

Fatal and non-fatal accidents in railroad service in Japan in 1999-2021

railroad service industry Code No.040101

Type of accidents in railroad service in 1999-2021

Type of accidents	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Type of accidents	
fall from height	63	52	49	54	65	73	62	69	61	55	61	61	59	58	46	50	48	55	54	66	65	62	69	1,357	fall from height	
falling to same level	84	71	59	52	74	85	76	62	72	70	76	84	80	103	88	87	83	81	87	88	74	75	114	1,825	falling to same level	
crash	18	21	17	26	22	20	25	39	25	22	27	20	12	22	25	29	15	25	24	26	21	27	31	539	crash	
struck by flying or falling object	13	12	10	10	10	13	11	9	9	8	7	8	12	10	2	4	6	6	7	9	5	12	5	198	struck by flying or falling object	
collapse	1	1	3			1	1	4	1	2			1	5	1	1	4	1	1	1	3			32	collapse	
crashed by	18	14	18	12	9	16	18	11	16	9	15	10	7	16	16	13	7	14	6	4	17	6	8	280	crashed by	
caught in/between	41	38	31	24	32	44	40	46	40	39	33	34	27	30	56	29	27	26	39	26	33	27	31	793	caught in/between	
cut	5	4	6	1	7	8	6	4	5	8	9	7	4	5	9	6	6	1	6	6	5	2	4	124	cut	
injury to the sole of the foot			1			2	1	1		1		1	3				1		2			2		15	injury to the sole of the foot	
drown																										drown
contact to high/low-temperature	2	3	4	2	1	2	2	3	3		4	1	2	1	3	3	2	5	4	7	4	6	3	67	contact to high/low-temperature	









engine																										engine
power transmission mechanism			1				1	1		1			3	1	1	1			2	2	2				16	power transmission mechanism
circular sawing machine			1		1								1			1					1				6	circular sawing machine
band sawing machine																										band sawing machine
wood planer machine																										wood planer machine
hollow chisel mortiser, wood borer																										hollow chisel mortiser, wood borer
chamfering machine, router, woodworking milling machine																										chamfering machine, router, woodworking milling machine
chain saw					1					1			1			1									4	chain saw
other woodworking machines																										other woodworking machines
leveling, transporting or loading machine											1		1							1		1	1		5	leveling, transporting or loading machine
excavating machine																									1	excavating machine
foundation work machine																									1	foundation work machine



machine																										machine
food manufacturing machine																										food manufacturing machine
printing machine																										printing machine
industrial robot																										industrial robot
other general power machines			4		1		4	3	3	2	7	4		4	4	3	3	2	3	6	4	1		58	other general power machines	
felling machine																										felling machine
mobile logging machine																										mobile logging machine
skyline yarding machine																										skyline yarding machine
other mobile silviculture machine																										other mobile silviculture machine
crane									1	2			1			1		1	1	2		1		10	crane	
mobile crane					1						1				1		1		1					5	mobile crane	
derrick crane																										derrick crane
elevator, lift			1								1								1		1	4		8	elevator, lift	
cargo lifting appliance																										cargo lifting appliance
gondola																					1			1	gondola	
lumberyard equipment, logging cableway			1																					1	lumberyard equipment, logging cableway	







facilities			6		4		6	11	6	9	13	11	12	10	5	8	12	12	10	8	8	10	11	172	facilities	
scaffolding			2		1			1	1	1		1	1		1	1							1	2	13	scaffolding
timbering																										timbering
stairs, landing stage			18		30		28	36	38	33	25	27	23	41	27	17	28	26	43	33	37	30	38	578	stairs, landing stage	
opening			2		1		4	4	1	3	4	2	2	2	4	3	2	2	3	2	3	5	1	50	opening	
roof, beam, haze, crossbeam, principal rafter					2		3	4			1	1	1	1	2	1	2		1	1	1		1	22	roof, beam, haze, crossbeam, principal rafter	
working platform, boot board			12		10		7	7	9	10	8	14	11	15	10	11	5	11	12	10	9	8	11	190	working platform, boot board	
passage			21		36		36	37	36	38	34	41	32	42	40	43	43	40	47	52	43	31	74	766	passage	
building, establishment			22		24		25	26	34	18	24	21	22	14	25	24	19	16	16	17	17	18	22	404	building, establishment	
other temporary buildings, establishments			13		15		12	16	15	15	13	14	14	15	16	11	15	16	10	13	19	20	16	278	other temporary buildings, establishments	
explosive substance											1													1	explosive substance	
inflammable substance																					2			2	inflammable substance	
inflammable gas															1									1	inflammable gas	
harmful substance					1				1								2							4	harmful substance	
radiation																									radiation	
other hazards, harmful substances							1	1			2		2			1	2	1	2					12	other hazards, harmful substances	

metal material			4		5		5	3	2	2	1	3	5	2	1	2	4	2	2	3	1	6	4	57	metal material
lumber, bamboo					1		1	3		1	1	3	2	3	1	1	3				2	2	2	26	lumber, bamboo
stone, sand, substance			1				2	2	4	3	4	4	2	1	1		1	1	2	3	4	1	1	37	stone, sand, substance
other materials					1			1	1		1	1	1	2		2	3			1	1	1		16	other materials
load			3		6		5	9	7	2	5	3	1	3	6	2	2	6	8	2	9	5	4	88	load
machine/equipment as load			4		2			1					1		1		1		1	1		1	2	15	machine/equipment as load
natural ground, rock			3		2		2	4	4	4	2	2	7	4	8	2	2	2	4		4	1	5	62	natural ground, rock
standing tree			3		4		2	1	2	1	1	2	1	1	1	1	1				2	1	25	standing tree	
water														1	1						1			3	water
abnormal environment					1																1			2	abnormal environment
high/cold temperature environment			1					1	2			1		1	2	1	1	2	3	6	2	5	1	29	high/cold temperature environment
other environments			14		20		10	19	12	7	12	10	16	22	15	22	18	20	19	22	12	15	19	304	other environments
other causal agent			23		13		26	26	19	29	30	22	25	18	14	20	20	16	15	18	15	20	140	509	other causal agent
no causal agent			21		29		25	18	29	22	26	27	28	39	33	34	38	30	26	24	30	50	46	575	no causal agent
unclassifiable			3		10		2	5	5	14	5	5	2	9	3		3	2	3		2	1	1	75	unclassifiable
total			277		325		324	348	337	316	319	307	303	341	339	297	289	286	315	310	315	331	501	6,180	total

Workers age of fatal and non-fatal accidents in railroad service in 1999-2021

Age	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Age
19 years old or less	6	4	3	7	2	3	3	6	4	6	6	4	7	6	2	3	2	3	5	4	6	3	11	106	19 years old or less
20-29	64	67	64	60	80	77	80	72	69	56	66	58	61	72	83	59	51	62	61	62	69	82	108	1,583	20-29
30-39	70	62	41	53	58	58	64	78	73	69	78	68	63	82	78	61	67	53	62	51	63	65	109	1,526	30-39
40-49	98	72	73	75	96	97	80	96	97	86	64	69	51	64	50	49	50	56	62	67	66	62	94	1,674	40-49
50-59	71	86	85	65	80	87	72	76	77	77	77	78	91	94	90	98	86	87	91	86	70	68	123	1,915	50-59
60 years old or more	18	13	11	15	9	16	25	20	17	22	28	30	30	23	36	27	33	25	34	40	41	51	56	620	60 years old or more
total	327	304	277	275	325	338	324	348	337	316	319	307	303	341	339	297	289	286	315	310	315	331	501	7,424	total

Workers' number of workplace of fatal and non-fatal accidents in railroad service in 1999-2021

Workers scale	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Workers scale
9 workers or less	25	16	16	11	15	17	18	23	13	19	9	16	11	19	10	7	9	10	11	11	12	19	12	329	9 workers or less
10-29	39	38	34	39	31	34	27	22	34	27	33	29	32	27	20	24	23	25	28	28	30	43	30	697	10-29
30-49	47	39	36	33	38	33	37	47	29	29	29	38	24	42	42	38	32	35	28	28	34	36	47	821	30-49
50-99	54	45	37	47	62	49	63	56	56	59	61	43	62	56	61	59	42	52	54	60	56	55	84	1,273	50-99
100-299	121	127	106	108	136	157	140	157	160	144	149	152	141	154	165	140	144	132	157	147	146	145	269	3,397	100-299
300 workers or more	41	39	48	37	43	48	39	43	45	38	38	29	33	43	41	29	39	32	37	36	37	33	59	907	300 workers or more
total	327	304	277	275	325	338	324	348	337	316	319	307	303	341	339	297	289	286	315	310	315	331	501	7,424	total

Month of fatal and non-fatal accidents in railroad service in 1999-2021

Month	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Month
January	25	22	30	33	36	27	36	35	27	37	32	40	53	33	45	33	34	27	35	35	44	30	39	788	January
February	40	30	26	25	31	37	37	37	31	32	31	32	29	37	39	35	33	29	31	37	32	31	52	774	February
March	38	29	29	34	31	34	27	30	39	31	31	32	27	42	29	32	30	33	29	22	27	32	26	714	March
April	27	21	16	16	28	28	25	30	24	22	39	31	20	23	27	29	18	24	29	26	31	24	31	589	April
May	25	17	21	19	25	21	25	20	24	16	19	24	19	30	18	19	16	23	11	21	21	23	57	514	May
June	24	26	24	22	32	22	25	37	22	21	21	24	16	33	24	19	25	19	28	22	19	28	33	566	June
July	23	27	25	29	23	27	16	29	24	27	22	22	22	27	25	16	30	31	28	21	22	18	53	587	July
August	24	28	27	20	27	17	22	20	24	21	26	25	17	15	26	25	16	20	21	30	20	27	79	577	August
September	23	28	17	18	24	41	32	26	39	22	27	20	26	32	26	26	27	22	25	31	23	26	33	614	September
October	28	22	17	16	29	22	16	26	29	26	25	17	19	26	31	15	18	18	20	17	28	27	36	528	October
November	28	27	25	24	18	28	30	29	27	28	22	22	23	19	22	16	23	18	23	19	23	20	23	537	November
December	22	27	20	19	21	34	33	29	27	33	24	18	32	24	27	32	19	22	35	29	25	45	39	636	December
total	327	304	277	275	325	338	324	348	337	316	319	307	303	341	339	297	289	286	315	310	315	331	501	7,424	total

Prefecture of fatal and non-fatal accidents in railroad service in 1999-2021

Prefecture	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Prefecture
Hokkaido	11	15	12		15		16	8	14	10	12	14	16	16	19	10	13	23	20	18	25	29	45	361	Hokkaido
Aomori	2	4	2		4		8	1	3	1	3	3	5	7	2	3				1	3	3	3	58	Aomori
Iwate	2		3		2		3	1	1	1	1	1		1	3	4	3	1	1	2	2	1	4	37	Iwate

Miyagi	5	7	7		9		5	3	10	6	5	13	8	6	6	3	6	3	7	4	4	4	6	127	Miyagi
Akita	2	2	3		2		3	2	4	3	2	3	3	5	5	2	1	6	4	4	4	2	4	66	Akita
Yamagata	2	5	3		2			3	4	2	2	6	6	1	6	1		2	7	1	1	4	4	62	Yamagata
Fukushima	8	5	3		4		9	9	5	6	5	9	3	5	6	4	1	2	4	3	2	2	3	98	Fukushima
Ibaraki	7	7	11		11		2	7	5	1	3	3	2	7	8	4	1	1	3			3	5	91	Ibaraki
Tochigi	2	2	2		2			4	3		1	1	2	2	1	3	1	1	2	4	1			34	Tochigi
Gunma	11	16	8		12		14	5	6	10	15	4	11	15	12	12	18	6	11	7	8	5	6	212	Gunma
Saitama	15	9	12		15		15	21	9	17	8	14	12	16	16	10	9	10	6	7	6	14	17	258	Saitama
Chiba	22	16	15		24		22	14	15	8	14	11	12	15	11	16	11	15	16	13	14	13	18	315	Chiba
Tokyo	48	25	41		45		36	53	47	55	42	59	42	51	31	38	46	46	43	43	47	37	45	920	Tokyo
Kanagawa	18	24	21		20		19	38	32	29	22	21	23	33	28	20	15	16	24	23	25	31	30	512	Kanagawa
Niigata	24	10	9		6		7	10	12	9	9	6	8	11	6	10	2	8	8	4	5	11	15	190	Niigata
Toyama	1	4	2		6		2	2	2		1	3	4	1	1	1	6	2	3	4	5	4	5	59	Toyama
Ishikawa	1		1		2		2	3	4	2		1	1	1	2	1	3	4	2	8	5	2	21	66	Ishikawa
Fukui	1	8	2		1		1	1		4	3	2	1	2		2		1	1			3	3	36	Fukui
Yamanashi	1		3		4		2	3	1	1	2		1		2		1	2	2	1		2	1	29	Yamanashi
Nagano	30	18	15		25		29	21	25	24	26	17	23	24	30	33	25	20	24	27	32	37	28	533	Nagano
Gifu		4	2		2		6	4	4	3	2	5	3	2	3	2	2		4	5	3	1	2	59	Gifu
Shizuoka	2	3	4		11		4	3	7	8	5	3	6	8	4	6	5	4	3	6	3	1	3	99	Shizuoka
Aichi	11	11	10		3		18	18	17	10	18	11	12	15	13	12	14	6	9	12	11	7	11	249	Aichi
Mie	5		4		2		4	4	3	3	4	2	2	1	4		3	5	2	2	4	2	2	58	Mie
Shiga	2	7	4		3		1	5	2	1	1	4	6	4	6	3	1	5	1	1	1	4	10	72	Shiga
Kyoto	6	1	2		1		9	8	8	3	8	4	9	8	16	17	7	11	11	12	10	11	13	175	Kyoto

Osaka	28	36	28		33		27	32	31	37	40	30	26	33	33	23	27	28	31	39	33	28	110	733	Osaka
Hyogo	15	14	11		5		12	12	10	10	5	13	12	14	12	9	16	12	13	11	11	19	15	251	Hyogo
Nara	1	1	2		1		1	1	3	3	1	1	1	1	3	2	4	4	4	1	1	4	3	43	Nara
Wakayama	2		1		1		3	2		2			2	1	1		1	3	2		1	1	4	27	Wakayama
Tottori	2				2		1	6			2						2				1	3		19	Tottori
Shimane		2	1		1			2	1	3	1					1			3			1	1	17	Shimane
Okayama	1	8	2		1		5	4	3	6	2	2	1	3	2	4	2	3	4	2	2	4	3	64	Okayama
Hiroshima	5	9	6		18		6	9	8	4	10	6	9	7	8	3	6	7	9	7	12	7	10	166	Hiroshima
Yamaguchi		1			2		1	2		3	4	1	4	3	4	1	3	3	3	3	5	2	2	47	Yamaguchi
Tokushima	1				2		4		2	3	5	1			1	1	5	4	3	2		1		35	Tokushima
Kagawa	7	3	6		7		6	8	10	2	7	5		4	4	2	2	4	3	5	5	3	13	106	Kagawa
Ehime	4	5	2		3		3	3	3	5	5	2	5	2	5	6	2	2	2	2	2	6	1	70	Ehime
Kochi	1	4	1		1		6	2	1	1	1	2	1		2	1		3	2	2	1	1	1	34	Kochi
Fukuoka	4	11	3		8		9	9	13	9	9	11	11	8	14	11	14	6	8	14	14	6	18	210	Fukuoka
Saga	1	1	1					1	1	2		2		2	1		1			1				14	Saga
Nagasaki	4		5		3		1	4	5	7	9	3	4	3	3	5	3	2	2	1	1	7	3	75	Nagasaki
Kumamoto	2	5	2						1	1	4	7	1	2	2	3	1	2	3	2	2	2	5	47	Kumamoto
Oita	3		3		2				2				1		1	2	2	1	1	3			1	22	Oita
Miyazaki	1				1							1	2						1	1		1	1	9	Miyazaki
Kagoshima	6	1	2		1		2			1			1	1	1	4	4	2	3	2	3	2	6	42	Kagoshima
Okinawa													1		1	2								4	Okinawa
total	327	304	277		325		324	348	337	316	319	307	303	341	339	297	289	286	315	310	315	331	501	6,811	total













total	1	4	2	2	2	5	7	2	2	2	1	2	1	2	1	2	3	1	5	1	48	total
-------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	----	-------

Causal agents (small) of fatal accidents in railroad service in 1999-2021

Causal (S) agents	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Causal (S) agents
engine																									engine
power transmission mechanism																				1				1	power transmission mechanism
circular sawing machine																									circular sawing machine
band sawing machine																									band sawing machine
wood planer machine																									wood planer machine
hollow chisel mortiser, wood borer																									hollow chisel mortiser, wood borer
chamfering machine, router, woodworking milling machine																									chamfering machine, router, woodworking milling machine
chain saw																									chain saw
other woodworking machines																									other woodworking machines









pressure vessel																									pressure vessel
other pressure vessels																									other pressure vessels
chemical facilities																									chemical facilities
gas welding equipment																									gas welding equipment
arc welding equipment																									arc welding equipment
other welding equipment																									other welding equipment
kiln, caldron																									kiln, caldron
industrial dryer																									industrial dryer
other kiln, caldron																									other kiln, caldron
transmission			1																					1	transmission
electric power facilities				1			1																	2	electric power facilities
other electrical equipment																									other electrical equipment
human power cranes																									human power cranes
human power hauling equipment																									human power hauling equipment
human power machine																									human power machine

hand tool																								hand tool
ladder																								ladder
slinging tool																								slinging tool
other tools																								other tools
other equipment, facilities																								other equipment, facilities
scaffolding																								scaffolding
timbering																								timbering
stairs, landing stage																								stairs, landing stage
opening									1														1	opening
roof, beam, haze, crossbeam, principal rafter																								roof, beam, haze, crossbeam, principal rafter
working platform, boot board											1												1	working platform, boot board
passage																								passage
building, establishment							1												1				2	building, establishment
other temporary buildings, establishments																								other temporary buildings, establishments
explosive substance																								explosive substance
inflammable substance																								inflammable substance

inflammable gas																							inflammable gas	
harmful substance																							harmful substance	
radiation																							radiation	
other hazards, harmful substances														1								1	other hazards, harmful substances	
metal material																							metal material	
lumber, bamboo																							lumber, bamboo	
stone, sand, substance																							stone, sand, substance	
other materials																							other materials	
load																							load	
machine/equipment as load																							machine/equipment as load	
natural ground, rock						1																1	natural ground, rock	
standing tree																							standing tree	
water																							water	
abnormal environment																							abnormal environment	
high/cold temperature environment																							high/cold temperature environment	
other environments																	1		1			2	other environments	
other causal agent			1																			1	2	other causal agent

no causal agent															1								1		2	no causal agent
unclassifiable																										unclassifiable
total		1	4	2	2	2	5	7	2	2		2	1		2	1	2	1	2	3	1	5	1	48	total	

### Workers age of fatal accidents in railroad service in 1999-2021

Age	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Age
19 years old or less																									19 years old or less
20-29			2	1	1		3	1				1					1					2		12	20-29
30-39						1	1		1	1										1				5	30-39
40-49					1		1	5	1						1		1			1		2		13	40-49
50-59		1				1				1					1	1			2	1		1	1	10	50-59
60 years old or more			2	1				1				1	1				1				1			8	60 years old or more
total		1	4	2	2	2	5	7	2	2		2	1		2	1	2	1	2	3	1	5	1	48	total

### Workers' number of workplace of fatal accidents in railroad service in 1999-2021

Workers scale	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Workers scale
9 workers or less									1						1									2	9 workers or less
10-29			1			1		2	1						1					1	1	1		9	10-29
30-49			1	1	2	1	1	5		2		1				1			1	1		1		18	30-49
50-99																	1		1			3		5	50-99

100-299		1	1	1				3						1					1		1			1	10	100-299
300 workers or more			1					1						1											4	300 workers or more
total		1	4	2	2	2	5	7	2	2			2	1		2	1	2	1	2	3	1	5	1	48	total

Month of fatal accidents in railroad service in 1999-2021

Month	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Month	
January			1					3						1	1	1									7	January
February			2							1			1			1		1		1					7	February
March					1	1	1					2								1					6	March
April							2																		2	April
May																							1	1	May	
June				1	1																				2	June
July									1																1	July
August			1					1															3	5	August	
September																						1		1	September	
October				1				1	1																3	October
November						1				1										1					3	November
December		1					2	2							1			1	1	1		1		10	December	
total		1	4	2	2	2	5	7	2	2		2	1		2	1	2	1	2	3	1	5	1	48	total	

Prefecture of fatal accidents in railroad service in 1999-2021







Miyazaki																										Miyazaki	
Kagoshima																											Kagoshima
Okinawa																											Okinawa
total		1	4	2	2	2	5	7	2	2		2	1		2	1	2	1	2	3	1	5	1	48	total		

Data sources: <https://anzeninfo.mhlw.go.jp/user/anzen/tok/anst00.htm> (MHLW, Japan)

Return to [https://www.jisha.or.jp/english/statistics/2021e\\_industry.html](https://www.jisha.or.jp/english/statistics/2021e_industry.html)