Concentration of Tourism in Ishikawa Prefecture

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1. Introduction

Japan has promoted tourism policies for both Japanese citizens and foreign visitors. However, many people still remember the negative impacts of COVID-19, which began to affect the country around the winter of 2020. With the gradual lifting of various COVID-19 starting in spring of 2023, people have begun to re-engage in sightseeing. The level of sightseeing among Japanese people has generally recovered to pre-COVID levels and foreigners have also begun to return to visit Japan. This trend is evident in many regions, including Ishikawa Prefecture. In 2023, the number of visitors to Ishikawa Prefecture reached the levels seen in 2014, approximately 1.75 times the number in 2021; however, it has not yet reached the peak seen in 2015, which had the highest number of visitors.

On the other hand, before 2019, some domestic sightseeing locations and destinations in Japan face experienced a major issue known as "overtourism." Accordingly, some regions have already implemented policies aimed at addressing this issue. Whether a situation is recognized as overtourism can vary depending on the specific spot or area, even if the degree of congestion appears similar. Additionally, even if a tourist spot or facility is identified as experiencing overtourism, this may not be the case for the whole region, such as at the municipality level. Therefore, it is essential to analyze whether overtourism is perceived not only at individual facilities but also across whole regions for comprehensive regional tourism analysis.

Regarding macro measures, the introduction of "an accommodation tax" or a similar "charge" may be a suitable region-wide policy to avoid overtourism. In fact, these types of policies have been introduced in some cities and prefectures with high numbers of tourist attractions and visitors. Additionally, regions have gradually adopted entrance restrictions.

Despite the need to promote sightseeing locations to ensure recovery post-COVID, such approach may not be sustainable if overtourism becomes a major problem again. Therefore, it is crucial to consider various strategies to address this challenge. This report, grounded in objective perspectives, analyzes whether a continuous state of overtourism is currently observed or may arise in the region as a whole.

Ishikawa Prefecture is used as a case study, with an analysis of the relationships among the regional accommodation capacity, number of visitors, monthly balance of visitors, and other relevant factors.

2. Tourism in Ishikawa Prefecture

This report first analyzes the current state of tourism in Ishikawa Prefecture. According to the Japan Tourism Agency (2011-2024), Ishikawa Prefecture's share of the total number of hotel guests in the country was 1.59% (ranking 21st among all prefectures) in 2014, the year before the Hokuriku Shinkansen Bullet Train opened to Kanazawa. Furthermore, this share was 1.54% (ranking 18th) in 2019, the year before the spread of COVID-19, and 1.47% (ranking 18th) in 2023, the latest year for which data are available (Table. 1). In terms of Japanese and foreign visitors, the number of foreign visitors slightly exceeds that of Japanese across the prefecture overall.

If a region or an area is at risk of overtourism based on macro-level data, various policies should be introduced to avoid or address this. Therefore, an objective analysis of both hotel guests and day trippers is necessary. Ishikawa Prefecture is divided into four areas—Kanazawa, Kaga, Hakusan, and Noto—and the features of each were examined from 2004 through 2022 based on statistical documents.

The changes in the number of the visitors in Ishikawa Prefecture and its four areas are depicted in Figure. 1. The total number of visitors exceeded 25 million in 2015, following the opening of Hokuriku Shinkansen to Kanazawa, and this decreased to 10 million in 2020 after the outbreak of COVID-19. Of the four areas, Kanazawa consistently attracted the most visitors, followed by Noto, Kaga, and Hakusan.

As indicated in Figure. 2, the trends for hotel guests are similar to those of visitors. Specifically,

over 8 million hotel guests were recorded in Ishikawa Prefecture in 2015, but this number decreased to nearly half in 2020. However, by 2023, the numbers recovered to the levels seen in 2014.

In 2014, with a total of 21.61 million visitors, overtourism was not observed in any month. The highest number of visitors was recorded for August, with 2.55 million, followed by May with 2.41 million visitors. This indicates that visitor numbers peak in late spring and summer. December and February recorded the lowest number of visitors, with 1.24 and 1.26 million, respectively, indicating fewer visitors in winter. After the Hokuriku Shinkansen to Kanazawa opened, visitor numbers increased. In 2019, the highest number of visitors were recorded in May and August, with 3.28 and 2.74 million, respectively. Conversely, January, February, and December saw the lowest number of visitors, with 1.49, 1.55 and 1.55 million in January, February and December, respectively, reflecting the winter season. The lowest annual number of visitors (12.31 million) was recorded in 2021 which was during the pandemic, with November being the peak month of that year at 1.66 million.

As previously mentioned, August 2014 had the highest number of visitors. Table. 2 lists the months from 2015 through 2022 that surpassed the August 2014 visitor numbers. A total of 10 months exceeded this figure, including every May and August from 2015

 Table. 1 Ishikawa Prefecture's Overall Share of Hotel Guests

	2014			2019			2023 (preliminary figures)		
	Hotel Guest	Share	Rank	Hotel Guest	Share	Rank	Hotel Guest	Share	Rank
Japanese	7,194,880	1.68%	21	8,215,930	1.71%	19	7,655,250	1.60%	18
Foreigners	348,290	0.78%	19	984,720	0.85%	17	1,034,510	0.90%	15
Total	7,543,170	1.59%	21	9,200,650	1.54%	18	8,689,760	1.47%	18

Source: [3] Japan Tourism Agency (2014-2023).



Figure. 1 Number of Visitors to Ishikawa Prefecture

Source: [1] Ishikawa Prefectural Government (2005-2012), [2] Ishikawa Prefectural Government (2013-2023)



Figure. 2 Number of Hotel Guests in Ishikawa Prefecture

Table. 2 Proportion of Visitors Each Month from 2014 to 2022 Compared with August 2014 in Ishikawa Prefecture

	Ishikawa Prefecture										
	2014	2015	2016	2017	2018	2019	2020	2021	2022		
January	0.54356	0.53022	0.60361	0.60126	0.55298	0.58595	0.59498	0.27512	0.41444		
February	0.49333	0.50039	0.57575	0.52355	0.51648	0.60793	0.54396	0.26099	0.25628		
March	0.53846	0.64953	0.67739	0.68524	0.67504	0.66091	0.39364	0.42779	0.41797		
April	0.68681	0.79474	0.77904	0.81986	0.78571	0.85086	0.16994	0.38305	0.58870		
May	0.94623	1.23783	1.12284	1.19937	1.15424	1.28885	0.12049	0.30926	0.85871		
June	0.93485	0.91915	0.87284	0.85518	0.90267	0.89678	0.25628	0.25510	0.68642		
July	0.65031	0.76256	0.80181	0.79827	0.73038	0.71586	0.39403	0.42936	0.57496		
August	1.00000	1.16719	1.08870	1.12127	1.12951	1.07496	0.55377	0.42739	0.74215		
September	0.74725	0.95016	0.83477	0.81515	0.88815	0.87991	0.47881	0.33870	0.60871		
October	0.76962	0.93917	0.97174	0.98980	0.98862	0.79003	0.56279	0.57653	0.71546		
November	0.68564	0.82261	0.77002	0.76923	0.84144	0.81279	0.69309	0.65306	0.76531		
December	0.48469	0.54631	0.55102	0.53689	0.61303	0.60793	0.43995	0.49411	0.53454		

Source: [1] Ishikawa Prefectural Government (2005-2012), [2] Ishikawa Prefectural Government (2013-2023)

Source: [1] Ishikawa Prefectural Government (2005-2012), [2] Ishikawa Prefectural Government (2013-2023)

through 2019. This indicates that out of a total of 60 months, only 10 surpassed the highest number of visitors recorded in 2014. Overall, Ishikawa Prefecture did not experience sustained overtourism in any single month. Furthermore, despite brief occurrences of overtourism in certain areas, this was not an ongoing issue across the prefecture.

In light of such information, areas and regions should consider positive and negative findings and consider these when developing relevant policies regarding overtourism. The extension of the Hokuriku Shinkansen from Kanazawa to Tsuruga in March 2024 may encourage people living in other areas to visit Ishikawa and Fukui Prefectures for sightseeing. Accordingly, to avoid possible problems including overtourism in the near future when an increase of the number of the visitors is anticipated, previous conditions and situations should be considered when developing practical policies.

3. Seasonal Balance of Visitors

In a region, while the capacity of facilities such as hotels and sightseeing-related institutions is limited, maximizing the visitor numbers is generally favorable from an economic perspective. In addition, considering the cost efficiency of the facilities, maintaining a stable seasonal or annual balances is recommended. In terms of sightseeing policies for a region, solving such problems and promoting economic effects and efficiency are both important. However, a recognized challenge in the tourism industry is the significant fluctuations in seasonal demand.

On the other hand, as long as issues arising due to major events are relatively short lived, local inhabitants may be more accepting of such conditions. However, when the burden to daily life is constant, inhabitants may perceive this as overtourism and refuse to accept further visitors or tourists. Separating these issues is a major problem; hence, determining how such a balance changes is important in terms of whether overtourism is increasing in a region.

Therefore, this study applies the concept of the "GINI coefficient," typically used to measure income distribution, to evaluate seasonal balance in tourism across different years. Specifically, it considers the seasonal balance of hotel guests and day trippers per month each. This index is termed the "Seasonal Balance Index (SBI)." An increase in the SBI indicates worsening seasonal balance and a higher likelihood of overtourism.

Lorenz Curves based on the number of visitors in the four areas were created for 2014 and 2019. The results of the analysis are depicted in Figures. 3 through 6.

First, in the Kanazawa area, the number of visitors in 2019 increased by approximately 26.5% compared to 2014 (8.44 and 10.68 million in 2014 and 2019, respectively). The SBI in 2019 was lower than that in 2014 (0.133 and 0.152, respectively). Next, in the Kaga area, the number of visitors in 2019 increased by approximately 4.4% compared to 2014 (5.34 and 5.58 million in 2014 and 2019, respectively). The SBI in 2019 was higher than that in 2014 (0.218 and 0.173, respectively). Third, in the Hakusan area, the number of visitors in 2019 increased by approximately 8.4% compared to 2014 (0.89 and 0.97 million in 2014 and 2019, respectively). The SBI in 2019 was a little lower than in 2014 (0.189 and 0.196, respectively). Fourth, in the Noto area, the number of visitors in 2019 increased by approximately 10.8% compared to 2014 (6.93 and

7.68 million in 2014 and 2019, respectively). The SBI in 2019 was lower than in 2014 (0.149 and 0.167, respectively).

As previously mentioned, the number of visitors exceeded that of August 2014 in 10 months over the entire study period (see Tables. 3 through 6).

In 2014, the number of visitors to the Kanazawa area was the highest in June. Setting this as the base number and comparing it with other months from 2015 to 2019, those for June in 2015 to 2019 and April in 2019 (total 6 months) exceeded that of June in 2014. In 2014, the number of visitors to the Kaga area was the highest in May. Setting this as the base number and comparing it with other months from 2015 to 2019, each May in 2015 to 2019 (totally 5 months) exceeded the base number. In 2014, the number of visitors to the Hakusan area was the highest in October. Setting this as the base number and comparing it with other months from 2015 to 2019, each October in 2015 to 2018 and each August in 2017 to 2019 (total 7 months) exceeded the base number. In 2014, the number of visitors to the Noto area was the highest in August. Setting this as the base number and comparing it with other months from 2015 to 2019, each August in 2015





Source: [2] Ishikawa Prefectural Government (2013-2023)

to 2019 (total 5 months) exceeded the base number.

The changes in the number of visitors and SBI from 2014 to 2019 in the four areas and Ishikawa Prefecture are depicted in Figures. 7 through 11. To avoid effects of COVID-19, years were analyzed in chronological order. The number of visitors tended to increase in the four areas on the whole even if there were some fluctuations, but the SBI gradually decreased, stabilized, or increased with some fluctuations in both the areas and years. Therefore, overtourism may have occurred in specific areas and times only for a short period. However, considering a macro viewpoint on each area, we can assume that severe overtourism did not occur for any significant length of time in the four areas. Overall, the situation was similar in Ishikawa Prefecture as a whole. Accordingly, the analysis focusing on 2015 to 2019 revealed the following key findings.

> In the Kanazawa area, the number of visitors tended to increase and the SBI was relatively stable except for 2015. These trends should be maintained; however, because the various capacity levels of the area were the tightest among the four areas, concrete policies should

Figure. 4 Lorenz Curve in Kaga Area



Source: [2] Ishikawa Prefectural Government (2013-2023)

Figure. 5 Lorenz Curve in Hakusan Area



Source: [2] Ishikawa Prefectural Government (2013-2023)

Figure. 6 Lorenz Curve in Noto Area



Source: [2] Ishikawa Prefectural Government (2013-2023)

Table. 3 Proportion of Each Month from 2014 to 2022 Compared with June in 2014 in Kanazawa Area

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	Kanazawa Area										
	2014	2015	2016	2017	2018	2019	2020	2021	2022		
January	0.40885	0.38715	0.50260	0.50000	0.45226	0.48872	0.50260	0.20139	0.35938		
February	0.49826	0.46701	0.56076	0.51563	0.53299	0.61806	0.56597	0.26649	0.28906		
March	0.48003	0.63802	0.66059	0.67014	0.64236	0.65191	0.37934	0.47309	0.45139		
April	0.78559	0.93663	0.91146	0.99306	0.88021	1.00521	0.15799	0.37760	0.70573		
May	0.74653	0.93924	0.90191	0.90625	0.85243	0.91580	0.09549	0.26128	0.68229		
June	1.00000	1.11024	1.05816	1.01128	1.08941	1.14497	0.20833	0.23351	0.89497		
July	0.50955	0.59288	0.66927	0.66233	0.57813	0.59809	0.30903	0.38108	0.51910		
August	0.74740	0.90191	0.82639	0.83681	0.90625	0.88281	0.39236	0.29861	0.69705		
September	0.57899	0.76476	0.74566	0.69444	0.76389	0.72483	0.42101	0.26476	0.60677		
October	0.59462	0.75521	0.91753	0.88281	0.91580	0.78038	0.51476	0.50434	0.75955		
November	0.58160	0.73872	0.70573	0.69531	0.80469	0.82031	0.73351	0.68663	0.89149		
December	0.39583	0.50521	0.51042	0.50434	0.64931	0.63628	0.47049	0.55382	0.64149		

Source: [1] Ishikawa Prefectural Government (2005-2012), [2] Ishikawa Prefectural Government (2013-2023)

Table. 4 Proportion of Visitors Each Month from 2014 to 2022 Compared with May 2014 in the Kaga Area

	Kaga Area										
	2014	2015	2016	2017	2018	2019	2020	2021	2022		
January	0.47170	0.46880	0.50508	0.50508	0.45718	0.47025	0.49637	0.16691	0.28302		
February	0.43251	0.46009	0.48766	0.46299	0.39042	0.44122	0.42961	0.16691	0.15239		
March	0.53266	0.56459	0.58926	0.62554	0.59652	0.56168	0.32366	0.30044	0.28592		
April	0.44267	0.53991	0.55007	0.60232	0.58926	0.57184	0.12627	0.26996	0.36430		
May	1.00000	1.51524	1.23077	1.56459	1.49927	1.77649	0.11321	0.23222	0.91147		
June	0.94630	0.52685	0.51814	0.53556	0.52685	0.48766	0.18723	0.18287	0.32801		
July	0.47605	0.52250	0.56749	0.52975	0.54717	0.51089	0.30914	0.29173	0.35123		
August	0.79245	0.85051	0.83890	0.81858	0.79536	0.75181	0.42235	0.35704	0.51524		
September	0.82438	0.93033	0.78229	0.63280	0.87518	0.89985	0.34253	0.21916	0.42380		
October	0.78665	0.89550	0.87518	0.87808	0.94920	0.52685	0.40058	0.43251	0.45428		
November	0.60813	0.66618	0.66328	0.64151	0.66473	0.60522	0.50798	0.45138	0.48186		
December	0.44122	0.48911	0.48911	0.46880	0.49782	0.48911	0.32801	0.36575	0.41219		

Source: [1] Ishikawa Prefectural Government (2005-2012), [2] Ishikawa Prefectural Government (2013-2023)

be considered and promptly implemented.

- 2) In the Kaga area, although the number of visitors did not change considerably over the period, the SBI tended to increase except in 2016; therefore, some small areas in the Kaga area may have experienced overtourism. To avoid the state of overtourism, some policies may need to be introduced and dispersion of demand in terms of both seasons and sightseeing locations considered.
- 3) In the Hakusan area, the slight increase in the number of visitors except for 2016 and the SBI, the seasonal balance of visitors needs to be considered.
- 4) In the Noto area, the number of visitors displayed little change except 2014, 2015 and 2016, and the SBI has tended to fluctuate. Therefore, how to increase the number of visitors and how to keep the SBI level need to be considered.

Table. 5 Proportion of Visitors Each Month from 2014 to 2022 Compared with October 2014 in the Hakusan Area

	Hakusan Area											
	2014	2015	2016	2017	2018	2019	2020	2021	2022			
January	0.95041	0.88430	0.81818	0.80992	0.79339	0.85124	0.80165	0.66116	0.58678			
February	0.47107	0.44628	0.47107	0.38843	0.29752	0.48760	0.38017	0.43802	0.33058			
March	0.39669	0.37190	0.37190	0.44628	0.44628	0.34711	0.31405	0.36364	0.34711			
April	0.41322	0.49587	0.44628	0.46281	0.47107	0.56198	0.25620	0.49587	0.43802			
May	0.63636	0.77686	0.66942	0.73554	0.52893	0.70248	0.25620	0.45455	0.60331			
June	0.47934	0.42149	0.48760	0.60331	0.52066	0.47107	0.38843	0.38843	0.50413			
July	0.68595	0.71901	0.76033	0.76033	0.79339	0.67769	0.38843	0.53719	0.63636			
August	0.79339	0.92562	0.90083	1.19835	1.04959	1.05785	0.76033	0.54545	0.55372			
September	0.70248	0.70248	0.60331	0.75207	0.73554	0.74380	0.64463	0.56198	0.52066			
October	1.00000	1.12397	1.02479	1.00826	1.09091	0.93388	0.64463	0.80992	0.85950			
November	0.56198	0.63636	0.54545	0.60331	0.77686	0.82645	0.56198	0.61983	0.73554			
December	0.28926	0.30579	0.30579	0.33058	0.32231	0.33884	0.41322	0.31405	0.27273			

Source: [1] Ishikawa Prefectural Government (2005-2012), [2] Ishikawa Prefectural Government (2013-2023)

Table. 6 Proportion of Visitors Each Month from 2014 to 2022 Compared with August 2014 in the Noto Area

	Noto Area									
	2014	2015	2016	2017	2018	2019	2020	2021	2022	
January	0.45359	0.45455	0.48995	0.48804	0.45646	0.48134	0.47656	0.26220	0.35981	
February	0.31388	0.35024	0.40957	0.35789	0.37990	0.45359	0.37512	0.18182	0.16746	
March	0.38660	0.46507	0.49187	0.46794	0.49282	0.48230	0.29187	0.28134	0.29282	
April	0.46890	0.49187	0.48038	0.45359	0.50239	0.52440	0.12727	0.28230	0.36651	
May	0.75120	0.89378	0.85455	0.80861	0.82488	0.88038	0.08421	0.26029	0.67081	
June	0.49761	0.62105	0.56364	0.54737	0.59234	0.54833	0.22679	0.19904	0.41244	
July	0.63062	0.77799	0.75502	0.77895	0.69091	0.67081	0.37129	0.37225	0.52440	
August	1.00000	1.18373	1.08612	1.13301	1.10909	1.02967	0.55120	0.41435	0.63732	
September	0.55885	0.77895	0.62775	0.71770	0.66124	0.66699	0.40287	0.32440	0.47560	
October	0.58660	0.73684	0.66220	0.74450	0.64880	0.61053	0.46603	0.47081	0.50813	
November	0.56459	0.67847	0.59904	0.61627	0.63636	0.58278	0.48134	0.46603	0.48038	
December	0.42105	0.41722	0.42297	0.40574	0.41340	0.41914	0.28995	0.31675	0.29282	

Source: [1] Ishikawa Prefectural Government (2005-2012), [2] Ishikawa Prefectural Government (2013-2023)



Figure. 7 Number of Visitors & SBI in the Kanazawa Area

Source: [2] Ishikawa Prefectural Government (2013-2023)



Figure. 8 Number of Visitors & SBI in the Kaga Area

Source: [2] Ishikawa Prefectural Government (2013-2023)



Figure. 9 Number of Visitors & SBI in the Hakusan Area

Source: [2] Ishikawa Prefectural Government (2013-2023)





Source: [2] Ishikawa Prefectural Government (2013-2023)



Figure. 11 Number of Visitors & SBI in Ishikawa Prefecture

Source: [2] Ishikawa Prefectural Government (2013-2023)

Regarding tourism policy following the COVID-19 pandemic, various efforts are being made to prevent overtourism. Generally, these include promotion of better transportation systems and dispersion of tourism demand (e.g., decentralization of time, seasons, and places). In addition, monitoring the number of visitors may ensure overtourism does not occur.

4. Conclusion

This report examined the relationships between visitor numbers and tourism-related factors in four areas of Ishikawa Prefecture from 2014 to 2019 or 2022. The results revealed that the Kanazawa area experienced higher numbers of both hotel guests and day trippers compared to the other areas. This suggests that overtourism could become a significant issue in in Kanazawa in the near future, particularly given the limited number of tourism-related facilities such as accommodations. The other three areas also have some issues to solve. Based on the results, in terms of avoiding issues in the future, each area in Ishikawa Prefecture should have its own policy to avoid the problems created by tourism-related issues.

Additionally, considering the opening of the Hokuriku Shinkansen from Kanazawa to Tsuruga, the possibility of overtourism may continue to increase even if such levels are different in each area; therefore, prompt implementation of countermeasures is important.

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