

# JR East: Domestic and International Perspectives

## Peer Group Comparisons

In this section, several key performance indicators illustrate how JR East compares with selected well-known companies.

In scale and profitability, JR East is not to be outdone by any of the world's renowned transportation companies. It is a benchmark among public utilities in Japan—including the power and telecommunications companies—of an overwhelming scale and earnings performance above all of the other domestic airline and private railway operators.

### INTERNATIONAL

#### Total Stock Market Value

Millions of U.S. Dollars

Company	Value (Millions of U.S. Dollars)
JR East	33,681
IAG	17,769
Lufthansa	7,659
Union Pacific	66,190
FedEx	48,923
UPS	85,105

#### Operating Revenues

Millions of U.S. Dollars

Company	Value (Millions of U.S. Dollars)
JR East	25,373
IAG	25,875
Lufthansa	36,287
Union Pacific	21,813
FedEx	47,453
UPS	58,363

#### Profit attributable to owners of parent

Millions of U.S. Dollars

Company	Value (Millions of U.S. Dollars)
JR East	2,171
IAG	1,692
Lufthansa	1,922
Union Pacific	4,772
FedEx	1,050
UPS	4,844

\* Data in these graphs has been computed from each company's share price and shares outstanding at the end of the previous fiscal year.

#### Cash Flows from Operating Activities

Millions of U.S. Dollars

Company	Value (Millions of U.S. Dollars)
JR East	5,957
IAG	2,228
Lufthansa	3,841
Union Pacific	7,344
FedEx	5,366
UPS	7,430

#### Return on Average Equity (ROE)

%

Company	Value (%)
JR East	10.4
IAG	34.3
Lufthansa	34.9
Union Pacific	22.8
FedEx	6.9
UPS	210.1

Average equity is the average of equity at the end of the previous and applicable fiscal years.

#### Ratio of Operating Income to Average Assets (ROA)

%

Company	Value (%)
JR East	6.3
IAG	8.9
Lufthansa	4.9
Union Pacific	15.1
FedEx	5.3
UPS	20.8

Average assets is the average of assets at the end of the previous and applicable fiscal years.

## DOMESTIC

### Total Stock Market Value

Millions of U.S. Dollars

<b>JR East</b>	<b>33,681</b>
ANA	9,814
Tokyu	10,236
Kansai Electric Power	7,880
NTT	89,930

### Operating Revenues

Millions of U.S. Dollars

<b>JR East</b>	<b>25,373</b>
ANA	15,851
Tokyu	9,659
Kansai Electric Power	28,725
NTT	102,133

### Profit attributable to owners of parent

Millions of U.S. Dollars

<b>JR East</b>	<b>2,171</b>
ANA	692
Tokyu	489
Kansai Electric Power	1,246
NTT	6,529

\* Data in these graphs has been computed from each company's share price and shares outstanding at the end of the previous fiscal year.

### Cash Flows from Operating Activities

Millions of U.S. Dollars

<b>JR East</b>	<b>5,957</b>
ANA	2,335
Tokyu	1,147
Kansai Electric Power	5,267
NTT	23,999

### Return on Average Equity (ROE)

%

<b>JR East</b>	<b>10.4</b>
ANA	9.8
Tokyu	9.8
Kansai Electric Power	12.7
NTT	8.4

Average equity is the average of equity at the end of the previous and applicable fiscal years.

### Ratio of Operating Income to Average Assets (ROA)

%

<b>JR East</b>	<b>6.3</b>
ANA	6.0
Tokyu	3.7
Kansai Electric Power	3.4
NTT	6.5

Average assets is the average of assets at the end of the previous and applicable fiscal years.

- In January 2011, British Airways and IBERIA underwent management integration to become IAG (International Airlines Group).
- Year ended March 31, 2016 (Year ended December 31, 2015, for IAG, Lufthansa, Union Pacific, and UPS and year ended May 31, 2015, for FedEx).
- ANA: ANA HOLDINGS INC.; Tokyu: Tokyu Corporation; NTT: Nippon Telegraph and Telephone Corporation
- Data in this section is based on consolidated figures from each company's annual report or financial press releases.
- The exchange rate used is the rate on March 31, 2016 (U.S.\$1=¥113, £1=\$1.44, €1=\$1.13).
- Share prices at the close of the respective previous fiscal years and computed using the above exchange rates are \$85.96 for JR East, \$8.77 for IAG, \$16.49 for Lufthansa, \$78.20 for Union Pacific, \$173.22 for FedEx, \$96.23 for UPS, \$2.81 for ANA, \$8.35 for Tokyu, \$8.82 for Kansai Electric Power, and \$42.90 for NTT.

### International Railway Comparisons

Japan relies on railways for around 30% of its transportation needs, a ratio much higher than in most other countries. This high reliance on railways due to the size of the economy and geographic characteristics affords railway companies an extremely large source of demand, especially in urban areas. In addition to being Japan's top railway company, JR East is one of the largest railway companies in the world.

#### TRANSPORTATION MARKET

##### Railway Line Networks

Kilometers

<b>JR East</b>	<b>7,457</b>
U.K.	15,748
Germany	33,449
France	30,013
U.S.	34,082

##### Revenues from Railway Operations

Millions of U.S. Dollars

<b>JR East</b>	<b>15,973</b>
U.K.	13,233
Germany	23,242
France	18,411
U.S.	2,269

##### Number of Passengers

Millions

<b>JR East</b>	<b>6,364</b>
U.K.	1,562
Germany	2,008
France	1,126
U.S.	29

##### Number of Employees

<b>JR East</b>	<b>48,894</b>
U.K.	35,261
Germany	293,765
France	150,070
U.S.	20,047

##### Passenger Kilometers

Millions

<b>JR East</b>	<b>134,428</b>
U.K.	59,171
Germany	79,906
France	84,785
U.S.	10,331

- Figures are as of March 2016 for JR East, March 2014 for the U.K., December 2013 for France and Germany, and September 2010 for the U.S.

- U.K.: Association of Train Operating Companies (Railway tracks are owned by Network Rail Ltd.); Germany: Deutsche Bahn AG; France: Société Nationale des Chemins de fer Français (SNCF) (Railway tracks are owned by Réseau Ferré de France (RFF)); and U.S.: National Railroad Passenger Corporation (Amtrak).

- Revenues from railway operations do not include freight and other service revenues.

- Figures for JR East do not include Tokyo Monorail.

- The exchange rate used is U.S.\$1=¥113 as of March 2016 for JR East and €1=U.S.\$1.38 as of March 2014 for the others.

Source: International Railway Statistics 2013 and 2012,

Statistics Centre of the International Union of Railway, 2015 and 2014.

#### FUNDAMENTALS

##### Gross Domestic Product

Billions of U.S. Dollars

<b>2015</b>	
<b>Japan</b>	<b>4,991</b>
U.K.	2,663
Germany	3,859
France	2,664
U.S.	17,947

##### Population

Millions

<b>2015</b>	
<b>Japan</b>	<b>127.1</b>
U.K.	64.7
Germany	80.7
France	64.4
U.S.	321.8

##### Population Density

Per Square Kilometer

<b>2015</b>	
<b>Japan</b>	<b>336</b>
	1,628
U.K.	267
	307
Germany	226
	332
France	117
	169
U.S.	33
	48

- JR East calculated these figures by using the following data and definition of each country's habitable land area.

Population

Japan: Current Population Estimates, Ministry of Internal Affairs and Communications Statistics Bureau

Other countries: United Nations data

Habitable land area

Japan: Land White Paper, Ministry of Land, Infrastructure, Transport and Tourism. Total area minus forests and woodland, barren land, area under inland water bodies, and other

Other countries: Global Forest Resources Assessment 2015, FAO

■ Population per square kilometer of total national land area

■ Population per square kilometer of habitable land area

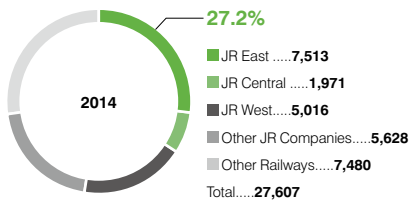
## Railway Operations in Japan

Railways play a vital role in Japan, a nation of limited landmass and high population density. Here, railways carry roughly 30% of the passenger volume in all modes of transportation, and JR East accounts for roughly 30% of the passenger volume in railways.

### SHARE OF DOMESTIC RAILWAYS

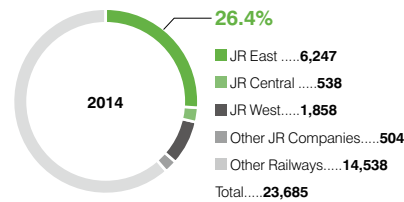
#### Passenger Line Network

km



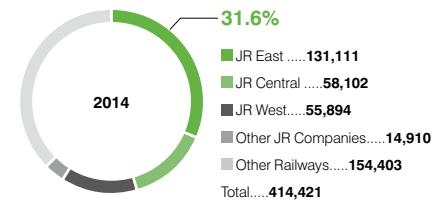
#### Number of Passengers

Millions



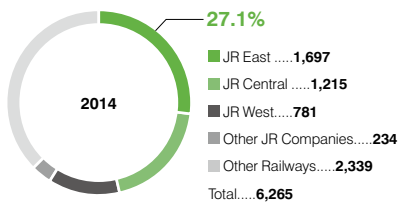
#### Passenger Kilometers

Millions



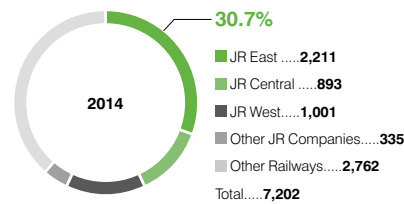
#### Revenues from Passenger Tickets

Billions of Yen



#### Rolling Stock Kilometers

Millions



As of March 31, 2014

- Figures for Passenger Line Network do not include freight traffic.
- Figures for Rolling Stock Kilometers do not include locomotives and freight cars.
- Figures for Tokyo Monorail are included in other railways.

Source: Statistics of Railways 2013, Ministry of Land, Infrastructure, Transport and Tourism

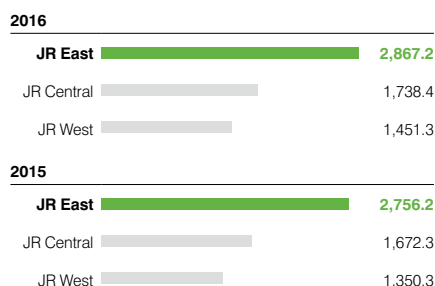


### Financial Overview of JR Passenger Railway Companies

JR East accounts for about 50% of the total operating revenues of the three largest JR passenger railway companies. JR East's immense and stable operating base contributes to large and consistent earnings and cash flows.

#### Operating Revenues

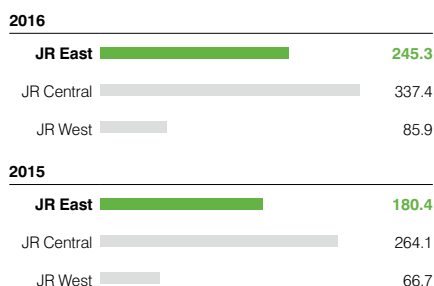
Billions of Yen



Years ended March 31	Millions of Yen	
	2015	2016
JR East	2,756,165	2,867,200
JR Central	1,672,295	1,738,409
JR West	1,350,336	1,451,300

#### Profit attributable to owners of parent

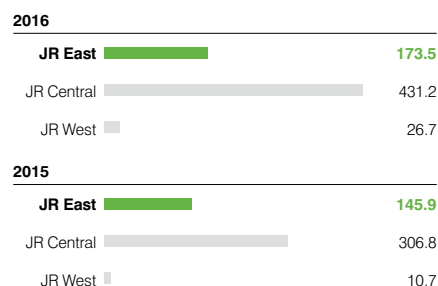
Billions of Yen



Years ended March 31	Millions of Yen	
	2015	2016
JR East	180,398	245,310
JR Central	264,134	337,440
JR West	66,712	85,868

#### Free Cash Flows

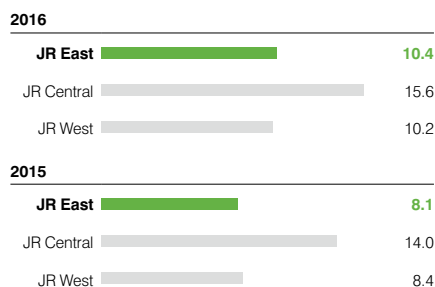
Billions of Yen



Years ended March 31	Millions of Yen	
	2015	2016
JR East	145,918	173,534
JR Central	306,836	431,190
JR West	10,701	26,661

#### Return on Average Equity (ROE)

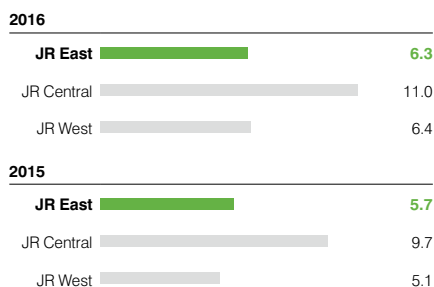
%



Years ended March 31	%	
	2015	2016
JR East	8.1	10.4
JR Central	14.0	15.6
JR West	8.4	10.2

#### Ratio of Operating Income to Average Assets (ROA)

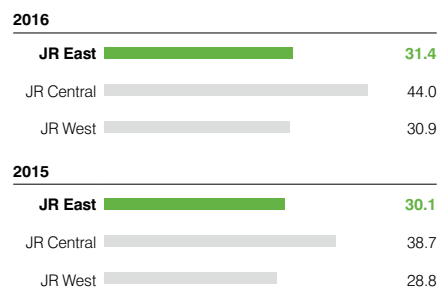
%



Years ended March 31	%	
	2015	2016
JR East	5.7	6.3
JR Central	9.7	11.0
JR West	5.1	6.4

#### Equity Ratio

%



Years ended March 31	%	
	2015	2016
JR East	30.1	31.4
JR Central	38.7	44.0
JR West	28.8	30.9

- Data in this section has been calculated by JR East based on figures in JR Central's and JR West's financial press releases.

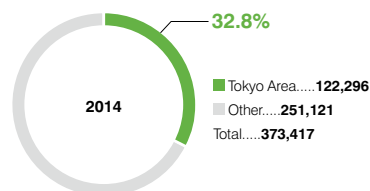
## Railway Operations in Tokyo

The Tokyo metropolitan area accounts for roughly 30% of the population and economic base in Japan and has a population density far higher than any other region in the country. JR East alone provides nearly half of the huge volume of railway transportation in the Tokyo metropolitan area, where railways account for roughly 50% of all transportation.

### FUNDAMENTALS

#### Net Domestic Product

Billions of Yen

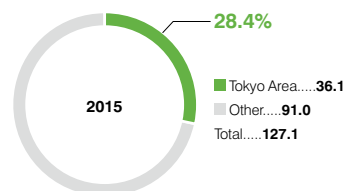


Year ended March 31, 2014

Source: Annual Report on Prefectural Economies, Cabinet Office

#### Population

Millions



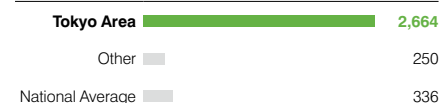
As of October 1, 2015

Source: Current Population Estimates and Census, Ministry of Internal Affairs and Communications

#### Population Density

Per Square Kilometer

2015



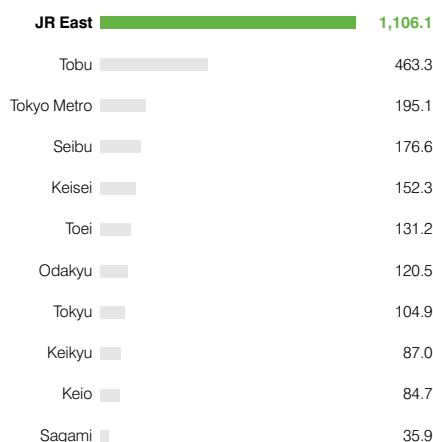
As of October 1, 2015

- JR East calculated these figures by using data from the following sources: Current Population Estimates and Census, Ministry of Internal Affairs and Communications, and statistics from the Geographical Survey Institute.

- The statistics on this page are based on governmental boundaries and do not strictly correspond with JR East's operating area segments.

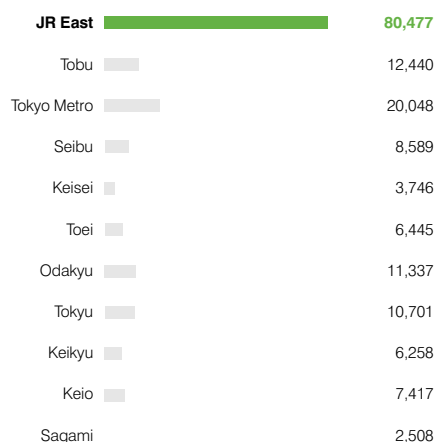
#### Passenger Line Networks

Kilometers



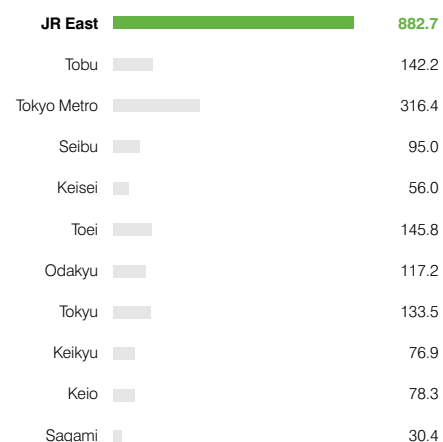
#### Passenger Kilometers

Millions



#### Revenues from Passenger Tickets

Billions of Yen



	Passenger Line Networks*1		Passenger Kilometers*2		Revenues from Passenger Tickets*2	
	km	%	Millions	%	Billions of Yen	%
<b>JR East</b>	<b>1,106.1</b>	<b>41.6</b>	<b>80,477</b>	<b>47.3</b>	<b>882.7</b>	<b>42.5</b>
Tobu Railway	463.3	17.4	12,440	7.3	142.2	6.9
Tokyo Metro	195.1	7.3	20,048	11.8	316.4	15.2
Seibu Railway	176.6	6.7	8,589	5.1	95.0	4.6
Keisei Electric Railway	152.3	5.7	3,746	2.2	56.0	2.7
Toei (Tokyo Metropolitan Government)	131.2	4.9	6,445	3.8	145.8	7.0
Odakyu Electric Railway	120.5	4.5	11,337	6.7	117.2	5.7
Tokyu Corporation	104.9	4.0	10,701	6.3	133.5	6.4
Keikyuu Corporation	87.0	3.3	6,258	3.7	76.9	3.7
Keio Electric Railway	84.7	3.2	7,417	4.3	78.3	3.8
Sagami Railway	35.9	1.4	2,508	1.5	30.4	1.5
<b>Total</b>	<b>2,657.6</b>	<b>100.0</b>	<b>169,966</b>	<b>100.0</b>	<b>2,074.5</b>	<b>100.0</b>

\*1 As of March 31, 2015.

\*2 For the year ended March 31, 2015.

- Figures do not include freight lines.

- Data used for JR East is that of the Tokyo Metropolitan Area Network and does not include Tokyo Monorail.

Sources:

- Toei (Tokyo Metropolitan Government): Figures are from the website of the Transportation Bureau of the Tokyo Metropolitan Government. Passenger kilometers are from Statistics of Railways 2015, Ministry of Land, Infrastructure, Transport and Tourism.

- Other: Website of the Association of Japanese Private Railways. Revenues from passenger tickets are based on figures from the financial press releases of each company.

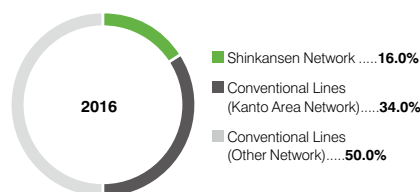
### Analysis of JR East's Railway Operations

The fact that two-thirds of its transportation revenues come from Tokyo and the Kanto region, where most of the population and economic base in Japan resides, shows the solidness of JR East's management platform.

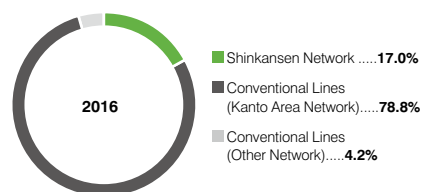
As another strength, the Company is largely immune to economic fluctuations, as commuter passes account for over a fourth of transportation revenues overall, and 40% of those revenues are from the Kanto region.

#### COMPOSITION BY OPERATING AREA

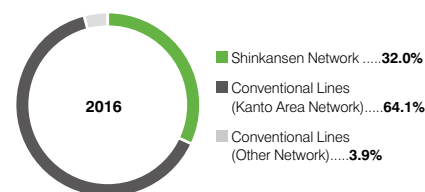
Passenger Line Network



Passenger Kilometers



Revenues from Passenger Tickets



	Passenger Line Network*1		Passenger Kilometers**		Revenues from Passenger Tickets**	
	km	%	Millions	%	Millions of Yen	%
Shinkansen Network	1,194.2	16.0	22,848	17.0	578,213	32.0
Conventional Lines (Kanto Area Network)	2,535.9	34.0	105,875	78.8	1,156,186	64.1
Conventional Lines (Other Network)	3,727.2	50.0	5,704	4.2	70,533	3.9
Total	7,457.3	100.0	134,428	100.0	1,804,932	100.0

\*1 As of March 31, 2016

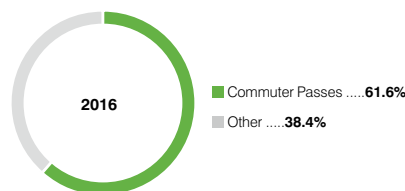
\*2 Year ended March 31, 2016

- Revenues from the conventional line segments of hybrid Shinkansen services are included in Conventional Lines (Other Network).

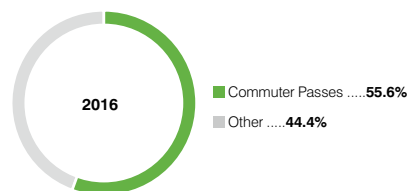
- Figures do not include Tokyo Monorail.

#### COMPOSITION OF COMMUTER PASSES

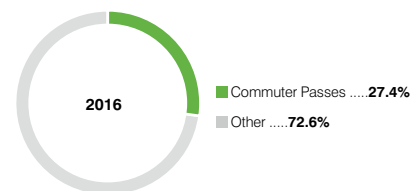
Number of Passengers



Passenger Kilometers



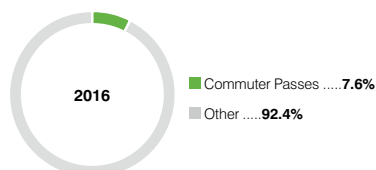
Revenues from Passenger Tickets



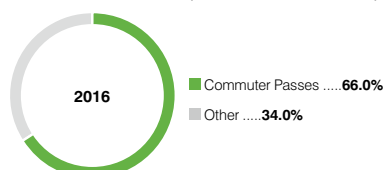
	Number of Passengers		Passenger Kilometers**		Revenues from Passenger Tickets**	
	Millions	%	Millions	%	Millions of Yen	%
Commuter Passes	3,918	61.6	74,732	55.6	494,439	27.4
Other	2,447	38.4	59,695	44.4	1,310,493	72.6
Total	6,365	100.0	134,428	100.0	1,804,932	100.0

## PASSENGER KILOMETERS

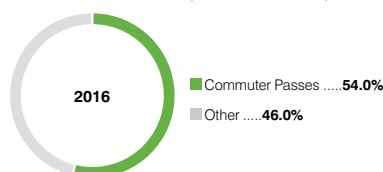
### Shinkansen Network



### Conventional Lines (Kanto Area Network)

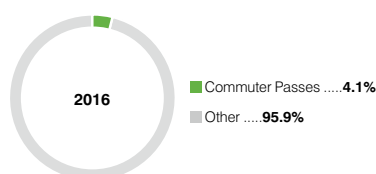


### Conventional Lines (Other Network)

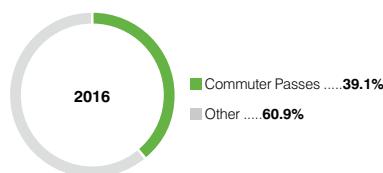


## REVENUES FROM PASSENGER TICKETS

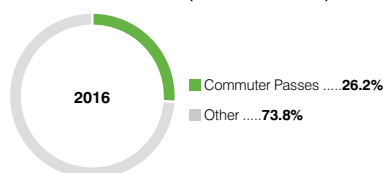
### Shinkansen Network



### Conventional Lines (Kanto Area Network)



### Conventional Lines (Other Network)



		Millions		%
		2015	2016	2016 / 2015
Shinkansen Network	Commuter Passes	1,675	1,740	103.9
	Other	19,238	21,108	109.7
	Total	20,914	22,848	109.2
Conventional Lines Total	Commuter Passes	71,444	72,992	102.2
	Other	37,710	38,587	102.3
	Total	109,154	111,579	102.2
Kanto Area Network	Commuter Passes	68,375	69,908	102.2
	Other	34,935	35,966	103.0
	Total	103,310	105,875	102.5
Other Network	Commuter Passes	3,068	3,083	100.5
	Other	2,775	2,621	94.4
	Total	5,844	5,704	97.6
Total	Commuter Passes	73,119	74,732	102.2
	Other	56,949	59,695	104.8
	Total	130,068	134,428	103.4

		Millions of Yen		%
		2015	2016	2016 / 2015
Shinkansen Network	Commuter Passes	23,232	23,616	101.7
	Other	497,997	554,596	111.4
	Total	521,229	578,213	110.9
Conventional Lines Total	Commuter Passes	466,985	470,822	100.8
	Other	737,687	755,896	102.5
	Total	1,204,672	1,226,719	101.8
Kanto Area Network	Commuter Passes	448,259	452,336	100.9
	Other	683,445	703,850	103.0
	Total	1,131,705	1,156,186	102.2
Other Network	Commuter Passes	18,725	18,486	98.7
	Other	54,241	52,046	96.0
	Total	72,967	70,533	96.7
Total	Commuter Passes	490,217	494,439	100.9
	Other	1,235,685	1,310,493	106.1
	Total	1,725,902	1,804,932	104.6

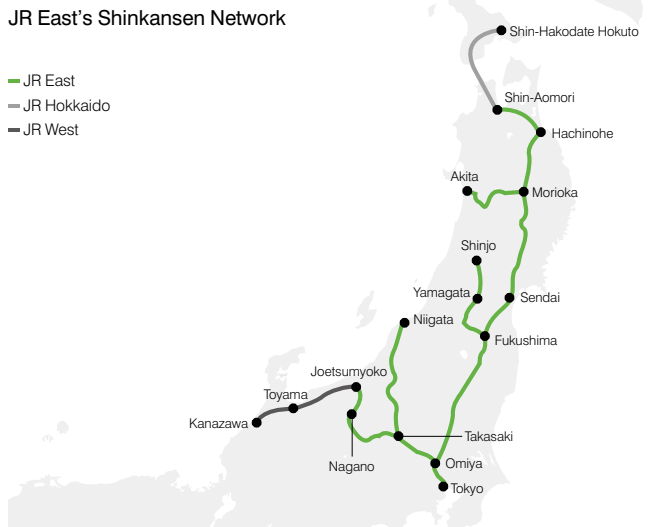
- Percentages represent revenues from passenger tickets attributable to commuter passes for each segment.
- Revenues from the conventional line segments of hybrid Shinkansen services are credited to Conventional Lines (Other Network).
- Passenger kilometers and revenues from the conventional line segments of hybrid Shinkansen services are credited to Conventional Lines (Other Network).
- Figures do not include Tokyo Monorail.
- The Kanto Area Network encompasses the area encompassed under the previous classification of the Tokyo Metropolitan Area Network (Tokyo Branch Office, Yokohama Branch Office, Hachioji Branch Office, and Omiya Branch Office) and the areas covered by Takasaki Branch Office, Mito Branch Office, and Chiba Branch Office.



Other Data

JR East owns many stations with high potential that are used by numerous customers. JR East is carrying out its life-style service business utilizing these stations to enhance customer convenience and comfort and to raise profitability.

JR East's Shinkansen Network



Competition with Airlines

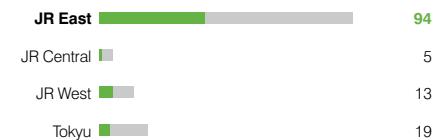
	Distance from Tokyo km	Time Required	JR Share %
Aomori	713.7	2:59	78
Akita	662.6	3:37	60
Morioka	535.3	2:10	100
Sendai	351.8	1:30	100
Yamagata	359.9	2:26	97
Niigata	333.9	1:37	100
Kanazawa	450.5	2:28	76

Note: Data shown here is as of March 31, 2016. Information concerning required time is according to the JR Time Table, June 2016 issue. Market shares of trains and flights are calculated based on the number of flight departures and arrivals at Haneda Airport. Approximate time required for trains is indicated using the maximum speed of a regularly-operated train from Tokyo.

Number of Busy Stations

Stations

2016



■ More than 200,000 passengers per day  
 ■ More than 100,000 passengers per day

	More than 200,000 passengers per day	More than 100,000 passengers per day
JR East	39	94
JR Central	1	5
JR West	5	13
Tokyu	5	19

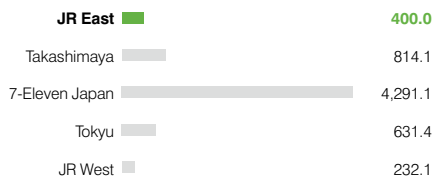
Notes:

- Tokyu = Tokyu Corporation
- Year ended March 31, 2015, for JR Central and JR West, year ended March 31, 2016, for JR East and Tokyu.
- Data is based on figures from JR Central, JR West, and Tokyu.
- The number of station users at stations of JR East, JR Central, and JR West represents twice the number of passengers embarking.

Comparison of Major Department Stores, Retail Sales, and Convenience Stores

Billions of Yen

Operating Revenues



	Millions of Yen
JR East	399,960
Takashimaya	814,095
7-Eleven Japan	4,291,067
Tokyu	631,429
JR West	232,071

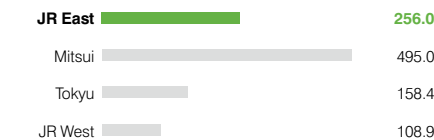
Notes:

- Takashimaya = Takashimaya Company, Limited;
- 7-Eleven Japan = Seven-Eleven Japan Co., Ltd.;
- Tokyu = Tokyu Corporation
- Year ended March 31, 2016 (year ended February 28, 2016, for Takashimaya and 7-Eleven Japan)
- Data is based on figures from the financial press releases of each company.
- The following figures are used as operating revenues:  
 JR East: Station space utilization, segment revenues from outside customers; Takashimaya: Department store business, segment revenues from outside customers; 7-Eleven Japan: Total store sales (nonconsolidated); Tokyu: Retail operating revenues; and JR West: Sales of goods and food services business, segment revenues from third parties.

Comparison of Real Estate Leasing to Retailers and Other Tenants

Billions of Yen

Operating Revenues



	Millions of Yen
JR East	255,978
Mitsui	495,034
Tokyu	158,441
JR West	108,897

Notes:

- Mitsui = Mitsui Fudosan Co., Ltd.
- Tokyu = Tokyu Corporation
- Year ended March 31, 2016
- Data is based on figures from the financial press releases of each company.
- The following figures are used as operating revenues:  
 JR East: Shopping centers & office buildings, segment revenues from outside customers  
 Mitsui: Office buildings and commercial facilities revenues in leasing segment, outside customers  
 Tokyu: Real estate business, segment revenues from outside customers  
 JR West: Real estate business, segment revenues from third parties