

2015 Inter-Regional Travel Survey in Japan



Introduction

The 2015 Inter-regional Travel Survey is a survey that was conducted in effort to creating a database that records the inter-regional movement of passengers in Japan. This survey integrates statistical data obtained through surveys conducted for each transportation mode (basic statistics). It provides an overall picture of the traveling public's use of the transportation mode from the origin to the destination, including transfers. The basic statistics are based on sample surveys conducted on passengers using five inter-regional transportation modes (air, rail, sea, bus, and car), which adopted choice-based sampling rather than home-based sampling.

The "Inter-regional Travel Survey in Japan" was first conducted in 1990, then again in 1995, in 2000, in 2005, in 2010, and for a sixth time in 2015.

The inter-regional travel data has been used for determining and analyzing the actual situation in the movement of passengers, demand models, demand forecasts, and cost evaluations in various organizations including government agencies, local government entities, and research organizations.

This brochure introduces the 2015 Inter-regional Travel Survey conducted in Japan. It aims to present the current situation of inter-regional travel in Japan and provide a reference for similar surveys that may be conducted in other countries.

I. Outline of the 2015 Inter-regional Travel Survey

Objectives	To characterize the movement of passengers using the inter-regional transportation mode in Japan and to provide a database for purposes such as determining transport policies and transportation mode improvement plans.																												
Implementing Institution	Ministry of Land, Infrastructure, Transport and Tourism																												
Coverage	All of Japan																												
Target	Passengers using inter-regional transportation modes																												
Description	Integrated statistics derived from basic statistics obtained through separate sample surveys taken for five inter-regional modes (air, rail, sea, bus, and car)																												
Data Processing Method	Combination of basic statistics for each inter-regional transportation mode using expansion and integration processes. Expansion: Estimate traffic by one-day survey sample taken on a weekday / a holiday, and one-day / annual aggregate transportation statistics for each transport mode. Integration process: Process for filtering the double-counting of passengers transferring to the same or another transport mode.																												
Sample Size	<p style="text-align: right;">(Thousands)</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">Weekday</th> <th style="text-align: center;">Holiday</th> <th style="text-align: center;">Total</th> </tr> </thead> <tbody> <tr> <td>Air</td> <td style="text-align: center;">166</td> <td style="text-align: center;">211</td> <td style="text-align: center;">377</td> </tr> <tr> <td>Rail</td> <td style="text-align: center;">58</td> <td style="text-align: center;">70</td> <td style="text-align: center;">128</td> </tr> <tr> <td>Sea</td> <td style="text-align: center;">5</td> <td style="text-align: center;">7</td> <td style="text-align: center;">12</td> </tr> <tr> <td>Bus</td> <td style="text-align: center;">29</td> <td style="text-align: center;">43</td> <td style="text-align: center;">72</td> </tr> <tr> <td>Car</td> <td style="text-align: center;">700</td> <td style="text-align: center;">1,310</td> <td style="text-align: center;">2,010</td> </tr> <tr> <td>Total</td> <td style="text-align: center;">958</td> <td style="text-align: center;">1,641</td> <td style="text-align: center;">2,599</td> </tr> </tbody> </table> <p>Note: The sample size used in this survey may vary from the sample size on which the basic statistics are based.</p>		Weekday	Holiday	Total	Air	166	211	377	Rail	58	70	128	Sea	5	7	12	Bus	29	43	72	Car	700	1,310	2,010	Total	958	1,641	2,599
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Cycle	Conducted every five years This is the sixth in the series of surveys taken since 1990.																												
Period	Two days including one weekday and one holiday (Sunday) in fall. Note: The first ~ third surveys were taken only on one weekday in fall. The fourth survey was taken on one weekday and one holiday in fall. The fifth survey was taken on one weekday and one holiday in winter.																												
Survey Items	Origin, destination, purpose of travel, itinerary, route, inter-regional transportation mode transfers, access/egress mode, number of companions, gender, age, and place of residence																												
Database Use	Purposes such as determining and analyzing the actual status of passenger movement, demand models, demand forecasts, transportation cost evaluations, etc. in various organizations including government agencies, local government entities, and research organizations																												

II. Scope of the 2015 Inter-Regional Travel Survey

The 2015 Inter-Regional Travel Survey targets the inter-regional movement of domestic passengers in the following categories.

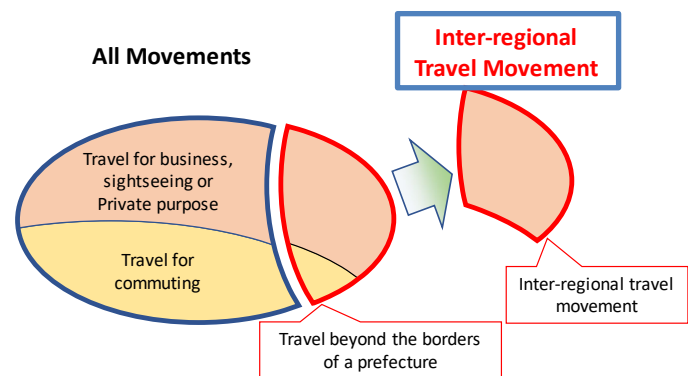
- (1) **The movement of passengers who use inter-regional transportation modes like airlines, inter-city high-speed rail services such as the Shinkansen, and long-distance buses, and so on.**

“Inter-regional transportation mode” refers to the transportation mode used for travel beyond the borders of prefectures, such as:

- Air** : Domestic scheduled airline services
- Rail** : Shinkansen (bullet train), JR limited express train, and some private long-distance rail services
- Sea** : Sea lines including ferries
- Bus** : Inter-city buses and long-distance buses
- Car** : Private cars, taxi, etc.

- (2) **Movement from actual origin to destination**

“Inter-regional travel” refers to movement from the actual origin to a destination without taking into account any intermediate stop.

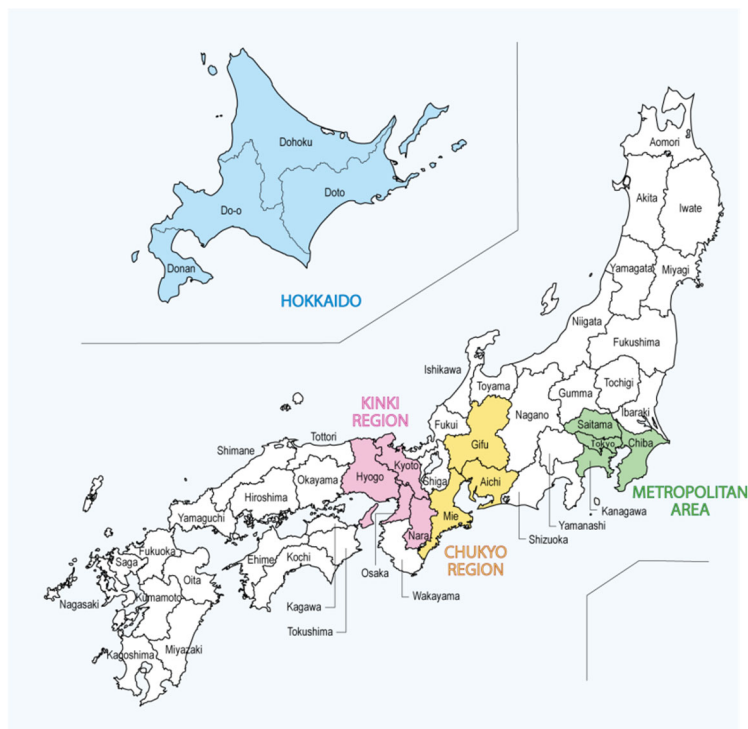


- (3) **Travel for purposes other than commuting**

Travel for commuting is excluded, the major purposes for travel are business trip, sightseeing, or private and homecoming.

- (4) **Travel of passengers beyond the borders of prefectures**

Inter-regional travel refers to travel beyond the borders of prefectures. Travels within a major city area (Tokyo metropolitan area, Chukyo region, and Kinki region) are regarded as day-to-day travel within a prefecture and is thus excluded from the survey. In addition, Hokkaido is divided 4 areas.



Inter-prefectural zones that are not based on prefectural boundaries

- HOKKAIDO:
 - Dohoku, Doto, Do-o, Donan
- METROPOLITAN AREA:
 - Tokyo, Kanagawa, Chiba, Saitama
- CHUKYO REGION:
 - Aichi, Gifu, Mie
- KINKI REGION:
 - Osaka, Kyoto, Hyogo, Nara

III. Procedure for producing inter-regional travel data

The 2015 Inter-regional Travel Survey was optimized through augmentation and integration processes using the following five types of data as the basic statistics.

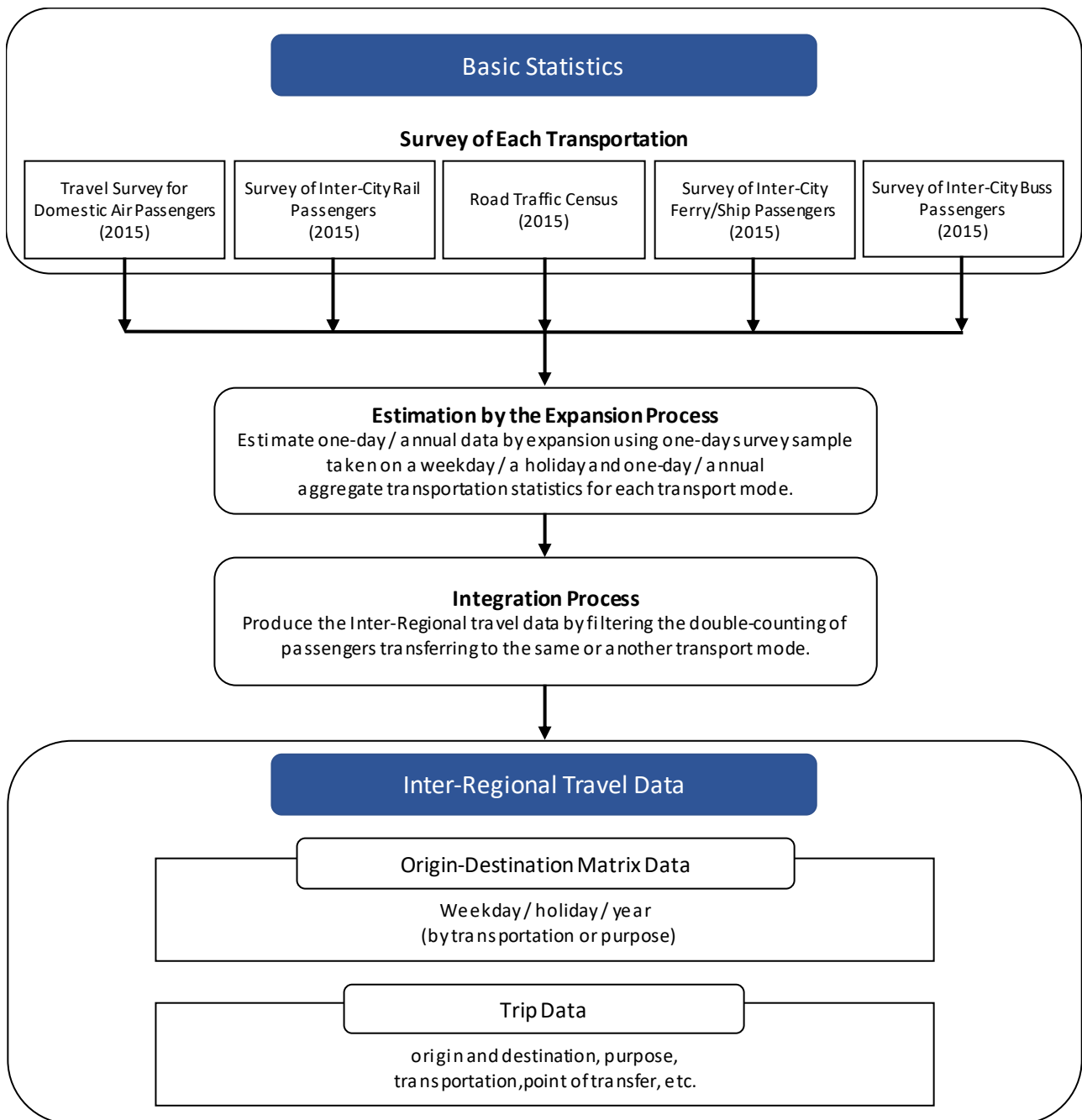


Figure 1 Procedure for producing inter-regional travel data, as used in the sixth survey

IV. Survey Results

1. The inter-regional travel by the main transportation modes

- The volume of inter-regional travel recorded 4,020,000 persons/day on a weekday and 7,037,000 persons/day on a holiday. Thus, the number of people traveling on a holiday is approximately 1.8 times as many as that on a weekday.
- The volume of cars on a holiday is approximately twice of that on a weekday.
- Inter-regional travel on a weekday consisted of 70% by car, about 21% by rail, and about 7% by air.
- The annual volume of inter-regional travel in 2015 recorded 1.79 billion, equivalent to 14 times/year/person (with a round trip is counted as “two times”).

* For passengers who transfer from one mode to another, the main transportation is applied in the order of: (1) Air (2) Rail (3) Sea (4) Bus (5) Car. So, for example, if a passenger transfers to an airline from the railroad, it would be assumed that the main transportation mode used by the passenger was “Air.”

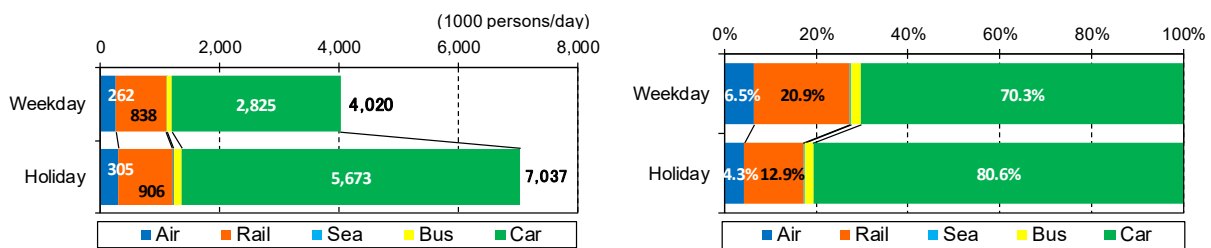


Figure 2 Volume and share of inter-regional travel by main transportation mode(weekday/holiday)

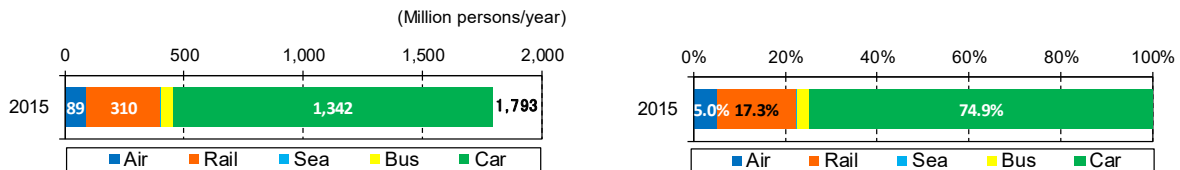


Figure 3 Volume and share of inter-regional travel by main transportation mode(annual)

2. Purpose of travel

- Comparing the purposes of travel on a weekday and a holiday, it is found that the share of business trips is high on a weekday, whereas the share of sightseeing trips is high on a holiday.
- Comparing the share of the transportation mode by purpose of travel, public transportation modes such as a rail and air are used more for business trips while cars are used more for sightseeing trips.

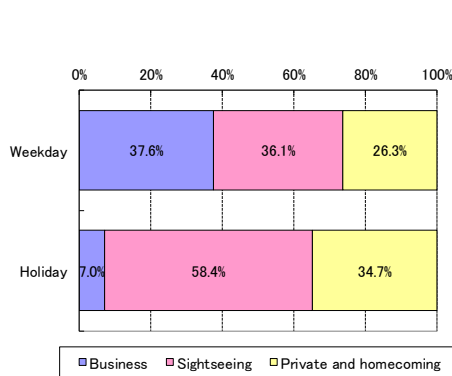


Figure 4 Share by purpose of travel (weekday/holiday)

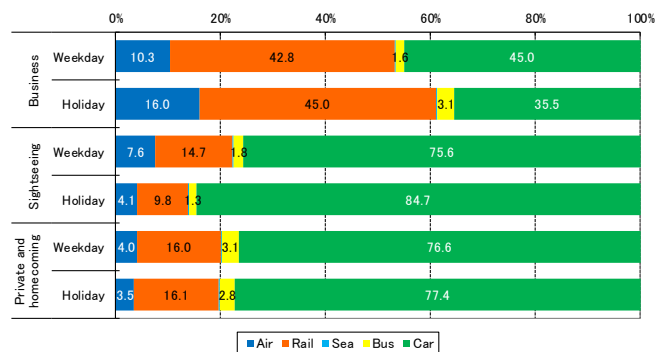


Figure 5 Share by main transportation mode and purpose of travel (weekday/holiday)

Note) Travel with no defined purpose is excluded

3. Distance

- Considering the transportation modes and the distance traveled on a weekday, it is apparent that cars are mostly used for short-distance travel of less than 300 km, rail is used for middle-distance travel of 300 to 700 km, and air is used for long-distance travel in more than 700 km.
- Comparing the share of transportation on a weekday and a holiday, cars are used more on a holiday especially for the traveling distance of 300 to 500 km.

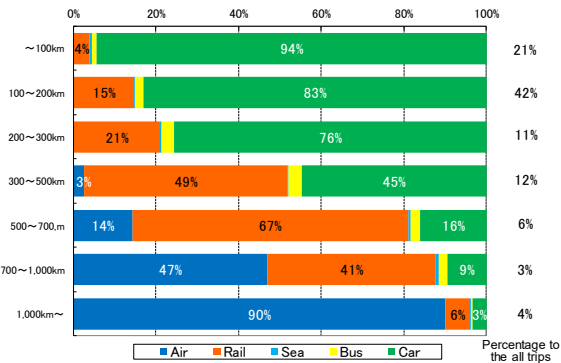


Figure 6 Share by distance (weekday)

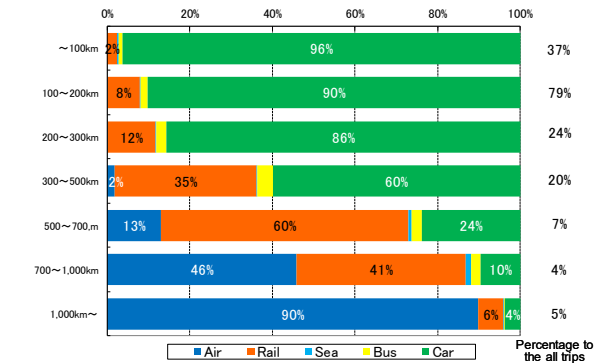
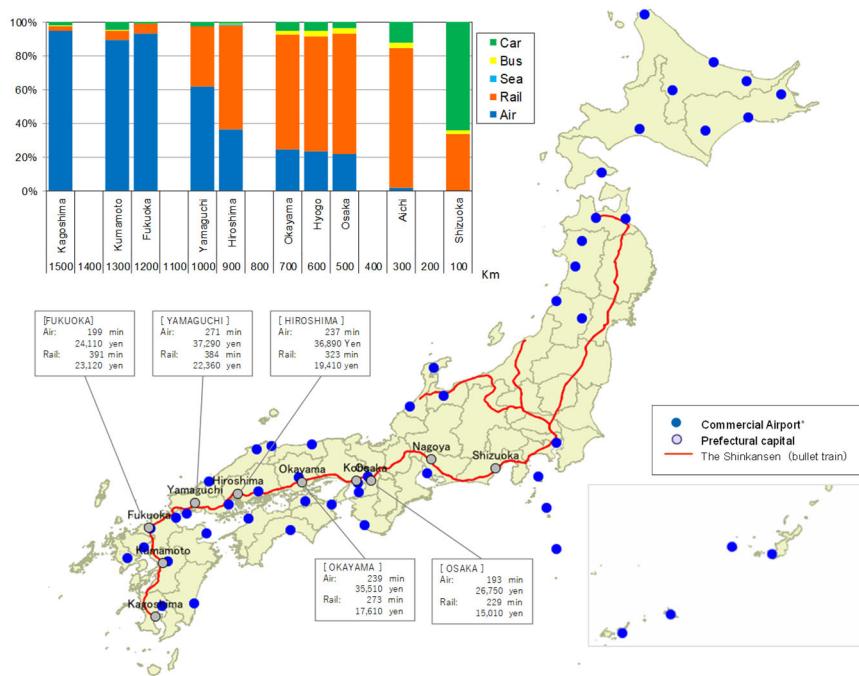


Figure 7 Share by distance (holiday)

4. Share of main transportation modes used between the Tokyo metropolitan area and each prefectures

- Considering the share of transportation mode used for travel between the Tokyo metropolitan area (Tokyo and three prefectures) and areas along the Tokaido/Sanyo Shinkansen route, cars are used mostly for short-distance travel, rail for middle-distance travel, and airlines for long-distance travel.
- The rail and air modes compete with each other on distances of about 700 to 1,000 km from the Tokyo metropolitan area, such as Okayama, Hiroshima, and Yamaguchi.



*: Haneda airport and operating from/to Haneda airport

Figure 8 Share of main transportation modes for travel between the Tokyo metropolitan area and each prefectures (weekday)

V. Use of the data

The inter-regional travel data introduced in this brochure can be downloaded from the homepage of the Ministry of Land, Infrastructure, Transport and Tourism.

(URL : http://www.mlit.go.jp/sogoseisaku/soukou/sogoseisaku_soukou_fr_000016.html)

Available Data

- Chart of travel data between prefectures by main transportation modes (weekday/holiday/year)
- Chart of travel data between 207 zones of life by main transportation modes (weekday/holiday/year)
- Chart of reliability data by origin and destination(between prefectures / 207 zones of life) (weekday/holiday/year)
- Chart of traffic service level data by origin and destination (between prefectures / 207 zones of life) (weekday/holiday/year)

【Data Format】

Example: ·Chart of travel data between prefectures by main transportation modes (annual)

Departure Code	Departure Name	Dest. Code	Dest. Name	Movement of Passengers					
				Air	Rail	Sea	Bus	Car	ALL
1	Dohoku	2	Aomori	xxx	xxx	xxx	xxx	xxx	xxx
...
...

Note) You can download the data in text format from the homepage of the Ministry of Land, Infrastructure, Transport and Tourism, Government of Japan.

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