

# J P C

J A P A N P O W E R C I T I E S



# 2 0 2 2



MORI MEMORIAL  
FOUNDATION

# Table of Contents

<b>Preface</b> .....	<b>02</b>
<b>About Japan Power Cities 2022</b> .....	<b>03</b>
<b>Target Cities</b> .....	<b>05</b>
<b>Evaluation System</b> .....	<b>07</b>
<b>138 Cities: Results and Analysis</b> .....	<b>09</b>
<b>Tokyo 23 Wards: Results and Analysis</b> .....	<b>22</b>
<b>Featured Research</b> .....	<b>25</b>
<b>Definitions of Indicators</b> .....	<b>29</b>

## Preface

The Covid-19 pandemic was the first time since the Spanish flu 100 years ago that an infectious disease had a global impact on the urban activities and lifestyles established during the 20th century. In 2022, more than two years after the World Health Organization (WHO) first classified the disease, the number of new Covid cases worldwide is beginning to decline. It is not yet clear what the final outcome will be; will cities return to their previous activities as they transition to the post-corona reality, or will there be changes based on lessons learned from the pandemic?

We launched 'Japan Power Cities - Profiling Urban Attractiveness (JPC)' in 2018 with the belief that we must increase the strength of Japanese cities to improve the country as a whole. This year marks its fifth year. In JPC-2022, we explore how COVID-19 has impacted the way urban dwellers live and work during the last two years. It is not difficult to predict that the pandemic will question the way urban management and infrastructure developments are carried out, and that there will be measures taken in the short- to medium-term to address this. However, the indicators that have directly changed over the past year are those related to mobility. The decrease in the number of domestic visitors and the hiatus of inbound visitors from abroad has caused a drop in the number of events, the number of accommodation facility guest rooms, the weekend visitor population, and the number of international conferences and exhibitions held. Though these indicators account for less than 10% of the 86 indicators, the decline in scores is more pronounced for cities for which these aspects are a strength.

The JPC reveals the annual changes of different characteristics of Japan's major cities within the context of their overall power. This year, in addition to using quantitative analysis methods to evaluate strength, we conducted supplementary research using qualitative analysis to investigate the perception that residents have of their city. Using a questionnaire survey of residents, we analyzed city image from multiple perspectives. The JPC aims to showcase each city's attractiveness and help cities formulate policies to draw people to the city. We hope the results of the city perception survey will add further depth to the JPC and contribute to future city branding strategies.

Japan Power Cities, Steering Committee, Chairman

**Hiroo Ichikawa**

July, 2022



# About Japan Power Cities 2022

## Background and Objective

While the world's population is predicted to continue growing in the years ahead, the population of Japan is expected to shrink rapidly as a result of a declining birth rate and an aging society. To tackle these problems, cities across Japan must harness their respective characteristics and push ahead with urban development to maintain their dynamism, while maintaining the 'magnetism' required to attract people and companies and the potential for growth that demonstrates their urban appeal and strengths.

For this to be achieved, cities need to gain an objective understanding of their own strengths and then formulate and execute an urban strategy plan for the next generation. As part of 'Japan Power Cities–Profiling Urban Attractiveness', a study was carried out on the major cities of Japan to be able to conduct comparative and multi-faced analyses of city strengths based on quantitative and qualitative data and to shed light on city characteristics such as strengths and attractiveness.

## Research Organization

### Steering Committee

Creating the assessment system, as well as performing evaluation & analysis

#### [Chairman]



**Hiroo Ichikawa**  
Professor Emeritus,  
Meiji University

#### [Members]

**Institute for Urban Strategies,  
Mori Memorial Foundation**



### Expert Committee

Providing a technical point-of-view as well as advice to the Steering Committee

#### [Committee Members]



**Yasushi Asami**  
Professor,  
University of  
Tokyo, Graduate  
School of  
Engineering



**Kazuhiro Ichikawa**  
Academic advisor  
and Professor,  
Japan Lutheran  
College



**Takayuki Kishii**  
Visiting Professor,  
National Graduate  
Institute for Policy  
Studies



**Norihiro Nakai**  
Director and Professor,  
Tokyo Institute of  
Technology, School of  
Environment and Society



**Masayuki Nakagawa**  
Professor, Nihon  
University, College  
of Economics



**Keisuke Hanaki**  
Professor, Toyo University,  
Department of  
Information Networking  
for Innovation and Design;  
Professor Emeritus,  
University of Tokyo



**Shunya Yoshimi**  
Professor,  
University of Tokyo,  
Graduate School of  
Interfaculty Initiative  
in Information Studies

## Evaluation Method

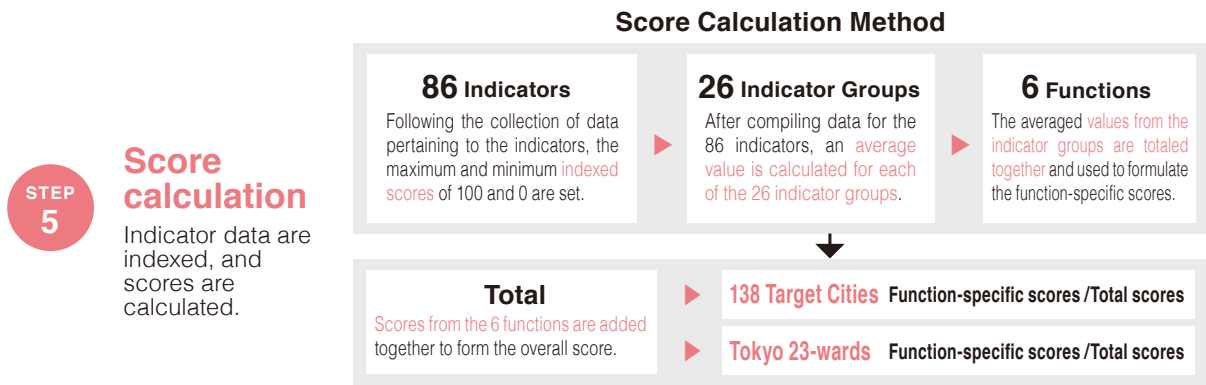
### ▶ Creating Framework



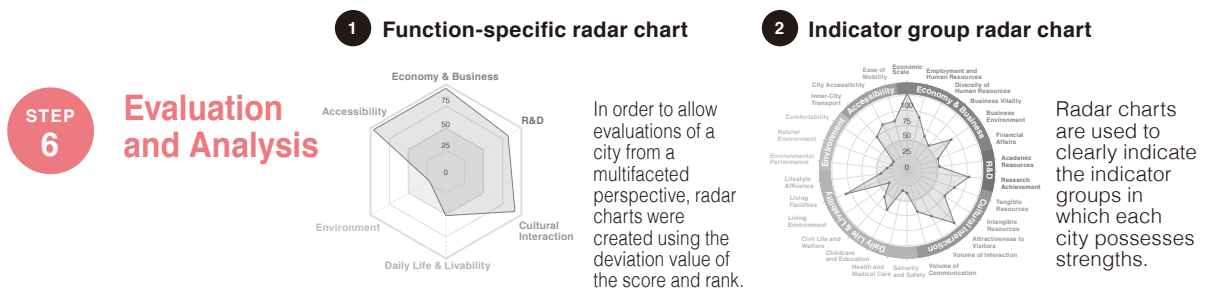
### ▶ Data Collection



### ▶ Indexation



### ▶ Evaluation and Analysis



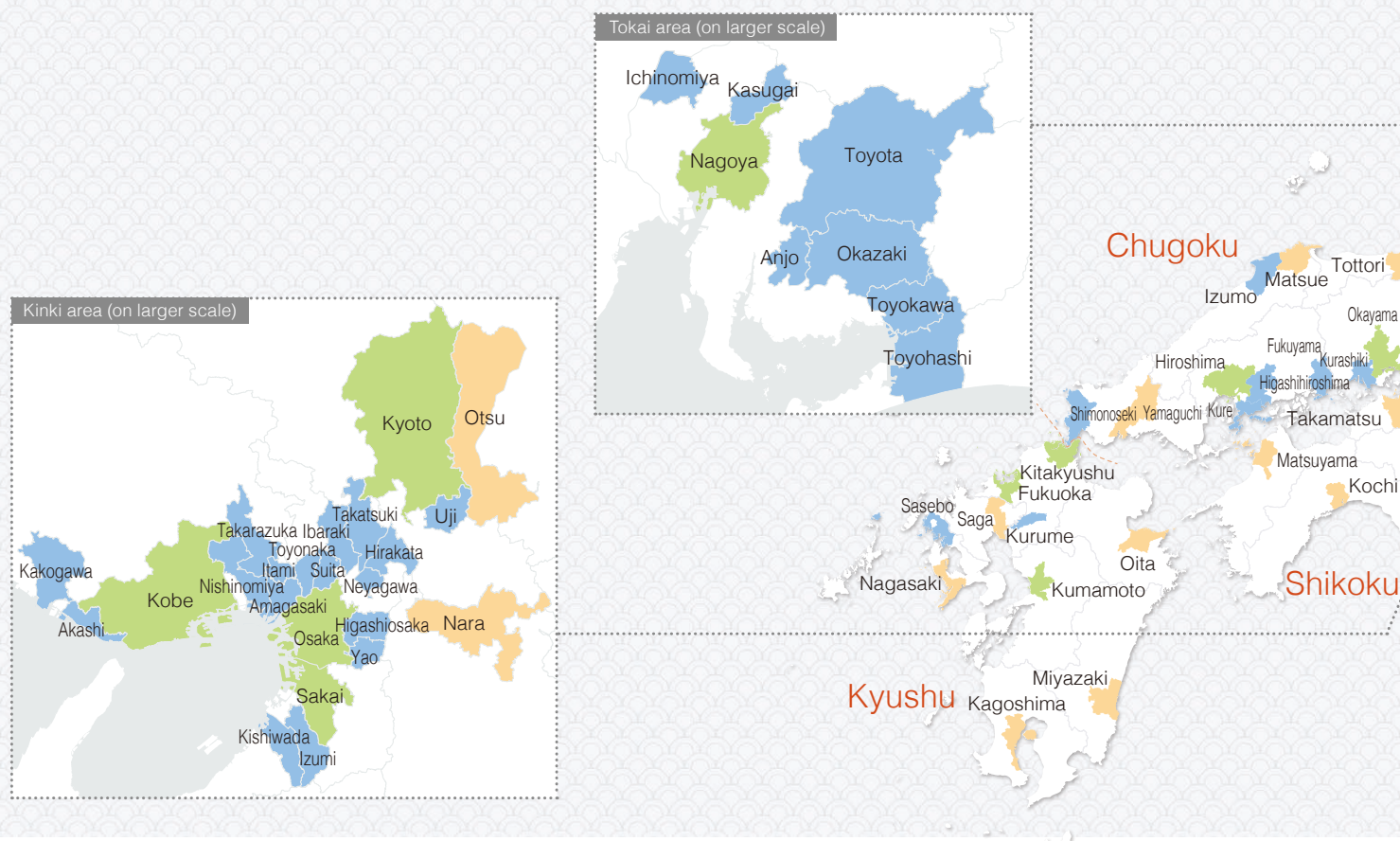
# Target Cities

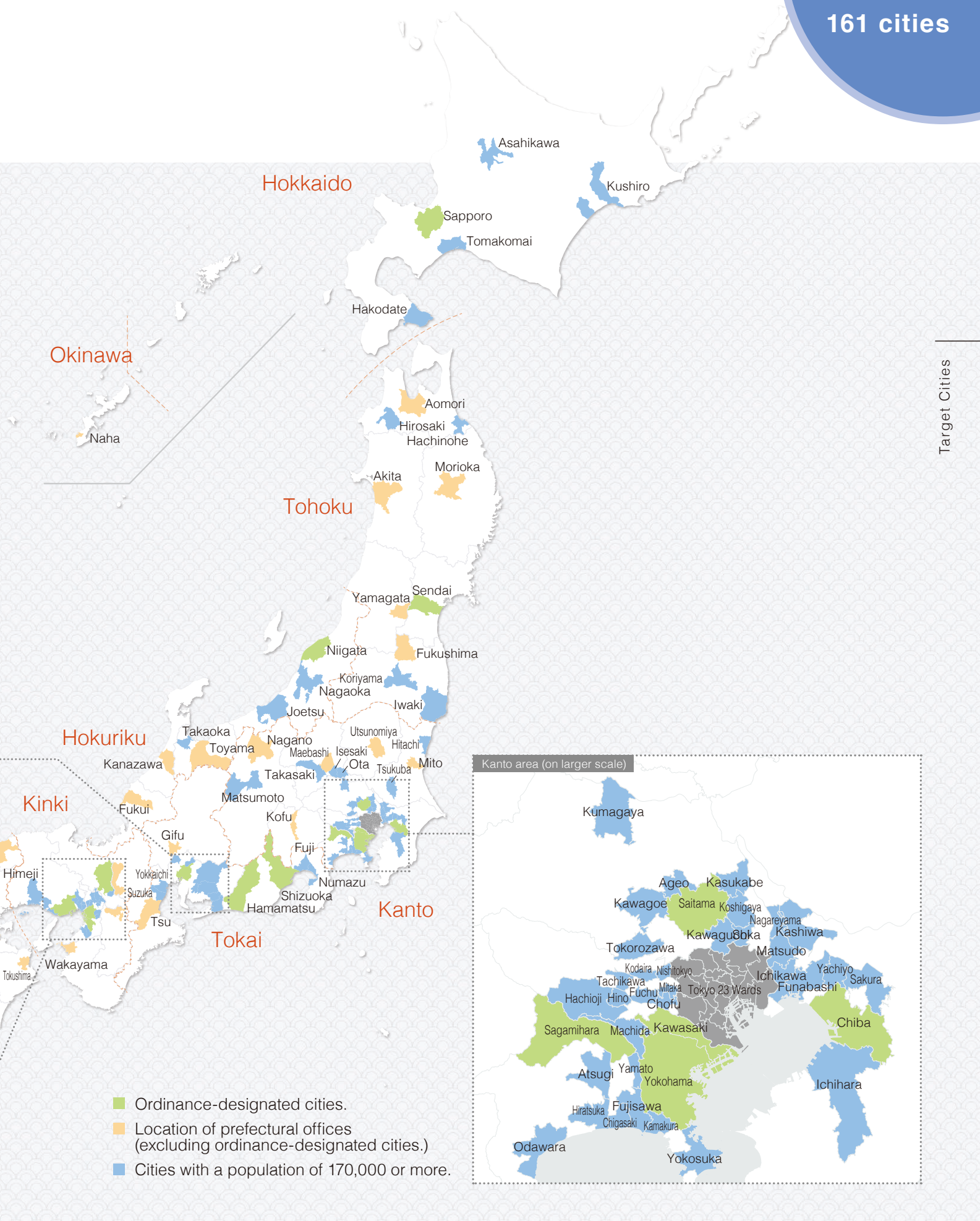
138 Japanese cities and the 23 wards of Tokyo were included as target cities in this study. For the 138 cities, the selection criteria were set as follows and the cities were selected:

1. Ordinance-designated cities.
2. Location of prefectural offices (excluding ordinance-designated cities.)
3. Cities with a population of 170,000 or more.

138 Cities  
Tokyo 23 wards

	Ordinance-designated cities.	Location of prefectural offices (excluding ordinance-designated cities.)	Cities with a population of 170,000 or more.
<b>Hokkaido</b>	Sapporo		Hakodate·Asahikawa·Kushiro·Tomakomai
<b>Tohoku</b>	Sendai	Aomori·Morioka·Akita·Yamagata·Fukushima	Hirosaki·Hachinohe·Koriyama·Iwaki
<b>Kanto</b>	Saitama·Chiba·Yokohama·Kawasaki·Sagamihara	Mito·Utsunomiya·Maebashi·Kofu·Nagano	Hitachi·Tsukuba·Takasaki·Isesaki·Ota·Kawagoe·Kumagaya·Kawaguchi·Tokorozawa·Kasukabe·Ageo·Soka·Koshigaya·Ichikawa·Funabashi·Matsudo·Sakura·Kashiwa·Ichihara·Nagareyama·Yachiyo·Hachioji·Tachikawa·Mitaka·Fuchu·Chofu·Machida·Kodaira·Hino·Nishitokyo·Yokosuka·Hiratsuka·Kamakura·Fujisawa·Odawara·Chigasaki·Atsugi·Yamato·Matsumoto
<b>Tokai</b>	Shizuoka·Hamamatsu·Nagoya	Gifu·Tsu	Numazu·Fuji·Toyohashi·Okazaki·Ichinomiya·Kasugai·Toyokawa·Toyota·Anjo·Yokkaichi·Suzuka
<b>Hokuriku</b>	Niigata	Toyama·Kanazawa·Fukui	Nagaoka·Joetsu·Takaoka
<b>Kinki</b>	Kyoto·Osaka·Sakai·Kobe	Otsu·Nara·Wakayama	Uji·Kishiwada·Toyonaka·Suita·Takatsuki·Hirakata·Ibaraki·Yao·Neyagawa·Izumi·Higashiosaka·Himeji·Amagasaki·Akashi·Nishinomiya·Itami·Kakogawa·Takarazuka
<b>Chugoku</b>	Okayama·Hiroshima	Tottori·Matsue·Yamaguchi	Izumo·Kurashiki·Kure·Fukuyama·Higashihiroshima·Shimonoseki
<b>Shikoku</b>		Tokushima·Takamatsu·Matsuyama·Kochi	
<b>Kyushu</b>	Kitakyusyu·Fukuoka·Kumamoto	Saga·Nagasaki·Oita·Miyazaki·Kagoshima	Kurume·Sasebo
<b>Okinawa</b>		Naha	
<b>Tokyo 23 wards</b>	Chiyoda·Chuo·Minato·Shinjuku·Bunkyo·Taito·Sumida·Koto·Shinagawa·Meguro·Ota·Setagaya·Shibuya·Nakano·Suginami·Toshima·Kita·Arakawa·Itabashi·Nerima·Adachi·Katsushika·Edogawa		





Target Cities

# Evaluation System

Each indicator was scored, with the averaged value of the scores generating the score for the indicator group. The totaled scores of the indicator groups then formulated the function-specific score, with a total score of 2,600 for all six function groups: (Economy & Business 600 pts, Research & Development 200 pts, Cultural Interaction 500 pts, Daily Life & Livability 700 pts, Environment 300 pts, and Accessibility 300 pts.)

Function	Indicator Group	Indicator names	
Economy & Business	6 Indicator Groups	Economic Scale	1 Total Value Added
			2 Intra-regional Gross Expenditure
			3 Daytime-Nighttime Population Ratio
		Employment and Human Resources	4 Total Employment
			5 Wage Level
			6 Higher-Education Completion Rate
		7 Intake/Outflow of Young Employees	
		8 Female Employment Ratio	
	Diversity of Human Resources	9 Foreign Employment Ratio	
		10 Elderly Employment Rate	
	Business Vitality	11 Ratio of Newly Registered Businesses	
		12 Labor Productivity	
		13 Total unemployment rate	
		14 Number of Certified Special Zones	
	Business Environment	15 Ratio of Employees in Service Industry for Business Enterprises	
		16 Total Supply of New Office Real Estate	
		17 Density of Flexible Workplaces	
		18 Financial Capability Index	
	Financial Affairs	19 Public Account Balance Ratio	
		20 Real Debt Expenditure Ratio	
		21 Future Burden Ratio	
Research & Development	2 Indicator Groups	Academic Resources	22 Ratio of Academic and Development Research Institution Employees
			23 Number of Leading Universities
		24 Number of Papers Submitted	
	Research Achievement	25 Number of Leading Firms in Global Niches	
		26 Number of Patents Granted	
Cultural Interaction	5 Indicator Groups	Tangible Resources	27 Number and Rating of Tourist Attractions
			28 Number of Designated Cultural Assets
			29 Active Approach to Scenic Town Planning
			30 Number of events
		Intangible Resources	31 Workers in Creative Industries
		32 Opportunities for Cultural, Historical, and Traditional Interaction	
		33 Number of Accommodation Facility Guest Rooms	
	Attractiveness to Visitors	34 Number of Luxury Guest Rooms	
		35 Event Hall Seating Capacity	
		36 Multilingual Services at Tourist Information Desks and Hospitals	
		37 Weekend Visitor Population	
	Volume of Interaction	38 Volume of People Visiting for Tourism or Sightseeing	
	39 Number of International Conferences and Exhibitions Held		
	40 Tourism Promotion Activities		
Volume of Communication	41 Number of Followers of Local Government SNS Accounts		
	42 Level of Attractiveness, Recognition, and Intention to Visit		



Function	Indicator Group	Indicator names	
Daily Life & Livability	7 Indicator Groups	Security and Safety	43 Recognized Criminal Offenses
			44 Traffic Accident Fatalities
			45 Level of Safety During Disaster
			46 Vacancy Rate
		Health and Medical Care	47 Number of Doctors
			48 Number of Hospitals, Clinics and Hospital Beds
			49 Life Expectancy and Healthy Life Expectancy Rate
	Childcare and Education	50 Total Fertility Rate	
		51 Availability of Daycare Services	
		52 Assistance for Children's Medical Costs	
		53 Variety of Educational Opportunities	
	Civil Life and Welfare	54 Ease of Integration for Foreign Residents	
		55 Number of Elderly Requiring Assistance or Care	
		56 Number of People Using Independent Living Assistance Services	
		57 Level of Online Municipal Promotion	
	Living Environment	58 Satisfaction with Living Environment ◯	
		59 Volume of New Housing Supply	
		60 Size of Residences	
		61 Ratio of Barrier-free Homes	
	Living Facilities	62 Density of Retail Businesses	
		63 Density of Restaurants	
		64 Density of Convenience Stores	
	Lifestyle Affluence	65 Disposable Income	
		66 Price Level	
		67 Cost of Housing	
Environment	3 Indicator Groups	Environmental Performance	68 Percentage of Waste Recycled
			69 CO <sub>2</sub> Emissions per Daytime Population
			70 Rate of Self-Sufficient Renewable Energy
	Natural Environment	71 Satisfaction with Natural Environment ◯	
		72 Green Coverage Ratio in Urban Areas	
		73 Waterfront Areas	
	Comfortability	74 Annual Sunshine Hours	
		75 Number of Comfortable Temperature / Humidity Days	
		76 Air Quality	
	77 Cleanliness of Streets ◯		
Accessibility	3 Indicator Groups	Inner-City Transport	78 Convenience of Public Transport ◯
			79 Density of Train Stations and Bus Stops
			80 Frequency of Traffic Congestion
	City Accessibility	81 Travel Time to Airports	
		82 Ease of Access to Shinkansen	
		83 Number of Interchanges	
Ease of Mobility	84 City Compactness		
	85 Commuting Time		
	86 Ease of Use of Bicycles ◯		

◯: Indicators Q using questionnaires

The top 10 cities by score and the top city in each function area were analyzed. Their respective strengths are displayed using radar charts\*. \*Deviation values were calculated within the 138 target cities.

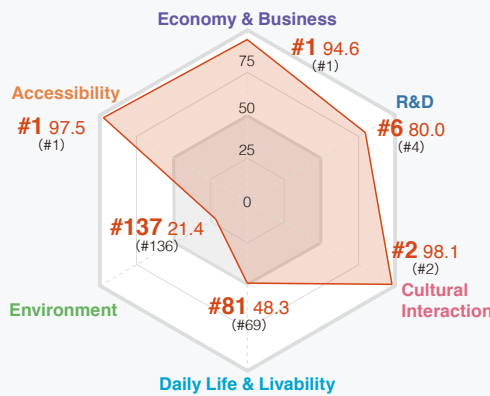


# 1 Osaka

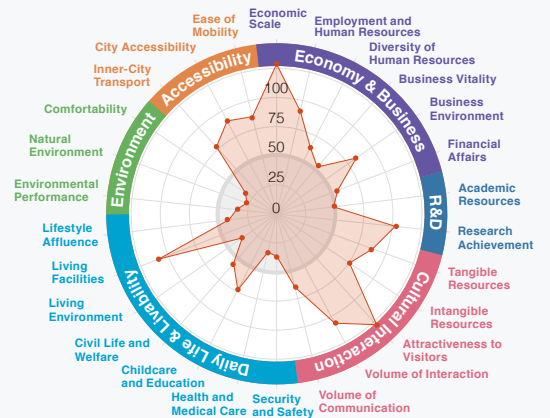
## Kansai's largest city is an economic and transportation hub

Maintaining its high score from last year, Osaka demonstrated an overall strength, particularly in **Economy & Business** and **Accessibility**. In **Economy & Business**, Osaka was particularly strong in Economic Scale, with high scores in Total Value Added, Intra-Regional Gross Regional Expenditure, and Daytime-Nighttime Population Ratio. In **Accessibility**, the city scored highly in City Accessibility and increased its scores for Travel Time To Airports and Ease Of Access To Shinkansen. The city also received high scores in the **Cultural Interaction** function for Attractiveness to Visitors, indicating that it is not only the economic and transportation center of the Kansai region, but also an easy city for tourists to visit.

Function-specific rank and deviation



Indicator group-specific deviation score



■ 2022 Function-specific deviation score ● 50-point deviation line  
( ) Rank from 2021

■ 2022 Indicator group-specific deviation score ● 50-point deviation line  
※The shape of the graph represents the deviation value

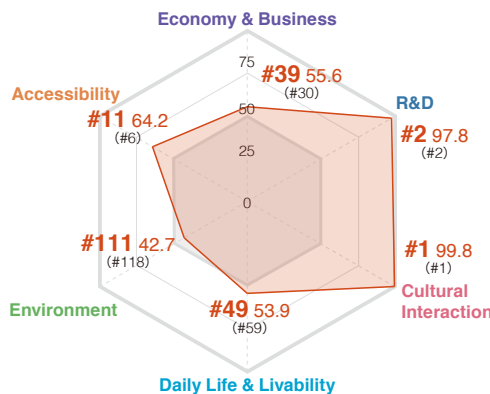


# 2 Kyoto

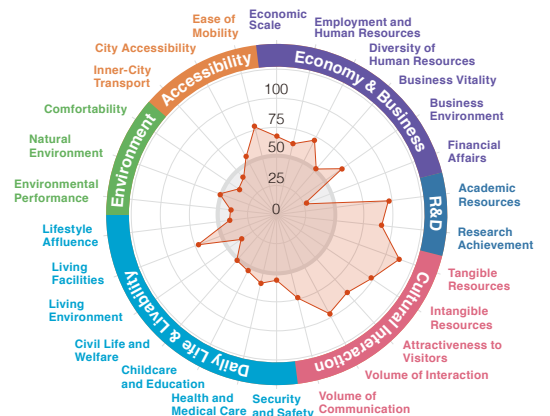
## A remarkable city for its innovative way of using one of Japan's leading cultural resources and its growth of residential areas

Kyoto, with its well-known historical townscapes and cultural resources, ranks top among the 138 target cities in both Tangible Resources and Intangible Resources in the **Cultural Interaction** function. It shows Kyoto is valued not only for its hard resources, but also for the intangible qualities of the city. In **Research & Development**, Kyoto ranked first in the Number of Leading Universities and Number of Papers Submitted, closing the gap with the leading city, Nagoya. The city's **Daily Life & Livability** ranking has improved significantly since last year. It ranked highly in Ease of Integration for Foreign Residents and Variety of Educational Opportunities.

Function-specific rank and deviation



Indicator group-specific deviation score



■ 2022 Function-specific deviation score ● 50-point deviation line  
( ) Rank from 2021

■ 2022 Indicator group-specific deviation score ● 50-point deviation line  
※The shape of the graph represents the deviation value

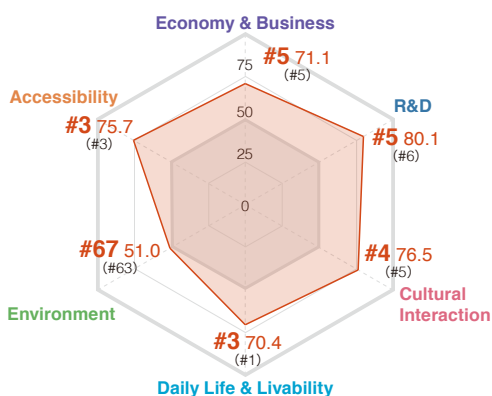
# 3 Fukuoka



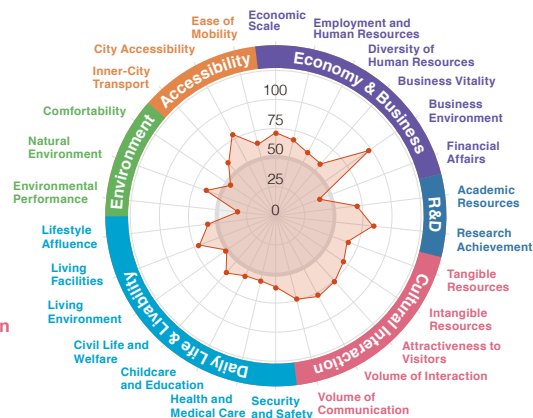
## Kyushu's central city has growing cultural appeal

Fukuoka moved up one place in **Cultural Interaction** by increasing its scores in several indicators, including Level of Attractiveness, Recognition, and Intention to Visit in Volume of Communication, the Number and Rating of Tourist Attractions in Tangible Resources, and Opportunities for Cultural, Historical, and Traditional Interaction in Intangible Resources. In **Research & Development**, in which Fukuoka also moved up one rank, the score for Number of Papers Submitted increased. In **Economy & Business**, the ranking remained the same, but the score increased for Ratio of Newly Registered Businesses and the Financial Capability Index. This suggests that Fukuoka, which already had a strong ranking, is further extending its economic vitality and cultural attractiveness.

Function-specific rank and deviation



Indicator group-specific deviation score



■ 2022 Function-specific deviation score 
 ● 50-point deviation line 
 ■ 2022 Indicator group-specific deviation score 
 ● 50-point deviation line  
 ( ) Rank from 2021

※The shape of the graph represents the deviation value

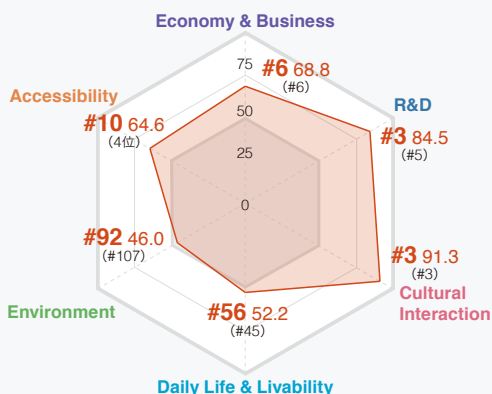
# 4 Yokohama



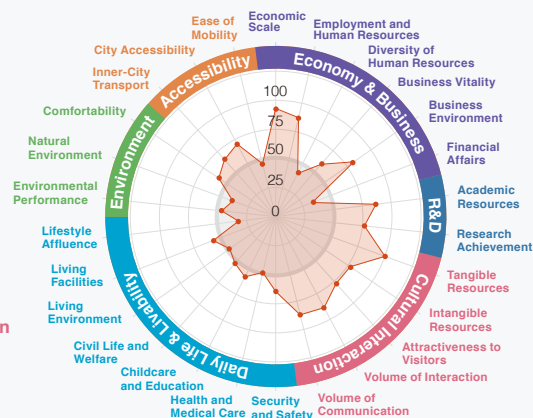
## A multifunctional city that has expanded its tourist attractions and R&D capabilities

Yokohama demonstrated strength in **Research & Development** and **Cultural Interaction**. In **Research & Development**, the Number of Leading Universities and the Number of Papers Submitted increased, while in **Cultural Interaction**, Yokohama's score increased for Volume of People Visiting for Tourism or Sightseeing and Tourism Promotion Activities, which led to high scores in the Volume of Interaction and Volume of Communication indicators. The Number of Followers of Local Government SNS Account also ranked highly, indicating Yokohama's policy readiness for increasing tourism. Yokohama's **Economy & Business** and **Accessibility** were also rated highly, indicating that Yokohama is a multifunctional city with both tourist attractions and R&D capabilities.

Function-specific rank and deviation



Indicator group-specific deviation score



■ 2022 Function-specific deviation score 
 ● 50-point deviation line 
 ■ 2022 Indicator group-specific deviation score 
 ● 50-point deviation line  
 ( ) Rank from 2021

※The shape of the graph represents the deviation value

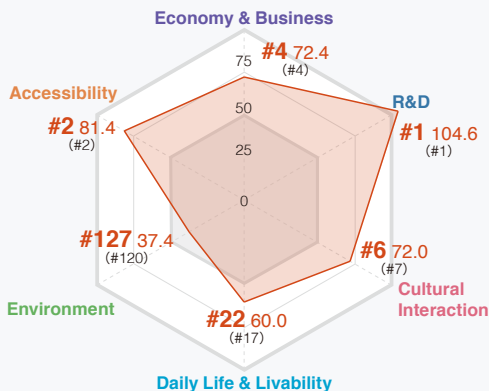
# 5 Nagoya



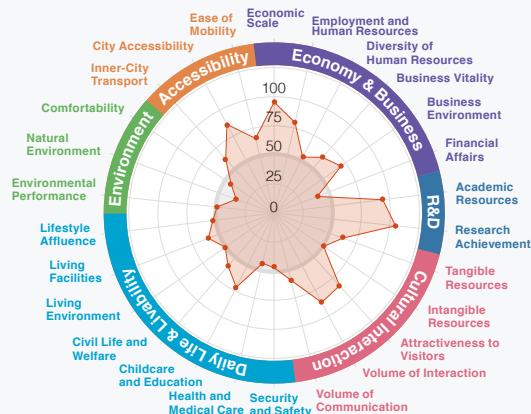
## A city of creativity and cultural interaction which has excellent accessibility and a growing focus on culture and exchange

Making the most of its location in the center of Japan, Nagoya ranked 2nd in **Accessibility**. In particular, it ranked 2nd among the 138 target cities for City Accessibility and 7th for Ease of Mobility. **Research & Development** continued to top the list from last year, ranking second in four of the five indicators that comprise Academic Resources and Research Achievements. In **Cultural Interaction**, which moved up one place from last year, Event Hall Seating Capacity in Attractiveness to Visitors and the Volume of People Visiting for Tourism or Sightseeing in Volume of Interaction had high scores, indicating the success of the tourism strategy before the opening of the Chuo Shinkansen Line.

Function-specific rank and deviation



Indicator group-specific deviation score



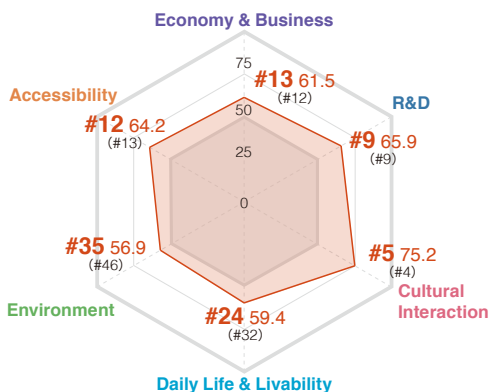
# 6 Kobe



## A cultural city that has improved its natural and urban environment

Kobe, which has a high **Environment** score among the larger cities, improved its **Environment** ranking significantly thanks to increased scores in Satisfaction with Natural Environment, the Number of Comfortable Temperature/ Humidity Days, and Cleanliness of Streets. In **Daily Life & Livability**, the city improved its ranking in five indicator groups, Safety and Security, Health and Medical Care, Civil Life and Welfare, Living Environment, and Lifestyle Affluence, resulting in a significant overall increase in this function. The city further balanced out its already high rankings in the other four function groups, most notably **Cultural Interaction**.

Function-specific rank and deviation



Indicator group-specific deviation score

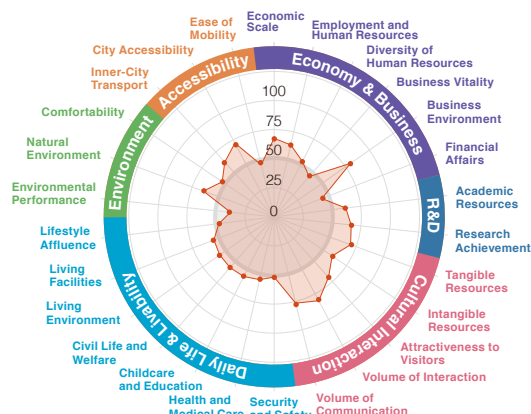


Photo by Kobe Tourism Bureau

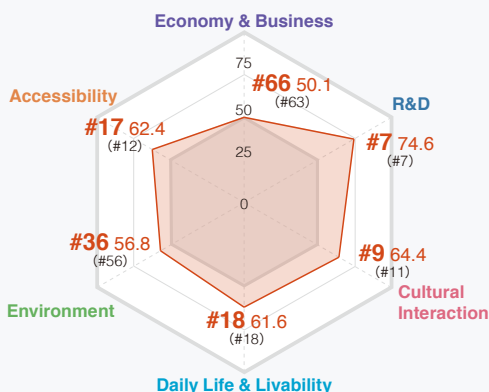
# 7 Sendai



## A livable city that has gained a reputation for culture and exchange

Sendai is highly rated in **Research & Development**, and this year it also moved up the rankings in **Cultural Interaction**. In **Research & Development**, the city was very strong in Research Achievements and received high marks for Number of Papers Submitted and Number of Leading Firms in Global Niches. In **Cultural Interaction**, the scores for the Number and Rating of Tourist Attractions and Opportunities for Cultural, Historical, and Traditional Interaction increased, indicating that Sendai is growing in attractiveness as a tourist destination. The city also received high scores for **Daily Life & Livability**, with high scores for Civic Life and Welfare, indicating that it is a comfortable city in which to live.

Function-specific rank and deviation



Indicator group-specific deviation score

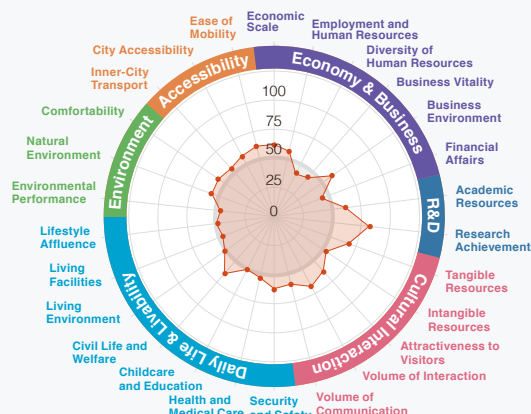


Photo by Miyagi Prefecture Tourism Promotion Office

# 8 Kanazawa

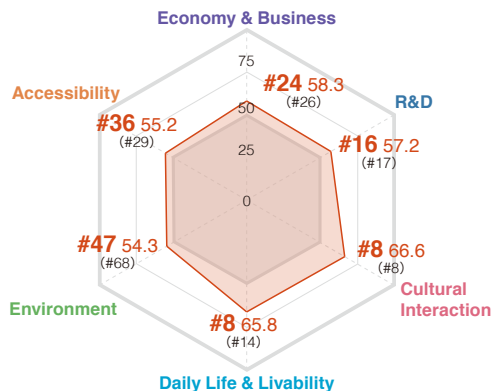


Photo by Kanazawa City

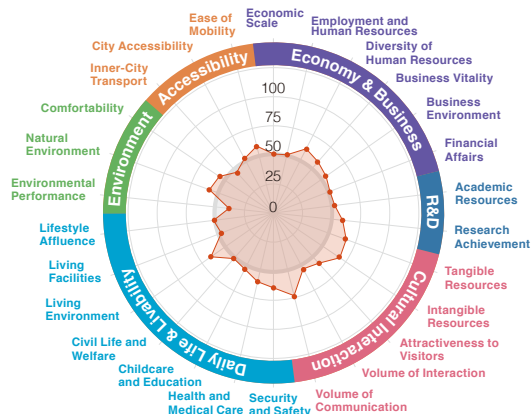
## A castle town with attractive cultural and historical assets and improved livability

Kanazawa, a beautiful castle town with rich historical assets, has increased its previous strength in **Cultural Interaction**, and moved up from 14th place last year to 8th place for **Daily Life & Livability**. In particular, the city ranked in the top 10 in both Living Environment and Security and Safety and received high marks for Level of Safety During Disaster and for Satisfaction with Living Environment. In **Economy & Business** and **Research & Development**, both in which the city ranked higher than last year, Kanazawa had a more balanced score. It received high marks for Total Unemployment Rate in Business Vitality and for Number of Leading Firms in Global Niches in Research Achievement.

### Function-specific rank and deviation



### Indicator group-specific deviation score



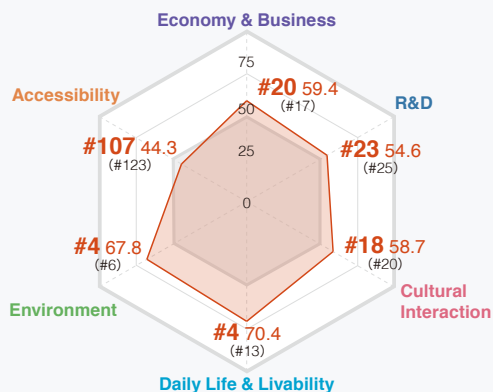
# 9 Hamamatsu



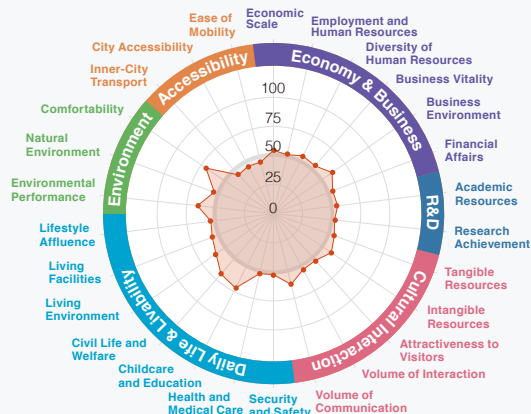
## A growing city with residential amenities and a lush natural environment

Hamamatsu, which every year receives a high score for **Environment**, also received high marks this year for **Daily Life & Livability**. In particular, Hamamatsu's score for Level of Online Municipal Promotion in Civil Life and Welfare and Assistance for Children's Medical Costs in Childcare and Education increased significantly. In **Accessibility**, which previously had been a weakness, the ranking improved significantly as a result of increased scores in Travel Time to Airports and Ease of Use of Bicycles. **Cultural Interaction** and **Research & Development** also moved up in the rankings, showing Hamamatsu is improving the balance between its rich natural environment and its urban environment.

### Function-specific rank and deviation



### Indicator group-specific deviation score



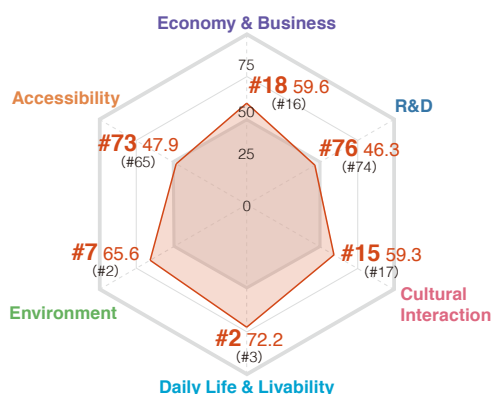
# 10 Matsumoto



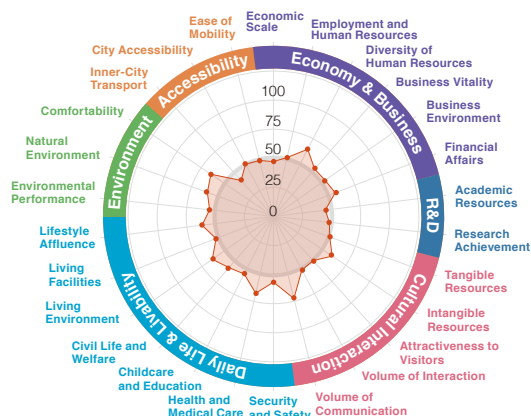
## A cultural and multigenerational city blessed with nature

Livable Matsumoto has high scores in **Daily Life & Livability**. Local policies have increased livability. In particular, this year, Matsumoto increased its score in the Availability of Daycare Services. The city's high deviation score in Health and Medical Care is also a unique feature, with high scores in Life Expectancy and Healthy Life Expectancy Rate, indicating that Matsumoto is a city with a vibrant senior citizen population. This year, the city also improved its ranking in **Cultural Interaction**, increasing its score in Number and Rating of Events. Overall, Matsumoto is a livable, cultural city with improving tourism attractions.

### Function-specific rank and deviation



### Indicator group-specific deviation score



The radar charts\* below show the most attractive city by function; Economy & Business, Research & Development, Cultural Interaction, Daily Life & Livability, Environment, and Accessibility.

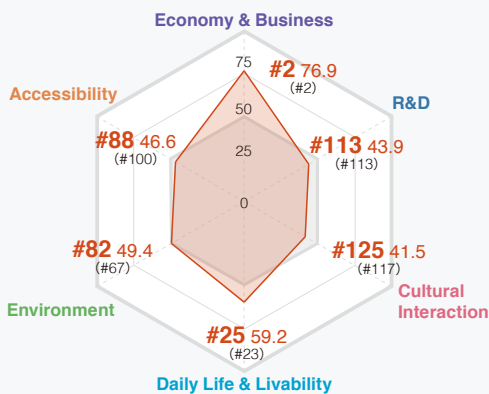
\*Deviation values were calculated for the 138 target cities.



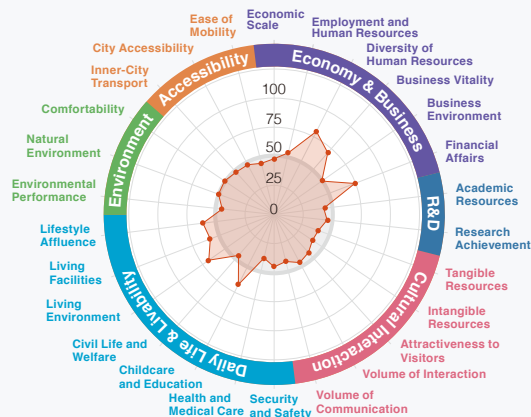
## A sustainable city, whose economic stability brings vitality and diversity of human resources

Anjo, historically an advanced agricultural city, has strengths in manufacturing, especially in auto parts. It was ranked 2nd in **Economy & Business**, only behind Osaka, for the second year in a row. The city ranked highly in three indicator groups; it was first in Diversity of Human Resources, second in Financial Affairs, and third in Business Vitality. Anjo ranked top among the 138 target cities for Foreign Employment Ratio, Total Unemployment Rate, and Future Burden Ratio. Its employment and financial stability boosted its performance in **Economy & Business**.

Function-specific rank and deviation



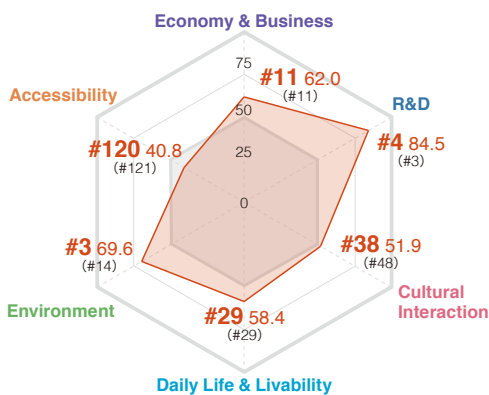
Indicator group-specific deviation score



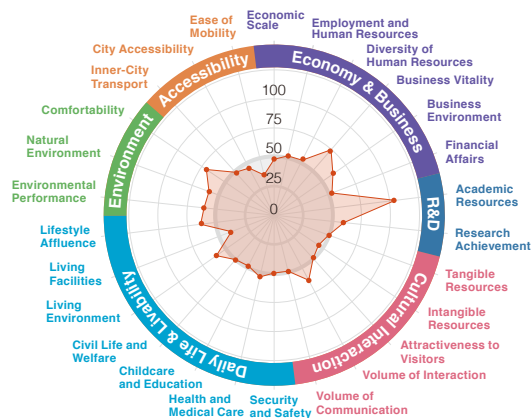
## A research and university city where nature and science coexist

Tsukuba has two goals: to be a global hub of innovation and a vibrant, culturally creative city surrounded by abundant greenery and ample space. The city maintained its high ranking in **Research & Development**. In particular, Tsukuba has the highest Ratio of Academic and Development Research Institution Employees among the 138 cities in the Academic Resources indicator group. In **Environment**, another of Tsukuba's strengths, the city's goal is reflected in this year's scores. It had high scores for Air Quality and Cleanliness of Streets in the Comfortability indicator group and Satisfaction with Natural Environment in Natural Environment.

Function-specific rank and deviation



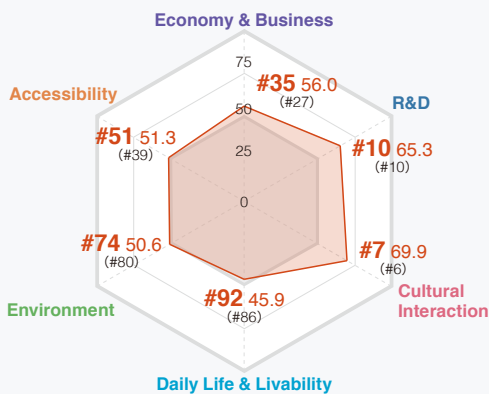
Indicator group-specific deviation score



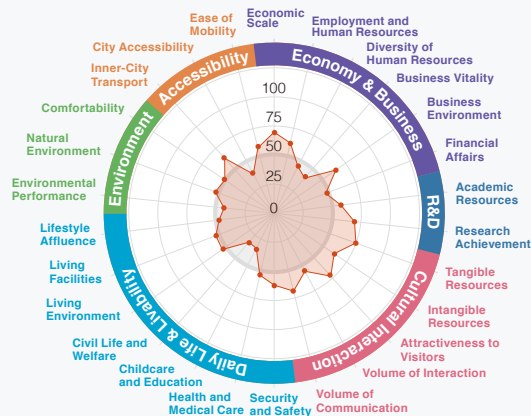
## One of the country's leading tourist cities with a strong reputation for cultural interaction

Sapporo, one of the leading tourist cities in Japan, is highly rated in **Cultural Interaction**, maintaining high deviation scores in all indicator groups. By indicator, Sapporo is highly rated for Level of Attractiveness, Recognition, and Intention to Visit; Number of Followers of Local Government SNS Accounts; Number of Luxury Guest Rooms; and Active Approach to Scenic Town Planning indicating that alongside the city's strong name recognition, the local government is promoting tourism policies and ways for the city to receive tourists. If Sapporo's attractiveness as a tourist destination continues to be broadcast both domestically and internationally, the city can expect to attract even more tourists and grow even stronger in this function.

Function-specific rank and deviation



Indicator group-specific deviation score





Daily Life & Livability

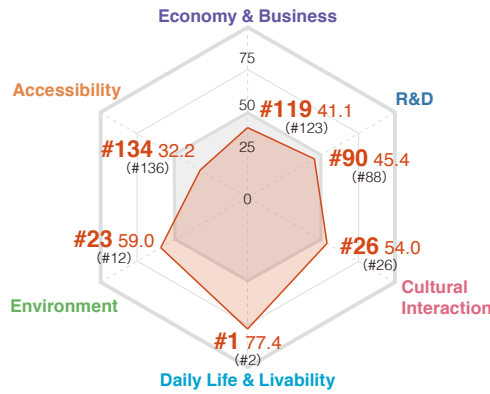
# Izumo



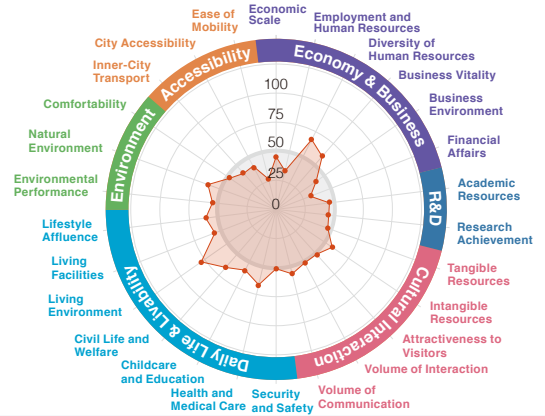
## Made possible by municipal support, Izumo demonstrates a top-tier living environment

Izumo, which ranked first among the 138 target cities for **Daily Life & Livability**, is a city rich in nature, with a diverse topography of oceans, mountains, plains, rivers, and lakes. Notably, Izumo has an excellent Living Environment, ranking second in both Size of Residences and Ratio of Barrier-free Homes. The city's generous policies, such as subsidies for barrier-free home renovations and reductions in the city's solid waste tax, have had a positive effect on the city's living environment. The city also ranks high in **Civil Life and Welfare**, especially in Number of People Using Independent Living Assistance Services, for which the city ranked 8th. The generosity of welfare services is one of Izumo's strengths.

Function-specific rank and deviation



Indicator group-specific deviation score



Environment

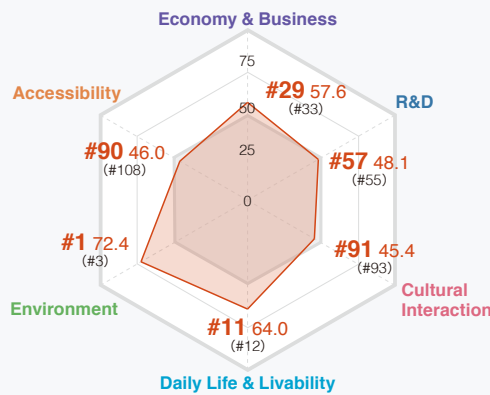
# Toyohashi



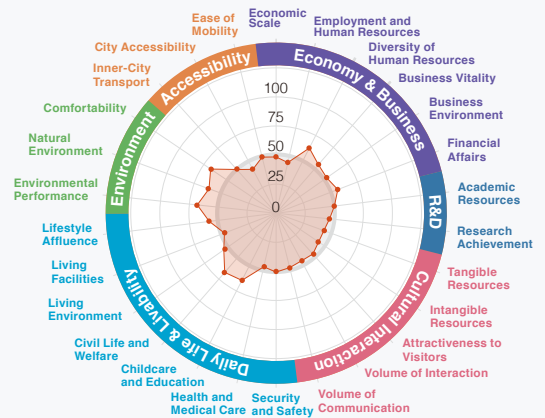
## A town creating a society in harmony with nature

Toyohashi, which aims as a city to coexist with nature and care for the global environment, was ranked first among the 138 target cities for **Environment**. Though no indicators scored outstandingly highly, apart from Annual Sunshine Hours for which Toyohashi was ranked 6th, all **Environment** indicators have deviation scores above 50. This means the city had high scores in all three indicator groups of Environmental Performance, Natural Environment, and Comfortability. Local government policies aiming to achieve balance across economic, social, and environmental performance can be attributed to this high level of balance.

Function-specific rank and deviation



Indicator group-specific deviation score



Accessibility

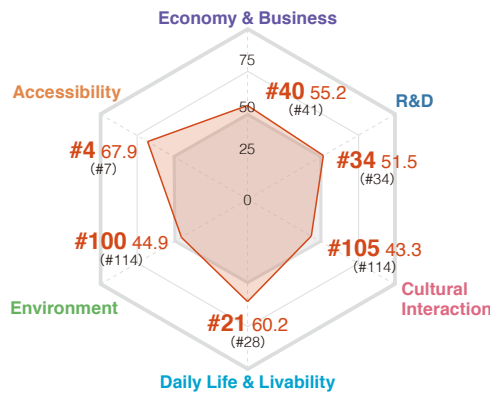
# Toyonaka



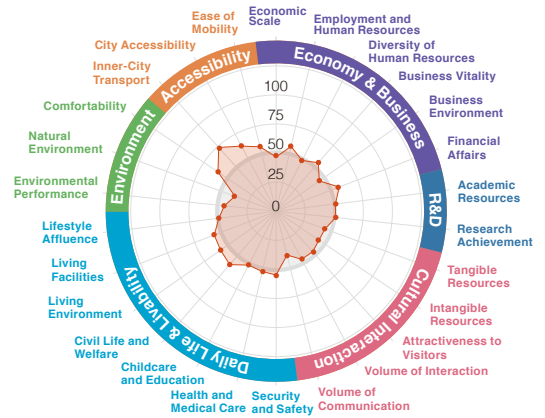
## A city with excellent inter-city and within-city accessibility

Toyonaka received high scores for **Accessibility**, especially for Inner-city Accessibility. The high score for Convenience of Public Transport, which uses the results from a survey, shows that the city's convenient transport connections are highly rated by residents. Although the city lost some points from last year, it still scored highly for Travel Time to Airports thanks to the city's proximity to Osaka International Airport (Itami Airport). With easy access not only within the city, but also to destinations outside the city, Toyonaka is an attractive city for **Accessibility**.

Function-specific rank and deviation



Indicator group-specific deviation score



# Function-Specific Scores



## Economy & Business



## R&D

Rank	City	Score	Rank	City	Score
1	Osaka	268.8	41	Nishitokyo	159.6
2	Anjo	220.2	42	Funabashi	159.4
3	Toyota	209.5	43	Nagano	159.4
4	Nagoya	207.9	44	Fujisawa	158.9
5	Fukuoka	204.4	45	Himeji	158.4
6	Yokohama	198.2	46	Machida	156.1
7	Mitaka	187.3	47	Takatsuki	155.9
8	Tachikawa	185.3	48	Hino	155.6
9	Yokkaichi	184.2	49	Ichinomiya	155.4
10	Fuchu	180.1	50	Suzuka	155.0
11	Tsukuba	179.7	51	Kasugai	154.5
12	Gifu	179.3	52	Shizuoka	154.2
13	Kobe	178.3	53	Odawara	154.2
14	Atsugi	175.9	54	Saga	153.8
15	Chofu	174.4	55	Sagamihara	153.4
16	Kodaira	173.8	56	Matsudo	153.3
17	Okazaki	173.5	57	Numazu	150.4
18	Matsumoto	173.0	58	Hirakata	149.5
19	Kawasaki	172.7	59	Utsunomiya	149.4
20	Hamamatsu	172.6	60	Kurume	148.6
21	Higashiroshima	172.0	61	Kawaguchi	148.4
22	Suita	171.7	62	Tsu	148.2
23	Kashiwa	170.1	63	Toyama	147.9
24	Kanazawa	169.7	64	Sakura	147.7
25	Okayama	168.6	65	Tokorozawa	147.5
26	Fukuyama	167.9	66	Sendai	147.1
27	Saitama	167.9	67	Fukui	146.6
28	Kamakura	167.7	68	Yamaguchi	146.5
29	Toyohashi	167.6	69	Chigasaki	146.1
30	Hachioji	167.3	70	Miyazaki	145.7
31	Ichikawa	167.1	71	Kumagaya	145.5
32	Toyokawa	166.8	72	Kurashiki	145.3
33	Nagareyama	166.1	73	Takamatsu	144.8
34	Ibaraki	165.9	74	Takarazuka	144.4
35	Sapporo	163.2	75	Hiroshima	144.1
36	Yachiyo	162.2	76	Takasaki	143.4
37	Otsu	162.2	77	Fuji	142.7
38	Nishinomiya	162.1	78	Fukushima	142.7
39	Kyoto	162.1	79	Kagoshima	141.8
40	Toyonaka	161.1	80	Yamato	141.8

81  
{  
138

Hakodate, Asahikawa, Kushiro, Tomakomai, Aomori, Hirosaki, Hachinohe, Morioka, Akita, Yamagata, Koriyama, Iwaki, Mito, Hitachi, Maebashi, Isesaki, Ota, Kawagoe, Kasukabe, Ageo, Soka, Koshigaya, Chiba, Ichihara, Yokosuka, Hiratsuka, Niigata, Nagaoka, Joetsu, Takaoka, Kofu, Uji, Sakai, Kishiwada, Yao, Neyagawa, Izumi, Higashiosaka, Amagasaki, Akashi, Itami, Kakogawa, Nara, Wakayama, Tottori, Matsue, Izumo, Kure, Shimonoseki, Tokushima, Matsuyama, Kochi, Kitakyushu, Nagasaki, Sasebo, Kumamoto, Oita, Naha

(Listed by city code)

Rank	City	Score	Rank	City	Score
1	Nagoya	112.7	41	Nagaoka	13.4
2	Kyoto	100.4	42	Miyazaki	13.3
3	Yokohama	76.1	43	Tokushima	12.5
4	Tsukuba	76.0	44	Sagamihara	12.3
5	Fukuoka	68.0	45	Tsu	12.0
6	Osaka	67.9	46	Fujisawa	11.9
7	Sendai	58.1	47	Kawagoe	11.3
8	Atsugi	42.5	48	Saga	11.3
9	Kobe	42.1	49	Fuchu	11.0
10	Sapporo	41.0	50	Kurume	10.5
11	Hiroshima	36.1	51	Matsuyama	10.5
12	Hachioji	31.4	52	Fukushima	10.2
13	Kawasaki	28.2	53	Takatsuki	10.2
14	Kitakyushu	26.9	54	Ibaraki	10.1
15	Suita	26.5	55	Yokosuka	9.9
16	Kanazawa	26.4	56	Toyama	9.8
17	Niigata	26.1	57	Toyohashi	9.6
18	Okayama	22.6	58	Hitachi	9.6
19	Saitama	22.5	59	Kodaira	9.3
20	Utsunomiya	22.4	60	Fukui	9.3
21	Chiba	21.7	61	Nagano	8.8
22	Chofu	21.6	62	Hino	8.5
23	Hamamatsu	21.5	63	Toyota	8.3
24	Mitaka	20.5	64	Kamakura	7.8
25	Shizuoka	20.0	65	Sakai	7.7
26	Kumamoto	19.0	66	Maebashi	7.7
27	Hakodate	18.1	67	Matsudo	7.6
28	Kashiwa	17.8	68	Nara	7.4
29	Akita	17.5	69	Ichikawa	7.2
30	Nagasaki	17.1	70	Kurashiki	7.1
31	Otsu	16.6	71	Kochi	7.1
32	Uji	16.5	72	Wakayama	6.8
33	Kagoshima	16.2	73	Hirosaki	6.7
34	Toyonaka	16.0	74	Amagasaki	6.5
35	Hirakata	15.6	75	Hiratsuka	6.5
36	Nishinomiya	14.6	76	Matsumoto	6.5
37	Takamatsu	14.4	77	Kofu	6.5
38	Higashiroshima	13.7	78	Yamagata	6.3
39	Morioka	13.5	79	Funabashi	5.8
40	Gifu	13.4	80	Tottori	5.7

81  
{  
138

Asahikawa, Kushiro, Tomakomai, Aomori, Hachinohe, Koriyama, Iwaki, Mito, Takasaki, Isesaki, Ota, Kumagaya, Kawaguchi, Tokorozawa, Kasukabe, Ageo, Soka, Koshigaya, Sakura, Ichihara, Nagareyama, Yachiyo, Tachikawa, Machida, Nishitokyo, Odawara, Chigasaki, Yamato, Joetsu, Takaoka, Numazu, Fuji, Okazaki, Ichinomiya, Kasugai, Toyokawa, Anjo, Yokkaichi, Suzuka, Kishiwada, Yao, Neyagawa, Izumi, Higashiosaka, Himeji, Akashi, Itami, Kakogawa, Takarazuka, Matsue, Izumo, Kure, Fukuyama, Shimonoseki, Yamaguchi, Sasebo, Oita, Naha

(Listed by city code)





## Cultural Interaction

Rank	City	Score	Rank	City	Score
1	Kyoto	314.1	41	Morioka	81.4
2	Osaka	305.6	42	Matsue	80.9
3	Yokohama	272.8	43	Sasebo	80.0
4	Fukuoka	201.4	44	Gifu	79.5
5	Kobe	195.0	45	Miyazaki	78.6
6	Nagoya	180.0	46	Numazu	78.0
7	Sapporo	169.8	47	Fuchu	77.8
8	Kanazawa	153.6	48	Kochi	76.6
9	Sendai	143.3	49	Fukui	75.1
10	Hiroshima	137.5	50	Kofu	74.8
11	Nagasaki	134.8	51	Otsu	73.9
12	Kitakyushu	132.8	52	Iwaki	71.7
13	Naha	126.5	53	Asahikawa	71.6
14	Nara	125.5	54	Oita	70.9
15	Matsumoto	118.4	55	Tottori	70.8
16	Kamakura	116.7	56	Utsunomiya	70.7
17	Shizuoka	116.2	57	Nagaoka	70.7
18	Hamamatsu	115.3	58	Kushiro	70.6
19	Hakodate	113.0	59	Shimonoseki	70.5
20	Himeji	108.2	60	Kurume	70.1
21	Nagano	101.1	61	Fukushima	69.3
22	Kumamoto	99.4	62	Hachioji	68.3
23	Takamatsu	97.9	63	Koriyama	68.1
24	Matsuyama	97.5	64	Fujisawa	68.0
25	Kurashiki	95.8	65	Takasaki	67.8
26	Izumo	92.7	66	Chofu	66.4
27	Chiba	90.6	67	Aomori	66.4
28	Saitama	90.0	68	Akita	65.2
29	Okayama	88.5	69	Tokushima	65.0
30	Kagoshima	88.4	70	Uji	63.8
31	Kawagoe	87.0	71	Yamagata	63.7
32	Tachikawa	86.2	72	Yokosuka	63.5
33	Odawara	85.6	73	Sakai	62.7
34	Niigata	84.6	74	Toyota	62.2
35	Toyama	84.5	75	Fukuyama	61.6
36	Hirosaki	84.0	76	Okazaki	61.3
37	Kawasaki	83.2	77	Maebashi	59.9
38	Tsukuba	82.7	78	Fuji	59.1
39	Mito	82.1	79	Kure	58.8
40	Wakayama	81.9	80	Yamaguchi	58.7

81  
{  
138

Tomakomai, Hachinohe, Hitachi, Iseaki, Ota, Kumagaya, Kawaguchi, Tokorozawa, Kasukabe, Ageo, Soka, Koshigaya, Ichikawa, Funabashi, Matsudo, Sakura, Kashiwa, Ichihara, Nagareyama, Yachiyo, Mitaka, Machida, Kodaira, Hino, Nishitokyo, Sagami-hara, Hiratsuka, Chigasaki, Atsugi, Yamato, Joetsu, Takaoka, Toyohashi, Ichinomiya, Kasugai, Toyokawa, Anjo, Tsu, Yokkaichi, Suzuka, Kishiwada, Toyonaka, Suita, Takatsuki, Hirakata, Ibaraki, Yao, Neyagawa, Izumi, Higashiosaka, Amagasaki, Akashi, Nishinomiya, Itami, Kakogawa, Takarazuka, Higashihiroshima, Saga

(Listed by city code)



## Daily Life & Livability

Rank	City	Score	Rank	City	Score
1	Izumo	367.0	41	Saga	305.9
2	Matsumoto	352.9	42	Fuji	305.8
3	Fukuoka	348.1	43	Matsuyama	305.1
4	Hamamatsu	348.0	44	Kitakyushu	304.6
5	Maebashi	343.9	45	Nagareyama	304.1
6	Toyota	340.0	46	Matsue	303.9
7	Kumamoto	339.0	47	Ibaraki	303.6
8	Kanazawa	335.6	48	Fukuyama	303.5
9	Fukui	335.4	49	Kyoto	303.2
10	Nagano	331.5	50	Sasebo	301.9
11	Toyohashi	330.6	51	Mitaka	301.2
12	Okazaki	329.9	52	Takatsuki	300.8
13	Yamagata	328.4	53	Higashihiroshima	300.5
14	Suita	328.0	54	Fujisawa	300.2
15	Nara	327.4	55	Takarazuka	300.1
16	Kurume	327.1	56	Yokohama	298.6
17	Gifu	325.7	57	Joetsu	298.5
18	Sendai	324.2	58	Kurashiki	297.7
19	Kagoshima	322.8	59	Otsu	297.3
20	Nagasaki	322.7	60	Akashi	296.4
21	Toyonaka	320.5	61	Mito	296.4
22	Nagoya	319.9	62	Tokushima	296.2
23	Kofu	318.3	63	Kasugai	295.2
24	Kobe	318.3	64	Nagaoka	294.6
25	Anjo	317.6	65	Tokorozawa	293.5
26	Hiroshima	316.2	66	Yamaguchi	293.4
27	Miyazaki	315.9	67	Kawagoe	293.0
28	Takasaki	315.9	68	Atsugi	292.8
29	Tsukuba	315.4	69	Kashiwa	292.6
30	Shizuoka	314.7	70	Fukushima	292.4
31	Nishinomiya	314.3	71	Numazu	292.3
32	Tottori	312.9	72	Suzuka	292.1
33	Toyokawa	311.4	73	Yokkaichi	291.9
34	Toyama	311.1	74	Utsunomiya	291.7
35	Takamatsu	311.0	75	Kamakura	291.7
36	Okayama	310.6	76	Takaoka	291.0
37	Saitama	309.7	77	Hirakata	289.2
38	Ichinomiya	308.0	78	Akita	288.9
39	Oita	307.9	79	Tsu	288.8
40	Niigata	307.6	80	Morioka	288.5

81  
{  
138

Sapporo, Hakodate, Asahikawa, Kushiro, Tomakomai, Aomori, Hirosaki, Hachinohe, Koriyama, Iwaki, Hitachi, Iseaki, Ota, Kumagaya, Kawaguchi, Kasukabe, Ageo, Soka, Koshigaya, Chiba, Ichikawa, Funabashi, Matsudo, Sakura, Ichihara, Yachiyo, Hachioji, Tachikawa, Fuchu, Chofu, Machida, Kodaira, Hino, Nishitokyo, Kawasaki, Sagami-hara, Yokosuka, Hiratsuka, Odawara, Chigasaki, Yamato, Uji, Osaka, Sakai, Kishiwada, Yao, Neyagawa, Izumi, Higashiosaka, Himeji, Amagasaki, Itami, Kakogawa, Wakayama, Kure, Shimonoseki, Kochi, Naha

(Listed by city code)

# Function-Specific Scores



## Environment

Rank	City	Score	Rank	City	Score
1	Toyohashi	189.6	41	Sasebo	158.1
2	Kamakura	185.1	42	Matsuyama	157.2
3	Tsukuba	184.2	43	Akita	156.7
4	Hamamatsu	180.9	44	Otsu	156.4
5	Toyokawa	179.5	45	Kagoshima	155.8
6	Yokosuka	177.4	46	Fuchu	155.4
7	Matsumoto	176.8	47	Kanazawa	155.4
8	Matsue	174.1	48	Okazaki	155.3
9	Maebashi	172.7	49	Tachikawa	154.9
10	Tsu	172.7	50	Shizuoka	154.7
11	Toyama	171.6	51	Himeji	154.4
12	Yamaguchi	171.4	52	Niigata	154.2
13	Iwaki	171.3	53	Okayama	154.1
14	Kure	171.0	54	Hiratsuka	153.5
15	Miyazaki	169.7	55	Chigasaki	153.2
16	Takasaki	168.8	56	Takatsuki	153.0
17	Takarazuka	168.2	57	Saga	152.4
18	Hitachi	167.8	58	Chiba	151.7
19	Toyota	167.7	59	Tokushima	151.3
20	Tottori	167.0	60	Hino	151.1
21	Fujisawa	165.4	61	Sagamihara	151.1
22	Sakura	164.7	62	Fuji	151.0
23	Izumo	164.3	63	Kodaira	150.8
24	Hachioji	163.9	64	Ota	150.2
25	Numazu	163.6	65	Ibaraki	150.0
26	Kochi	163.2	66	Mitaka	150.0
27	Nagano	163.0	67	Fukuoka	149.3
28	Nishinomiya	162.3	68	Izumi	149.3
29	Odawara	162.2	69	Kofu	149.1
30	Kumamoto	161.7	70	Nagareyama	149.1
31	Mito	161.7	71	Kurashiki	149.0
32	Shimonoseki	161.6	72	Kitakyushu	149.0
33	Takamatsu	161.6	73	Atsugi	148.7
34	Higashiroshima	161.5	74	Sapporo	148.4
35	Kobe	160.3	75	Machida	148.3
36	Sendai	160.1	76	Oita	148.2
37	Chofu	160.1	77	Akashi	148.1
38	Nara	159.1	78	Uji	148.1
39	Gifu	158.4	79	Isesaki	147.9
40	Morioka	158.4	80	Tokorozawa	147.7

81  
{  
138

Hakodate,Asahikawa,Kushiro,Tomakomai,Aomori,Hirosaki,Hachinohe,Yamagata,Fukushima,Koriyama,Utsunomiya,Saitama,Kawagoe,Kumagaya,Kawaguchi,Kasukabe,Ageo,Soka,Koshigaya,Ichikawa,Funabashi,Matsudo,Kashiwa,Chihara,Yachiyo,Nishitokyo,Yokohama,Kawasaki,Yamato,Nagaoka,Joetsu,Takaoka,Fukui,Nagoya,Ichinomiya,Kasugai,Anjo,Yokkaichi,Suzuka,Kyoto,Osaka,Sakai,Kishiwada,Toyonaka,Suita,Hirakata,Yao,Neyagawa,Higashiosaka,Amagasaki,Itami,Kakogawa,Wakayama,Hiroshima,Fukuyama,Kurume,Nagasaki,Naha

(Listed by city code)



## Accessibility

Rank	City	Score	Rank	City	Score
1	Osaka	218.8	41	Naha	132.0
2	Nagoya	187.6	42	Kushiro	131.7
3	Fukuoka	176.5	43	Hirakata	131.5
4	Toyonaka	161.3	44	Kurume	131.4
5	Itami	161.2	45	Asahikawa	130.6
6	Amagasaki	160.2	46	Nara	130.2
7	Kawasaki	159.4	47	Uji	130.2
8	Chiba	157.0	48	Hino	130.0
9	Shizuoka	156.0	49	Kasugai	129.3
10	Yokohama	154.9	50	Ichinomiya	129.2
11	Kyoto	154.3	51	Sapporo	129.2
12	Kobe	154.2	52	Himeji	128.4
13	Suita	153.6	53	Koriyama	128.3
14	Hiroshima	153.5	54	Takarazuka	128.2
15	Fuchu	151.8	55	Hiratsuka	128.0
16	Kitakyushu	150.9	56	Ichihara	127.9
17	Sendai	150.8	57	Fujisawa	127.8
18	Sakai	148.1	58	Akashi	127.5
19	Higashiosaka	147.1	59	Gifu	127.2
20	Ibaraki	146.9	60	Funabashi	126.7
21	Nishinomiya	145.5	61	Kochi	126.1
22	Mitaka	143.9	62	Izumi	126.0
23	Chofu	143.4	63	Yokosuka	125.9
24	Saitama	143.2	64	Okayama	125.7
25	Tachikawa	142.6	65	Chigasaki	125.1
26	Takatsuki	141.7	66	Yamato	125.0
27	Akita	140.0	67	Takamatsu	124.8
28	Kawaguchi	138.4	68	Higashiroshima	124.6
29	Yao	138.4	69	Soka	123.8
30	Kagoshima	138.1	70	Kumamoto	123.2
31	Morioka	137.9	71	Hirosaki	122.8
32	Hakodate	137.4	72	Yachiyo	122.6
33	Neyagawa	137.3	73	Matsumoto	122.6
34	Kishiwada	137.0	74	Toyama	122.3
35	Tomakomai	136.9	75	Nishitokyo	122.0
36	Kanazawa	136.8	76	Otsu	122.0
37	Niigata	136.5	77	Hachinohe	121.9
38	Ichikawa	136.5	78	Yamaguchi	121.8
39	Aomori	136.3	79	Toyota	121.7
40	Matsuyama	132.2	80	Numazu	121.5

81  
{  
138

Yamagata,Fukushima,Iwaki,Mito,Hitachi,Tsukuba,Utsunomiya,Maebashi,Takasaki,Isesaki,Ota,Kawagoe,Kumagaya,Tokorozawa,Kasukabe,Ageo,Koshigaya,Matsudo,Sakura,Kashiwa,Nagareyama,Hachioji,Machida,Kodaira,Sagamihara,Kamakura,Odawara,Atsugi,Nagaoka,Joetsu,Takaoka,Fukui,Kofu,Nagano,Hamamatsu,Fuji,Toyohashi,Okazaki,Toyokawa,Anjo,Tsu,Yokkaichi,Suzuka,Kakogawa,Wakayama,Tottori,Matsue,Izumo,Kurashiki,Kure,Fukuyama,Shimonoseki,Tokushima,Saga,Nagasaki,Sasebo,Oita,Miyazaki

(Listed by city code)

## Total Score

Rank	City	Score	Rank	City	Score
1	Osaka	1,242.8	41	Anjo	838.6
2	Kyoto	1,167.7	42	Niigata	838.0
3	Fukuoka	1,147.7	43	Toyonaka	837.7
4	Yokohama	1,140.5	44	Fujisawa	832.2
5	Nagoya	1,131.7	45	Chofu	831.8
6	Kobe	1,048.1	46	Kurume	830.0
7	Sendai	983.6	47	Otsu	828.3
8	Kanazawa	977.3	48	Atsugi	827.5
9	Hamamatsu	954.0	49	Higashiroshima	823.0
10	Matsumoto	950.1	50	Hachioji	822.6
11	Tsukuba	946.9	51	Fukui	818.6
12	Sapporo	933.4	52	Toyokawa	817.2
13	Hiroshima	932.0	53	Kurashiki	813.5
14	Shizuoka	915.8	54	Maebashi	807.8
15	Toyota	909.4	55	Matsue	807.5
16	Kitakyushu	887.3	56	Naha	807.0
17	Gifu	883.4	57	Ibaraki	806.9
18	Kumamoto	881.1	58	Numazu	806.8
19	Nagano	879.7	59	Morioka	802.5
20	Nara	874.7	60	Tottori	801.8
21	Kamakura	872.5	61	Takatsuki	801.1
22	Okayama	870.0	62	Saga	799.6
23	Toyohashi	867.9	63	Takarazuka	798.5
24	Suita	864.2	64	Yamaguchi	796.6
25	Kagoshima	863.0	65	Takasaki	794.7
26	Fuchu	862.2	66	Kofu	794.3
27	Saitama	859.4	67	Yamagata	790.9
28	Mitaka	856.8	68	Tsu	790.2
29	Nishinomiya	855.5	69	Oita	789.9
30	Takamatsu	854.4	70	Kawagoe	786.9
31	Tachikawa	852.1	71	Mito	785.5
32	Kawasaki	850.3	72	Odawara	785.4
33	Toyama	847.2	73	Uji	784.3
34	Okazaki	845.2	74	Utsunomiya	784.0
35	Miyazaki	844.4	75	Akita	780.9
36	Chiba	843.6	76	Fukuyama	780.9
37	Izumo	843.6	77	Yokkaichi	780.6
38	Nagasaki	843.5	78	Fuji	775.6
39	Matsuyama	840.9	79	Nagareyama	770.7
40	Himeji	839.5	80	Kashiwa	770.4

81  
{  
138

Hakodate, Asahikawa, Kushiro, Tomakomai, Aomori, Hirosaki, Hachinohe, Fukushima, Koriyama, Iwaki, Hitachi, Iseaki, Ota, Kumagaya, Kawaguchi, Tokorozawa, Kasukabe, Ageo, Soka, Koshigaya, Ichikawa, Funabashi, Matsudo, Sakura, Ichihara, Yachiyo, Machida, Kodaira, Hino, Nishitokyo, Sagami-hara, Yokosuka, Hiratsuka, Chigasaki, Yamato, Nagaoka, Joetsu, Takaoka, Ichinomiya, Kasugai, Suzuka, Sakai, Kishiwada, Hirakata, Yao, Neyagawa, Izumi, Higashiosaka, Amagasaki, Akashi, Itami, Kakogawa, Wakayama, Kure, Shimonoseki, Tokushima, Kochi, Sasebo

(Listed by city code)

# Actor-Specific Scores

In order to evaluate the function-specific characteristics of cities from the viewpoint of 'people', 6 types of actors (Single, Family, Seniors, Tourist, Executive, Employee) were established for this report. To calculate the actor-specific score, first the individual urban needs are determined for each actor, after which the indicators associated with those needs are selected and values are averaged to produce a score.



## Single Number of Indicators 23/86

Rank	City	Score	Rank	City	Score
1	Fukuoka	55.0	41	Nagano	43.7
2	Toyonaka	52.1	42	Toyokawa	43.5
3	Osaka	51.6	43	Fuchu	43.5
4	Kobe	49.2	44	Akita	43.4
5	Nagoya	49.0	45	Akashi	43.4
6	Hiroshima	48.9	46	Tottori	43.3
7	Suita	48.6	47	Sakai	43.3
8	Nishinomiya	48.0	48	Takatsuki	43.2
9	Shizuoka	47.8	49	Yamaguchi	43.2
10	Kagoshima	47.6	50	Maebashi	43.1
11	Matsumoto	47.6	51	Oita	43.0
12	Sendai	47.3	52	Niigata	43.0
13	Hamamatsu	46.9	53	Chofu	42.9
14	Kanazawa	46.7	54	Takarazuka	42.9
15	Kumamoto	46.6	55	Saga	42.8
16	Yokohama	46.4	56	Nagasaki	42.7
17	Nara	46.2	57	Ichinomiya	42.5
18	Kawasaki	46.2	58	Morioka	42.3
19	Kyoto	46.0	59	Fukui	42.2
20	Gifu	46.0	60	Himeji	42.2
21	Toyohashi	46.0	61	Matsue	42.0
22	Matsuyama	46.0	62	Fukuyama	41.9
23	Kitakyushu	45.7	63	Tsu	41.7
24	Takamatsu	45.5	64	Takasaki	41.6
25	Toyota	45.5	65	Chigasaki	41.6
26	Mitaka	45.5	66	Kawagoe	41.5
27	Ibaraki	45.2	67	Nagareyama	41.5
28	Higashiroshima	45.1	68	Sapporo	41.4
29	Chiba	45.1	69	Kamakura	41.3
30	Itami	45.0	70	Hirakata	41.3
31	Saitama	44.9	71	Kochi	41.2
32	Fujisawa	44.5	72	Kurashiki	41.2
33	Okayama	44.5	73	Hitachi	41.2
34	Kurume	44.3	74	Kure	41.2
35	Tsukuba	44.2	75	Atsugi	41.2
36	Kofu	44.2	76	Sakura	41.1
37	Okazaki	44.0	77	Yamato	40.9
38	Naha	43.9	78	Numazu	40.9
39	Izumo	43.8	79	Yachiyo	40.8
40	Miyazaki	43.8	80	Ichikawa	40.7

81  
{  
138 Hakodate, Asahikawa, Kushiro, Tomakomai, Aomori, Hirosaki, Hachinohe, Yamagata, Fukushima, Koriyama, Iwaki, Mito, Utsunomiya, Ise, Saki, Ota, Kumagaya, Kawaguchi, Tokorozawa, Kasukabe, Ageo, Soka, Koshigaya, Funabashi, Matsudo, Kashiwa, Ichihara, Hachioji, Tachikawa, Machida, Kodaira, Hino, Nishitokyo, Sagami, Yokosuka, Hiratsuka, Odawara, Nagaoka, Joetsu, Toyama, Takaoka, Fuji, Kasugai, Anjo, Yokkaichi, Suzuka, Otsu, Uji, Kishiwada, Yao, Neyagawa, Izumi, Higashiosaka, Amagasaki, Kakogawa, Wakayama, Shimonoeki, Tokushima, Sasebo

(Listed by city code)



## Family Number of Indicators 40/86

Rank	City	Score	Rank	City	Score
1	Fukuoka	53.9	41	Takatsuki	45.1
2	Hamamatsu	50.1	42	Takasaki	45.1
3	Matsumoto	49.8	43	Okazaki	45.1
4	Kanazawa	49.7	44	Kofu	45.0
5	Kobe	49.6	45	Okayama	45.0
6	Izumo	49.6	46	Higashiroshima	44.7
7	Sendai	49.4	47	Himeji	44.6
8	Kumamoto	49.1	48	Chiba	44.6
9	Kagoshima	48.9	49	Ibaraki	44.4
10	Gifu	48.6	50	Saga	44.4
11	Toyohashi	48.4	51	Kochi	44.3
12	Shizuoka	48.4	52	Yamagata	44.3
13	Tsukuba	48.0	53	Fujisawa	44.1
14	Toyonaka	47.9	54	Mito	44.1
15	Miyazaki	47.9	55	Sasebo	44.0
16	Osaka	47.8	56	Hirosaki	44.0
17	Toyota	47.7	57	Mitaka	44.0
18	Nagoya	47.5	58	Sapporo	44.0
19	Matsuyama	47.5	59	Saitama	43.9
20	Takamatsu	47.5	60	Fukuyama	43.8
21	Kurume	47.4	61	Tsu	43.7
22	Toyama	47.3	62	Fuchu	43.7
23	Maebashi	47.2	63	Oita	43.6
24	Tottori	47.1	64	Takarazuka	43.6
25	Hiroshima	47.1	65	Naha	43.6
26	Nishinomiya	47.0	66	Akashi	43.4
27	Nara	46.9	67	Numazu	43.3
28	Kitakyushu	46.8	68	Ichinomiya	43.3
29	Yokohama	46.6	69	Wakayama	43.2
30	Kyoto	46.6	70	Fuji	43.2
31	Suita	46.1	71	Otsu	43.1
32	Nagano	46.1	72	Koriyama	43.1
33	Niigata	46.1	73	Sakai	43.0
34	Nagasaki	45.9	74	Tokushima	43.0
35	Toyokawa	45.7	75	Kawasaki	42.9
36	Matsue	45.7	76	Anjo	42.7
37	Akita	45.5	77	Aomori	42.5
38	Yamaguchi	45.5	78	Hachinohe	42.5
39	Fukui	45.5	79	Nagaoka	42.4
40	Morioka	45.3	80	Fukushima	42.3

81  
{  
138 Hakodate, Asahikawa, Kushiro, Tomakomai, Iwaki, Hitachi, Utsunomiya, Ise, Saki, Ota, Kawagoe, Kumagaya, Kawaguchi, Tokorozawa, Kasukabe, Ageo, Soka, Koshigaya, Ichikawa, Funabashi, Matsudo, Sakura, Kashiwa, Ichihara, Nagareyama, Yachiyo, Hachioji, Tachikawa, Chofu, Machida, Kodaira, Hino, Nishitokyo, Sagami, Yokosuka, Hiratsuka, Kamakura, Odawara, Chigasaki, Atsugi, Yamato, Joetsu, Takaoka, Kasugai, Yokkaichi, Suzuka, Uji, Kishiwada, Hirakata, Yao, Neyagawa, Izumi, Higashiosaka, Amagasaki, Itami, Kakogawa, Kurashiki, Kure, Shimonoeki

(Listed by city code)



## Seniors Number of Indicators 36/86

Rank	City	Score	Rank	City	Score
1	Matsumoto	52.8	41	Higashiroshima	46.3
2	Fukuoka	52.7	42	Toyama	46.2
3	Sendai	51.2	43	Hachioji	46.2
4	Hamamatsu	51.1	44	Fukui	46.2
5	Kanazawa	50.6	45	Morioka	45.9
6	Toyohashi	50.6	46	Takamatsu	45.7
7	Nishinomiya	50.1	47	Kitakyushu	45.7
8	Maebashi	49.6	48	Tachikawa	45.7
9	Kumamoto	49.6	49	Tottori	45.7
10	Hiroshima	49.5	50	Okayama	45.6
11	Kobe	49.4	51	Yamaguchi	45.6
12	Izumo	49.4	52	Kamakura	45.5
13	Shizuoka	49.4	53	Numazu	45.5
14	Nagano	49.2	54	Kochi	45.3
15	Toyonaka	48.7	55	Yamagata	45.3
16	Suita	48.7	56	Chofu	45.3
17	Mitaka	48.6	57	Nagoya	45.3
18	Miyazaki	48.5	58	Kofu	45.3
19	Tsukuba	48.4	59	Niigata	45.2
20	Gifu	48.2	60	Chiba	45.2
21	Fujisawa	48.0	61	Saga	45.2
22	Toyota	48.0	62	Atsugi	45.1
23	Nara	47.9	63	Tsu	44.9
24	Kagoshima	47.7	64	Kawasaki	44.8
25	Yokohama	47.4	65	Mito	44.8
26	Takasaki	47.1	66	Otsu	44.8
27	Kyoto	47.1	67	Akashi	44.8
28	Toyokawa	47.1	68	Sagamihara	44.8
29	Fuchu	47.1	69	Hitachi	44.6
30	Nagasaki	47.1	70	Sasebo	44.5
31	Okazaki	47.0	71	Kodaira	44.5
32	Chigasaki	46.6	72	Akita	44.3
33	Matsuyama	46.5	73	Anjo	44.2
34	Matsue	46.5	74	Saitama	44.2
35	Ibaraki	46.4	75	Sakura	44.2
36	Takatsuki	46.4	76	Uji	44.2
37	Takarazuka	46.4	77	Fuji	44.2
38	Sapporo	46.3	78	Naha	44.0
39	Kurume	46.3	79	Kure	43.8
40	Oita	46.3	80	Himeji	43.8

Hakodate, Asahikawa, Kushiro, Tomakomai, Aomori, Hirosaki, Hachinohe, Fukushima, Koriyama, Iwaki, Utsunomiya, Iseaki, Ota, Kawagoe, Kumagaya, Kawaguchi, Tokorozawa, Kasukabe, Ageo, Soka, Koshigaya, Ichikawa, Funabashi, Matsudo, Kashiwa, Ichihara, Nagareyama, Yachiyo, Machida, Hino, Nishitokyo, Yokosuka, Hiratsuka, Odawara, Yamato, Nagaoka, Joetsu, Takaoka, Ichinomiya, Kasugai, Yokkaichi, Suzuka, Osaka, Sakai, Kishiwada, Hirakata, Yao, Neyagawa, Izumi, Higashiosaka, Amagasaki, Itami, Kakogawa, Wakayama, Kurashiki, Fukuyama, Shimonoseki, Tokushima

(Listed by city code)



## Tourist Number of Indicators 33/86

Rank	City	Score	Rank	City	Score
1	Osaka	53.7	41	Okayama	28.9
2	Kyoto	52.1	42	Gifu	28.7
3	Yokohama	49.9	43	Toyama	28.6
4	Fukuoka	44.4	44	Miyazaki	28.5
5	Kobe	43.3	45	Kochi	28.4
6	Nagoya	40.2	46	Hirosaki	28.1
7	Kanazawa	37.0	47	Otsu	28.1
8	Sendai	37.0	48	Yamaguchi	28.1
9	Hiroshima	36.9	49	Hachioji	28.0
10	Sapporo	36.7	50	Kurashiki	27.9
11	Shizuoka	34.8	51	Mito	27.7
12	Nara	34.2	52	Takarazuka	27.7
13	Matsumoto	34.1	53	Mitaka	27.7
14	Kamakura	33.4	54	Numazu	27.6
15	Hamamatsu	33.2	55	Kawagoe	27.6
16	Kitakyushu	32.8	56	Oita	27.6
17	Nagasaki	32.0	57	Toyota	27.6
18	Chiba	31.9	58	Wakayama	27.4
19	Naha	31.6	59	Toyohashi	27.4
20	Takamatsu	31.1	60	Akita	27.4
21	Fuchu	31.0	61	Kurume	27.3
22	Kawasaki	30.9	62	Sasebo	27.1
23	Nagano	30.5	63	Toyonaka	27.1
24	Morioka	30.3	64	Higashiroshima	27.1
25	Kumamoto	30.3	65	Suita	27.0
26	Tachikawa	30.3	66	Uji	27.0
27	Tsukuba	30.2	67	Tottori	26.9
28	Himeji	30.2	68	Takatsuki	26.8
29	Kagoshima	30.2	69	Kure	26.7
30	Niigata	29.6	70	Kofu	26.7
31	Matsuyama	29.6	71	Sakura	26.3
32	Fujisawa	29.6	72	Nagaoka	26.3
33	Nishinomiya	29.5	73	Chigasaki	26.2
34	Matsue	29.5	74	Shimonoseki	26.2
35	Yokosuka	29.4	75	Takasaki	26.0
36	Chofu	29.3	76	Akashi	25.9
37	Saitama	29.3	77	Aomori	25.9
38	Izumo	29.2	78	Okazaki	25.8
39	Hakodate	29.1	79	Fukui	25.8
40	Odawara	29.0	80	Saga	25.6

Asahikawa, Kushiro, Tomakomai, Hachinohe, Yamagata, Fukushima, Koriyama, Iwaki, Hitachi, Utsunomiya, Maebashi, Iseaki, Ota, Kumagaya, Kawaguchi, Tokorozawa, Kasukabe, Ageo, Soka, Koshigaya, Ichikawa, Funabashi, Matsudo, Kashiwa, Ichihara, Nagareyama, Yachiyo, Machida, Kodaira, Hino, Nishitokyo, Sagami, Hiratsuka, Atsugi, Yamato, Joetsu, Takaoka, Fuji, Ichinomiya, Kasugai, Toyokawa, Anjo, Tsu, Yokkaichi, Suzuka, Sakai, Kishiwada, Hirakata, Ibaraki, Yao, Neyagawa, Izumi, Higashiosaka, Amagasaki, Itami, Kakogawa, Fukuyama, Tokushima

(Listed by city code)

# Actor-Specific Scores



## Executive Number of Indicators 36/86

Rank	City	Score	Rank	City	Score
1	Osaka	55.1	41	Himeji	26.3
2	Nagoya	44.7	42	Kashiwa	26.1
3	Fukuoka	42.1	43	Kitakyushu	26.0
4	Yokohama	38.5	44	Kodaira	26.0
5	Kyoto	37.3	45	Fujisawa	25.7
6	Kobe	36.7	46	Takatsuki	25.7
7	Toyota	32.2	47	Nagano	25.7
8	Sapporo	32.1	48	Suzuka	25.6
9	Sendai	31.7	49	Takamatsu	25.6
10	Anjo	31.0	50	Funabashi	25.5
11	Kawasaki	30.7	51	Utsunomiya	25.5
12	Kanazawa	30.4	52	Toyama	25.4
13	Mitaka	29.8	53	Sagamihara	25.4
14	Suita	29.8	54	Niigata	25.3
15	Hiroshima	29.7	55	Kumamoto	25.2
16	Tsukuba	29.4	56	Koriyama	25.1
17	Fuchu	29.2	57	Miyazaki	25.1
18	Okayama	29.1	58	Matsuyama	25.1
19	Yokkaichi	29.1	59	Itami	25.1
20	Higashiroshima	28.9	60	Hino	25.0
21	Tachikawa	28.8	61	Nishitokyo	25.0
22	Hamamatsu	28.7	62	Yachiyo	24.9
23	Saitama	28.5	63	Nagareyama	24.9
24	Atsugi	28.4	64	Yamaguchi	24.8
25	Shizuoka	28.2	65	Kasugai	24.8
26	Toyonaka	28.2	66	Fukushima	24.8
27	Matsumoto	28.1	67	Tsu	24.7
28	Nishinomiya	28.0	68	Odawara	24.5
29	Gifu	28.0	69	Ichinomiya	24.5
30	Chofu	27.9	70	Fukui	24.5
31	Ibaraki	27.7	71	Hirakata	24.5
32	Otsu	27.3	72	Morioka	24.5
33	Hachioji	27.3	73	Kurashiki	24.5
34	Okazaki	27.1	74	Saga	24.3
35	Ichikawa	27.1	75	Kamakura	24.2
36	Fukuyama	26.9	76	Machida	24.2
37	Toyohashi	26.8	77	Numazu	24.2
38	Chiba	26.6	78	Kurume	24.1
39	Kagoshima	26.4	79	Sakura	24.1
40	Toyokawa	26.3	80	Oita	24.1

81 }  
 138 }  
 Hakodate,Asahikawa,Kushiro,Tomakomai,Aomori,Hirosaki,Hachinohe,Akita,  
 Yamagata,Iwaki,Mito,Hitachi,Maebashi,Takasaki,Iseaki,Ota,Kawagoe,Kumagaya,  
 Kawaguchi,Tokorozawa,Kasukabe,Ageo,Soka,Koshigaya,Matsudo,Ichihara,  
 Yokosuka,Hiratsuka,Chigasaki,Yamato,Nagaoka,Joetsu,Takaoka,Kofu,Fuji,Uji,  
 Sakai,Kishiwada,Yao,Neyagawa,Izumi,Higashiosaka,Amagasaki,Akashi,  
 Kakogawa,Takarazuka,Nara,Wakayama,Tottori,Matsue,Izumo,Kure,Shimonoseki,  
 Tokushima,Kochi,Nagasaki,Sasebo,Naha

(Listed by city code)



## Employee Number of Indicators 19/86

Rank	City	Score	Rank	City	Score
1	Osaka	51.1	41	Miyazaki	30.2
2	Nagoya	41.6	42	Higashiosaka	30.1
3	Fukuoka	38.6	43	Sakai	29.8
4	Kyoto	37.3	44	Sendai	29.8
5	Hiroshima	34.8	45	Matsuyama	29.7
6	Yokohama	34.4	46	Nagano	29.6
7	Kawasaki	33.6	47	Tachikawa	29.6
8	Kobe	33.6	48	Takaoka	29.6
9	Toyonaka	33.1	49	Shimonoseki	29.5
10	Kurume	32.9	50	Toyohashi	29.5
11	Kanazawa	32.9	51	Saitama	29.3
12	Shizuoka	32.8	52	Hakodate	29.3
13	Anjo	32.7	53	Ibaraki	29.3
14	Gifu	32.6	54	Tottori	29.3
15	Kagoshima	32.5	55	Chofu	29.2
16	Higashiroshima	32.3	56	Kawaguchi	29.2
17	Mitaka	32.0	57	Yamagata	29.2
18	Toyama	31.9	58	Tsukuba	29.2
19	Matsumoto	31.9	59	Yachiyo	29.0
20	Kochi	31.9	60	Hamamatsu	29.0
21	Amagasaki	31.7	61	Akita	28.9
22	Fukui	31.6	62	Toyokawa	28.6
23	Saga	31.5	63	Ichikawa	28.5
24	Takamatsu	31.5	64	Toyota	28.4
25	Nishinomiya	31.3	65	Yokkaichi	28.3
26	Kitakyushu	31.2	66	Nara	28.3
27	Okayama	31.1	67	Sapporo	28.3
28	Hirosaki	31.1	68	Nagaoka	28.3
29	Chiba	31.1	69	Kure	28.3
30	Matsue	31.0	70	Fukuyama	28.3
31	Tsu	30.9	71	Takatsuki	28.3
32	Fuchu	30.9	72	Kurashiki	27.9
33	Izumo	30.8	73	Fukushima	27.6
34	Niigata	30.8	74	Himeji	27.6
35	Suita	30.7	75	Kofu	27.6
36	Ichinomiya	30.7	76	Kishiwada	27.5
37	Morioka	30.6	77	Nagasaki	27.4
38	Yamaguchi	30.6	78	Kasugai	27.4
39	Itami	30.5	79	Tokushima	27.3
40	Kumamoto	30.4	80	Suzuka	27.2

81 }  
 138 }  
 Asahikawa,Kushiro,Tomakomai,Aomori,Hachinohe,Koriyama,Iwaki,Mito,Hitachi,  
 Utsunomiya,Maebashi,Takasaki,Iseaki,Ota,Kawagoe,Kumagaya,Tokorozawa,  
 Kasukabe,Ageo,Soka,Koshigaya,Funabashi,Matsudo,Sakura,Kashiwa,Ichihara,  
 Nagareyama,Hachioji,Machida,Kodaira,Hino,Nishitokyo,Sagamihara,Yokosuka,  
 Hiratsuka,Kamakura,Fujisawa,Odawara,Chigasaki,Atsugi,Yamato,Joetsu,Numazu,  
 Fuji,Okazaki,Otsu,Uji,Hirakata,Yao,Neyagawa,Izumi,Akashi,Kakogawa,Takarazuka,  
 Wakayama,Sasebo,Oita,Naha

(Listed by city code)

For the top 3 wards based on total score, function-specific, as well as indicator group-specific radar charts were used to analyze their strengths and appeal. \*Deviation values were calculated within the 23 wards of Tokyo.

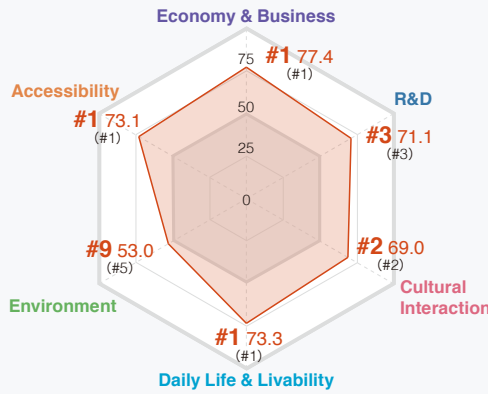


## 1 Chiyoda

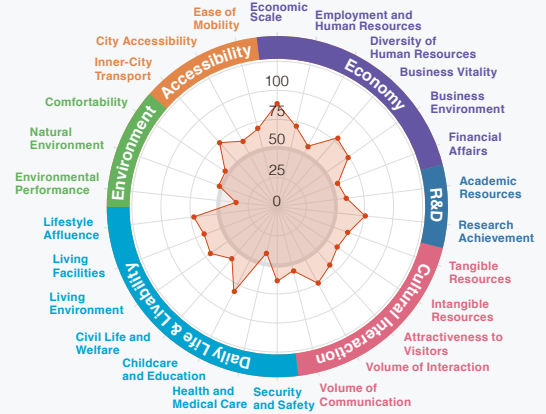
### A family-friendly city with the best business environment in Japan

Chiyoda Ward, with its diversity of residential areas, downtown commercial areas, in addition to government and office areas, ranked first among the 23 wards in Japan in the three areas of **Economy & Business**, **Daily Life & Livability**, and **Accessibility**. While topping the three indicator groups of Economic Scale, Business Vitality, and Business Environment in **Economy & Business**, Chiyoda Ward also ranked highest in Childcare and Education in **Daily Life & Livability**. The district is not only the center of economic activity and business in Japan, it also offers a good environment for families.

Function-specific rank and deviation



Indicator group-specific deviation score

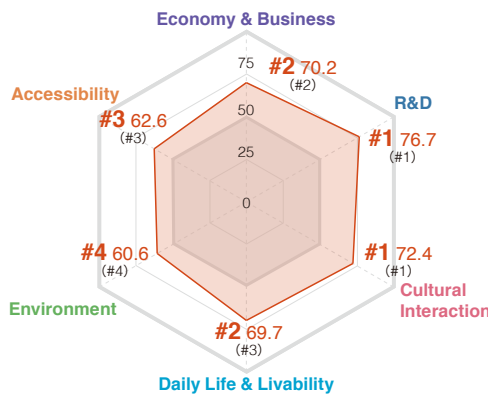


## 2 Minato

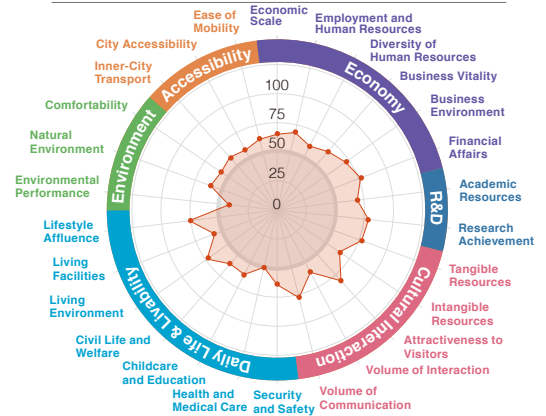
### A livable city rich in nature and culture

Minato, a notably international city, moved up one more place in the **Daily Life & Livability** function this year thanks to an increase in score for Level of Online Municipal Promotion in Civil Life and Welfare and Volume of New Housing Supply in Living Environment. The district also increased its scores in Tourism Promotion Activities in the Volume of Communication indicator group of **Cultural Interaction** and in Satisfaction with Natural Environment in **Environment**, indicating ever improving livability and cultural appeal.

Function-specific rank and deviation



Indicator group-specific deviation score

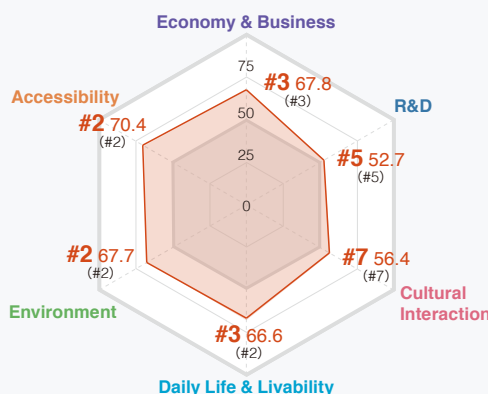


## 3 Chuo

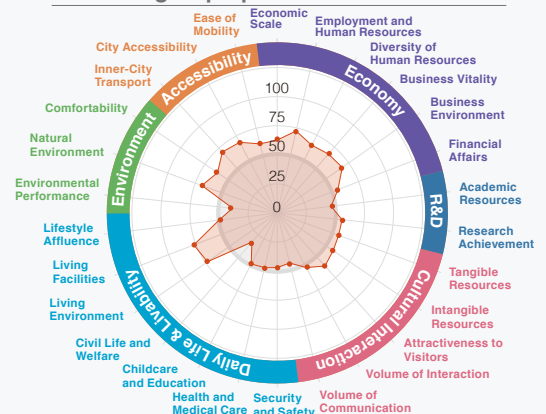
### A convenient, natural and livable city

Chuo Ward has a well-balanced ranking. The city is highly rated in **Environment** and **Accessibility** and continues to have high scores in **Economy & Business** and **Daily Life & Livability**. In the **Daily Life & Livability** function, Living Facilities and Living Environment had extremely high deviation values. In addition, Chuo received high scores for Natural Environment in the **Environment** function and Inner-City Transport in **Accessibility**, indicating that Chuo is a livable district with convenient transport and a rich natural environment.

Function-specific rank and deviation



Indicator group-specific deviation score



# Function-Specific Scores



## Economy & Business

Rank	City	Score
1	Chiyoda	447.0
2	Minato	392.7
3	Chuo	375.3
4	Shibuya	321.3
5	Shinjuku	294.1
6	Shinagawa	256.6
7	Meguro	253.0
8	Bunkyo	246.1
9	Koto	236.2
10	Toshima	234.3
11	Taito	222.8
12	Setagaya	216.3
13	Nakano	214.8
14	Suginami	209.4
15	Sumida	203.5
16-23	Ota, Kita, Arakawa, Itabashi, Nerima, Adachi, Katsushika, Edogawa (Listed by city code)	



## R&D

Rank	City	Score
1	Minato	88.1
2	Bunkyo	74.2
3	Chiyoda	74.0
4	Shinjuku	55.1
5	Chuo	27.9
6	Meguro	21.6
7	Shibuya	17.4
8	Koto	16.7
9	Setagaya	15.6
10	Ota	14.8
11	Toshima	13.3
12	Shinagawa	13.2
13	Itabashi	8.0
14	Arakawa	6.9
15	Katsushika	5.9
16-23	Taito, Sumida, Nakano, Suginami, Kita, Nerima, Adachi, Edogawa (Listed by city code)	



## Cultural Interaction

Rank	City	Score
1	Minato	234.2
2	Chiyoda	214.7
3	Shibuya	180.9
4	Shinjuku	170.3
5	Koto	164.3
6	Taito	152.8
7	Chuo	143.9
8	Bunkyo	142.5
9	Sumida	118.1
10	Toshima	117.4
11	Shinagawa	105.2
12	Meguro	88.5
13	Setagaya	87.5
14	Ota	76.1
15	Katsushika	64.7
16-23	Nakano, Suginami, Kita, Arakawa, Itabashi, Nerima, Adachi, Edogawa (Listed by city code)	



## Daily Life & Livability

Rank	City	Score
1	Chiyoda	399.2
2	Minato	382.2
3	Chuo	368.0
4	Bunkyo	342.9
5	Shibuya	331.2
6	Shinjuku	322.5
7	Meguro	301.6
8	Shinagawa	293.7
9	Taito	293.4
10	Toshima	292.2
11	Setagaya	291.3
12	Suginami	286.2
13	Itabashi	277.1
14	Nerima	276.5
15	Nakano	266.1
16-23	Sumida, Koto, Ota, Kita, Arakawa, Adachi, Katsushika, Edogawa (Listed by city code)	



## Environment

Rank	City	Score
1	Koto	160.3
2	Chuo	149.4
3	Edogawa	141.9
4	Minato	138.1
5	Nerima	129.8
6	Shinagawa	129.4
7	Suginami	128.2
8	Setagaya	126.3
9	Chiyoda	126.0
10	Meguro	122.9
11	Bunkyo	122.4
12	Sumida	121.6
13	Katsushika	120.6
14	Kita	117.9
15	Ota	115.4
16-23	Shinjuku, Taito, Shibuya, Nakano, Toshima, Arakawa, Itabashi, Adachi (Listed by city code)	



## Accessibility

Rank	City	Score
1	Chiyoda	206.9
2	Chuo	202.3
3	Minato	188.9
4	Shibuya	182.4
5	Shinjuku	179.7
6	Taito	179.6
7	Shinagawa	178.3
8	Koto	177.4
9	Bunkyo	173.9
10	Ota	170.9
11	Toshima	166.9
12	Meguro	163.0
13	Nakano	161.9
14	Sumida	160.1
15	Edogawa	159.2
16-23	Setagaya, Suginami, Kita, Arakawa, Itabashi, Nerima, Adachi, Katsushika (Listed by city code)	

## Total Score

Rank	City	Score
1	Chiyoda	1,467.7
2	Minato	1,424.3
3	Chuo	1,266.8
4	Shibuya	1,143.4
5	Shinjuku	1,118.0
6	Bunkyo	1,102.0
7	Koto	1,013.5
8	Shinagawa	976.4
9	Taito	962.3
10	Meguro	950.6
11	Toshima	915.7
12	Setagaya	889.0
13	Sumida	868.4
14	Suginami	842.2
15	Ota	832.0
16-23	Nakano, Kita, Arakawa, Itabashi, Nerima, Adachi, Katsushika, Edogawa (Listed by city code)	



# Actor-Specific Scores

In order to evaluate the function-specific characteristics of cities from the viewpoint of 'people', 6 types of actors (Single, Family, Seniors, Tourist, Executive, Employee) were established for this report. To calculate the actor-specific score, first the individual urban needs are determined for each actor, after which the indicators associated with those needs are selected and values are averaged to produce a score.



## Single Number of Indicators 23/86

Rank	City	Score
1	Chiyoda	62.0
2	Chuo	60.7
3	Minato	59.3
4	Bunkyo	52.7
5	Shibuya	52.5
6	Shinagawa	50.6
7	Shinjuku	49.9
8	Meguro	49.6
9	Taito	48.9
10	Toshima	47.5
11	Suginami	46.5
12	Setagaya	46.0
13	Koto	45.8
14	Nerima	44.8
15	Nakano	44.6
16-23	Sumida, Ota, Kita, Arakawa, Itabashi, Adachi, Katsushika, Edogawa (Listed by city code)	



## Family Number of Indicators 40/86

Rank	City	Score
1	Minato	55.8
2	Chuo	54.8
3	Chiyoda	54.7
4	Bunkyo	49.4
5	Shibuya	48.3
6	Shinagawa	46.4
7	Shinjuku	46.2
8	Meguro	46.0
9	Koto	45.3
10	Taito	44.4
11	Setagaya	44.0
12	Suginami	43.6
13	Nerima	43.1
14	Toshima	42.4
15	Sumida	41.8
16-23	Ota, Nakano, Kita, Arakawa, Itabashi, Adachi, Katsushika, Edogawa (Listed by city code)	



## Seniors Number of Indicators 36/86

Rank	City	Score
1	Chiyoda	59.2
2	Chuo	57.6
3	Minato	56.2
4	Bunkyo	52.8
5	Shibuya	49.9
6	Shinagawa	49.0
7	Meguro	48.2
8	Shinjuku	48.1
9	Koto	47.7
10	Taito	47.1
11	Suginami	46.4
12	Setagaya	45.8
13	Nerima	45.0
14	Sumida	44.8
15	Nakano	43.9
16-23	Ota, Toshima, Kita, Arakawa, Itabashi, Adachi, Katsushika, Edogawa (Listed by city code)	



## Tourist Number of Indicators 33/86

Rank	City	Score
1	Minato	51.2
2	Chiyoda	50.3
3	Chuo	46.4
4	Koto	42.2
5	Shibuya	41.8
6	Shinjuku	39.1
7	Taito	38.6
8	Bunkyo	37.9
9	Shinagawa	34.8
10	Sumida	33.0
11	Toshima	31.3
12	Meguro	31.0
13	Setagaya	30.2
14	Ota	28.9
15	Edogawa	28.6
16-23	Nakano, Suginami, Kita, Arakawa, Itabashi, Nerima, Adachi, Katsushika (Listed by city code)	



## Executive Number of Indicators 36/86

Rank	City	Score
1	Chiyoda	68.3
2	Minato	63.4
3	Chuo	56.1
4	Shibuya	48.2
5	Shinjuku	47.1
6	Bunkyo	42.2
7	Shinagawa	40.1
8	Koto	39.8
9	Meguro	38.9
10	Toshima	37.6
11	Taito	35.5
12	Nakano	33.7
13	Setagaya	33.3
14	Ota	33.0
15	Suginami	32.7
16-23	Sumida, Kita, Arakawa, Itabashi, Nerima, Adachi, Katsushika, Edogawa (Listed by city code)	



## Employee Number of Indicators 19/86

Rank	City	Score
1	Chuo	67.5
2	Chiyoda	65.2
3	Minato	58.2
4	Shinjuku	53.1
5	Shibuya	53.0
6	Taito	50.4
7	Toshima	46.2
8	Shinagawa	45.4
9	Bunkyo	45.2
10	Meguro	43.4
11	Sumida	42.0
12	Arakawa	40.4
13	Koto	40.4
14	Nakano	39.1
15	Ota	38.7
16-23	Setagaya, Suginami, Kita, Itabashi, Nerima, Adachi, Katsushika, Edogawa (Listed by city code)	

## City Perception Survey Japan

### 1 Background and Objectives

In the Japan Power Cities (JPC), Mori Memorial Foundation Institute for Urban Strategies has identified the strengths and attractions the major Japanese cities. However, the JPC does not reveal what kind of image residents have of these cities. We conducted a questionnaire survey to understand the words and sentences which create the city image held by residents. We quantitatively analyzed and visualized the words from various perspectives. This can contribute to the branding strategy of each city.

\*For the results of all cities, please refer to the website of the Mori Memorial Foundation.

### 2 Resident Survey

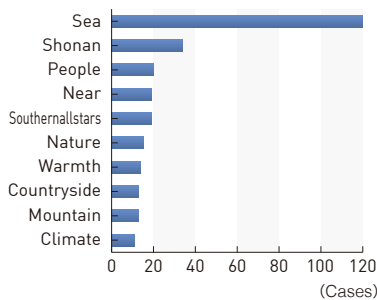
- **Respondents** : Men and women aged 20 and older living in the 161 cities covered by JPC-2022
- **Number of responses** : 300 per city
- **Question** : Please provide a word or phrase which describes the city image of the city in which you live.



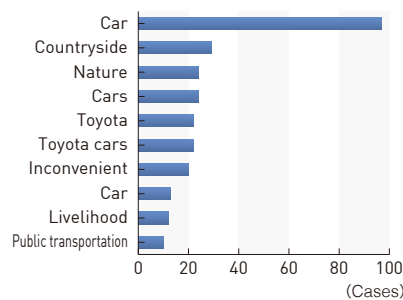
### Analysis 1 Top 10 Keywords (Frequency of Response)

The unit of analysis was individual words. The top 10 most frequently appearing keywords in each city were extracted from the sentences provided in the questionnaire responses. Cities with particularly high frequencies of some words compared to others are listed below.

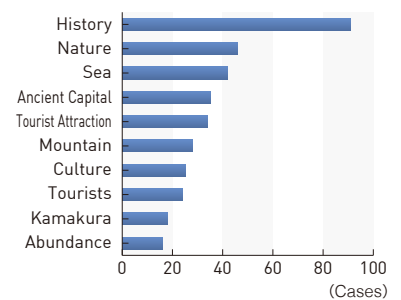
[Chigasaki]



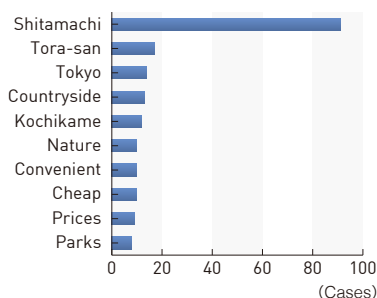
[Toyota]



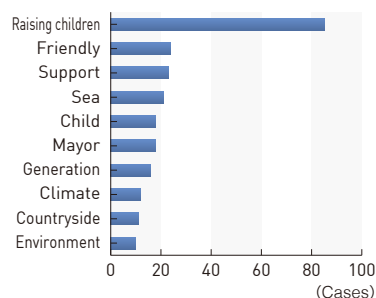
[Kamakura]



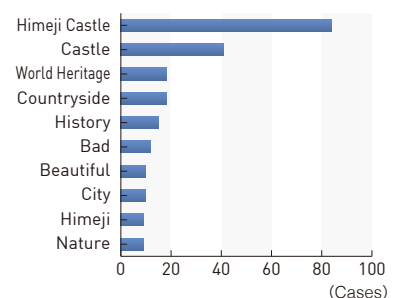
[Katsushika Ward]



[Akashi]



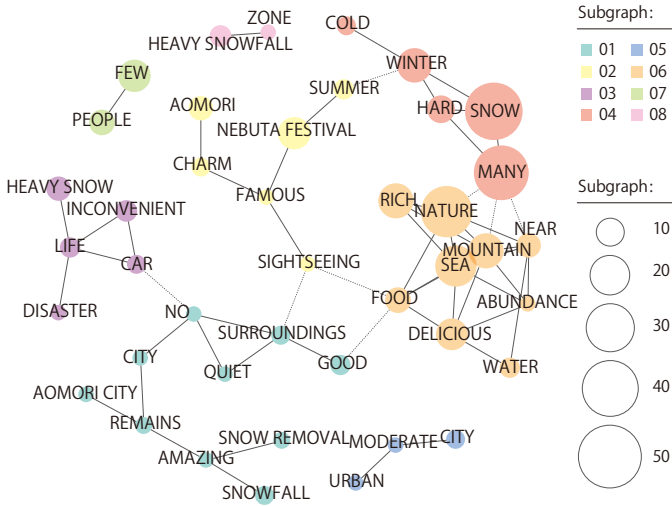
[Himeji]



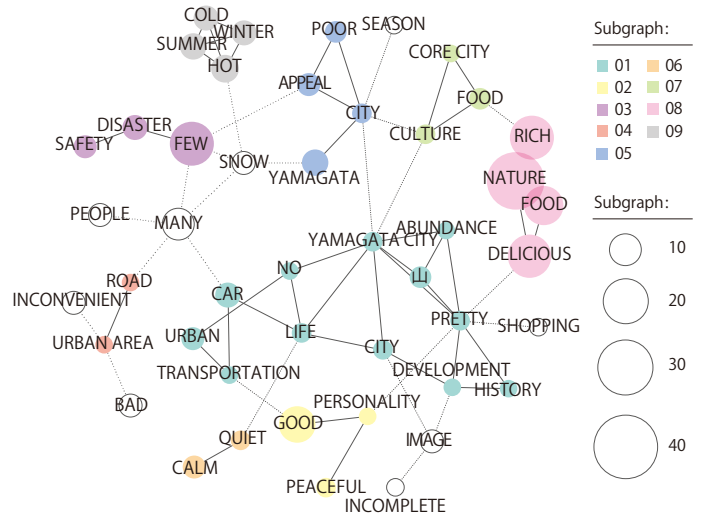
## Analysis 2 Relationships among keywords (co-occurrence network analysis)

A co-occurrence network analysis was performed for words that were responses five or more times in each city. A network diagram was drawn which connects words with a strong degree of co-occurrence. An example of the results is shown below. The size of the circle indicates the frequency of occurrence.

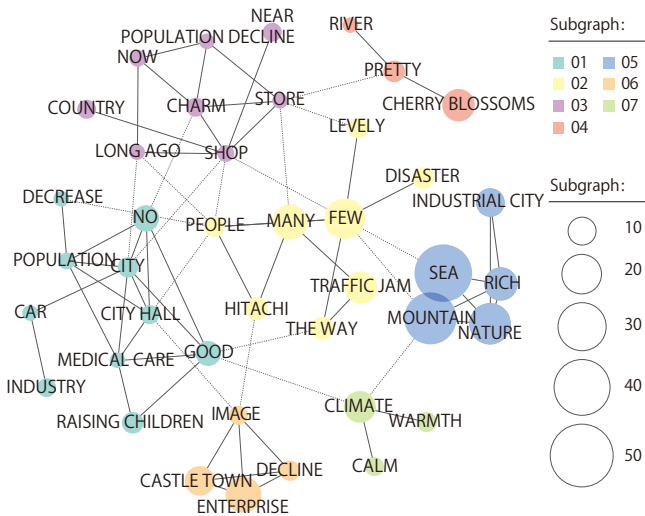
[Aomori]



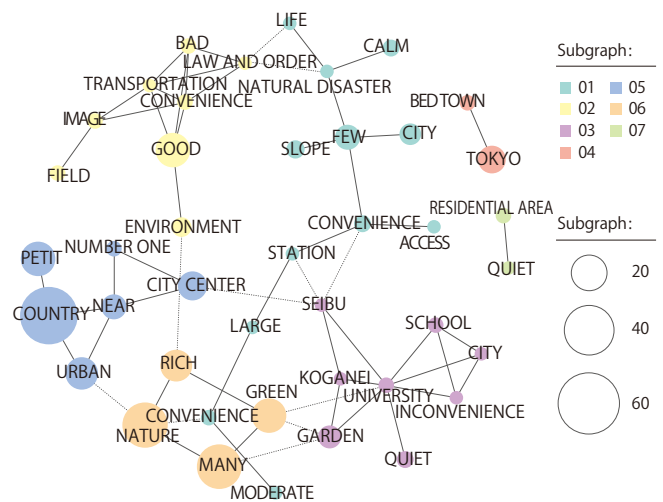
[Yamagata]



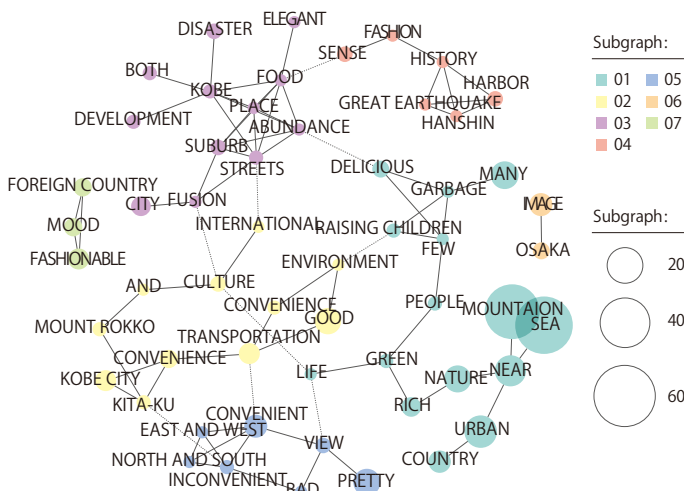
[Hitachi]



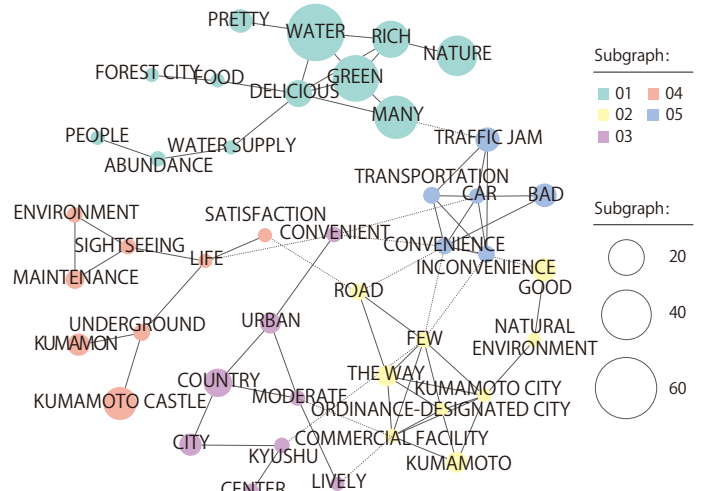
[Kodaira]



[Kobe]



[Kumamoto]



### Analysis 3 Keywords unique to cities (Feature Extraction)

We measured the similarity (Jaccard coefficient) between responses for all cities using city of residence as an external variable, and extracted the top 10 words for each city. The cities whose Jaccard coefficients for the top words were particularly high compared to the other cities are listed below. Note that the higher the coefficient, the more times the city name and the keyword appeared in common. These words were considered as more distinctive.

#### [Fuji]

Keyword	Jaccard coefficient (%)
Mt. Fuji	40
Paper	8
Paper making	8
Factory	5
Fuji city	4
Suruga Bay	4
Clean	3
Smell	2
Foothill	2
Fuji	2

#### [Suzuka]

Keyword	Jaccard coefficient (%)
Circuit	39
Suzuka	18
Motor Sports	15
F1	8
Honda	7
Ise	4
Stencil	3
Cars	2
Race	2
Mie	2

#### [Kumagaya]

Keyword	Jaccard coefficient (%)
Hot	38
Rugby	15
Kumagaya	14
Hot	6
Cold	6
Town	5
Disaster	3
Number one in Japan	2
Local City	2
Convention	1

#### [Nagaoka]

Keyword	Jaccard coefficient (%)
Fireworks	36
Nagaoka Fireworks	10
Nagaoka	6
Tournament	5
Snow	5
Rice	4
Isoroku Yamamoto	3
Famous	2
Consolidation	2
Sake	2

#### [Kasukabe]

Keyword	Jaccard coefficient (%)
Crayon Shin-chan	34
Kasukabe	3
Unfinished	2
Old	2
Impossible	2
Possible	2
Station	2
Development	2
Aid	1
Old	1

#### [Kagoshima]

Keyword	Jaccard coefficient (%)
Sakurajima	32
Volcanic ash	6
Kagoshima city	4
Black	4
Meiji Restoration	3
Gentle	3
Hot spring	3
Magnificent	3
Food	2
Saigo	2

#### [Hirosaki]

Keyword	Jaccard coefficient (%)
Cherry blossom	31
Castle	10
Mt. Iwaki	6
Castle town	6
Four seasons	4
Festivals	3
Hirosaki	3
Hirosaki castle	3
Apples	3
Now and then	3

#### [Toyokawa]

Keyword	Jaccard coefficient (%)
Toyokawa Inari	31
Inari	8
Famous	2
Iida Line	2
Toyokawa City	2
Meitetsu	2
National Highway	2
Convenience	1
Countryside	1
Public transportation	1

#### [Utsunomiya]

Keyword	Jaccard coefficient (%)
Gyoza	29
Cocktails	4
Pleasant	4
LRT	3
Utsunomiya	3
Utsunomiya City	3
North Kanto	3
Disaster	2
Characteristics	2
Local City	2

## Analysis 4 Similarity between cities (co-occurrence network analysis of city of residence and keywords)

A co-occurrence network analysis was conducted on the keyword data for all target cities, with city of residence as an external variable. A corresponding network diagram was drawn based on the degree of co-occurrence between cities and keywords.



Note: The following cities are not depicted in the above figure because no significant co-occurrence relationships were calculated. Tomakomai, Hachinohe, Sendai, Akita, Koriyama, Mito, Tsukuba, Utsunomiya, Ota, Saitama, Tokorozawa, Kasukabe, Soka, Koshigaya, Chiba, Kashiwa, Yachiyo, Hachioji, Tachikawa, Mitaka, Fuchu, Machida, Kodaira, Hino, Kawasaki, Sagami-hara, Yokosuka, Hiratsuka, Chigasaki, Atsugi, Yamato, Niigata, Joetsu, Takaoka, Kofu, Nagano, Gifu, Numazu, Nagoya, Toyohashi, Okazaki, Toyokawa, Toyota, Anjo, Suzuka, Uji, Osaka, Sakai, Suita, Takatsuki, Hirakata, Yao, Izumi, Himeji, Nishinomiya, Kakogawa, Takarazuka, Wakayama, Tottori, Izumo, Kurashiki, Hiroshima, Kure, Fukuyama, Higashihiroshima, Shimonoseki, Kitakyushu, Kurume, Saga, Sasebo, Kagoshima, Naha, Chuo, Toshima, Kita, Nerima

# Definitions of Indicators

Indicators were established based on quantitative data (80 indicators) drawn from statistical materials, and survey data (7 indicators) obtained from a resident questionnaire carried out by the Mori Memorial Foundation. Data acquisition methods are outlined in (1) and (2) below.

## (1) Data derived from statistical materials (80 indicators)

- When available, data is taken from official public sources.
- Regarding data not obtained from public statistics, other reputable sources are used.
- Data was collected in the period of January – March 2022.

## (2) Resident Questionnaire (7 indicators)

- Survey method: internet questionnaire
- Respondents: residents aged 20 years and above, living in one of the 161 target cities.
- Number of responses: 48,300 responses (300 per city) with a 1:1 male-female ratio. Respondent age ranges were set at a ratio of 6:4 for 20-59-year-olds to those 60 years old and over.
- Survey period: March, 2022
- Surveyed by: Survey Research Center Co., Ltd.

Function	Indicator Group	No.	Indicator names	Definitions
Economy & Business	Economic Scale	1	<b>Total Value Added</b>	The total value added in terms of number of enterprises in the target city or ward.
		2	<b>Intra-regional Gross Expenditure</b>	The total expenditure recorded intraregionally in the target city. For Tokyo's 23 wards, data was estimated using population figures and total employment(excluding public entities), with values being added together for each ward as a ratio of the total value of gross expenditure for all wards.
		3	<b>Daytime-Nighttime Population Ratio</b>	The ratio of the population commuting to work or school in the target city or ward divided by the residential population of the target city or ward.
	Employment and Human Resources	4	<b>Total Employment</b>	The number of employees (excluding public entities) in the target city or ward.
		5	<b>Wage Level</b>	The sum values for total salary and total welfare payments divided by the total number of employees (excluding public entities) in the target city or ward.
		6	<b>Higher-Education Completion Rate</b>	The ratio of higher-education graduates (junior college, national college of technology, 4-year program) that exist among the total population aged 18 and above in the target city or ward.
		7	<b>Intake/Outflow of Young Employees</b>	The ratio of the population in 2005 who have not yet entered higher-education (aged 15-19), against the population in 2015 who had completed their higher-education (aged 25-29).
	Diversity of Human Resources	8	<b>Female Employment Ratio</b>	The ratio of female workers between the ages of 15-64 to the total number of employees aged 15-64 in the target city or ward.
		9	<b>Foreign Employment Ratio</b>	The ratio of foreign workers aged 15 and above to the total number of employees aged 15 and above in the target city or ward. For unlisted cities, the numbers from each prefectural Labor Bureau were used. For cities not listed in the bureau, estimates were made using the foreign population.
		10	<b>Elderly Employment Rate</b>	The elderly employment rate calculated as the number of employees aged 65 and above divided by the total population aged 65 and above in the target city or ward.
	Business Vitality	11	<b>Ratio of Newly Registered Businesses</b>	The number of newly designated corporations in 2020 divided by the total number of corporations in each city.
		12	<b>Labor Productivity</b>	The ratio of total value added to the number of employees in general industries (excluding public entities) in the target city or ward.
		13	<b>Total unemployment rate</b>	The number of unemployed people divided by the total working population.
	Business Environment	14	<b>Number of Certified Special Zones</b>	The number of projects certified as "National Strategic Special Zones" and the number of special zones in "Comprehensive Special Zones" and "Structural Reform Special Zones" were indexed separately and then combined. (Those certified at the prefectural level were weighted at 0.5.)
		15	<b>Ratio of Employees in Service Industry for Business Enterprises</b>	The number of employees in 25 industry subcategories defined as "Business Services" divided by the total number of employees as recorded in the Economic Census (excluding public entities).
		16	<b>Total Supply of New Office Real Estate</b>	The average floor area of real estate buildings over the last three years.
		17	<b>Density of Flexible Workplaces</b>	Calculated based on the following criteria: (1) value obtained by dividing the number of coffee shops by the total land area in use, and (2) value obtained by dividing the number of co-working spaces by the total land area in use.
	Financial Affairs	18	<b>Financial Capability Index</b>	The value in the Ministry of Internal Affairs and Communications' Financial Strength Index. For Tokyo's 23 wards, the value in the General Affairs Bureau's Economic Strength Index is used.
		19	<b>Public Account Balance Ratio</b>	The current account balance ratio for the target city or ward.
		20	<b>Real Debt Expenditure Ratio</b>	The total value of debt payments divided by the annual public income for the target city or ward.
		21	<b>Future Burden Ratio</b>	The total outstanding debt divided by the annual public income for the target city or ward.

Function	Indicator Group	No.	Indicator names	Definitions
Research & Development	Academic Resources	22	Ratio of Academic and Development Research Institution Employees	The total number of employees in research & development institutions divided by the total number of employees (excluding public entities) in the workforce for the target city or ward.
		23	Number of Leading Universities	Calculated based on the following criteria: (1) the indexed score based on the score of universities featured in Benesse's World Ranking of Top 150 Universities - Japan Edition that are located in the target city or ward; and (2) the indexed score based on the score of universities featured in Times Higher Education's The World University Rankings that are located in the target city or ward. For both (1) and (2), universities with campuses in different cities, the total number of theses was divided by the number of campuses.
	Research Achievement	24	Number of Papers Submitted	The average number of papers on National Institute of Informatics' CiNii Articles in the past year submitted from the 188 universities which have published 500 or more theses for the 10-year period between 2008-2017 according to NISTEP's Japanese Universities' Research Theses Benchmarking report and individual national research and development institutes as listed in the Science Map Report published by the same institute. Papers were searched on 2017-2019, with the average values for both dates used. For universities with campuses in different cities, the total number of theses was divided by the number of campuses.
		25	Number of Leading Firms in Global Niches	The number of headquarters, offices, and factories maintained by companies featured in the Ministry of Economy, Trade & Industry's "Global Niche Top 100 Companies".
		26	Number of Patents Granted	The number of patents granted in the last five years.
	Cultural Interaction	Tangible Resources	27	Number and Rating of Tourist Attractions
28			Number of Designated Cultural Assets	The number of designated cultural assets recognized by UNESCO and Agency for Cultural Affairs. Points awarded as follows: UNESCO world heritage site (3 points); national treasures, special historical landmark, special place of scenic beauty, important traditional architecture preservation district (2 points); important cultural property, registered tangible cultural properties, historical landmark, registered monument, place of scenic beauty, important cultural scenery (1 point).
29			Active Approach to Scenic Town Planning	Calculated based on the following criteria: (1) the existence of scenery planning as well as scenic town planning model districts; (2) the number of prizes awarded and activities carried out after 2011 in the categories of urban space, scenic town planning activities-training, and scenery planning activities, according to the Executive Committee of Scenic Planning Day; the number districts awarded the "Beautiful Townscape Prize" between the years 2001-2010; and the number of districts recognized in the "Urban Scenery 100" between the years 1991-2000 (1 point / award). Those awarded to the prefecture are not counted.
Intangible Resources		30	Number and Rating of Events	Calculated based on the following criteria: (1) The indexed value of the number of events and comments recorded in Tripadvisor's "Events" listing for "Sightseeing" in the target city or ward.(2) the number of "local performing arts" and "festivals" listed in "All Events" of the Japan Travel and Tourism Association promotion "miru-navi" in the target city or ward.
		31	Workers in Creative Industries	The ratio of workers in relevant creative industries to the total employment (excluding public entities) for each target city or ward. The definition of "creative industries" is based on information provided by the UNDP, UNESCO, and the Tokyo Metropolitan Government's Bureau of Industrial and Labor Affairs, with 37 relevant industry classifications selected from the Ministry of Internal Affairs and Communications' Economic Census.
		32 Q	Opportunities for Cultural, Historical, and Traditional Interaction	Based on responses from a resident questionnaire asking whether there are abundant opportunities for cultural, historical, and traditional interaction for people visiting from other cities.
Attractiveness to Visitors		33	Number of Accommodation Facility Guest Rooms	The number of guest rooms recorded on Recruit's "Jalan.net" website.
		34	Number of Luxury Guest Rooms	The number of guest rooms in lodging facilities rated as "High Class" according to Recruit's "Jalan.net" travel website.
		35	Event Hall Seating Capacity	Calculated based on the following criteria: (1) The number of seats in public cultural facilities, (2)the capacity of banquet halls in hotels as listed in "Venue Best Search", or the capacity as estimated from the number of guest rooms in hotels with banquet halls among the accommodations listed in Recruit's "Jalan.net" travel website.
		36	Multilingual Services at Tourist Information Desks and Hospitals	Calculated based on the following criteria: (1) the weighted value of the number of tourist information centers offering multilingual services and sightseeing guidance according to the JNTO; (2) the number of medical institutions suited to accepting foreigners according to the JNTO.
Volume of Interaction		37	Weekend Visitor Population	The number taken by subtracting the nighttime population from the tourist population, then dividing by the daytime population.
		38	Volume of People Visiting for Tourism or Sightseeing	Number of postings (limited to out-of-prefecture residents) of location information in four categories (food and beverage, leisure, sightseeing, and lodging) posted on SNS (Twitter-based) over the past year, as listed in the SNS analysis plan (Japanese) of Knightley Corporation's "CITYINSIGHT".
	39	Number of International Conferences and Exhibitions Held	The added index values of the number of conference events held and the number of exhibitions held in the target city or ward.	
Volume of Communication	40	Tourism Promotion Activities	Calculated based on the following criteria: (1) An indexed value of total points based on 1 point given for each Destination Marketing Organization (DMO) registered in the target city or ward, and 0.5 points given for each wide-area cooperation DMO or regional cooperation DMO located in the target city or ward; (For Tokyo's 23 wards, DMO corporations were added based on an independent survey conducted by the Mori Memorial Foundation.)(2) the indexed value of total points based on 1 point given for each exhibition organization (excluding private companies) in the target city or ward registered on Tourism Expo Japan, and 0.5 points given for each prefectural-level organization.	
	41	Number of Followers of Local Government SNS Accounts	The indexed value of the number of followers on social media accounts (Facebook, Twitter and YouTube) attributed to local self-governing bodies or tourism associations, excluding disaster information services and election-related channels.	
	42 Q	Level of Attractiveness, Recognition, and Intention to Visit	The values were calculated based on the responses to a survey of residents on "awareness," "attractiveness," and "willingness to visit" of three randomly selected cities other than the city in which they reside.	

Function	Indicator Group	No.	Indicator names	Definitions
Daily Life & Livability	Security and Safety	43	<b>Recognized Criminal Offenses</b>	Calculated based on the total number of criminal offenses as provided by police headquarters or prefectural police stations on acknowledged criminal offenses, divided by the daytime population (000s) of the target city or ward.
		44	<b>Traffic Accident Fatalities</b>	The average number of traffic fatalities over the past three years divided by the daytime population (per 10,000 people.)
		45	<b>Level of Safety During Disaster</b>	Based on the scores for the following 5 categories: 1) The ratio of total number of households constructed before 1980 to the total number of households; 2) the ratio of total number of households located over 1km away from public evacuation zones to the total number of households; 3) the ratio of estimated area affected by potential flooding to the total area; 4)The sediment-related disaster risk area divided by the total area; 5)the ratio of total number of building fire outbreaks to the daytime population (000s) of the target city or ward.
		46	<b>Vacancy Rate</b>	The total number of vacant residential units divided by the total number of residential units in the target city or ward.
	Health and Medical Care	47	<b>Number of Doctors</b>	The total number of doctors employed at medical facilities divided by the daytime population (000s) of the target city or ward.
		48	<b>Number of Hospitals, Clinics and Hospital Beds</b>	Calculated based on the indexed value of the total number of hospitals, general medical clinics, and hospital beds, divided by the daytime population (per million people) in the target city or ward.
		49	<b>Life Expectancy and Healthy Life Expectancy Rate</b>	Calculated based on the following criteria: (1) life expectancy for the target city or ward; (2) healthy life expectancy for the target city or ward. As this data is taken from the prefectural level, (2) is weighted at half of (1).
	Childcare and Education	50	<b>Total Fertility Rate</b>	The total fertility rate (Bayes estimate) for the target city or ward.
		51	<b>Availability of Daycare Services</b>	The ratio of the number of daycare applicants aged 0-2 years to the total capacity in the target city or ward.
		52	<b>Assistance for Children's Medical Costs</b>	The total points awarded for medical costs of a "visit" and "hospitalization" based on age categories (before entering school: 1 point; up to 7-9 years old: 2 points; up to 12 years old: 3 points; up to 15 years old: 4 points; up to 18 years old: 5 points) in the target city or ward, as well as the total points awarded based on income restrictions or partial self-payment requirements (1 point given if none exist. 0.5 points given if there is no fee for either walk-in or inpatients ).
		53	<b>Variety of Educational Opportunities</b>	Calculated based on the following criteria: (1) number of "free schools," and (2) number of high schools with deviations of 65 or more.
	Civil Life and Welfare	54	<b>Ease of Integration for Foreign Residents</b>	The indexed value of points awarded for policies or initiatives related to easing the integration of foreign residents. The 13 policy categories are based on those found in a 2019 Nikkei Newspaper study. Points awarded as follows: 1 point for categories with policies already implemented; 0.5 points for categories with policies under consideration; 0 points for categories with no policies or no response. For cities not covered in the report, their municipal administrative bodies were consulted.
		55	<b>Number of Elderly Requiring Assistance or Care</b>	The number of people aged 65 and above requiring primary nursing care, divided by the total population aged 65 and above in the target city or ward. Saga City and Kumagaya City used local municipality data. The cities of Toyohashi, Toyokawa and Suzuka made estimates.
		56	<b>Number of People Using Independent Living Assistance Services</b>	The number of independent living assistance users divided by the total population (per 10,000 people).
		57	<b>Level of Online Municipal Promotion</b>	The amount of resident services available online and the measures taken by local governments to promote their use.
	Living Environment	58	<b>Satisfaction with Living Environment</b>	Based on responses from a resident questionnaire regarding the level of satisfaction with their living environment (including disaster prevention, crime, convenience, etc.).
		59	<b>Volume of New Housing Supply</b>	The average value of the total floor area of residential housing for the past three years divided by the nighttime population (per 10,000 people.)
		60	<b>Size of Residences</b>	The gross floor area per residence in the target city or ward.
		61	<b>Ratio of Barrier-free Homes</b>	The number of barrier-free households in which a family member aged 65 and above resides divided by the number of households in which a family member aged 65 or over resides in the target city or ward.
	Living Facilities	62	<b>Density of Retail Businesses</b>	The number of retail businesses (small goods; textiles, clothing, personal effects; food and drink; mechanical parts; and other small retail shops) divided by the total land area in use for the target city or ward.
		63	<b>Density of Restaurants</b>	The total number of food and drink establishments as well as take-out and delivery services divided by the total area in use of the target city or ward.
		64	<b>Density of Convenience Stores</b>	The total number of convenience stores divided by the total area in use of the target city or ward.
	Lifestyle Affluence	65	<b>Disposable Income</b>	The total monthly disposable income (income after expenses) in a household with 2 or more members within the target city or ward. For Tokyo's 23 wards, estimates were made using "taxable income" and "number of households."
		66	<b>Price Level</b>	The total indexed value of the regional differentiation in price level (where that national level = 100), excluding rent. For cities not hosting a prefectural office, or not defined as ordinance-designated cities, data was unavailable and thus taken from prefectural sources.
		67	<b>Cost of Housing</b>	The total cost of homeownership-related expenses and rental expenses (for those not owning a home) for an occupied dwelling. For Tokyo's 23 wards, estimates were made based on the following two data points: (1) the value of "housing costs" and the "imputed rent for owner-occupied dwellings" in Yokohama and the average values of the two costs in the 23 wards of Tokyo, and (2) the housing rental rates in each of Tokyo's special wards and Yokohama as listed on a representative rental real estate site (for a standard 2LDK.)



Function	Indicator Group	No.	Indicator names	Definitions	
Environment	Environmental Performance	68	<b>Percentage of Waste Recycled</b>	The percentage of waste recycled in the target city or ward. For Tokyo's 23 wards, the average value of special wards of Tokyo is applied.	
		69	<b>CO<sub>2</sub> Emissions per Daytime Population</b>	The total estimated amount of CO <sub>2</sub> emissions in the target city or ward divided by daytime population.	
		70	<b>Rate of Self-Sufficient Renewable Energy</b>	The rate of self-sufficient renewable energy use (electric and thermal) in the target city or ward. For the generation of solar, commercial, geothermal, small hydro, and biomass power; biomass heating, solar heat utilization, and geothermal utilization.	
	Natural Environment	71 Q	<b>Satisfaction with Natural Environment</b>	Based on responses from a resident questionnaire regarding the level of satisfaction with the natural environment (mountains, forests, ocean, rivers, green parks, roadside trees etc.) in the target city or ward.	
		72	<b>Green Coverage Ratio in Urban Areas</b>	The total area of green coverage (including rice fields, agricultural fields, forests, vacant land, parks, green tracts, golf courses) divided by the total area of the target city or ward. The total area of the target city or ward is defined as the "urban area", taken from the 5-types of planning areas delineated by the national government.	
		73	<b>Waterfront Areas</b>	The estimated total area of waterfronts divided by the total area of the target city or ward. The estimate is based on the following rules: (1) For areas with polygonal water features (mostly ocean), the area is calculated within a 100m radius from shore; (2) for areas with line-based water features (mostly rivers), the length of line-data within a 100m radius of the shore is calculated and a width of 10m is used to attain the applicable area. (Depending on the data acquisition criteria used, the numerical value of the water area may be 0.)	
	Comfortability	74	<b>Annual Sunshine Hours</b>	The total number of sunshine hours in a one-year period for the target city or ward.	
		75	<b>Number of Comfortable Temperature / Humidity Days</b>	The number of days in a calendar year with a discomfort index score between 60-75 according to the observation point nearest to the target city or ward's primary local government office. The discomfort index is calculated using the average daily temperature as well as the average daily humidity. The discomfort index (DI) is drawn from the following equation: $DI=0.81T(\text{temperature})+0.01H(\text{humidity})\times(0.99T-14.3)+46.3$	
		76	<b>Air Quality</b>	The indexed value of the average daily concentration of Nitrous Oxide and PM <sub>2.5</sub> in the air for the target city or ward.	
		77 Q	<b>Cleanliness of Streets</b>	Based on responses from a resident questionnaire asking if the outdoor spaces and streets in their city were kept clean as compared to other cities.	
	Accessibility	Inner-City Transport	78 Q	<b>Convenience of Public Transport</b>	Based on responses from a resident questionnaire regarding the level of satisfaction with public transport (railroad and bus operations, facilities & equipment, service etc.) in the target city or ward.
			79	<b>Density of Train Stations and Bus Stops</b>	The indexed value of the number of rail and bus stations divided by the total area as defined by city planning in the target city or ward. The number of train stations counted by line.
80			<b>Frequency of Traffic Congestion</b>	The average daytime speed of traffic over a 12-hour period on roads (excluding automobile-exclusive roads) traveling out from, and into, the center of the target city or ward.	
City Accessibility		81	<b>Travel Time to Airports</b>	The average travel time from the target city ward office to airports reachable within two hours. Average travel time was calculated using the following two data points: (1) the shortest access time from each city ward office to the nearest airports as calculated by Google Maps (with a 10am arrival on weekdays, when traveling by car), and (2) the number of passengers per year by airports (total of domestic and international flights.) The average time required for each destination city was calculated based on the number of passengers and the time required at each airport.	
		82	<b>Ease of Access to Shinkansen</b>	Calculated based on the following criteria: 1) for cities with Shinkansen stations, the total number of passengers using Shinkansen stations (including Yamagata and Akita Shinkansen lines). For cities without Shinkansen stations, the total number of passengers at the Shinkansen station nearest to the target city's biggest (by passenger volume) train station; and 2) for cities with no Shinkansen station, the total travel time from the target city's central station (station with highest passenger volume) to the nearest Shinkansen station (arriving at 10:00am on a weekday by train). For cities with Shinkansen stations, the travel time is set at 0. Data is not recorded for cities from which it would not be possible to reach the Shinkansen station by 10:00am. For stations not recording passenger numbers, additional data was collected.	
		83	<b>Number of Interchanges</b>	The number of general interchanges as well as "smart interchanges".	
Ease of Mobility		84	<b>City Compactness</b>	The concentration of population divided by the nighttime population expressed as a ratio. The concentration of population is determined by (1) joining the districts within the city or ward that show densities above 4,000 people / km <sup>2</sup> , and (2) selecting those adjoined districts that possess populations above 5,000 people according to the national census.	
		85	<b>Commuting Time</b>	The median value for the commuting time of a household's primary supporter in the target city or ward.	
		86 Q	<b>Ease of Use of Bicycles</b>	The number of bicycle ports with the highest number of registered users of bicycle sharing schemes Navitime or RYDE CYCLE, and the percentage residents who answered bicycle in response to a survey asking their primary means of commuting to work or school since the beginning of the coronavirus pandemic.	

Q: Indicators Q using questionnaires



# Japan Power Cities

## – Profiling Urban Attractiveness –

---

Published in January, 2023

Edited by

**Institute for Urban Strategies, The Mori Memorial Foundation**

Designed by Mitsumura Printing Co., Ltd.

Translated by: Isabelle Ward

---

For more information on this report

[iusall@mori-m-foundation.or.jp](mailto:iusall@mori-m-foundation.or.jp)

Institute for Urban Strategies, The Mori Memorial Foundation

Toranomon 37 Mori Building, Toranomon 3-5-1

Minato-ku, Tokyo, Japan 105-0001

TEL: +81-(0)3-6406-6800

[www.mori-m-foundation.or.jp](http://www.mori-m-foundation.or.jp)

© 2022 The Mori Memorial Foundation

This content is for general information purposes only.

Unauthorized reproduction of this document is forbidden.



J a p a n

P o w e r

C i t i e s

Profiling Urban Attractiveness