

contact to harmful substance	5	3	8	4	4	3	4	3	1	1	1	2	2	2	2	4		6	1	4	3	1	1	65	contact to harmful substance
electric shock		1												1	4	2				1	1		1	11	electric shock
explosion	2		3	1		2		1	1	1	1	1		4					1					18	explosion
burst	1	3	2	1			2		1			1			1	1		3	1					17	burst
fire	1	3	2	1	2	3	3	1			1		2		2		1		1	2			1	26	fire
traffic accident (public road)	98	97	108	77	80	83	85	61	49	50	47	59	58	51	57	49	50	60	55	32	45	40	46	1,437	traffic accident (public road)
traffic accident (others)	4	4	1	1			1			1			1	1		2		1	1				1	19	traffic accident (others)
reaction to motion/improper motion	68	71	55	52	53	43	43	30	37	35	27	28	41	30	37	31	37	41	41	38	40	39	53	970	reaction to motion/improper motion
others	4	7	8	7	4	12	5	5	4	4	3	2	14	3	6	5	8	4	7	4	5	9	46	176	others
unclassifiable	2	1		1		2		2		1	2			1	4		1		1	1	2	1		22	unclassifiable
total	2,087	1,905	1,754	1,508	1,350	1,282	1,233	1,029	902	930	868	768	821	794	792	806	767	709	744	695	743	747	862	24,096	total

Causal agents (large) of fatal and non-fatal accidents in road construction work in 1999-2021

Causal (L) 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 (L) agents
machine	555	465	478	424	359	331	332	287	260	267	249	231	207	224	211	226	191	180	179	182	186	188	187	6,399	machine
crane, conveying	362	376	343	280	277	259	262	198	191	211	183	191	185	174	178	181	174	157	181	152	166	160	187	5,028	crane, conveying

machine																										machine
other equipment	185	154	154	107	121	120	125	77	75	61	93	56	66	77	64	87	75	67	66	59	65	66	86	2,106	other equipment	
temporary buildings, establishments	314	286	235	231	213	180	179	159	138	158	119	91	120	107	112	117	117	115	123	109	131	128	150	3,632	temporary buildings, establishments	
substance, material	334	321	268	222	160	154	155	146	119	91	105	79	100	85	75	73	74	88	78	68	90	65	81	3,031	substance, material	
load	41	55	47	37	29	32	30	22	23	22	16	20	17	19	18	13	20	16	16	16	14	21	25	569	load	
environment	256	200	200	179	173	170	129	123	81	104	86	76	99	95	112	95	101	70	79	88	79	96	79	2,770	environment	
others	40	48	29	28	18	36	21	17	15	16	17	24	27	13	22	14	15	16	22	21	12	23	67	561	others	
total	2,087	1,905	1,754	1,508	1,350	1,282	1,233	1,029	902	930	868	768	821	794	792	806	767	709	744	695	743	747	862	24,096	total	

Causal agents (middle) of fatal and non-fatal accidents in road construction work in 1999-2021

Causal (M) 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 (M) agents
engine	1	2	1	3				1		1		2					1	1		1				14	engine
power transmission mechanism	1	2	4	1		2	1	2	2	1	3		1	1						1		1		23	power transmission mechanism
woodworking machine	56	47	61	43	55	35	41	29	20	20	22	20	26	23	22	20	20	20	16	13	16	21	17	663	woodworking machine
construction machine	433	347	354	328	249	256	252	213	203	220	190	175	154	168	166	175	135	131	128	134	136	131	131	4,809	construction machine

other equipments, facilities	12	8	14	7	11	12	11	5	8	4	6	3	3	7	8	10	6	10	8	3	3	4	3	166	equipments, facilities
temporary buildings, establishments	314	286	235	231	213	180	179	159	138	158	119	91	120	107	112	117	117	115	123	109	131	128	150	3,632	temporary buildings, establishments
hazards, harmful substances	13	19	17	14	8	10	8	8	6	2	4	2	6	7	3	1	1	5	4	5	7	3	1	154	hazards, harmful substances
materials	321	302	251	208	152	144	147	138	113	89	101	77	94	78	72	72	73	83	74	63	83	62	80	2,877	materials
load	41	55	47	37	29	32	30	22	23	22	16	20	17	19	18	13	20	16	16	16	14	21	25	569	load
natural environment	256	200	200	179	173	170	129	123	81	104	86	76	99	95	112	95	101	70	79	88	79	96	79	2,770	natural environment
other causal agent	14	16	11	8	8	10	7	7	3	3	3	3	6	1	4	3	2	4	5	5	1	5	45	174	other causal agent
no causal agent	24	28	16	19	10	16	13	10	12	12	12	19	20	10	16	11	12	11	17	16	10	17	22	353	no causal agent
unclassifiable	2	4	2	1		10	1			1	2	2	1	2	2		1	1			1	1		34	unclassifiable
total	2,087	1,905	1,754	1,508	1,350	1,282	1,233	1,029	902	930	868	768	821	794	792	806	767	709	744	695	743	747	862	24,096	total

Causal agents (small) of fatal and non-fatal accidents in road construction work 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			1					1		1		2					1	1		1				8	engine
power transmission			4				1	2	2	1	3		1	1						1		1		17	power transmission

mechanism																									mechanism
circular sawing machine			37		31		24	17	16	8	10	7	8	12	12	12	10	10	7	5	8	7	5	246	circular sawing machine
band sawing machine										1					1									2	band sawing machine
wood planer machine			1		1										1								1	4	wood planer machine
hollow chisel mortiser, wood borer										1														1	hollow chisel mortiser, wood borer
chamfering machine, router, woodworking milling machine																		1						1	chamfering machine, router, woodworking milling machine
chain saw			18		21		11	9	3	9	12	9	14	9	6	6	9	7	4	6	8	13	8	182	chain saw
other woodworking machines			5		2		6	3		2		4	4	2	2	2	1	2	5	2		1	3	46	other woodworking machines
leveling, transporting or loading machine			62		49		35	41	26	32	24	25	23	24	32	25	31	18	24	27	18	14	25	555	leveling, transporting or loading machine
excavating machine			150		108		131	91	100	99	89	78	73	84	84	85	56	57	68	66	69	75	64	1,627	excavating machine
foundation work machine			8		3		3	10	4	2	3	1	1	3	3	3	2	3	4	6	2	2	1	64	foundation work machine
hardening machine			63		34		33	32	32	37	30	37	22	22	19	27	23	27	16	21	18	21	17	531	hardening machine
demolition machine			14		10		9	9	9	11	15	9	7	11	5	6	5	6	2	3	5	3	4	143	demolition machine

vehicle for high lift work			2		2		2	1		4	1			1		2	1			1		2	2	21	vehicle for high lift work
other construction machines			55		43		39	29	32	35	28	25	28	23	23	27	17	20	14	10	24	14	18	504	other construction machines
lathe			1		1					1												1		4	lathe
drill press, milling machine							1			1													1	3	drill press, milling machine
grinding machine, buffing machine			6		6		7	5	7	5	4	2	4	9	5	6	7	4	5	9	5	6	7	109	grinding machine, buffing machine
power press					1		1																	2	power press
forging pressure hammer																	1							1	forging pressure hammer
shearing machine			1																					1	shearing machine
other metal manufacturing machines			7		6		4	6	3	2	5	2	4	3	1	2	6	1	2	4	2	2	4	66	other metal manufacturing machines
centrifugal machine																									centrifugal machine
mixer, grinder			6		3		2	1	1	1	3	4	3		3	3	3		2	2	1			38	mixer, grinder
roll machine (except printingroll machine)								1																1	roll machine (except printingroll machine)
injection molding machine																									injection molding machine
food manufacturing machine																									food manufacturing machine

printing machine																										printing machine	
industrial robot																											industrial robot
other general power machines			37		38		24	28	24	15	22	26	15	20	14	20	15	21	21	17	25	23	25	430		other general power machines	
felling machine																2	2	2	1	1	2	2	12			felling machine	
mobile logging machine																1		3					4			mobile logging machine	
skyline yarding machine																					1		1			skyline yarding machine	
other mobile silviculture machine																										other mobile silviculture machine	
crane			3		3		5	5	3	7	5	2	3	2	2	4	4		6		4	5	4	67		crane	
mobile crane			47		34		36	25	26	33	23	32	24	15	27	20	26	17	25	31	24	19	15	499		mobile crane	
derrick crane							1																1			derrick crane	
elevator, lift																										elevator, lift	
cargo lifting appliance					1															1			2			cargo lifting appliance	
gondola																										gondola	
lumberyard equipment, logging cableway							1																1			lumberyard equipment, logging cableway	
simple skyline yarding equipment																										simple skyline yarding equipment	
other powered			2		2		2	2		1	2					1			1			1	14			other powered	

crane																								crane		
truck			202		159		139	106	124	124	115	111	107	112	104	107	107	89	104	92	97	100	125	2,224	truck	
forklift			3			2	1	1	2		1	3		1					2		1	1	2	20	forklift	
railway equipment																							1	1	railway equipment	
conveyor					2		2	1		1	1		2	3	1	2	2	2	2	2	1	1	2	27	conveyor	
loader			4		2		3	5		2	1			2		2				1	1		1	24	loader	
straddle carrier																									straddle carrier	
rough terrain hauler			4		7		4	3	2	5	7		3	2	5	7	1	2	3	3	2	1	3	64	rough terrain hauler	
other powered conveying machines			1		9		8	1	2	2	1	3	1	5	4	5	2	1	3		1	2	2	53	other powered conveying machines	
cars, bus, motorcycle			74		58		60	47	32	33	27	41	41	33	34	34	31	46	36	21	33	31	31	743	cars, bus, motorcycle	
railway vehicle											1													1	railway vehicle	
other vehicles			3				1		1	1		1	1							1	1			10	other vehicles	
boiler																									boiler	
pressure vessel					1																			1	pressure vessel	
other pressure vessels					1			1		2						1	1				2	2		10	other pressure vessels	
chemical facilities																									chemical facilities	
gas welding equipment							1				2						1							4	gas welding equipment	
arc welding equipment					1																			1	arc welding equipment	
other welding																								1	1	other welding

equipment																								equipment	
kiln, caldron			1							1				1										4	kiln, caldron
industrial dryer																									industrial dryer
other kiln, caldron					1					1														2	other kiln, caldron
transmission									1						1				1	1			1	5	transmission
electric power facilities			1				1								1								1	5	electric power facilities
other electrical equipment			3		1				1		2			3		2		1			1		1	15	other electrical equipment
human power cranes					1						3		1		1	1				1			2	10	human power cranes
human power hauling equipment			5		4		3	1	2	1	2	2	3	2	1	2	1	2	2	1	1	2	3	40	human power hauling equipment
human power machine			5		2		1	2			2	2	1		1	2	2		1	1				22	human power machine
hand tool			54		41		35	25	24	18	24	12	17	24	15	24	16	12	13	15	22	15	14	420	hand tool
ladder			37		28		35	18	17	15	30	14	16	18	16	24	25	25	23	14	18	20	29	422	ladder
slinging tool			12		14		15	13	13	6	9	12	9	12	11	10	12	8	11	10	8	14	15	214	slinging tool
other tools			22		15		23	12	9	15	11	11	16	11	10	9	11	9	6	11	9	11	16	237	other tools
other equipment, facilities			14		11		11	5	8	4	6	3	3	7	8	10	6	10	8	3	3	4	3	127	other equipment, facilities
scaffolding			36		24		15	14	13	15	12	5	8	5	6	8	8	7	11	6	6	5	7	211	scaffolding
timbering			10		11		7	9	9	5	5	2		3	3		5	2	2	2	1	3	7	86	timbering
stairs, landing stage			4		5		8	10	6	9	6	5	11	12	10	2	8	8	9	7	8	10	5	143	stairs, landing stage

opening			1	4	8	6	5	2	3	1	3	2	3	4	5	6	2	3	3	6	4	71	opening
roof, beam, haze, crossbeam, principal rafter			3	5	2	2		1	3	3	6	1	2	2	1	5	1	3	3		5	48	roof, beam, haze, crossbeam, principal rafter
working platform, boot board			27	31	18	9	13	16	24	8	14	14	12	17	10	9	15	15	16	15	11	294	working platform, boot board
passage			41	31	43	37	34	38	24	28	33	22	28	38	22	40	30	27	44	33	47	640	passage
building, establishment			86	66	52	50	40	45	27	24	32	29	29	35	37	22	35	26	34	40	44	753	building, establishment
other temporary buildings, establishments			27	36	26	22	18	27	15	15	13	19	19	11	21	16	18	20	16	16	20	375	other temporary buildings, establishments
explosive substance			1																			1	explosive substance
inflammable substance			4	1	3	4	1		1		2		1		1		1	2	1			22	inflammable substance
inflammable gas			3	3	4	2	1	1				4							1			19	inflammable gas
harmful substance			3	1		2	2			2	2					2	1	2		1		18	harmful substance
radiation																							radiation
other hazards, harmful substances			6	3	1		2	1	3		2	3	2	1	1	2	3	2	4	1	1	38	other hazards, harmful substances
metal material			99	58	51	48	37	40	40	36	40	31	30	17	30	35	30	35	34	30	29	750	metal material
lumber, bamboo			30	21	25	18	21	6	18	11	15	11	9	8	15	9	15	4	13	11	14	274	lumber, bamboo
stone, sand, substance			69	40	42	37	23	17	19	11	17	20	18	25	13	22	10	10	20	12	19	444	stone, sand, substance
other materials			53	33	29	35	32	26	24	19	22	16	15	22	15	17	19	14	16	9	18	434	other materials

load			39		25		25	21	20	18	13	16	12	16	10	13	18	12	15	14	11	18	20	336	load
machine/equipment as load			8		4		5	1	3	4	3	4	5	3	8		2	4	1	2	3	3	5	68	machine/equipment as load
natural ground, rock			128		109		80	75	51	57	47	42	49	50	56	44	48	35	41	40	36	41	36	1,065	natural ground, rock
standing tree			37		37		30	30	18	24	32	14	28	21	22	23	24	16	16	22	14	21	14	443	standing tree
water			1		3		1	2				1	7			1			1		1	1	3	22	water
abnormal environment			2		1		1		1	1				1	1		1				1			10	abnormal environment
high/cold temperature environment			16		7		5	11	5	12	3	15	6	9	13	10	13	14	7	18	13	18	14	209	high/cold temperature environment
other environments			16		16		12	5	6	10	4	4	9	14	20	17	15	5	14	8	14	15	12	216	other environments
other causal agent			11		8		7	7	3	3	3	3	6	1	4	3	2	4	5	5	1	5	45	126	other causal agent
no causal agent			16		10		13	10	12	12	12	19	20	10	16	11	12	11	17	16	10	17	22	266	no causal agent
unclassifiable			2				1			1	2	2	1	2	2		1	1			1	1		17	unclassifiable
total			1,754		1,350		1,233	1,029	902	930	868	768	821	794	792	806	767	709	744	695	743	747	862	17,314	total

Workers age of fatal and non-fatal accidents in road construction work 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	68	49	35	37	29	15	19	15	12	13	15	13	13	10	21	20	16	13	18	12	15	12	16	486	19 years old or less
20-29	291	276	268	251	201	166	155	124	89	100	81	65	64	84	79	76	78	72	86	62	73	74	106	2,921	20-29

30-39	207	208	177	183	194	191	185	162	155	151	150	141	155	156	130	139	96	79	94	95	78	82	98	3,306	30-39
40-49	337	325	298	276	212	229	208	165	143	148	137	148	131	132	143	154	146	148	156	139	147	149	189	4,260	40-49
50-59	566	506	535	412	414	385	377	319	284	301	251	219	220	195	185	171	196	154	140	150	169	163	184	6,496	50-59
60 years old or more	618	541	441	349	300	296	289	244	219	217	234	182	238	217	234	246	235	243	250	237	261	267	269	6,627	60 years old or more
total	2,087	1,905	1,754	1,508	1,350	1,282	1,233	1,029	902	930	868	768	821	794	792	806	767	709	744	695	743	747	862	24,096	total

Workers' number of workplace of fatal and non-fatal accidents in road construction work 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	858	814	711	632	598	578	562	488	435	447	412	340	370	366	376	364	326	344	317	322	320	321	351	10,652	9 workers or less
10-29	871	772	719	632	550	498	526	426	346	356	341	331	329	325	307	337	310	252	299	263	297	306	351	9,744	10-29
30-49	232	190	211	150	117	119	87	84	77	84	74	64	80	64	73	66	82	66	81	67	78	72	101	2,319	30-49
50-99	99	105	81	62	58	63	45	23	32	36	33	26	38	33	27	30	35	33	38	32	33	33	40	1,035	50-99
100-299	26	21	32	30	26	22	12	6	11	7	8	7	4	6	9	8	12	13	8	11	13	12	18	322	100-299
300 workers or more	1	3		2	1	2	1	2	1							1	2	1	1		2	3	1	24	300 workers or more
total	2,087	1,905	1,754	1,508	1,350	1,282	1,233	1,029	902	930	868	768	821	794	792	806	767	709	744	695	743	747	862	24,096	total

Month of fatal and non-fatal accidents in road construction work 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	191	178	125	140	126	129	106	96	80	84	79	56	92	72	78	84	72	42	61	62	57	58	69	2,137	January
February	214	223	157	149	135	162	121	119	100	122	89	88	65	84	63	79	71	82	68	71	63	71	77	2,473	February

March	196	199	217	162	162	144	135	95	102	104	88	96	81	91	70	76	56	65	58	57	74	63	72	2,463	March
April	135	121	141	104	83	85	79	70	51	53	56	36	47	52	58	52	50	45	58	39	36	51	61	1,563	April
May	149	138	99	99	70	74	67	77	52	54	62	55	43	60	53	61	44	51	66	45	50	54	60	1,583	May
June	150	120	115	103	77	84	92	71	52	55	60	61	72	56	60	50	64	52	61	42	51	54	66	1,668	June
July	171	165	142	141	121	94	110	61	88	73	74	53	48	68	77	81	76	84	76	77	68	57	85	2,090	July
August	160	149	148	115	99	79	87	95	60	67	59	71	70	53	64	56	70	57	62	53	69	70	83	1,896	August
September	206	160	141	116	123	103	97	89	61	60	75	66	58	52	65	63	60	51	43	55	53	65	85	1,947	September
October	173	153	144	140	118	113	96	87	88	102	74	53	88	74	58	83	77	67	59	77	79	65	66	2,134	October
November	187	164	155	138	115	118	121	90	83	84	68	69	82	58	76	54	67	56	67	73	74	72	63	2,134	November
December	155	135	170	101	121	97	122	79	85	72	84	64	75	74	70	67	60	57	65	44	69	67	75	2,008	December
total	2,087	1,905	1,754	1,508	1,350	1,282	1,233	1,029	902	930	868	768	821	794	792	806	767	709	744	695	743	747	862	24,096	total

Prefecture of fatal and non-fatal accidents in road construction work 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	114	119	114		87		82	50	44	46	42	39	51	35	57	53	40	39	40	45	42	48	59	1,246	Hokkaido
Aomori	28	33	22		28		15	8	5	18	10	11	12	12	19	17	12	21	14	17	9	13	10	334	Aomori
Iwate	37	37	30		18		13	12	14	14	15	11	13	14	16	18	14	9	21	26	28	19	26	405	Iwate
Miyagi	33	17	24		16		15	17	20	16	11	13	20	19	16	14	13	12	7	16	27	24	23	373	Miyagi
Akita	28	14	16		14		16	16	9	23	17	13	15	9	8	15	20	12	11	10	16	19	11	312	Akita
Yamagata	25	34	26		20		7	9	14	7	6	11	11	6	7	18	13	9	15	10	11	3	13	275	Yamagata
Fukushima	29	35	30		21		25	24	21	36	31	27	26	26	17	30	25	20	28	11	14	18	21	515	Fukushima
Ibaraki	41	22	21		22		29	10	15	20	19	20	15	17	17	16	17	17	24	18	6	19	15	400	Ibaraki
Tochigi	36	36	18		10		19	8	7	13	16	11	10	10	9	7	9	7	5	3	8	10	8	260	Tochigi

Gunma	48	30	39		16		12	16	14	15	19	20	12	11	14	10	8	14	19	19	8	8	13	365	Gunma
Saitama	50	42	49		44		47	32	27	41	34	22	23	27	17	35	25	13	24	21	21	24	25	643	Saitama
Chiba	39	29	33		22		32	22	23	31	19	19	22	12	21	26	23	23	13	22	18	13	24	486	Chiba
Tokyo	67	75	52		63		53	52	48	43	45	33	33	41	29	30	26	23	23	27	31	36	41	871	Tokyo
Kanagawa	49	58	50		31		37	34	30	34	25	28	35	20	22	29	26	22	20	22	20	21	26	639	Kanagawa
Niigata	39	29	35		19		47	26	22	20	22	16	20	20	19	12	12	10	9	16	13	8	13	427	Niigata
Toyama	25	22	31		11		11	10	12	9	18	7	7	18	5	15	5	5	9	4	11	10	13	258	Toyama
Ishikawa	19	21	19		22		9	15	4	6	12	9	15	9	11	10	4	7	5	6	12	5	9	229	Ishikawa
Fukui	30	25	36		16		7	9	8	13	6	6	17	11	11	12	10	2	5	6	5	5	8	248	Fukui
Yamanashi	17	29	24		21		15	7	12	12	10	9	10	11	12	20	12	9	7	6	18	5	12	278	Yamanashi
Nagano	63	54	38		42		28	15	17	16	28	21	18	23	16	23	22	24	20	20	21	24	25	558	Nagano
Gifu	77	51	49		60		22	26	20	24	16	20	11	15	16	11	13	17	17	20	16	27	22	550	Gifu
Shizuoka	74	75	62		42		38	42	34	32	26	22	39	30	21	15	28	17	20	25	22	25	21	710	Shizuoka
Aichi	54	53	46		38		37	33	28	30	26	33	14	20	36	42	29	16	33	19	17	22	26	652	Aichi
Mie	51	32	36		22		23	12	21	12	9	9	15	25	20	21	19	18	17	23	17	3	12	417	Mie
Shiga	12	16	10		16		10	4	10	11	6	3	7	3	1	4	7	2	2	3	3	4	16	150	Shiga
Kyoto	32	19	19		19		12	10	8	7	10	3	14	11	13	12	13	10	12	12	10	7	9	262	Kyoto
Osaka	38	26	50		35		19	14	25	30	13	10	13	14	16	21	14	15	14	16	10	14	13	420	Osaka
Hyogo	58	39	40		45		44	34	30	19	22	17	24	31	16	16	19	19	11	14	12	14	17	541	Hyogo
Nara	34	16	20		23		19	17	14	16	12	9	7	10	9	14	7	6	5	5	7	6	7	263	Nara
Wakayama	60	46	35		43		33	35	26	27	24	18	21	26	27	21	26	26	12	12	17	15	17	567	Wakayama
Tottori	9	8	11		13		10	11	4	6	6	6	12	5	7	2	9	10	11	6	6	10	9	171	Tottori
Shimane	27	29	32		24		31	14	19	19	17	17	16	7	14	13	11	8	14	9	14	15	22	372	Shimane

Okayama	63	49	51		33		28	23	13	17	15	17	11	15	23	18	12	10	8	9	16	6	11	448	Okayama
Hiroshima	57	65	66		44		30	31	32	25	23	13	20	21	15	14	15	11	20	18	21	17	18	576	Hiroshima
Yamaguchi	41	44	35		22		26	14	23	8	20	18	17	22	13	7	14	16	11	12	16	7	20	406	Yamaguchi
Tokushima	50	43	59		26		35	34	29	22	24	16	23	14	16	17	12	16	27	12	18	24	14	531	Tokushima
Kagawa	22	13	7		15		13	13	5	12	5	9	2	8	6	4	5	4	7	5	8	10	11	184	Kagawa
Ehime	88	89	74		44		41	38	27	19	23	18	11	16	21	13	12	17	18	26	15	15	22	647	Ehime
Kochi	83	56	49		30		35	33	27	20	17	16	25	18	30	16	30	26	28	13	23	24	23	622	Kochi
Fukuoka	91	98	71		48		57	49	33	36	38	26	33	34	35	24	32	24	25	27	22	23	38	864	Fukuoka
Saga	15	27	19		12		11	12	3	9	3	13	12	10	10	14	14	10	15	4	7	8	9	237	Saga
Nagasaki	40	45	47		24		23	23	13	8	13	16	7	13	9	13	8	10	10	11	5	12	9	359	Nagasaki
Kumamoto	40	39	42		38		32	24	23	16	30	24	17	19	21	13	14	23	28	19	21	24	20	527	Kumamoto
Oita	50	41	28		28		29	16	14	15	9	13	18	11	12	15	17	16	19	20	14	16	21	422	Oita
Miyazaki	44	54	51		15		23	36	26	30	17	20	11	18	17	16	14	16	17	12	28	30	26	521	Miyazaki
Kagoshima	52	61	34		44		30	36	28	25	37	33	32	26	23	15	28	47	23	15	36	31	29	685	Kagoshima
Okinawa	8	10	4		4		3	3	1	2	2	3	4	1	2	5	9	1	1	3	3	6	5	80	Okinawa
total	2,087	1,905	1,754		1,350		1,233	1,029	902	930	868	768	821	794	792	806	767	709	744	695	743	747	862	21,306	total

Fatal and non-fatal accidents mean fatal and non-fatal injuries and occupational diseases with work absence of 4 days and more. Data of 2011 year include fatal and non-fatal accidents caused by Great East Japan Earthquake in 2011.

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

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contact to harmful substance						1							1												2	harmful substance	
electric shock																											electric shock
explosion																											explosion
burst							1																	1		burst	
fire	1		1					1						1											4	fire	
traffic accident (public road)	8	15	18	10	8	12	10	8	7	3	6	2	1	2	6	4	3	8	6	2	3	2	5	149	traffic accident (public road)		
traffic accident (others)				1			1												1					3	traffic accident (others)		
reaction to motion/improper motion																										reaction to motion/improper motion	
others						1	1			1			4	1	1				1				1	11	others		
unclassifiable																				1				1	unclassifiable		
total	92	84	82	72	63	53	63	44	38	30	26	28	33	36	41	30	21	27	26	20	20	18	17	964	total		

Causal agents (large) of fatal accidents in road construction work in 1999-2021

Causal (L) 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 (L) agents
machine	35	27	22	24	28	15	20	16	14	11	10	13	10	10	11	9	7	7	8	9	4	7	3	320	machine
crane, conveying machine	25	25	32	22	14	18	20	9	13	10	9	5	3	10	10	10	5	12	8	6	8	3	6	283	crane, conveying machine

																										machine
other equipment	2	3	3	2	5	1	5	2	1			1		1		1	2		1			1			31	other equipment
temporary buildings, establishments	11	6	6	6	5	5	4	7	2	1	2	3	2	3	5	2	2		4	3	3	2	4	88	temporary buildings, establishments	
substance, material	3	2	1	1		1	2	1					3	1					1			1		17	substance, material	
load		1					1							1	1									4	load	
environment	15	20	17	17	11	12	11	9	8	7	5	6	13	9	13	8	5	7	3	2	4	4	3	209	environment	
others	1		1			1				1			2	1	1			1	1		1		1	12	others	
total	92	84	82	72	63	53	63	44	38	30	26	28	33	36	41	30	21	27	26	20	20	18	17	964	total	

Causal agents (middle) of fatal accidents in road construction work in 1999-2021

Causal (M) 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 (M) agents	
engine																										engine
power transmission mechanism				1																					1	power transmission mechanism
woodworking machine							1														1				2	woodworking machine
construction machine	34	27	21	23	28	14	18	16	13	11	10	12	9	10	11	9	5	6	6	8	3	7	3	304	construction machine	

metal manufacturing machine																											metal manufacturing machine		
general machine	1		1			1	1		1			1	1				1										8	general machine	
mobile silviculture machine																	1	1	2		1						5	mobile silviculture machine	
crane	3		3	2	1	1	1		3		2	2	1		2	1	1	1		2	1	1					28	crane	
conveying machine	18	19	20	12	9	11	9	6	7	9	6	2	2	9	5	6	3	7	7	2	6				5	180	conveying machine		
vehicle	4	6	9	8	4	6	10	3	3	1	1	1		1	3	3	1	4	1	2	1	2	1			75	vehicle		
pressure vessel							1																				1	pressure vessel	
chemical facilities																													chemical facilities
welding equipment																													welding equipment
kiln, caldron																													kiln, caldron
electric equipment			1																								1	electric equipment	
human power machine, tools	1																										1	human power machine, tools	
tools	1	3	2	2	5	1	4	2	1			1		1		1	2		1			1				28	tools		
other equipments, facilities																													other equipments, facilities

circular sawing machine							1													1				2	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
leveling, transporting or loading machine	5	3	2	1	3	2	4	3	4	1	2	1	1		1	2	2	1	1	2	1	1		43	leveling, transporting or loading machine
excavating machine	21	16	13	12	16	6	8	5	8	5	5	3	4	7	7	3	1	2	2	3		2	1	150	excavating machine
foundation work machine			1																1	1				3	foundation work machine
hardening machine	8	6	4	9	5	3	5	5		4	1	5	2	1	1	4	1	3	1	1	2	3	1	75	hardening machine
demolition machine		1			1	1						1	1		1									6	demolition machine
vehicle for high lift														1									1	2	vehicle for high lift

kiln, caldron																								kiln, caldron
industrial dryer																								industrial dryer
other kiln, caldron																								other kiln, caldron
transmission																								transmission
electric power facilities																								electric power facilities
other electrical equipment			1																				1	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	1																						1	hand tool
ladder				1			1							1									3	ladder
slinging tool	1	2	1	1	1	1	3	2	1			1			1	2		1			1		19	slinging tool
other tools		1	1		4																		6	other tools
other equipment, facilities																								other equipment, facilities
scaffolding	3	1		1	1		1							1	1							1	10	scaffolding
timbering			1						1														2	timbering
stairs, landing stage						1															1		2	stairs, landing stage
opening							1							1				1			2		5	opening

50-59	26	21	31	24	26	19	27	16	7	12	8	10	8	10	6	12	7	6	5	2	6	3	1	293	50-59
60 years old or more	36	38	25	24	13	17	14	8	15	6	11	10	14	11	19	9	9	11	10	12	9	6	9	336	60 years old or more
total	92	84	82	72	63	53	63	44	38	30	26	28	33	36	41	30	21	27	26	20	20	18	17	964	total

Workers' number of workplace of fatal accidents in road construction work 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	27	27	32	24	14	23	28	23	15	7	11	11	12	17	10	9	9	11	8	9	8	8	3	346	9 workers or less
10-29	35	33	28	29	33	23	25	14	17	15	7	13	10	14	20	15	9	13	11	6	8	9	8	395	10-29
30-49	21	12	11	11	14	2	6	6	4	6	7	3	9	2	1	4	2	2	5	4	3	1	2	138	30-49
50-99	6	9	6	6	2	4	2	1	2	1	1	1	2	3	4	2	1	1	2	1	1		2	60	50-99
100-299	3	3	4	2		1	1			1					6								2	23	100-299
300 workers or more			1			1																		2	300 workers or more
total	92	84	82	72	63	53	63	44	38	30	26	28	33	36	41	30	21	27	26	20	20	18	17	964	total

Month of fatal accidents in road construction work 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	9	9	7	9	5	2	7	5	2	2		3	3	2	5	1	4	2	3		2		2	84	January
February	7	13	5	5	6	6	6	7	3	6	4	5	3	4	1	3	2	1	1	3	3		3	97	February
March	12	7	11	14	5	6	10	2	2	4	2	2	9	1	2		1	3		3	1	1	1	99	March
April	7	5	6	5	7	1	1	2	4			1	2	1	3	4	3	2		1		1		56	April
May	6	4	5	4	2	3	3	1	2		3	2	1	1	1	1	2		6	1	3	2		53	May
June	6	6	6	3	6	4	6	1	3	1	6	1	2	4	3	3	1	1	2	2		2	3	72	June

July	5	7	5	5	5	3	3	6	4	4		5		7	7	4		3	2	3	3			81	July
August	7	9	11	5	9	3	6	6	1	2	1	3	3	2	2	4	2	3	1		1	2	2	85	August
September	12	4	7	5	5	9	2	3	2	1	2	1	2	3	5	2	2	2		1	2	2	1	75	September
October	7	6	4	2	5	4	5	3	8	5	3	1	5	4	3	3	2	3	5	5	2	2	4	91	October
November	8	8	7	8	5	6	7	2	2	1	2	1	2	5	5	2	2	3	4	1		3		84	November
December	6	6	8	7	3	6	7	6	5	4	3	3	1	2	4	3		4	2		3	3	1	87	December
total	92	84	82	72	63	53	63	44	38	30	26	28	33	36	41	30	21	27	26	20	20	18	17	964	total

Prefecture of fatal accidents in road construction work 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	10	9	4	3	7	7	4	2	1	2		2	1	4	4	1	1	2	1		2			67	Hokkaido
Aomori		2	2	2	2	1	1			1			1			2								14	Aomori
Iwate	1	3	1	2	3	1	2		1	2	1		3		1	2	1			2	2		1	29	Iwate
Miyagi	4	1	2	1				1	1			1	5	2				2	1			1		22	Miyagi
Akita	3		2			2	2		1	1					5	1			1					18	Akita
Yamagata	4	1	2				1			1	1			1	1	2					1			15	Yamagata
Fukushima	1	1	3	3	2		4	2			5	1	1	1	3	1	1	2	2					33	Fukushima
Ibaraki			2	1		2	2	1	1	1				2	2	1		2				1		18	Ibaraki
Tochigi	2	6	1	1		1	2	1				1									1			16	Tochigi
Gunma		1	1				1		1	1													2	7	Gunma
Saitama	3	2	3	3	3	2	3		1				1		2				3	1	1		1	29	Saitama
Chiba	1	2	2		1	1	2	1	3	1	2		1	1	1	1	1							21	Chiba

Tokyo	1	3	2	1	2		3	1	1			1	2	1				1	1	1				21	Tokyo
Kanagawa		1	1	1	2	2	2	1	2				1	2	1		1			1		2	20	Kanagawa	
Niigata	3	1	2	2			4	2	1		1	1		1						1			19	Niigata	
Toyama			2		1		1	2	1						1								1	9	Toyama
Ishikawa		1			1		1			1	2		1	1				2		1		1	12	Ishikawa	
Fukui	4	1	1	3		1	1						1			2				1		1	16	Fukui	
Yamanashi		2	2	1	2	1		1	1	3	1		1		1	2		1	1		1		21	Yamanashi	
Nagano	2	4	1	2	2		1			2	2			2	1	2	1	1	1				1	25	Nagano
Gifu	3	1	2	2	5			1				2					1		2			1	20	Gifu	
Shizuoka		4	2	3	1	2	1	1		1	1		2	2			2	1				1	24	Shizuoka	
Aichi			4	2	1	5	2	6	1	1		3			3	2	1		3	1		3	38	Aichi	
Mie	4	2	1		1		1	1		1			1	3				1					1	17	Mie
Shiga			1		1		1		3		1												7	Shiga	
Kyoto	1			1				2						1	1								6	Kyoto	
Osaka	2		1	3	2		2	2		1	1	1		1	1				1	2		2	2	24	Osaka
Hyogo	1	2		3	1	2		1	1		1		1	1	1	2	1			1	1	1	21	Hyogo	
Nara	2		3	1		2			3				1	1	1	2	1						17	Nara	
Wakayama	2		2	1	1	1		1		2	1			2				2			1	2	1	19	Wakayama
Tottori	2	2	1	1				3						1					2			1	13	Tottori	
Shimane	3		1	1	3			1	1		1		1		2			1		1			16	Shimane	
Okayama		4	1	2		1	2		1		1	1	1	1	2		1		1				1	20	Okayama
Hiroshima	1		3		1	1	2		1		1	2	1		2					2			17	Hiroshima	
Yamaguchi	1	5	3	1		1	3	1	1			1			1	1			1	1	1		22	Yamaguchi	

Tokushima	4		4	1	1	2	2		1				1			1				1	1			19	Tokushima	
Kagawa	1			1	2		2	1												1				8	Kagawa	
Ehime	1	6	3	5	5	2	1	1	1		1	2	1		1			1	3	4		1	1	40	Ehime	
Kochi	3	2	4	4	1	2		1		1		1	2	1	2	1	2	2			2			31	Kochi	
Fukuoka	5	3	2	4	4	3	1	1		2	1	1		2		2	2							33	Fukuoka	
Saga		3		1		2	1	1		1		1						1						11	Saga	
Nagasaki	3	1	2	2			1	1	1				1											12	Nagasaki	
Kumamoto	3	1	2	1	2	3		2	2	1		2						1		1				21	Kumamoto	
Oita	4	2	1						2	1	1				1	1	1	2	1		1	1		19	Oita	
Miyazaki	3	3	2	2	2					1		1				1	1	2			1	1		20	Miyazaki	
Kagoshima	4	2	1	4	1	3	4	1	3	1		3	1	2			2		1					33	Kagoshima	
Okinawa																						1	1	2	4	Okinawa
total	92	84	82	72	63	53	63	44	38	30	26	28	33	36	41	30	21	27	26	20	20	18	17	964	total	

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

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