

Railway Operators in Japan 11

Northern and Western Kinki Region

Shuichi Takashima

Region Overview

This article discusses railway lines in parts of four prefectures in the Kinki region: Shiga, Kyoto, Osaka and Hyogo. The three largest cities in these four prefectures are Kyoto, Osaka and Kobe. Osaka was Japan's most important commercial centre until it was surpassed by Tokyo in the late 19th century. Kyoto is the ancient capital (where the Emperors resided from the 8th to 19th centuries), and is rich in historical sites and relics. Kobe had long been a major domestic port and became the most important international port serving western Japan in the 1800s.

The close proximity of the three cities has led to the formation on the so-called

Keihanshin economic zone based on a contraction of the Chinese characters forming parts of each city name. However, to some extent, each city is still an economic entity in its own right, making the region somewhat different from the huge conurbation of Metropolitan Tokyo.

Topography is the main reason for this difference. Metropolitan Tokyo spreads across the wide Kanto Plain, while Kyoto, Osaka and Kobe are separated by highlands that (coupled with the nearby sea and rivers) have prevented Keihanshin from expanding to the same extent as Metropolitan Tokyo.

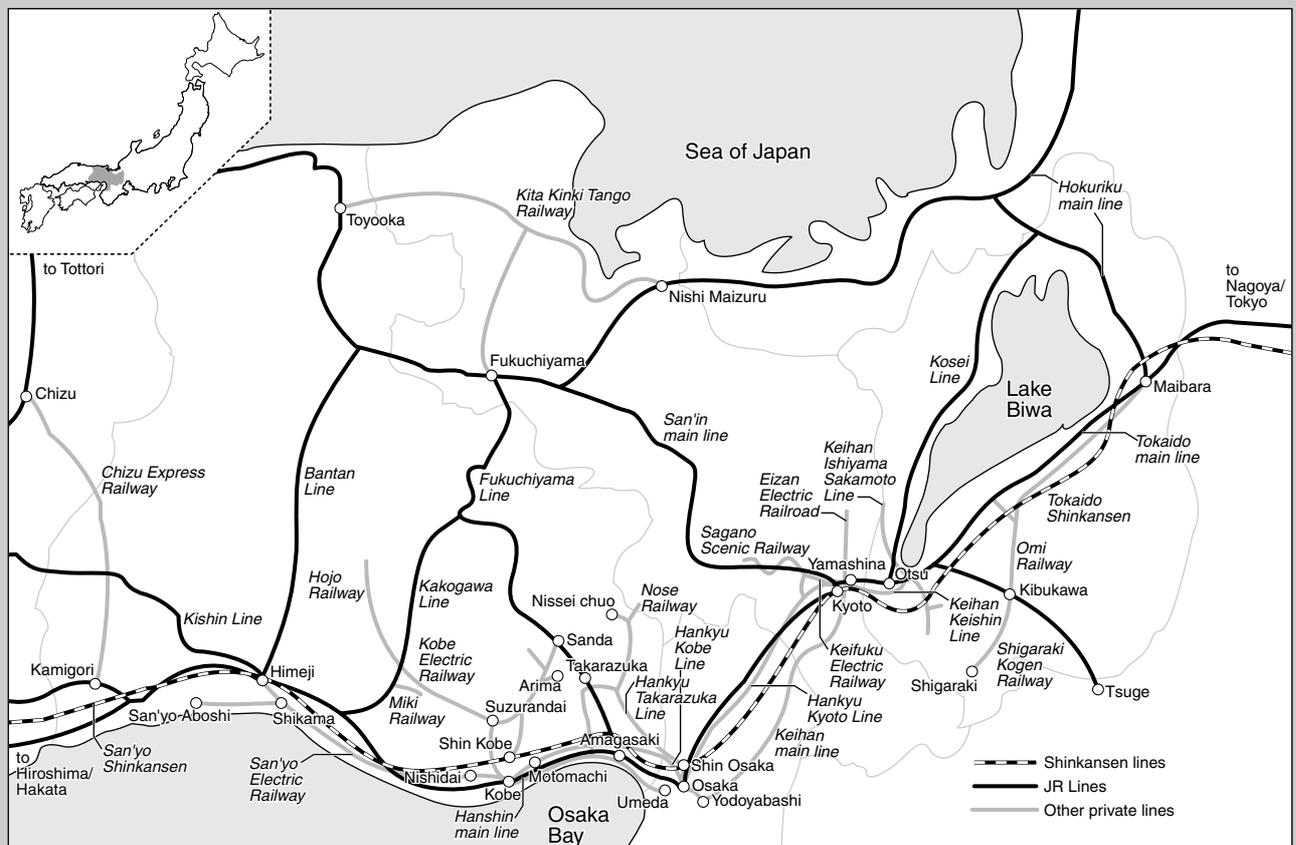
The northern part of Kyoto Prefecture and Hyogo Prefecture are highlands with steep mountains separating the north

from cities in the south. As a result, the population density in these northern areas is low, despite the proximity to Keihanshin. Shiga Prefecture borders the eastern side of Kyoto Prefecture and has long played a major role as a transportation route to eastern Japan and the Hokuriku region.

Outline of Rail Network

The region's topography has determined the configuration of the rail network. In the Metropolitan Tokyo, lines radiate like wheel spokes from central Tokyo and loop lines join the various spokes. By contrast, in Keihanshin, lines tend to follow transportation corridors running between

Railway Lines in Northern and Western Kinki Region



the three major cities. JR West operates most of the region's lines after inheriting them from Japanese National Railways (JNR) in 1987. Private railway companies operate the other lines.

JR West provides long-distance services on conventional (narrow-gauge) lines within Keihanshin and to other parts of the country. The Tokaido Shinkansen running east-west through Keihanshin linking it with Tokyo and other urban centres is operated by JR Central. JR West's San'yo Shinkansen starts from Shin Osaka Station and serves western Japan. Limited express trains on conventional tracks provide long-distance services to cities outside the east-west corridor.

The small local transport market is served by JR West and smaller private railways, some of which are in dire financial straits. A few railways found the way out by transporting tourists.

Long-distance Rail Transport

Tokaido and San'yo shinkansen
Japan's most densely populated and

industrialized areas run in a fairly straight belt along the Pacific coast east-west from Tokyo to Fukuoka in Kyushu. The Keihanshin district is situated almost midway along this belt. The Tokaido and San'yo shinkansen run through this belt with JR Central's Tokaido Shinkansen serving the eastern section from Tokyo to Osaka and JR West's San'yo Shinkansen serving the western section from Osaka to Fukuoka. However, there are actually many through services on both lines.

Trains to Hokuriku

The Hokuriku region faces the Sea of Japan, north of the Kinki region and has strong economic ties with Keihanshin. As a result, there are many limited express services running at intervals of 30 to 60 minutes between the two regions. Northbound trains run on the Tokaido main line to Yamashina (Kyoto Prefecture) and then on the Kosei Line to the Hokuriku main line. The Kosei Line shortcut between Keihanshin and Hokuriku was opened in 1974. Prior to the opening, trains ran east of Lake Biwa and connected directly to the Hokuriku main line.

Trains to northern Kyoto and Hyogo prefectures

Northern Kyoto Prefecture is known as the Tamba and Tango district. The economic centre is Maizuru, a major port with extensive facilities of the Maritime Self-Defence Forces. The surrounding area is very scenic and attracts many tourists. Travellers to the Tango district generally take limited express trains on either the San'in main line from Kyoto, or the Fukuchiyama Line from Osaka. These trains offer through services over tracks belonging to Kita Kinki Tango Railway, a local private operator. The tracks were operated by JNR, but after JNR announced its intention to abandon them due to slumping revenues, they were taken over by a public-private body formed by the Kyoto prefectural government and local municipalities and corporations. Trains also run on sections that JNR abandoned during the construction phase. Local ridership is very low and revenues from JR West's through limited express services form an important part of the company's income.

Travellers to northern Hyogo Prefecture

Size and Financial Status of Railways in Northern and Western Kinki (FY2001)

	Headquarters	Route-km	Number of Employees	Capital (¥million)	Operating Revenues (¥million)		Operating Expenses (¥million)		Operating Profits/Losses (¥million)		Ordinary Profits/Losses (¥million)
					Railway	Non-railway	Railway	Non-railway	Railway	Non-railway	
Keihan Electric Railway	Osaka	88.1	2,477	51,466	57,322	59,875	47,562	57,208	9,760	2,667	5,083
Hankyu Electric Railway	Osaka	146.5	3,043	73,645	105,565	130,127	85,352	113,062	20,213	17,065	24,663
Hanshin Electric Railway	Osaka	45.1	1,181	29,384	27,735	47,140	23,702	38,808	4,033	8,333	6,379
San'yo Electric Railway	Hyogo	69.6	616	10,997	12,055	7,514	10,673	7,016	1,382	497	245
Kobe Electric Railway	Hyogo	70.4	810	10,090	15,362	6,272	14,705	5,519	657	753	462
Nose Electric Railway	Hyogo	15.4	155	1,052	4,555	980	3,230	1,180	1,325	-201	88
Keifuku Electric Railway	Kyoto	12.3	121	1,000	1,870	1,775	2,909	1,862	-1,039	-88	-1,393
Omi Railway	Shiga	59.5	93	405	959	11,810	1,060	11,904	-101	-94	-230
Eizan Electric Railroad	Kyoto	14.4	91	250	1,168	809	1,114	812	54	-3	-46
Hojo Railway	Hyogo	13.6	13	100	59	0	97	0	-37	0	-30
Miki Railway	Hyogo	6.6	13	250	35	0	101	0	-67	0	-65
Kita Kinki Tango Railway	Kyoto	114	155	1,400	1,566	0	2,122	0	-556	0	-547
Chizu Express Railway	Tottori	56.1	78	450	2,895	0	2,278	0	617	0	540
Shigaraki Kogen Railway	Shiga	14.7	18	432	123	19	185	17	-62	2	-49
Sagano Scenic Railway	Kyoto	7.3	52	200	443	403	359	391	83	12	96

Source: *Tetsudo tokei nempo* (Railway Annual Statistics), MLIT

Passenger Volume and Density by Railway Company

		Length (km)	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
JR West Tokaido main line (Ishiyama–Kobe)	No. of Passenger (1000)	90.4	554,837	584,775	601,972	597,638	649,832	651,709	639,727	N/A ¹⁾	637,327	640,201
JR West Fukuchi Line (Amagasaki–Aimoto)	No. of Passenger (1000)	48.2	39,180	44,302	48,902	56,425	64,177	66,093	73,483	77,541	79,255	80,871
JR West Kosei Line (Yamashina–Katata)	No. of Passenger (1000)	17.7	25,934	26,380	26,883	28,814	31,564	32,159	32,273	32,489	32,171	32,257
JR West San'yo main line (Kobe–Uozumi)	No. of Passenger (1000)	29.1	183,502	189,247	193,206	190,622	207,882	205,157	200,449	198,864	196,821	196,296
JR West Wadamisaki Branch Line (Hyogo–Wadamisaki)	No. of Passenger (1000)	2.7	5,378	5,477	5,653	5,831	6,092	9,029	5,909	6,019	5,810	5,630
JR West San'in main line (Kyoto–Hozukyo)	No. of Passenger (1000)	14.3	23,189	24,258	25,411	26,577	26,971	28,192	29,171	29,926	29,829	30,574
JR West JR Tozai Line (Kyobashi–Amagasaki)	No. of Passenger (1000)	12.5	–	–	–	–	–	3920 ²⁾	59,930	69,448	74,084	76,414

Source: *Toshi kotsu nempo* (Urban Transport Annual Statistics)

1) Data not available due to statistics error

2) JR Tozai Line opened 8 March 1997. Figure is between 8 March 1997 to 31 March 1998.

		1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Keihan Electric Railway	No. of Passengers (1000)	403,577	398,709	394,244	394,468	384,097	357,716	341,971	330,195	322,283	315,250
	Passenger Density ¹⁾	160,653	15,670	158,575	159,510	158,068	151,797	149,231	144,621	142,479	140,612
Hankyu Electric Railway	Volume	795,582	789,369	758,495	729,966	740,070	710,397	690,641	677,621	667,009	657,943
	Density	202,525	201,175	193,530	184,909	191,536	183,017	178,380	175,355	173,057	171,260
Hanshin Electric Railway	Volume	246,064	240,075	229,369	206,292	214,528	200,386	194,748	188,914	183,129	181,196
	Density	140,013	136,671	133,455	119,874	124,036	116,485	114,038	111,204	108,281	107,119
San'yo Electric Railway	Volume	71,023	70,773	66,137	62,523	68,505	64,384	61,449	59,086	57,415	55,046
	Density	30,242	30,272	30,194	29,321	27,887	29,102	27,707	23,742	23,178	22,173
Kobe Electric Railway	Volume	106,174	104,938	95,506	79,814	90,992	87,286	79,438	81,697	79,217	76,939
	Density	41,020	40,777	39,065	34,245	36,293	35,319	32,538	34,032	33,220	32,523
Nose Electric Railway	Volume	32,139	32,360	32,328	32,822	31,570	30,279	29,491	28,748	27,996	27,257
	Density	38,483	38,605	38,572	39,014	37,657	36,134	35,905	34,916	33,893	33,353
Keifuku Electric Railway	Volume	10,339	10,225	10,006	9,674	9,404 ²⁾	9,050	8,253	7,844	7,380	7,077
	Density	9,917	9,834	9,640	9,307	9,688	8,858	8,157	7,720	7,306	6,838
Omi Railway	Volume	4,581	4,605	4,645	4,846	4,628	4,297	4,193	4,059	4,017	3,831
	Density	1,802	1,810	1,838	1,889	1,819	1,690	1,630	1,561	1,564	1,500
Eizan Electric Railroad	Volume	7,733	7,949	8,352	8,009	8,014	7,118	6,592	6,380	6,418	6,282
	Density	6,914	7,164	7,515	7,061	7,240	6,439	5,989	5,729	5,884	5,781
Hojo Railway	Volume	330	312	305	316	316	308	302	294	296	290
	Density	712	677	647	683	688	641	634	619	630	616
Miki Railway	Volume	229	242	229	249	232	220	209	207	193	185
	Density	479	506	472	509	487	450	434	422	396	361
Kita Kinki Tango Railway	Volume	3,030	3,032	2,908	2,959	2,876	2,637	2,623	2,548	2,513	2,413
	Density	1,561	1,537	1,442	1,417	1,352	1,229	1,122	1,176	1,182	1,168
Chizu Express Railway ³⁾	Volume	–	–	210	928	979	1,119	1,140	1,208	1,226	1,236
	Density	–	–	1,251	2,012	2,210	2,525	2,723	2,726	2,787	2,785
Shigaraki Kogen Railway	Volume	646	623	610	651	669	650	681	687	650	593
	Density	1,330	1,279	1,276	1,367	1,411	1,374	1,443	1,467	1,450	1,315
Sagano Scenic Railway	Volume	727	655	660	660	641	617	733	798	822	834
	Density	2,416	2,179	2,410	2,393	2,331	2,247	2,658	2,904	2,990	2,968

Source: *Tetsudo tokei nempo* (Railway Annual Statistics), MLIT

1) Passenger Density = Daily Passenger-km/Route km

2) Value adjusted by Takashima

3) Chizu Express Railway opened on 3 December 1994. Figures of 1994 are from opening day to 31 March 1995.



JR West's Series 223 *Shin Kaisoku* express running on Tokaido main line. JR West started *Shin Kaisoku* service in Keihanshin since 1987 after taking over the management from JNR. The service boosted JR West's ridership (JR West)

board the *Hamakaze* (beach breeze) limited express at Osaka Station. The trains travel west on the San'yō main line to Himeji and then turn north onto the Bantan Line before continuing to Tottori Prefecture, west of Hyogo.

Trains to San'in region

The *Super Hakuto* (white rabbit) limited express operated by the Chizu Express Company runs westward from Kyoto through Osaka and Kobe to Kamigori on the San'yō main line and then takes the Chizu Line to Tottori Prefecture. The line was partially constructed by JNR only to be abandoned due to worsening finances, but a public-private body formed by Tottori prefectural government and local municipalities and corporations took up construction again. Passengers from Kinki used the San'in main line or the Fukuchiyama Line before the line opened in 1994. Despite being single track and unelectrified, the line was constructed to a high standard to support high-speed operations. Although there are many tunnels and bridges due to the steep terrain, the HOT 7000 DMU rolling stock

with tilting mechanism permits maximum speeds of 130 km/h, keeping the journey time between Osaka and Tottori down to about 2 hours 30 minutes. The popular *Super Hakuto* services generate good revenues for the company, but the other trains carry very few passengers.

Urban Railways in Keihanshin

Rising competition

JR West competes with many large private railways in Keihanshin. Hankyu Corporation (Hankyu) operates between Kyoto, Osaka, and Kobe, while Keihan Electric Railway (Keihan) operates between Kyoto and Osaka, and Hanshin Electric Railway (Hanshin) operates between Osaka and Kobe.

The government railways were the first to open up the region with steam operations in the late 19th century. They were soon followed by the predecessors of Keihan and Hanshin who constructed tramways along the routes of the old highways and rivers. The early private trams did not compete directly with the government

railways because the trams were only local while the government railways focussed on long-distance services. However, increasing urbanization during the 1910s and 20s created demand for faster more frequent services.

Hankyu's predecessor appeared on the scene around this time and set out to build rapid transit lines using a new business model of promoting local development by building housing and amusement parks along the trackside to boost transport revenues. Seeing the need to transform themselves into rapid transit providers, the other private tram operators set about improving their infrastructure and rolling stock, leading to intense competition that continues even to this day. Private operators in the Kinki region played such a prominent role in the transport market and were so competitive with JNR that Kinki become known as the 'Empire of Private Railways.' However, this situation changed after JNR's 1987 division and privatization and JR West has taken the leading market share from the short-distance providers.

JR West's 'Urban Network' strategy

JR West is promoting faster and more frequent services between the region's major cities under its 'Urban Network' strategy. Before 1987, JNR had been running *Shin Kaisoku* (new rapid) trains between Kyoto, Osaka and Kobe that only stopped at major stations. JR West immediately began improving these services in three ways:

- More *Shin Kaisoku* services for more passengers

JR West extended the services in 1988 and 1996, permitting trains to run as far as central Shiga Prefecture and bringing it into the Keihanshin commuting zone. In 1989, *Shin Kaisoku* trains began running for morning commuting workers and students. From 1990, *Shin Kaisoku*

trains stopped at more stations between major cities, permitting more local residents to use the services.

- Reduced *Shin Kaisoku* travel times
JR West's inherited tracks are straighter than some private tracks and are more suited to higher speeds. To take advantage of this, in 1989, the company began using Series 221 EMUs for *Shin Kaisoku* services, permitting maximum speeds of 120 km/h. The Series 223 EMUs introduced in 1999 run at up to 130 km/h. These faster speeds permit more stops at intermediate stations (meaning more passengers) with no increases in journey times. A further advantage over the private companies is the ability to operate more *Shin Kaisoku* over quadrupled long-distance tracks during the morning rush hour and other congested periods without reducing speeds.
- Similar fares to private railways
To improve its worsening finances JNR raised fares many times during the 1970s and early 1980s, leading to much higher fares than competing

private railways. By contrast, JR West has only raised fares twice since 1987 due to the introduction of a 3% consumption tax subsequently rising to 5%, while other private railways have seen numerous fare increases. The closing gap now means there are cases where JR West's fares are lower than their competitors.

As part of its overall 'Urban Network' strategy, JR West has adopted a similar approach for other services, successfully increasing ridership on those lines too.

Major Private Railways in Keihanshin

Rather than challenge JR West's increasing power directly, the other private railways are developing new transit markets by increasing the number of stops between cities to make their services more convenient for people living near smaller stations.

The major initiatives taken by the three large private urban railways are outlined below.

Keihan Electric Railway (Keihan)

In addition to its main line between Demachi-yanagi (Kyoto) and Yodoyabashi (Osaka), Keihan operates some branch lines. In order to reduce journey times, the company's limited expresses used to stop at just a few stations between Kyoto and Osaka. However, when JR West's *Shin Kaisoku* services began cutting into Keihan's passenger base, the company responded by increasing the number of stops. Keihan's tracks have many more curves than JR West's tracks in the same corridor, limiting Keihan's ability to increase speeds. Instead, Keihan chose a strategy of making its services more convenient for people living near its stations.

Keihan also operates the Keishin Line from Kyoto to Otsu in Shiga Prefecture, and the Ishiyama Sakamoto Line running along part of the shore of Lake Biwa. Both lines are very winding with many steep grades. Some sections run on roads and use special smaller rolling stock.

In 1997, Keihan began offering direct through services from Otsu on the Tozai subway line operated by the Kyoto municipal government (see *JRTR* 36, p. 59).

Hankyu Corporation (Hankyu)

Hankyu's rail network has three important lines radiating from Umeda (central Osaka): the Kyoto Line to Kyoto; the Kobe Line to Kobe; and the Takarazuka Line running north-west to Takarazuka. Each of these lines must compete with JR West for the same passenger base. Hankyu also operates a few branch lines too.

The Kyoto Line was actually constructed by Keihan during the 1920s and 1930s to replace its older Osaka-Kyoto line, which had many curves. The two companies were amalgamated during WWII, but when they were separated again after the war, Hankyu ended up in control of the new Kyoto Line. Various official reasons were given for this transfer of ownership, but there was probably some behind-the-



Keihan's Series 8000 limited express used to stop at just a few stations between Osaka and Kyoto. However, when JR West cutting into Keihan's market, the company increased the number of stops to stimulate new demand. (Keihan Electric Railway)



The Great Hanshin Earthquake in 1997 damaged railway infrastructure severely. Hankyu's San'nomiya Station has been rebuilt after the stately station built in 1936 collapsed. (Hankyu Electric Railway)



Hanshin's Series 9500. Hanshin was mostly damaged railway by 1997 Great Hanshin Earthquake. Improvements on rolling stock and infrastructure advanced during the recovery, but ridership has not returned to the previous level. (Hanshin Electric Railway)

scenes tradeoff to balance the influence of both companies. The track is good and the Kawaramachi Station terminus in Kyoto is centrally located, giving Hankyu an advantage over JR West, which drops passengers at Kyoto Station outside the city centre (see *JRTR 36*, p. 59). But Hankyu's position is not impregnable, because the 1997 opening of a huge commercial building complete with hotel and department store over Kyoto Station created a new business centre for JR West that attracts many people.

The Kobe Line was also constructed in the 1920s and 1930s as a rapid transit line. Coastal mountains between Kobe and Osaka force all traffic into a narrow corridor occupied by three competitors: JR West, Hankyu, and Hanshin. Hankyu's Kobe Line is closest to the mountains and passes through an exclusive residential district, perhaps explaining why Hankyu's trains have a high-end design emphasizing the company's refined image. However, ridership is in decline due to the low birthrate and aging population, and JR West's *Shin Kaisoku* services are eroding Hankyu's passenger base.

The Takarazuka Line was opened in the early 20th century and is Hankyu's oldest line. It was the first line in Japan built

according to the Japanese business model described above and conceived by the company's founder, Ichizo Kobayashi (1873–1957). Today, the line is having trouble competing with JR West's Fukuchiyama Line running parallel to it. JR West runs rapid services on the line and opened the JR Tozai Line (see *JRTR 36*, p. 59), permitting direct through services to central Osaka on the Fukuchiyama Line and placing Hankyu at a further disadvantage. To counter this threat, Hankyu developed a new market, targeting people living along a line operated by its subsidiary Nose Electric Railway. Hankyu's Takarazuka Line connects with Nose's line at Kawanishi Noseguchi. There is development potential along Nose's line and Hankyu was confident it could expand the passenger base by offering more convenient services. In 1997, it began running *Nissei Express* through services from Umeda (central Osaka) to Nissei Chuo Station on the Nose line and has received favourable responses from passengers.

Hanshin Electric Railway (Hanshin)

Hanshin's main line runs from Osaka

(Umeda) to Kobe (Motomachi). The company also operates a few branch lines. When it was first opened in the early 20th century, most of the main line had a shared right-of-way on roads with motor vehicles. With time, the track was moved to its own right-of-way to provide a faster link between the two cities. For many years after WWII, Hanshin's limited expresses did not stop between the two termini, but the company began increasing the number of stops when JNR launched *Shin Kaisoku* services in 1970. The 1995 Great Hanshin Earthquake struck the region hard, causing more damage to the coastal areas than anywhere else. It collapsed many of Hanshin's elevated sections and damaged a lot of rolling stock. More than 5 months and about ¥45 billion were needed to bring the entire line back into operation. Another blow to Hanshin was the change in the local transport market after the earthquake because the trackside population dropped dramatically and has not returned to the previous level. Moreover, JR West's faster recovery cut into Hanshin's passenger base. As a result, many passengers have not returned to Hanshin's trains. Hankyu's experience has been much the same and JR West now



Kobe Electric Railway's Series 5000 running between Hiyodorigo and Maruyama. There are many curves and steep slopes to pass Rokko Mountains. The line expanded as commuter train after WWII but the ridership is decreasing in recent years. (Kobe Electric Railway)



Omi Railway's Series 500. Ridership is low due to decreasing trackside population. The company is trying to improve by reducing employee levels. (Author)

holds the lead, partly due to the earthquake. Since reconstruction, Hanshin has implemented carefully planned strategies in an attempt to attract more passengers, concentrating its efforts not so much on speed but more on taking advantage of the fact that its station density is about three times that of JR West.

Difficult Future for Suburban Railways

San'yo Electric Railway

San'yo Electric Railway operates a main line from Kobe (Nishidai Station) to Himeji (San'yo Himeji Station), as well as its Aboshi Line from Shikama to Aboshi. The company offers through services to central Kobe and Osaka over track owned by Kobe Kosoku Railway (see *JRTR* 36, p. 62) and Hanshin. San'yo Electric's lines share the narrow coastal corridor with JR West's San'yo main line and must compete with JR West for passengers. The previous San'yo main line operator (JNR) placed little emphasis on short-distance inter-urban transport and San'yo Electric attracted so many passengers that it became known as a quasi-major private railway company. However, JR West has robbed San'yo Electric of much of its passenger base today. The low birthrate and aging population are other factors causing reduced ridership and the trend is for people to leave the suburbs, which

form San'yo Electric's main base, to live in central Kobe and Osaka.

As already mentioned, San'yo Electric operates some through services over tracks operated by Kobe Kosoku Railway and Hanshin. These limited expresses terminate in Osaka (Umeda Station). However, passengers travelling only between Kobe and Osaka are more likely to choose JR West while San'yo Electric's through services are used mostly by the few people travelling between intermediate stations. San'yo Electric reflects the fate of the typical Japanese urban railway more than any other company—ridership increased during the postwar years, but subsequently declined to the point where business now stands at a crossroads.

Kobe Electric Railway

The steep Rokko Mountains hem in Kobe from the north. Kobe Electric Railway operates lines through the mountains into the interior and housing sprang up along the tracks after WWII. Kobe Electric's Kobe terminus is at Shinkaichi Station and the company's Arima and Sanda lines run north-east from the terminus to Sanda Station in the orbit of Osaka. The smaller Ao Line branches off north-west at Suzurandai Station. The company opened its Koen Toshi Line after housing was built around Sanda Station in the early 1990s. The tracks north of the Rokko Mountains

are sharply curved with steep grades. To bypass this difficult terrain, Hokushin Express opened a new line in 1988 (see *JRTR* 36, p. 62) but high fares cause many passengers to continue using Kobe Electric's trains.

Kobe Electric also suffered considerable damage in the 1995 earthquake with declining trackside population and resultant ridership drops. However, more passengers are using the company's services to Sanda Station where they transfer to JR West's Fukuchiyama Line to travel on to Osaka. The company hopes this new demand will help its finances.

Smaller Local Railways

Some small local railways have been mentioned in terms of their connections with more important lines but there are also some other local railways.

In Shiga Prefecture

Omi Railway operates a line that loops from Maibara to Omi Hachiman south-east of JR West's Tokaido main line. It also operates two branch lines. In the Edo period (1603–1868), the Omi region was famous for its enterprising merchants some of whom financed the line in the late 19th century. The company is now controlled by Seibu Railway, a major private railway company in Tokyo. Low



Shigaraki Kogen Railway's Series SKR200. Head-on accident in 1991 and subsequent lawsuits almost forced the line to close, but the company somehow manages to continue operations. (Author)



Eizan Electric Railroad's Series Deo 800. Many famous old temples located in northern Kyoto City. The railway carries tourist to those temples as well as commuters in local area. (Author)

population levels, falling birthrate, aging population and high automobile ownership keep ridership low but the company is trying to improve its situation by building more stations and reducing employee levels.

Shigaraki Kogen Railway was established in 1987 and is funded primarily by local municipalities after JNR announced its intention to close the line. All stations except Kibukawa, which connects with a JR West line, are located in Shigaraki Town in a hilly region in the southern part of the prefecture. The town holds more than half the company's stock. A major accident in 1991 killed 42 people, forcing the line to close for more than 6 months. The company was subsequently subjected to lawsuits and compensation claims, but somehow manages to continue operations.

In Hyogo Prefecture

Two small railways—Miki Railway and Hojo Railway—operate in central Hyogo Prefecture. Both are financed mainly by local municipalities that took over operations in 1985 when the lines were abandoned by JNR. Most residents use expressways, which are faster and more convenient routes to Kobe and Osaka than trains. Most train passengers are people who cannot drive, such as high-school students and the very elderly. As a result, both lines are in extreme financial difficulties.

In Kyoto Prefecture

Eizan Electric Railroad is affiliated with Keihan and runs northward from Demachi-yanagi in Kyoto to a mountainous area dominated by Mt Hiei and Mt Kurama. The area has been a tourist mecca for centuries. Before 1989, the line had no connections so ridership was low but numbers increased when Keihan built an extension to Demachi-yanagi. In addition to tourists, there are a few commuting workers and students but some are switching to the subway operated by Kyoto municipal government running partly parallel to the Eizan tracks. Keifuku Electric Railway operates tram services in northwest Kyoto. This company is also affiliated with Keihan and it ran the above-mentioned Eizan Electric Railroad before operations were divided in 1986.

Sagano Scenic Railway is a wholly owned JR West subsidiary. It began running tourist trains in 1991 over abandoned tracks that were part of the San'in main line passing through spectacular scenery.

The open observation-style cars pass slowly through the steep valleys and sometimes stop to give ample time for viewing. The train has recently been added to a must-see tourism list. It is closed in January, February, and March. ■

Further Readings

- Hanshin Electric Railway, *Railway Pictorial*, No. 640, Denkisha Kenkyukai, 1997.
- JR West Urban Network, *Railway Pictorial*, No. 662, Denkisha Kenkyukai, 1998.
- Hankyu Electric Railway, *Railway Pictorial*, No. 663, Denkisha Kenkyukai, 1998.
- Local Private Railways in Kaisai Region, *Railway Pictorial*, No. 685, Denkisha Kenkyukai, 2000.
- Keihan Electric Railway, *Railway Pictorial*, No. 695, Denkisha Kenkyukai, 2000.
- San'yo Electric Railway/Kobe Electric Railway, *Railway Pictorial*, No. 711, Denkisha Kenkyukai, 2001.
- Timetables of Major Private Railways in Kasai, *Railway Pictorial*, No. 737, Denkisha Kenkyukai, 2003.



Shuichi Takashima

Mr Takashima is a doctoral student in economic history at the University of Tokyo from where he graduated in Japanese history in 1999. He is researching modern city formation and transport with special interest in the development of railways.