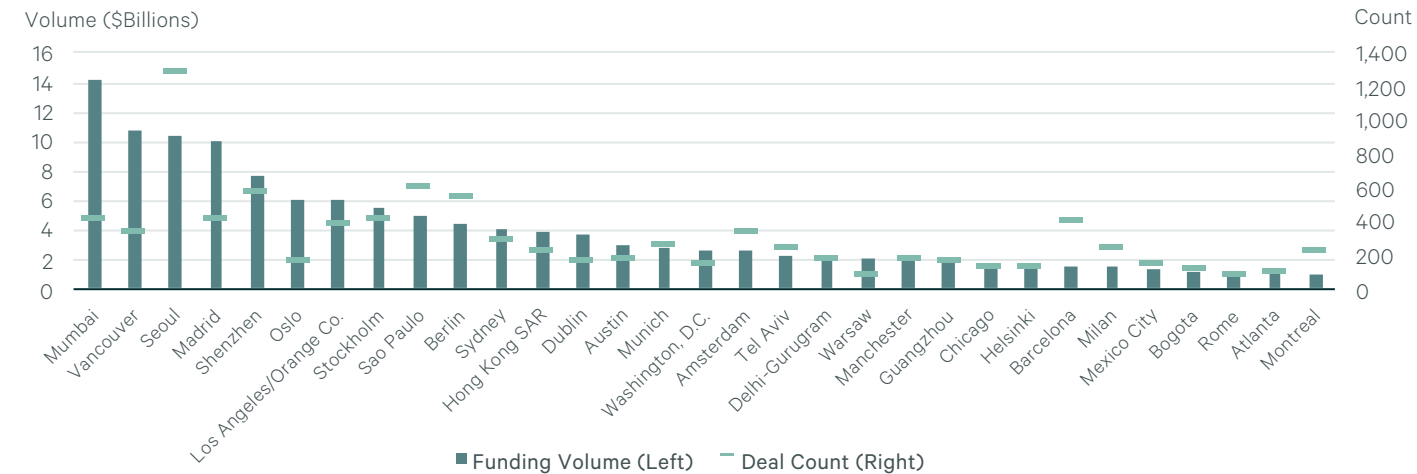
 **80.7**  
Average Life Expectancy in 2019

 **65**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country.  
Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

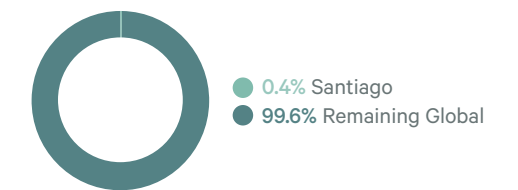
## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Established Markets



Note: Values shown in USD\$.  
Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



 **2**  
unicorns

**0**  
IPOs

 **\$0.0**  
Billion of AI VC funding

**11**  
AI VC deals

Source: CB Insights & CBRE Research, January 2024.

# Sao Paulo Established Market

## TECH TALENT SUMMARY

**200,000-300,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS



**474.0MM**  
Sq. ft. of office inventory

**\$35.67**  
Average asking rent per sq. ft.

**21.7%**  
Vacancy rate

Source: CBRE Research, Q3 2023

## WORKFORCE SUMMARY

### Working Age Population (2022)



**11,878**  
Working age population (Thousands)



**52.5%**  
Working age population share of overall population



**2.7%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.



**\$68,549**  
Software engineer average base salary



**\$47,484**  
Additional benefits



**\$116,032**  
Total compensation

Source: ERI & CBRE Consulting, September 2023.



**\$824**  
Average apartment rent per unit per month

**14.4%**  
Average rent to software engineer base wage ratio\*

Source: CBRE Research, CBRE Consulting & ERI, September 2023

\*Ratio of annualized apartment rent to average annual SWE base salary (2022).



**21.0%**  
of the country's working age population holds a bachelor's degree or higher



**17**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW



**8.3%**  
Unemployment rate in 2022



**42.46**  
Labor regulations and ease of doing business score



**42.0**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score. Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE



**75.9**  
Average Life Expectancy in 2019



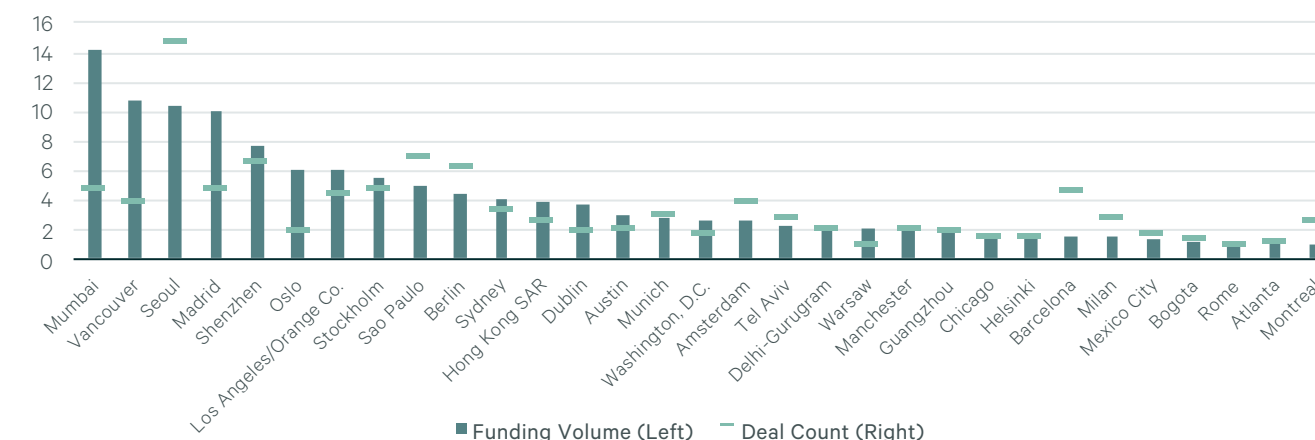
**81**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country. Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Established Markets

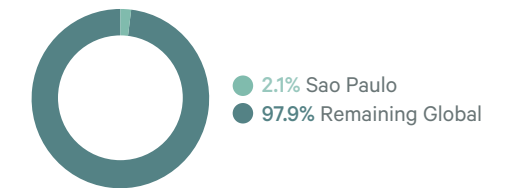
Volume (\$Billions)



■ Funding Volume (Left) ■ Deal Count (Right)

Note: Values shown in USD\$. Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



**14**  
unicorns

**1**  
IPO



**\$0.0**  
Billion of AI VC funding

**23**  
AI VC deals

Source: CB Insights & CBRE Research, January 2024.

# Seoul Established Market

## TECH TALENT SUMMARY

**150,000-200,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS

**N/A**  
Sq. ft. of office inventory

**\$56.00**  
Average asking rent per sq. ft.\*

**1.4%**  
Vacancy rate

Note: Office inventory is not tracked.  
Source: CBRE Research, Q3 2023

\* Prime open market rent

## WORKFORCE SUMMARY

### Working Age Population (2022)

**6,911**  
Working age population (Thousands)

**73.1%**  
Working age population share of overall population

**-0.9%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.

**\$82,244** + **\$16,508** = **\$98,752**  
Software engineer average base salary + Additional benefits = Total compensation

Source: ERI & CBRE Consulting, September 2023.

**N/A**  
Average apartment rent per unit per month

**N/A**  
Average rent to software engineer base wage ratio\*

Note: Apartment rents are not tracked.

\*Ratio of annualized apartment rent to average annual SWE base salary (2022).

**38.0%**  
of the country's working age population holds a bachelor's degree or higher

**19**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW

**2.8%**  
Unemployment rate in 2023

**65.15**  
Labor regulations and ease of doing business score

**83.9**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score.  
Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE

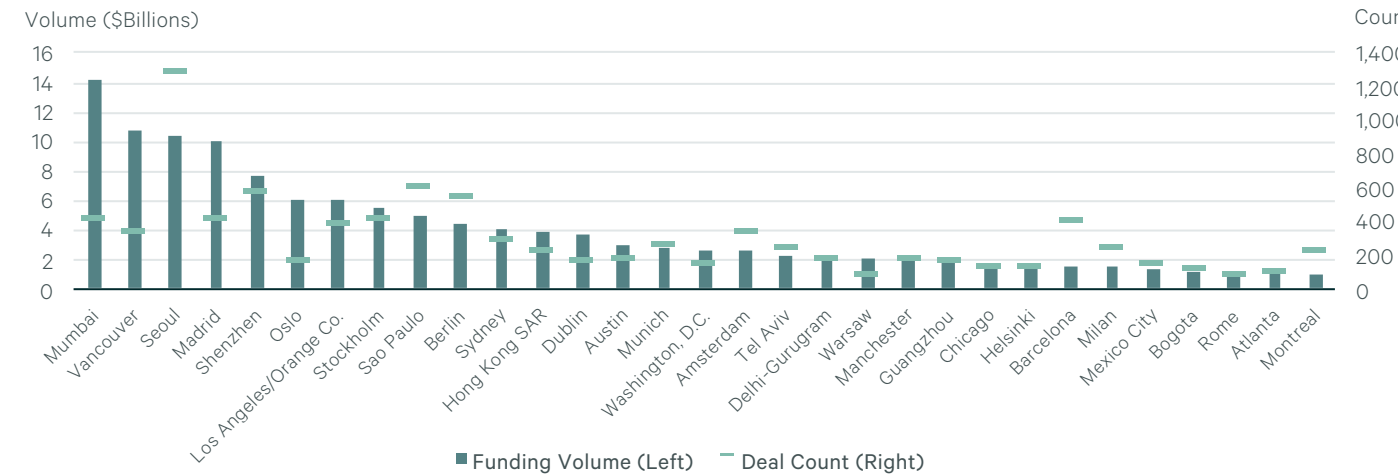
**83.3**  
Average Life Expectancy in 2019

**63**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country.  
Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

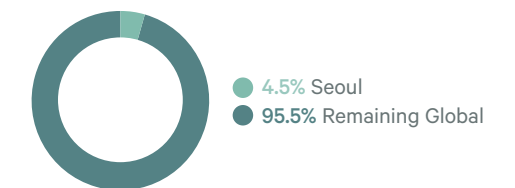
## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Established Markets



Note: Values shown in USD\$.  
Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



**14**  
unicorns

**11**  
IPOs

**\$0.4**  
Billion of AI VC funding

**179**  
AI VC deals

Source: CB Insights & CBRE Research, January 2024.

# Shenzhen Established Market

## TECH TALENT SUMMARY

**Over 500,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS

**122.1MM**  
Sq. ft. of office inventory

**\$43.00**  
Average asking rent per sq. ft.\*

**25.9%**  
Vacancy rate

Source: CBRE Research, Q3 2023

\* Prime open market rent

## WORKFORCE SUMMARY

### Working Age Population (2022)

**15,620**  
Working age population (Thousands)

**85.5%**  
Working age population share of overall population

**4.3%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.

**\$72,326** + **\$29,183** = **\$101,509**  
Software engineer average base salary + Additional benefits = Total compensation

Source: ERI & CBRE Consulting, September 2023.

**N/A**  
Average apartment rent per unit per month

**N/A**  
Average rent to software engineer base wage ratio\*

Note: Apartment rents are not tracked.

\*Ratio of annualized apartment rent to average annual SWE base salary (2022).

**8.9%**  
of the country's working age population holds a bachelor's degree or higher

**106**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW

**3.6%**  
Unemployment rate in 2022

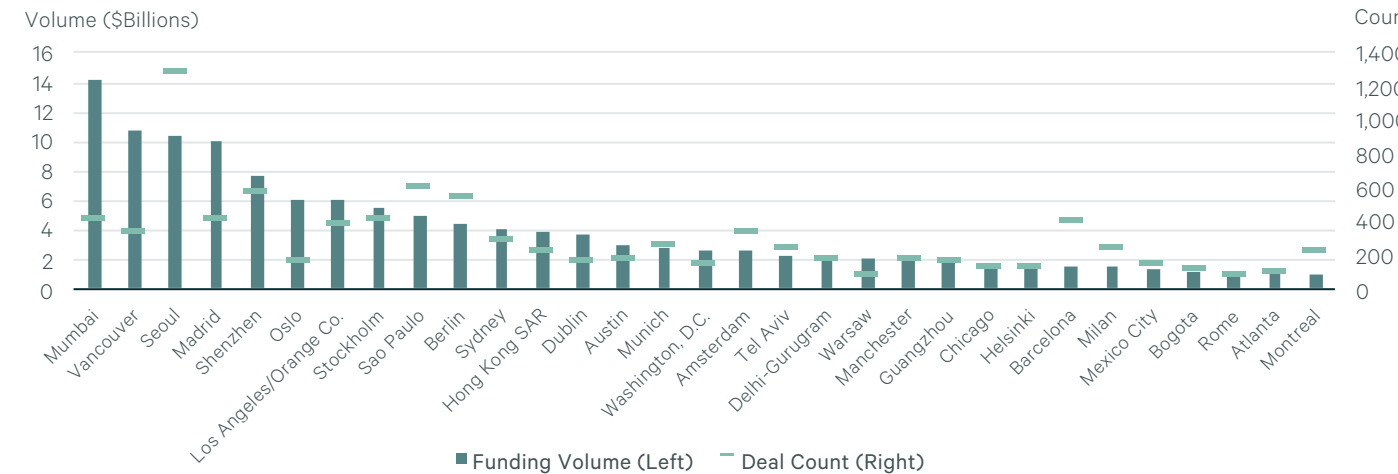
**57.67**  
Labor regulations and ease of doing business score

**55.9**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score. Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

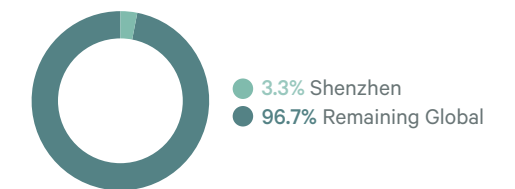
## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Established Markets



Note: Values shown in USD\$. Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



**18**  
unicorns

**27**  
IPOs

**\$0.9**  
Billion of AI VC funding

**33**  
AI VC deals

Source: CB Insights & CBRE Research, January 2024.

## QUALITY OF LIFE

**77.4**  
Average Life Expectancy in 2019

**160**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country. Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

# Stockholm Established Market

## TECH TALENT SUMMARY

**100,000-150,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS

**123.4MM**  
Sq. ft. of office inventory

**\$72.32**  
Average asking rent per sq. ft.\*

**6.1%**  
Vacancy rate

Source: CBRE Research, Q3 2023

\* Prime open market rent

## WORKFORCE SUMMARY

### Working Age Population (2022)

**1,594**  
Working age population (Thousands)

**65.6%**  
Working age population share of overall population

**1.3%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.

**\$99,857** + **\$31,375** = **\$131,232**  
Software engineer average base salary + Additional benefits = Total compensation

Source: ERI & CBRE Consulting, September 2023.

**\$1,133**  
Average apartment rent per unit per month

**13.6%**  
Average rent to software engineer base wage ratio\*

Source: CBRE Research, CBRE Consulting & ERI, September 2023

\*Ratio of annualized apartment rent to average annual SWE base salary (2022).

**38.7%**  
of the country's working age population holds a bachelor's degree or higher

**12**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW

**7.2%**  
Unemployment rate in 2023

**81.62**  
Labor regulations and ease of doing business score

**92.1**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score. Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE

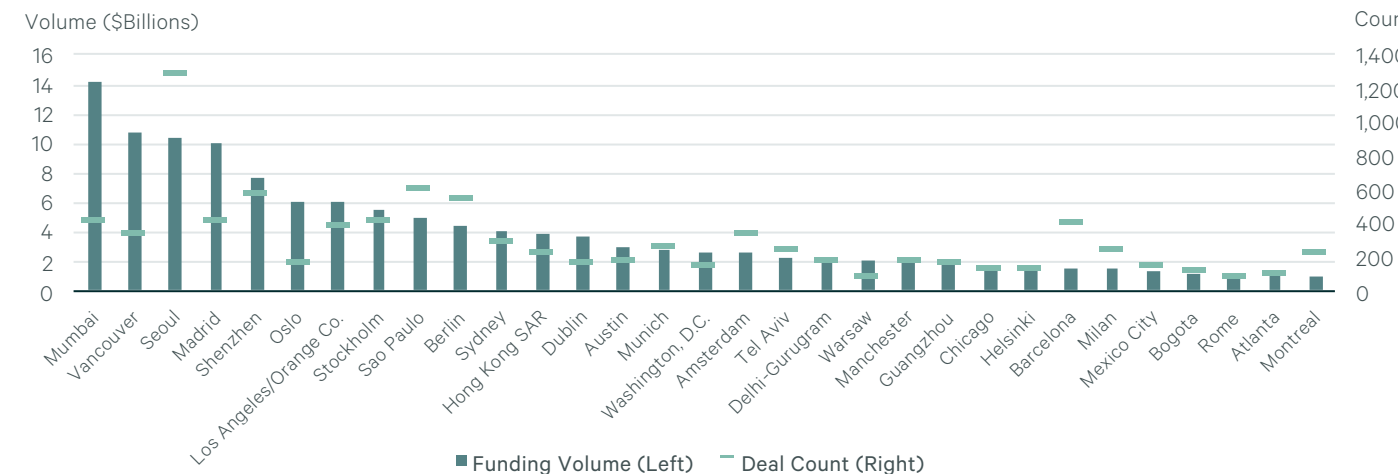
**82.4**  
Average Life Expectancy in 2019

**5**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country. Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

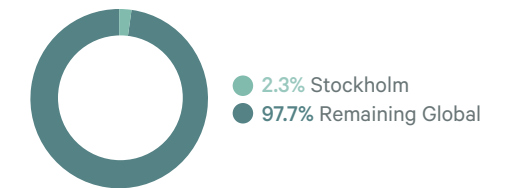
## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Established Markets



Note: Values shown in USD\$. Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



**6** unicorns

**5** IPOs

**\$0.1**  
Billion of AI VC funding

**11**  
AI VC deals

Source: CB Insights & CBRE Research, January 2024.



# Sydney Established Market


## TECH TALENT SUMMARY

 **200,000-300,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS

 **224.5MM**  
Sq. ft. of office inventory

**\$51.00**  
Average asking rent per sq. ft.\*

**11.5%**  
Vacancy rate

Source: CBRE Research, Q3 2023


\* Prime open market rent

## WORKFORCE SUMMARY




### Working Age Population (2022)

 **3,535**  
Working age population (Thousands)


 **66.6%**  
Working age population share of overall population

 **1.0%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.

 **\$126,798** +  **\$20,097** =  **\$146,895**  
Software engineer average base salary + Additional benefits = Total compensation


Source: ERI & CBRE Consulting, September 2023.


 **N/A**  
Average apartment rent per unit per month

**N/A**  
Average rent to software engineer base wage ratio\*

Note: Apartment rents are not tracked.

\*Ratio of annualized apartment rent to average annual SWE base salary (2022).

 **39.4%**  
of the country's working age population holds a bachelor's degree or higher

 **34**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW


 **3.5%**  
Unemployment rate in 2023

 **73.37**  
Labor regulations and ease of doing business score

 **80.7**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score.  
Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE

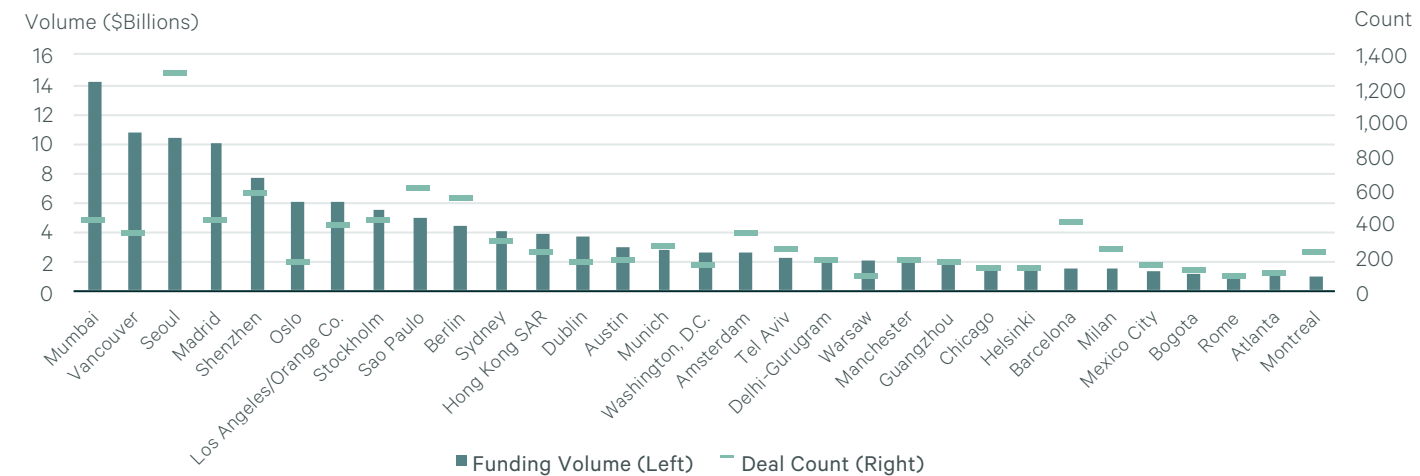
 **83.0**  
Average Life Expectancy in 2019

 **17**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country.  
Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

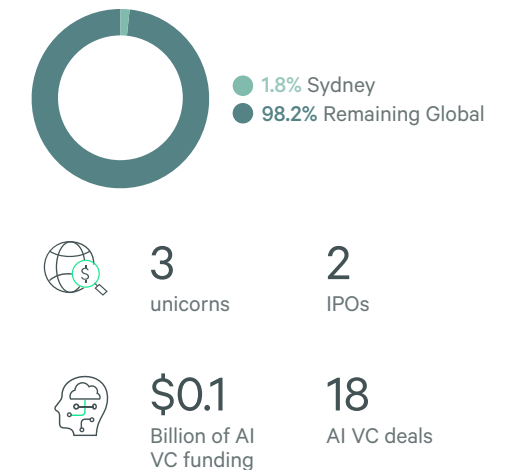
## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Established Markets



Note: Values shown in USD\$.  
Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



Source: CB Insights & CBRE Research, January 2024.

# Tel Aviv Established Market

## TECH TALENT SUMMARY

 **Under 100,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS

 **N/A**  
Sq. ft. of office inventory

Note: Office inventory is not tracked.  
Source: CBRE Research, Q3 2023


**\$36.12**  
Average asking rent per sq. ft.\*

**2.8%**  
Vacancy rate

\* Prime open market rent


## WORKFORCE SUMMARY




### Working Age Population (2022)

 **2,087**  
Working age population (Thousands)

Source: Oxford Economics & CBRE Research, September 2023.

 **61.2%**  
Working age population share of overall population

 **1.9%**  
Working age population growth (2017-2022)

 **\$104,255** +  **\$23,567** =  **\$127,821**  
Software engineer average base salary + Additional benefits = Total compensation


Source: ERI & CBRE Consulting, September 2023.

 **N/A**  
Average apartment rent per unit per month


Note: Apartment rents are not tracked.

**N/A**  
Average rent to software engineer base wage ratio\*

\*Ratio of annualized apartment rent to average annual SWE base salary (2022).

 **39.6%**  
of the country's working age population holds a bachelor's degree or higher

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

 **7**  
of the country's universities are ranked in the top 1,000 globally

## LABOR MARKET OVERVIEW


 **2.6%**  
Unemployment rate in 2023


 **64.54**  
Labor regulations and ease of doing business score

 **72.7**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score.  
Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE

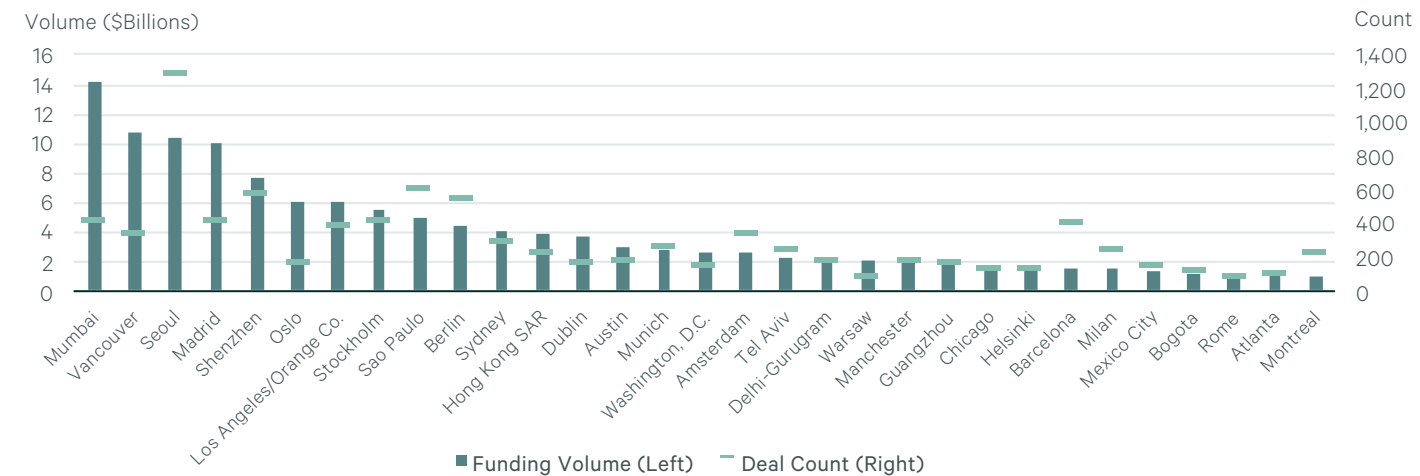
 **82.6**  
Average Life Expectancy in 2019

 **57**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country.  
Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

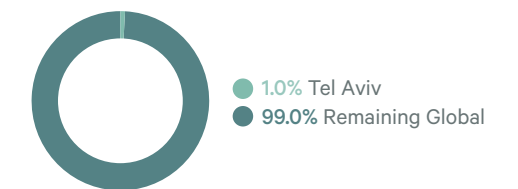
## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Established Markets




Note: Values shown in USD\$.  
Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



 **7** unicorns

**2** IPOs

 **\$0.2**  
Billion of AI VC funding

**34**  
AI VC deals

Source: CB Insights & CBRE Research, January 2024.

# Vancouver Established Market


## TECH TALENT SUMMARY

 **100,000-150,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS

 **51.8MM**  
Sq. ft. of office inventory

**\$41.24**  
Average asking rent per sq. ft.


**9.6%**  
Vacancy rate


Source: CBRE Research, Q3 2023

## WORKFORCE SUMMARY




### Working Age Population (2022)

 **1,979**  
Working age population (Thousands)


 **69.6%**  
Working age population share of overall population

 **1.7%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.

 **\$99,776** +  **\$3,991** =  **\$103,767**  
Software engineer average base salary + Additional benefits = Total compensation

Source: ERI & CBRE Consulting, September 2023.

 **\$1,228**  
Average apartment rent per unit per month

**14.8%**  
Average rent to software engineer base wage ratio\*

Source: CBRE Research, CBRE Consulting & ERI, September 2023

 **36.3%**  
of the country's working age population holds a bachelor's degree or higher

 **26**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW


 **5.3%**  
Unemployment rate in 2023


 **74.33**  
Labor regulations and ease of doing business score

 **75.2**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score.  
Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE

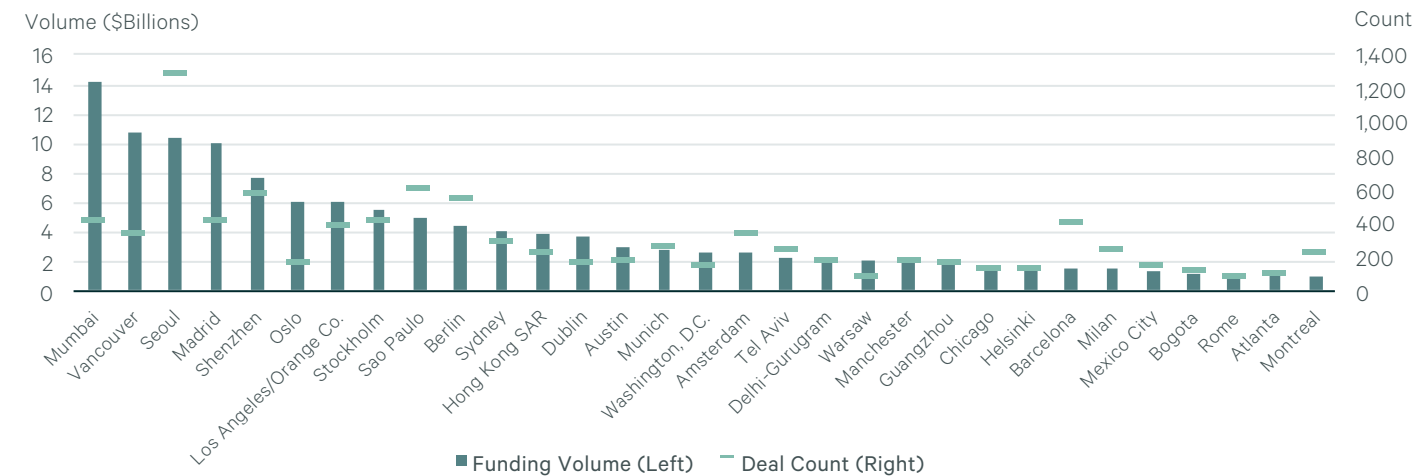
 **82.2**  
Average Life Expectancy in 2019

 **49**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country.  
Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

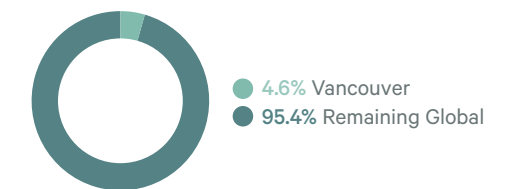
## VENTURE CAPITAL SUMMARY (2023)


### VC Funding Volume (\$ Billions) & Deal Count | Established Markets





Note: Values shown in USD\$.  
Source: CB Insights & CBRE Research, January 2024.


### Share of 2023 Global VC Funding Volume



 **5** unicorns

 **6** IPOs

 **\$0.1** Billion of AI VC funding

 **28** AI VC deals

Source: CB Insights & CBRE Research, January 2024.

# Warsaw Established Market

## TECH TALENT SUMMARY

**100,000-150,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS

**66.8MM**  
Sq. ft. of office inventory

**\$31.57**  
Average asking rent per sq. ft.\*

**10.6%**  
Vacancy rate

Source: CBRE Research, Q3 2023

\* Prime open market rent

## WORKFORCE SUMMARY

### Working Age Population (2022)

**1,129**  
Working age population (Thousands)

**62.2%**  
Working age population share of overall population

**-0.2%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.

**\$62,342** + **\$13,803** = **\$76,145**  
Software engineer average base salary + Additional benefits = Total compensation

Source: ERI & CBRE Consulting, September 2023.

**\$1,492**  
Average apartment rent per unit per month

**28.7%**  
Average rent to software engineer base wage ratio\*

Source: CBRE Research, CBRE Consulting & ERI, September 2023

\*Ratio of annualized apartment rent to average annual SWE base salary (2022).

**33.8%**  
of the country's working age population holds a bachelor's degree or higher

**7**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW

**0.7%**  
Unemployment rate in 2023

**47.40**  
Labor regulations and ease of doing business score

**70.7**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score. Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE

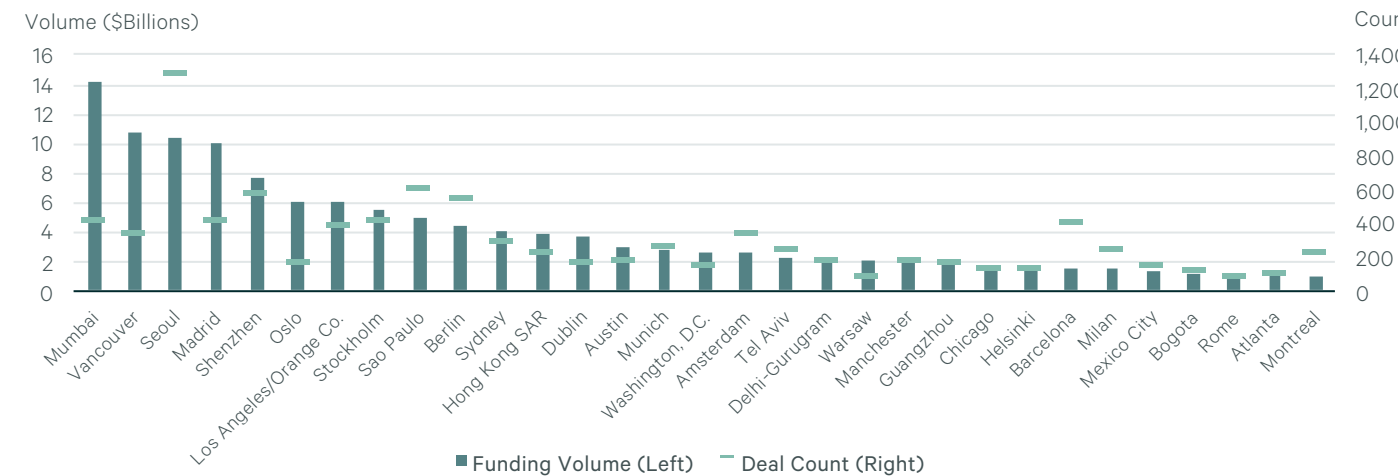
**78.3**  
Average Life Expectancy in 2019

**46**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country. Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

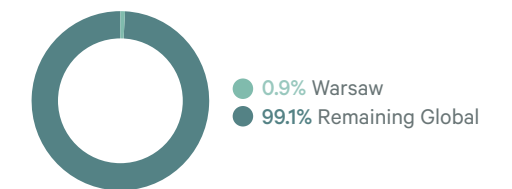
## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Established Markets



Note: Values shown in USD\$. Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



**0** unicorns

**0** IPOs

**\$0.0** Billion of AI VC funding

**0** AI VC deals

Source: CB Insights & CBRE Research, January 2024.

# Washington, D.C. Established Market


## TECH TALENT SUMMARY

 **200,000-300,000**  
Persons working in tech talent occupations in 2022

Size Category	# of Markets
Over 500,000	5
300,000-500,000	8
200,000-300,000	8
150,000-200,000	8
100,000-150,000	13
Under 100,000	13

Source: CBRE Research & CBRE Consulting, September 2023.

## REAL ESTATE FUNDAMENTALS

 **364.5M**  
Sq. ft. of office inventory

**\$42.67**  
Average asking rent per sq. ft.


**21.5%**  
Vacancy rate

Source: CBRE Research, Q3 2023

## WORKFORCE SUMMARY



### Working Age Population (2022)

 **4,260**  
Working age population (Thousands)


 **67.0%**  
Working age population share of overall population

 **0.1%**  
Working age population growth (2017-2022)

Source: Oxford Economics & CBRE Research, September 2023.

 **\$145,178** +  **\$5,807** =  **\$150,985**  
Software engineer average base salary + Additional benefits = Total compensation


Source: ERI & CBRE Consulting, September 2023.


 **\$2,040**  
Average apartment rent per unit per month

**16.9%**  
Average rent to software engineer base wage ratio\*

Source: CBRE Research, CBRE Consulting & ERI, September 2023

\*Ratio of annualized apartment rent to average annual SWE base salary (2022).

 **39.4%**  
of the country's working age population holds a bachelor's degree or higher

 **199**  
of the country's universities are ranked in the top 1,000 globally

Source: U.S. News & World Report, OECD, Statistics Canada, U.S. Census Bureau, Sitewise & CBRE Research, September 2023.

## LABOR MARKET OVERVIEW

 **2.7%**  
Unemployment rate in 2023


 **83.61**  
Labor regulations and ease of doing business score

 **95.5**  
International score for intellectual property laws & risk

Note: Labor regulations and intellectual property scores are shown on a country level. 100 is the highest/most favorable score. Source: Oxford Economics, U.S. Chamber of Commerce, Global Talent Competitiveness Index & CBRE Consulting, January 2024.

## QUALITY OF LIFE

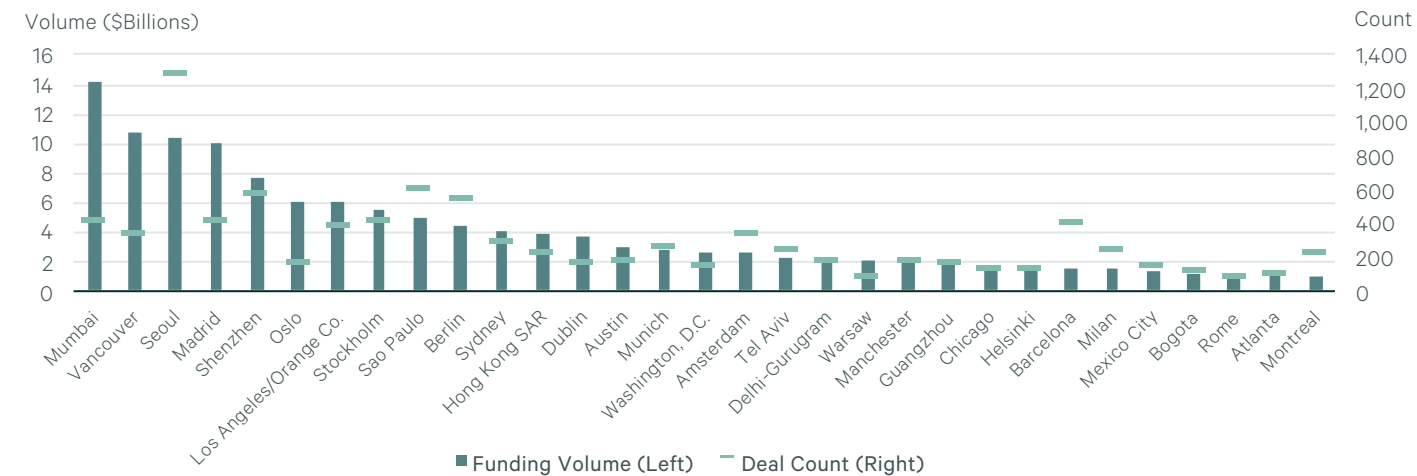
 **78.5**  
Average Life Expectancy in 2019

 **43**  
Environmental Performance Index Score in 2022

Note: Quality of life data is shown on a country level. Environmental score of 1 is highest ranking country. Source: World Health Organization, Yale EPI & CBRE Research, September 2023.

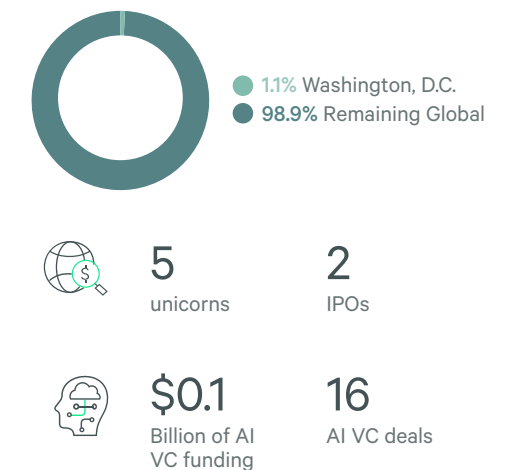
## VENTURE CAPITAL SUMMARY (2023)

### VC Funding Volume (\$ Billions) & Deal Count | Established Markets



Note: Values shown in USD\$. Source: CB Insights & CBRE Research, January 2024.

### Share of 2023 Global VC Funding Volume



Source: CB Insights & CBRE Research, January 2024.

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